GeoJournal of Tourism and Geosites

Year XV

2022/no. 2

vol. 41

Editura Universității din Oradea

GTG

GeoJournal of Tourism and Geosites
Oradea University Press

ISSN 2065-1198, E-ISSN 2065-0817

The Journal is issued under aegis and with financial support of:

University of Oradea, Romania
Department of Geography, Tourism and Territorial Planning
Territorial Studies and Analysis Centre
1 University St., 410087, Oradea, Romania

Gdansk University of Physical Education and Sport, Poland
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GTG
GeoJournal of Tourism and Geosites

Year XV, no. 2, vol. 41

Oradea - Gdańsk
2022

PUBLICATION REQUIREMENTS OF ARTICLES IN THE GEOJOURNAL OF TOURISM AND GEOSITES

The Editorial Board goes trough each article, which in then submitted to two referees' judgment. Names of referees are confidential to the Editorial Board. Authors may be asked to make revisions to their manuscript. If substantial revision is required manuscripts may be re-reviewed before a decision to accept/publish is made. Final acceptance of manuscripts for publication is at the discretion of the Editors.

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The GeoJournal of Tourism and Geosites
is indexed in:

SCOPUS: http://www.scopus.com/

GEOBASE: https://www.elsevier.com/

INDEX COPERNICUS: http://journals.indexcopernicus.com/karta.php?action=masterlist&id=3947
IC Value: **132.41 -** 2020; **121.20** - 2019; **121.25** - 2018; **109.97** - 2017; **88.82** - 2016; **84.53** - 2015; **68.79** - 2014; **6.59** - 2013; 2012; **4.84** - 2011; **4.83** - 2010; **4.15** - 2009; **3.91 -** 2008

Review accredited by **C.N.C.S.I.S.,** "**C**" Categoryhttp://vechi.cncsis.ro/cenaposs/2008/Arhiva/reviste_cat_C_08.pdf

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Price of journal:

Individual	10 €
Institutional	15 €
Annual subscription	20 €

Address of the Editorial Office:
University of Oradea Department of Geography,
Tourism and Territorial PlanningTerritorial Studies and Analysis Centre 1 Universităţii St.,
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On line version:
http://gtg.webhost.uoradea.ro

C O N T E N T S

NOTES

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GeoJournal of Tourism and Geosites
ISSN 2065-1198, E-ISSN 2065-0817

Year XV, vol. 41, no. 2, 2022, p.335-342
DOI 10.30892/gtg.41201-835

DIMENSIONS OF SUSTAINABLE TOURISM MANAGEMENT: A CASE STUDY OF ALWAR CITY, RAJASTHAN, INDIA

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Citation: Raj Sharma, V., Kumar Sanu, S., Verma, K., & Rajput, S. (2022). DIMENSIONS OF SUSTAINABLE TOURISM MANAGEMENT: A CASE STUDY OF ALWAR CITY, RAJASTHAN, INDIA. *GeoJournal of Tourism and Geosites*, 41(2), 335–342. https://doi.org/10.30892/gtg.41201-835

Abstract: Tourism is one of the most emerging and widespread economic and socio-cultural activities all across the world. In the Alwar city of India, there is a great inflow of tourists from all across the world. The historical, cultural and natural richness of the city attracts thousands of tourists. Therefore the dimensions and impact analysis of tourism on the local landscape and population become an important area of research. With due consideration to the fact, this research work tried to understand various dimensions of tourism like present tourism status, causes of inflow, profile, perspectives of tourists and the major impact of tourism on the Alwar city. For this purpose based on structured questionnaires both qualitative and quantitative data was collected through the primary survey. With the help of secondary data collected from the tourist department of Rajasthan, primary data were substantiated and validated. This study find out that Alwar city is one of the preferred tourism sites in Rajasthan. People from all across the world visit the city for its historical, cultural and ecofriendly services. The inflow of tourism has both positive and negative consequences on the city. Visitors also face some problems like lack of proper parking, shortage of accommodation facilities, etc. Therefore to promote sustainable tourism there is a need to address these issues urgently.

Key words: tourism, impact of tourism, tourists perspective, environmental awareness, sustainable tourism

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INTRODUCTION

Tourism simply can be understood as travelling by a person from one place to another place for the purpose of leisure, recreation, business or any other activities. As per UNWTO “Tourism comprises the activities of persons travelling to and staying in places outside their usual environment for not more than one consecutive year for leisure, business and other purposes." Tourism is a big global industry. People and tourist sites play a very significant role in this process. It is an integral part of any economy (Arora et al., 2020). It’s so pivotal that even a geographically and economically small region can gradually develop and become famous due to the development of tourism **(**Rayimovna and Shuxratovna, 2021).

Tourism also plays a crucial role in socio-cultural and environmental development of any area by providing the place of commingling of people (Lacina, 2019). Tourism is a complex industry as it involves various organizations, departments, services and agencies working together to cater for the demands of tourists (Robinson, 2012). With increasing tourism and its related activities, day by day tourism has transformed itself into one of the most widespread activities of the world that ultimately has its positive and negative prospects (Chandel, 2011; Streimikiene et al., 2019;). It inflicts changes at the tourist site in terms of physical, social, cultural and environmental prospects (Sharma and Bisht, 2019). The unplanned and unprecedented growth of tourism in any region raises various cultural and environmental concerns thus re-examination of tourist development is required (Drost, 1996). Therefore the aim of this research work is to understand various tourist-related aspects and their multidimensional impact on Rajasthan’s one of the very popular tourist destination site Alwar city. Various dimensions of tourism like temporal growth and inflow of tourists, different factors of inflow, perspectives of tourists regarding Alwar on various fronts and major impact on the local milieu have been analyzed in this research work.

STUDY AREA

Alwar is a city of many tourist activities, people from different places visit here for leisure, adventure, sightseeing and for other activities (Sharma and Khare, 2021). The Alwar district is located in the north-eastern part of Rajasthan. It

* Corresponding author

is 27°4' to 28°4' N and 76°7' to 77°13' E and covers an area of about 8400 sq km. It has 137 km length from south to north and 110 km breadth from east to west. The Aravalli Mountains extends 81 km from south to north which defines its characteristics feature. The whole of Thanagazi and Rajgarh tehsils and about one-third of Alwar Tehsils are covered by Aravalli Hills which forms an important feature in Bansur, Kishangarh and Tijara Tehsils. These large forests are largely degraded by human disturbances. However, some forest areas like Sariska Tiger Reserve forest and the Bala-Qila fort forest are still in relatively good condition. Bala Quila, Bhangarh Fort, Silserh Lake, Moosi Maharani Ki Chhatri, Sagar, Biodiversity Park, Sariska National Park, etc. are the major tourist destination of the study area. Various sports like boating, jet skiing, jeep safari, parasailing, water zorbing, Para moto ride, etc. also attracts tourists (Lata et al., 2015; Panwar and Sharma, 2017). Overall due its scenic beauty, natural heritage, historical places, reserve forest, fortress, museums, etc attracts thousands of tourism from all across the world (Sharma and Khare, 2021). The development of tourism sector in Alwar helps in protecting the national heritage and other tourism spots (Dhingra and Chattopadhyay, 2021).

LITERATURE REVIEW

The physical, cultural and environmental properties of any tourist site are affected by tourism-related activities. Sustainable tourism by understanding the environment and culture of any area help in conservation and are locally beneficial (Dowling and Newsome, 2006). In the present era of globalization, with it, exceptional growth tourism sector stimulates economic growth that also has some environmental and other consequences. For sustainable tourism development, there is a need to understand the relationship between tourism, economic growth and its impact (Danish and Wang, 2017; Gidebo, 2021). The tourism sector in recent decades has evolved as a sunlight industry and become one of the largest industries in developed and developing nations (Paramati et al., 2017). Its expansion is a key sector for economic growth in various parts of the world (Tang and Tan, 2013). The tourism industry consists of various activities that indirectly or directly have positive or negative impacts on the environment (Katircioğlu and Katircioğlu 2014; Raza et al., 2016).Market liberalization and globalization help in the development of tourism trends (Keum, 2010). Tourism flows are not just the movement of people but they have great economic, socio-cultural significance. As it allows tourists to earn in one place and spent in another that helps the locals (Boniface et al., 2016; McKercher, 2020). Tourism development has economic, socio-cultural and environmental positive effects as well as negative impacts on the local community (Uslu et al., 2020). In this way, the effects of the tourism industry are among the priority issues as this change the life of the local community in many ways (Nematpour and Faraji, 2019; Fiľa et al., 2015). Understanding the perspective of the local community on the development of tourism help in minimizing its negative impact and will maximize the benefits for them (Thetsane, 2019). It is of utmost importance to plan and develop tourism sustainably by developing a balance between environmental, economic and social goals of society. Sustainable tourism development focuses on the need of tourist, assure significant experience for consumers and try to inculcate sustainable tourism among them (Streimikiene et al., 2020). The first step for sustainable tourism or sustainability in tourism is the identification of problems, after identification of problems, there is a need to develop a plan of measures and strategy and last is its implementation of it (Murava and Korobeinykova, 2016).

DATA SOURCES AND METHODOLOGY

The main objectives of this study are to analyse various dimensions of domestic and international tourist and to assess the impact of tourism in Alwar. For this purpose, primary and secondary data sources have been used for this study. Primary data is mainly collected through the personal interview method. The Primary sources include a questionnaire survey comprising both open and close-ended questions. It also includes interviews with tourists and various authorities of the tourism department of Alwar city. Face to Face interviews was conducted with the tourism departments' various officials and staff to get a detailed understanding of various aspects of tourism activity in Alwar and how they perceive it. A total of hundred respondents were surveyed based on a random sampling method to access and understand tourism profiles in Alwar. Samples were mainly collected from Bala Qila, Sagar, Moosi Maharani ki Chhatri, Biodiversity Park and Sariska National Park. These sites were considered for sample selection because these are famous places of tourist attraction. The website of the Tourism Department of urban Alwar has been used for the secondary data source. Many published sources are referred to extract authentic data to support the study. The collected qualitative and quantitative data has been compiled, tabulated and verified. After that collected data were represented through various techniques and further analysis has been done.

Table 1. Place of Origin of Domestic Tourists
(Source: Primary Survey, 2020)

Domestic	% of Domestic Tourists	International	% of Foreign Tourists
Jaipur	22	Germany	18
Udaipur	13	Buffalo	3
Kota	32	France	22
Bundi	8	UK	30
Jhalawad	11	Chicago	15
SawaiMadhopur	14	Others	12
Total	**100**	**Total**	**100**

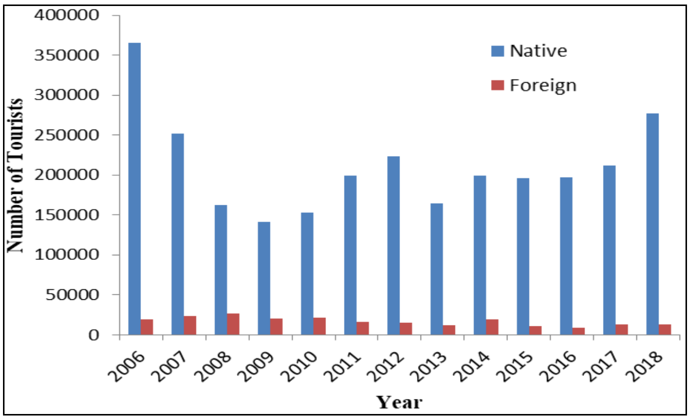

Figure 1. Growth of tourists from 2006 to 2018
(Sources: Tourism Report, Department of Tourism, Rajasthan, 2020)

RESULTS AND DISCUSSIONS

Growth of tourists in Alwar from 2006 to 2018

Figure 1 shows the growth of tourists from 2006 to 2018 based on the source of origin of tourists coming to Alwar district of Rajasthan. It is clear that overall in last twelve years highest numbers of tourists reached in Alwar was in 2006. Afterwards, a decline in tourists' visits has been observed. That has reached to its lowest in 2009. From 2009 onward it's started showing an increasing trend and reached to its second-highest in 2018. From the year 2006 to 2018 in domestic and foreign tourism there is a decline of about 24 and 34 present respectively. People from the local area sited decline in biodiversity due to more interference of local have adversely affected the tourist activity of Alwar.

Total number of tourists visited Alwar (2019)

The most recent data of number of tourists visited Alwar district has been taken from the Tourist Reception Centre of Alwar, 2020. This data set has broadly been divided into Indian, non- Indian and students.

The data about tourists in 2019 shows that the total number of tourists visits are highest in December month. Most of the Indian people visited Alwar in the month of March i.e. 4250 and the number of non- Indian tourists i.e. 1170 visited Alwar mostly in the month of December. The reason behind this is that the weather of Alwar in December is more comfortable for foreigners than in the summer months and the maximum number of students i.e. 1210 visited Alwar in the month of October. Mainly students' visited for knowledge and research work (Ferguson, 2020).

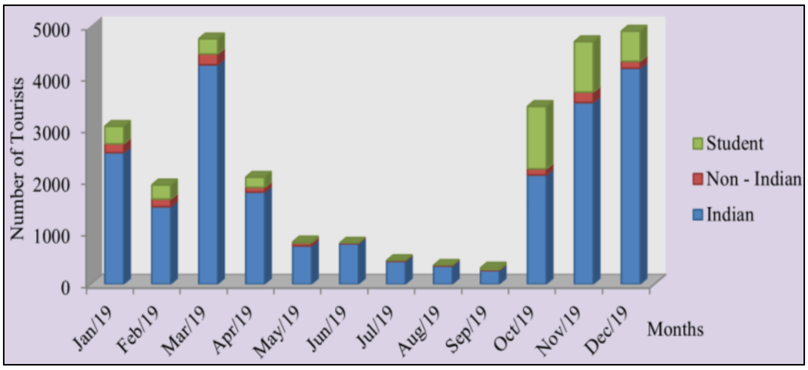

Figure 2. Total number of tourists visited Alwar (2019)
(Sources: Tourism Report, Department of Tourism, Rajasthan, 2020)

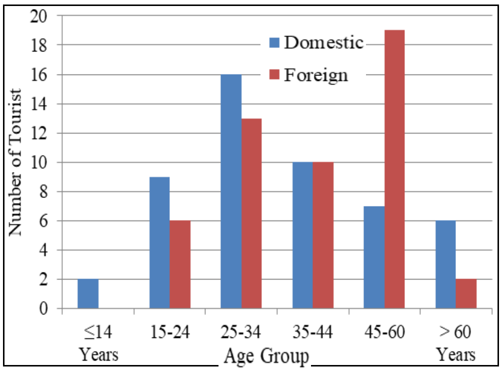

Figure 3. Age of the Respondents
(Source: Primary Survey, 2020)

Tourists on the basis of Sources of Origin

Location plays a very prominent role in analysing the types of tourists. From (Table 1) it could be understood that the highest number of tourists are from Kota city, as it is an educational hub people come to visit Alwar to have knowledge and mainly for research purposes. Kota is followed by Jaipur in context to number of tourists. Jaipur, the capital city of Rajasthan, is located near to Alwar at a distance of about 159.9 km, it has a good number of domestic tourists so the people who are travelling to Delhi from Jaipur, they usually visit Alwar on their way. Therefore, the number of visitors from Jaipur visiting Alwar is also high. In terms of foreign visitors, the maximum numbers of tourists are from the U.K. followed by France and Germany. As the per capita income is high in these countries and willingness to explore new cultures and places are high in these countries so people tend to visit places like Alwar, as it is culturally and traditionally rich. There are a good amount of visitors from other countries like Chicago and Orlando and the least amount of tourists from Buffalo.

Tourists on the basis of age group

Figure 3 shows the maximum numbers of domestic tourists are in the age-group 25-34 years. This is because young people are independent and highly inquisitive to visit new sites. While the number of foreign tourists are more in 45-60 years, this is because most of them have a good financial condition and can afford a stay in the town. The survey shows that most of them are entrepreneurs who visit with tour package provided by their companies to discover new places.

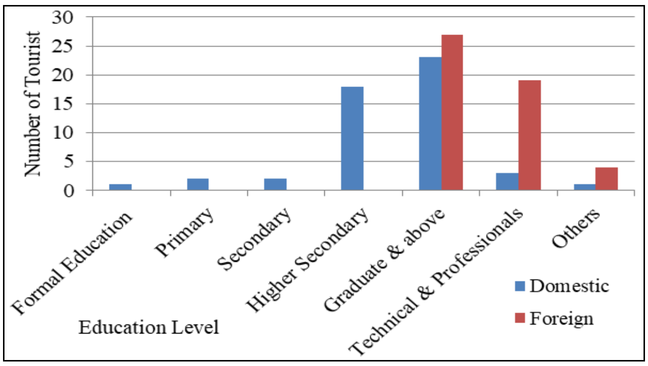

Figure 4. Level of education of tourists (Source: Primary Survey 2020)

Table 2. Occupation of the Respondents
(Source: Primary Survey, 2020)

Occupation	Domestic visitors (%)	Foreign visitors (%)
Industrialist	24	-
Self- Employed	2	34
Government Services	34	-
Private Services	8	42
Student/Researcher	6	24
Business	20	-
Agriculture	2	-
Housewife	2	-
Other	2	-
Total	**100**	**100**

Tourists on the basis of educational profile

Literacy means an ability to read, write and use numeracy in at least one method of writing. The level of literacy has a very important role in determining tourist activity. As in most cases, educated persons know about different places in a better manner as compared to those who are uneducated. The same thing has been observed during this study. In the case of domestic tourists visit it was observed that most of the tourists belong to the category of higher secondary and graduation and above. On the other hand, most of the foreign tourists fall in the category of graduation and above and technical and professionals. The tourists with secondary or lower than secondary qualifications are very negligible in number and in the case of foreign tourists, it is totally absent. There is a high level of positive correlation between the number of tourists and their educational profile.

Tourists on the basis of occupation

Occupation is an economic and one of the major factors helps in determining tourism. In terms of domestic visitor's occupation, the proportion of government service is high. This is due to the people who are in government service have sufficient money for stay, leisure and holiday. The survey shows, in domestic tourism government services dominate with the percentage share of tourists i.e 34 per cent followed by industrialist and business with 24 and 20 % respectively. As Alwar is famous for copper and other rich mineral deposits, the industrialist and businessmen travel to explore the business avenues. Minerals and jewels are being exported and imported to big business houses or entrepreneurs. Foreign visitors who travel mainly to this area belong from private sector with percentage share of 42 mainly because they get money and the travel packages from their company. Also self-employed and researcher visit in good number in Alwar to know about this site.

Tourists on the basis of income level

Money plays an important role in tourism as it depends on the affordability of tourists. So, the income level of a person determines the place of visit. It is clearly observable from figure 5 that the maximum number of tourists whether they are domestic or foreign lays mostly in the category of 50,000 to 1 Lakh monthly income group.

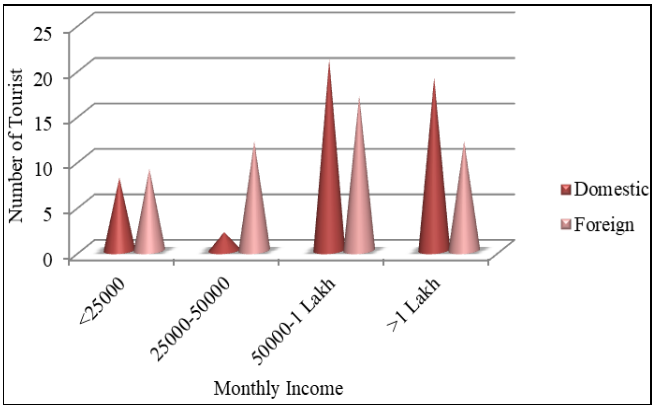

Figure 5. Income Level of the Respondents
(Source: Primary Survey, 2020)

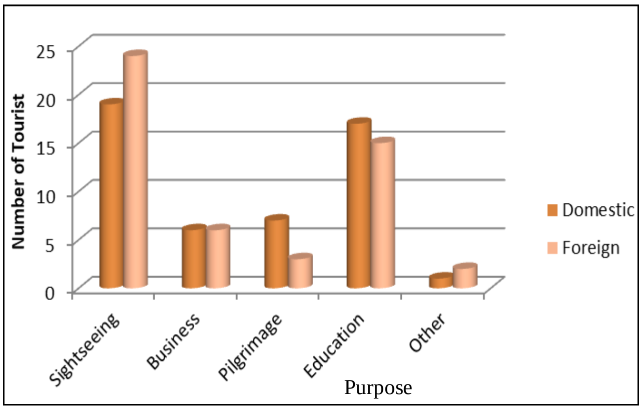

Figure 6. Tourists according to purpose
(Source: Primary survey, 2020)

Tourists according to purpose

Every person has different purposes of visits for business or for work and some for enjoyment and recreation; some of them visit for research work like the school and college students who visit for educational purposes while some of them visit for pilgrimage especially the aged persons. There are multiple reasons to visit any place. From the data, it can be seen that maximum number of visitors visits for leisure and recreation purpose, both in domestic and foreign category. This shows that people like to visit and explore new places for their enjoyment.

Travelling Style

In domestic category most of the tourists reach Alwar with their family members or with friends. On the other hand maximum foreign tourists visit Alwar under the tour packages they get from their company.

Table 3.Travelling Style
(Source: Primary Survey, 2020)

Travelling Style	Domestic	Foreign
Alone	3	2
With Family	22	16
With Friends	18	9
Tour Packages	7	23
Total	**50**	**50**

Frequency of visit

As per the data, we found that the maximum number of domestic tourists visit Alwar multiple times with a percentage share of 51 per cent. On the other hand, first and second time's visitor's percentage share is 22 and 27 per cent respectively.

While in case of foreign tourists visit is 75 per cent are first-timers followed by second and multiple timers with a percentage share of 18 and 7 per cent respectively.

Expected duration of stay

From the above data, we get to know that among the domestic tourists 11 visited Alwar for less than a week while 35 for more than a week and 4 stayed at Alwar for a fortnight. And in the case of foreign tourists, 5 visited Alwar for less than a week, while 17 stayed at Alwar for more than a week and 28 of foreign tourists stayed at Alwar for a fortnight.

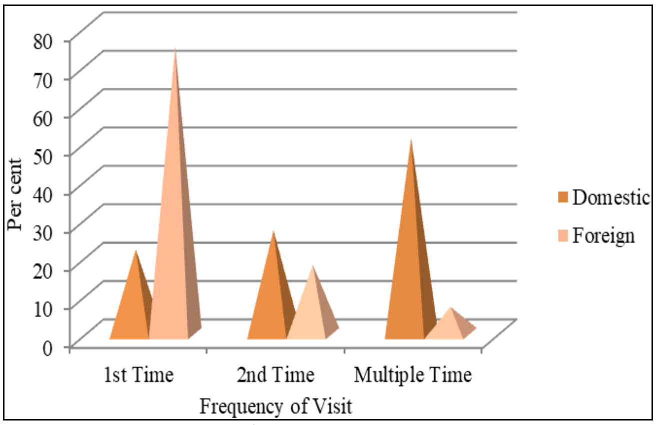

Figure 7. Frequency of Visit (Source: Primary survey, 2020)

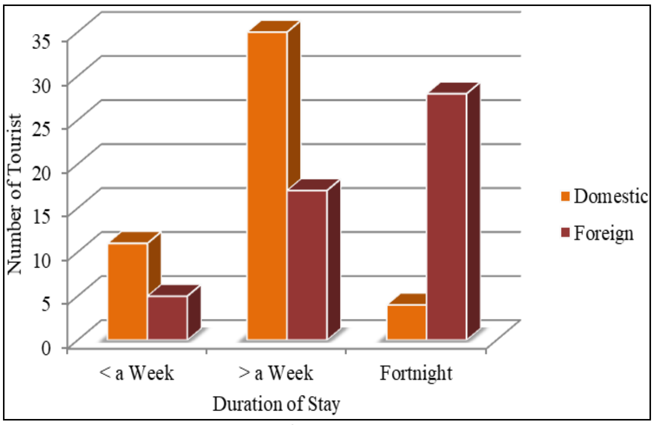

Figure 8. Expected duration of Stay (Source: Primary survey, 2020)

Source of information about Alwar tourist place

Figure 9 show that the availability of information is very important for both foreign as well as domestic visitors. Tourism literature, advertisement or film, social media, travel agent/ information centre, friends and relatives are founded as a source of information. From the above data maximum number of domestic visitors found their source of information from their friends and relatives while the foreigners get attracted to visit this place because of information through advertisements and films.

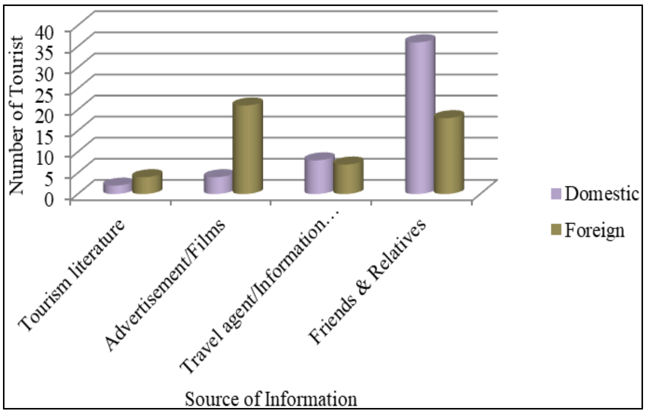

Figure 9. Sources of information (Source: Primary survey, 2020)

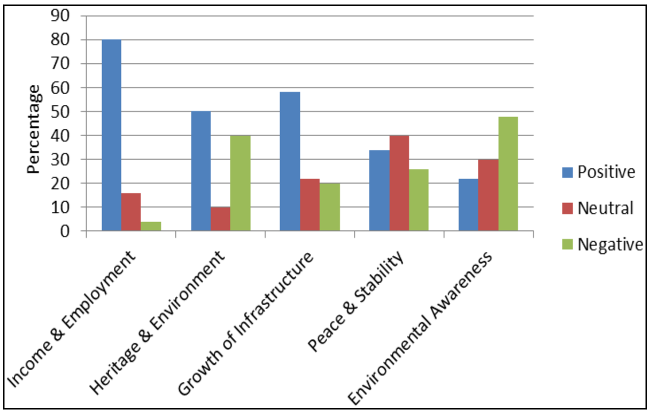

Figure 10. Perception of locals for positive impact of tourism in Alwar (Source: Primary survey, 2020)

Consequences of tourism

The industry of tourism nourishes the country's economy, invigorates the development process, restores the cultural heritage and helps in maintaining peace and understanding about any site by connecting people. It is a business of providing information, accommodation, transportation and other services to travellers. It is an industry without smoke, training without classroom, integration without legal boundaries and diplomacy without formality.

Tourism is an activity that takes place between the environment and the people and both of these are interlinked to each other (Higgins et al., 2019). These interwoven results can be seen in a destination region, where tourist interacts with the environment, culture, economy and society. The positive impacts which have been seen in Alwar help to include the revival of traditional arts, cultures, forts that help in enriching the beauty of Alwar's history and make them know about the Alwar. Tourism in Alwar also helps in revenue generation from sites of natural attraction and also helps in maintaining and restoring the attraction of a place. It also increases the interest of visitors in the importance of the natural environment and helps in supporting the measures to protect the environment.

Positive impact of tourism

Producing Income & Employment

Tourism is an instrument of income and employment generation and helps in poverty reduction (Shiji, 2016). Major sources of attraction in Alwar engage many villagers in varied works like tourist guides, security guards, shopkeepers, drivers, guest house owners, travel agents, hotel agents, tour operators, travel agents etc. Many tourists live in guesthouses that are a fair source of income for local people. Transport and travel agencies, hotels, guest houses, restaurants, shops, etc. generating employment opportunities. Jet-skiing, pedal boating and crocodile sighting are the areas of exploring tourism adventure in Alwar. This gives a different experience and helps in interacting with the natural beauty and also leading a city towards modernization. Handicrafts and traditional ornaments are also sold by various people as they denote their culture. And many foreigners who come here to visit also purchase antiques from there.

To meet the tourist demands various shops of antiques has been opened up in which many people have been employed. With the pace of more and more tourists more and more hotels and guest house has been developed which created entrepreneurship and also solve the problem of unemployment in the city. About 80 percent local population consider that tourism activities in city generate huge income opportunity and provide employment to the locals (Figure 10). Transportation in tourism plays a vital role. As it is the main element without which tourism is not possible. In Alwar many jeeps, buses and cars have been hired to make the trip easy and adventurous. Thus, in this way transport facilities not only improved the development of tourism in Alwar but also influenced people to involve in this activity. So, in this way, the employment opportunities also increases and people started opening their workshops and motor parts shops.

Protection of National Heritage & Environment

Tourism plays an important role in protecting numerous historical places and monuments. As the environment is an important source for tourists to get attracted towards the beauty of nature. Like the BalaQuila, Moosi Maharani ki Chhatri, Siliserh, Jaismandetc are the places in Alwar which have numerous natural sightseeing like the Aravalli hills, lakes, rivers and the flora and fauna makes it a more attractive place. While the Tourism Department of Alwar stimulated measures to protect the Sariska National Park, encourages conserving tigers as it is the main tourist's attraction in Alwar. There is the establishment of protected or conserved areas to meet tourist demands. Nowadays security guards in BalaQuila started checking people identity cards before entering and charges are also included. This will not only include safety and security but also revenue which they are collecting helps in ground repair and site restoration. As per the primary survey, 50 per cent of respondents consider that historical sites and tourist places are being protected by the concerned authorities. The positive impact is that the monuments and forts are preserved by the tourist department. These convey the history and their culture such as folklore, handicrafts, festivals, customs, music etc. Pottery paintings, past photos, sculptures, inscriptions, other archaeological findings and artefacts have been preserved in the museum of Alwar. This museum is located near the Moosi Maharani Ki Chhatri which shows great architectural work of the past. And it is still preserved till today because proper protection of the site has been done by the Tourism Department of Alwar.

Growth of Infrastructure

With the pace of development, more and more tourists visit the city and this leads to the development of infrastructure as well. It tends to improve various infrastructure facilities like many hotels and guest houses have been built with proper and basic facilities and at a reasonable price, you can afford it. Even 58 per cent of respondents were agreed that tourism activities lead to infrastructure development in the city. Small restaurants were also built upon the highways and on streets so that easily tourists can get them while travelling. In Alwar many hotel projects like Belore, Kana of department of tourism is going on. These hotels and guest houses provide good facilities and their prices are regulated by the development commissioner authority. Many of the healthcare facilities and sports centres have been upgraded for foreign visitors.

Promoting Peace & Stability

Tourism is a peaceful business. There is a natural link between tourism and peace. As people move around different places and learn to know different cultures, peoples, religions, languages, values etc. which helps in mutual understanding among the people who live in different regions. This helps in lessening the conflicts. 34 per cent of respondents considered that tourism help promote peace and stability. On the other hand, 48 per cent respondents were neutral (Figure 10). In the same way, tourism sites in Alwar, gives people to interact with the natural beauty, knowing the history and giving relaxation and peace to the people of Alwar. The Biodiversity Park, which has recently been made in Alwar gives much peace and relaxation; many people come for morning walks and meditation, as said by the visitors of Alwar. Tourists consider that such natural parks and spots help in promoting peace and stability.

Environmental Awareness

Only 22 per cent respondents were in favour that tourism leads to environmental awareness (Figure 10). By the way many groups in Alwar have worked to spread consciousness of ecological issues. The awareness of each and every individual especially those who are in near contact with nature and the environment help to make a Green city. This measure helps in uplifting the attention of people towards nature and exercise to safeguard the earth. Nowadays, the role of social media has become very important. The publicity on social media platforms influences people to choose the destination of their choice. Recently a new version was made by the people of Alwar i.e. Alwarian diaries page on which they are posting things related to Alwar and making aware people of what is happening in the city and they are asking as well as suggesting measures for the improvement of Alwar city and protection of its environment.

Negative consequences of tourism

Reduction of Local Resources

Tourism creates pressure on resources which will lead to a reduction in local resources (energy, food, and other raw materials) as well as their supply also gets reduced. Larger extraction and transport of these resources have a physical and morphological impact. Monsoon season is the best month to visit Alwar so local people feel that pressure on resources and available facilities also increase in this time. Tourism in Alwar has created more pressure on the local resources like energy, food, transport. People started exploiting the resources of Alwar to attract more tourists and to provide more basic facilities to foreigners but they are not concerned about protecting the natural beauty. By creating more pressure on local resources, it leads to the reduction of local resources.

Land Degradation

Minerals, fossil fuels, fertile soil, fertile wildlife and wetland are important land resources. Day by day construction of tourism and recreational facilities has created pressure on these resources as well as on the scenic landscapes. The use of land for tourism purposes like accommodation, for building material and other infrastructure caused a direct impact on natural resources, both renewable and non-renewable, it also leads to land degradation problem.

Pollution

Water Pollution is a very serious issue in Alwar. There is overuse of the water resources for the hotels, swimming pools, and personal use of water for the tourists, this lead to water shortage and decrease in water supplies and creating a great volume of wastewater. Most of the areas in Alwar like Behror and Neemrana blocks water levels reached at 40m depth. Even in Alwar, many parts do not have proper water supplies. Air pollution of Alwar is very high as compared to the state's capital i.e. Jaipur. Increasing use of transport vehicles which emit gases which are harmful to the overall city.

It also leads to smog type of situation in Alwar. Noise Pollution in Alwar destroys the peace of the area. Certain vacation spots, for example, parks and tracks experienced high levels of Noise Pollution. Such loud noise can damage the eardrums and can increase mental anxiety and affect local people adversely.

Waste Disposal Problems

Due to the high concentration of tourist activities and attractiveness of natural beauty, waste disposal has become a serious problem and improper disposal destroy the natural beauty, rivers, scenic areas, and roadsides. A very well-known issue in tourist places is the littering of debris on the landscape. It is the most common problem in Alwar forts and parks where people use to come for picnicking or celebration and makes the place dirty and do not put their waste at the proper place. Most of the wastes are from hotels, restaurants, resorts which raises the issues of sickness and contamination problem.

Destruction & Alteration of Ecosystem

An ecosystem is a geographical area that involves the interaction of organisms and the physical environment such as soil, water, air and natural cycles that sustain them. Attractive landscapes such as Sariska National Park, Sariska Palace, and Biodiversity Park are characterized by rich flora and fauna. The interference of human activities affected the biodiversity of Sariska Tiger Reserve, which is directly affected by the number of tourists.

CONCLUSION

Alwar city is one the most preferred tourist destination site in Rajasthan but the visitors encounter various kinds of issues as well. Its proper understanding and comprehensive solution are required for the sustainable tourism development in Alwar city. Some of the major issues tourists face are lack of parking lots, lack of proper advertising and publicity, shortage of accommodation facilities, lack of proper tourist reception centres, the problem of higher rates and improper system of booking, absence of proper safety and hygiene facilities, baggers issues and no speedy settlement of tourist's complaints. There is an absence of a good transportation system which seems to be a big problem in the development of tourism. There is a need to work on parking lots as there are no parking areas at tourist places especially, near historical places like in Siliserh. This is another area where there is a need to focus.

Information about tourists various facilities should be available on the portal of RTDC (Rajasthan Tourism Development Corporation) and the Rajasthan tourism website. It should be presented in ranking of orders of hotels along with the tourism facilities according to the financial abilities of tourists. This will help tourists to know about the hotels and their stay in the district will also increase. As there is only one Tourist Reception centre in Alwar district and only one person who used to be there at the reception, due to which the tourist does not get the proper information. This also leads to a loss in revenue generation therefore improvement is required in this area. There are unhygienic toilet facilities at almost all bus terminals, railway stations and hotels. This leads to reducing the stay of tourists at Alwar hotels. Day by day, there is an increase in the number of beggars. These beggars persecute the tourists and it acts like harassment for tourists. Thus for sustainable tourism management the concerned department and stakeholders of Alwar city have to work on these loopholes to improve tourist-friendly environment and sustainable tourism in the city.

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Article history: Received: 22.10.2021 Revised: 06.02.2022 Accepted: 10.03.2022 Available online: 01.04.2022

GeoJournal of Tourism and Geosites
ISSN 2065-1198, E-ISSN 2065-0817

Year XV, vol. 41, no. 2, 2022, p.343-353
DOI 10.30892/gtg.41202-836

RURAL TOURISM FIRMS IN THE COVID-19 ENVIRONMENT: SOUTH AFRICAN CHALLENGES

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Citation: Giddy, J.K., Rogerson, C.M., & Rogerson, J.M. (2022). RURAL TOURISM FIRMS IN THE COVID-19 ENVIRONMENT: SOUTH AFRICAN CHALLENGES. *GeoJournal of Tourism and Geosites*, 41(2), 343–353. https://doi.org/10.30892/gtg.41202-836

Abstract: One consequence of the COVID-19-induced changing consumer travel preferences is growing demand from urban residents for open spaces and the experiences of rural destinations. This re-focuses attention on the challenges of rural tourism firms and of issues of developing rural tourism destinations. In extant international scholarship only limited studies have been undertaken for sub-Saharan Africa. This paper contributes to research debates on rural tourism change in the Global South and more particularly around COVID-19 and the development prospects for rural tourism in South Africa. Using 25 qualitative interviews undertaken in the rural Thaba Chweu Local Municipality of Mpumalanga province it is shown that the challenges facing rural tourism relate to weaknesses in the local institutional environment that have existed for the past two decades. The core constraints on expansion on rural tourism surround issues of the local government mismanagement and corruption. The consequence has been limited provision of basic services and maintenance of critical infrastructure, most especially roads, water and power supplies, which are essential for successful rural tourism development. It is concluded that the leading challenges facing rural tourism firms in South Africa are markedly different from issues which are highlighted in scholarship concerning rural tourism in the Global North.

Key words: rural tourism, business challenges, rural firms, local government, South Africa

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INTRODUCTION

The problems surrounding rural tourism firms and the associated challenges for developing tourism in rural areas are leading themes in international scholarship over the past four decades (Page and Getz, 1997; Karali et al., 2021; Rosalina et al., 2021; Ruiz-Real et al., 2021). The significance of these issues has been magnified in the COVID-19 environment because of observed changes in consumer travel preferences which are the result of a paradigm shift in the psyche of tourists surrounding risk perceptions around safety, health and travel (Kock et al., 2020; Matiza and Slabbert, 2021). One outcome has been growing demand from urban residents for open spaces and the experiences of rural destinations (Rogerson and Rogerson, 2021a).

Traanman (2021) draws attention to the perception of rural regions as 'healthy spaces' and to their importance as 'therapeutic landscapes' or spaces of psychological healing. The United Nations World Tourism Organization (2020) sees tourism's role in rural development highly relevant in the context of the COVID-19 pandemic, maintaining that tourism in rural areas offers critical opportunities for recovery as tourists look for less populated destinations as well as open-space experiences and activities. It is against this background that the aim is to examine the challenges of rural tourism firms in realizing the new potential opportunities offered in the COVID-19 environment of South Africa. The niche of rural tourism has been recognized as a policy focus in South Africa for at least the past 25 years (Rogerson and Rogerson, 2021b). This said, only limited progress has been recorded in realizing tourism development at many rural tourism destinations because of the lack of implementation of government support measures (Briedenhann and Wickens, 2004; Rogerson and Rogerson, 2021b). The paper contributes to scholarship and debates on rural tourism change in the Global South and more particularly around COVID-19 and the development prospects for rural tourism. Further, the study extends an emergent body of South African research which examines tourism business adaptive responses to the COVID-19 environment (Rogerson and Rogerson, 2020; Giddy and Rogerson, 2021; Rogerson, 2021; Rogerson and Rogerson, 2021c; Rogerson et al., 2021; Booyens et al., 2022).

The setting for this study is one rural local municipality in Mpumalanga province. In terms of methods the research applies quantitative local level data on tourism trends in the case study municipality and analyses findings from 25 detailed qualitative interviews which were conducted in 2021 in the Thaba Chweu local municipality. Two major sections of material are given. The next section situates the study as part of international scholarship on rural tourism development and the challenges of rural firms. The subsequent section turns to interrogate the evidence from the South African local municipality case study.

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RURAL TOURISM CHALLENGES

Essential foundations for rural tourism are enhanced product and destination development in order to create well-coordinated, appealing and meaningful experiences as well as development opportunities which maximise endogenous resources or 'countryside capital' (Lane and Kastenholz, 2015; Kastenholz et al., 2021: 601). In a Canadian study Joppe and Brooker (2013) isolated several challenges facing rural tourism including funding, variable demand, and the need for innovation as well as inter-enterprise collaboration. In seeking the optimum destination-market mix for rural tourism destinations Kastenholz (2004) underscores the need for an informed understanding of (1) the destination, its resources and potential, and (2) the market, its profile, motivations and desires. The role of local government and of 'place leadership' is widely deemed as critical for the success of rural tourism across many destinations (Dimitrovski et al., 2012).

At one level the challenges facing the development of rural tourism firms can be differentiated into internal and external categories. According to Rosalina et al. (2021) the group of internal challenges relates to limitations of internal resources, especially of countryside capital and could encompass social and political barriers, limited quality workforce, poor planning and management resulting in an inability to capitalise local assets, lack of marketing strategies, inadequate financial support, limited physical amenities, and absence of sustainable strategies.

The second group of external challenges relate to "elements outside or apart from rural resources, such as unstable tourism demand, threats from competitors and potential conflict with external resources, such as investors outside the destination" (Rosalina et al., 2021: 141). The issue of poor tourism demand is critical and relates to inability to appeal to large markets and dependence on seasonal arrivals. Uncertain demand creates a situation of economic inconsistences which usually results in rural tourism becoming a supplementary income source. Page and Getz (1997) highlight therefore the importance of local leadership and the organization of resources for rural tourism planning.

For the functioning of their businesses rural tourism entrepreneurs rely greatly on contacts in their vicinity, personal relationships and local networks (Yachin, 2020, 2021). Another important ingredient especially for the success of small businesses in rural destinations has been demonstrated as that of "place attachment", a concept that emerged out from environmental psychology (Silva et al., 2021). It is an outcome of place experiences connected to positive emotions experienced in rural destinations and when a person attaches a meaning to a specific place (Silva et al., 2013; Kastenholz, et al., 2020). 'Place attachment' is a result of people creating, developing and maintaining strong relationships with places and is viewed as a contributory factor to place loyalty and sustainable destination development (Silva et al., 2021). It is also the consequence of the activities of tourism firms which in many contexts "help to protect, maintain and communicate the essence of the place" (Yachin, 2021: 320). For the niche of food tourism, a widespread dimension of rural tourism products, Sidali et al. (2015) identify the vital role of local food in reinforcing personal identity and the challenges for rural entrepreneurs in attracting the post-modern consumer to rural regions. Seven dimensions are identified from the experience economy and an intimacy model that elevate food products to a culinary niche in rural areas, *viz*., "coherence, anti-capitalist attitude, struggle against extinction, personal signature, mutual-disclosure, rituals of spatial and physical proximity, and sustainability-related practices" (Sidali et al., 2015: 1179). Entrepreneurship and rural enterprise is clearly the lifeblood for rural tourism. In rural Scandinavia Brouder (2013: 28) affirms that rural and peripheral tourism business owners "are entrepreneurial because they manage to survive in what is a particularly unfavourable business environment".

Korsgaard (2021, p. xviii) stresses the need to view rural enterprise and rural entrepreneurship "as an embedded activity, deeply influenced by and in intense exchange with the local spatial setting". The rural enterprise is not a well-defined construct as definitions of the concept are challenged (Leick et al., 2021). Yachin (2020) advances that in order to understand rural tourism one must appreciate the challenges that face rural firms. This proposition is supported by the fact that across the international experience one of the essential characteristics of rural tourism is that it is mainly comprised of small-scale enterprises and micro-firms (Getz and Carlson, 2000; Ateljevic and Doorne, 2003; Brouder, 2013; Yachin, 2019, 2021; Trip et al., 2021). Typically, rural tourism firms are owned and managed by individuals who are highly involved in most aspects of the business and whose personal capital is at risk (Yachin, 2021). In rural and remote areas of Australia it is evident that small tourism businesses are essential to the local economy and development and "particularly in regional and rural areas where a majority of these firms are located" (Perkins and Khoo-Lattimore, 2020: 184).

Small tourism businesses in rural areas must be recognized as heterogeneous in character (Yachin, 2020). As Yachin (2021: 320) stresses tourism small firms "are not scaled-down versions of bigger businesses but rather embody an alternative manifestation of entrepreneurship". According to Ateljevic and Doorne (2007: 13) small tourism firms can be a dynamic agent of rural tourism development and growth as they "are normally associated with low levels of economic leakage, comparatively low barriers to entry and high levels of local networking, providing linkages between society and economy at the local level". Shaw and Williams (2004) provide several explanations for the proliferation of small firms and their dominant presence in rural tourism economies of most countries. Among the leading reasons are that tourism markets exhibit low entry barriers, the significance of 'lifestyle entrepreneurs' for whom the business return may be as much social- as profit-related, the impacts of post-Fordist vertical disintegration of production, and that "the intersection of spatial fixity with small-scale niche or localized markets" further encourages small firm development in tourism (Shaw and Williams, 2004: 55). As is demonstrated from recent research in the Calabria region of Italy lifestyle entrepreneurs can be critical change agents for competitiveness in remote rural tourism destinations (Ciasullo et al., 2019). Lifestyle entrepreneurs in remote areas can be a springboard of tourism development as they act as captains of tourism who identify windows of opportunity in hostile business environments (Shaw and Williams, 2004; Ciasullo et al., 2019).

Within local economies tourism rural businesses are unlike other businesses, such as grocery shops or service establishments, as tourism firms "do not cater directly to the local community" (Yachin, 2020: 84). Nevertheless, whilst the activities of rural tourism small firms are unlikely to disrupt dominant economic structures “these small-scale businesses may have a meaningful contribution to the economic, social and environmental wellbeing of the localities where they are situated” (Yachin, 2020: 29). This potential contribution to local economic development futures is threatened by the pandemic and yet at the same time opens opportunities for certain areas. For Page and Getz (1997) a number of operational issues affect the establishment and development of rural tourism businesses. The following are noted: accessibility issues especially in remote areas, the need for rural business owners to make arrangements for multiple land use and the integration of tourism businesses into the locality, the question of seasonality, high costs of running a business, labour supplies, retaining authenticity by preserving rural ambience, and potentially of infrastructural issues as regards both quantity (insufficient electricity or water) or of quality (roads, communication systems, internet connectivity).

Small firm development in rural tourism is viewed especially significant for marginal and/or peripheral social, cultural and physical environments. In many cases (such as Australia) family-owned small firms dominate tourism in peripheral and rural areas (Peters and Kallmuenzer, 2018). Beyond entrepreneurial spirit a critical factor for flourishing small tourism firms in rural areas is identified as “community resourcefulness” wherein collective action and partnerships leverages agency and capacity to effect change from within (Qu et al., 2020). Collaborative networking is considered an important means to overcome the challenges of rural tourism enterprises most especially issues relating to seasonality of product offerings and often difficulties that arise in terms of securing qualified staff (Pilving, 2021). As is stressed by Yachin (2021: 319) for rural firms – and particularly for micro-firms – “networks constitute a potential to pursue opportunities and compensate for lack of resources, missing skills and relevant education”. A distinctive sub-literature on rural tourism in developed countries surrounds the challenges of growing tourism as a tool for economic diversification in peripheral spaces that traditionally were reliant on exporting natural resources. The post-productivist transition has been shown to be often immensely difficult as many rural and remote communities in, for example, Central Australia or Northern Canada, are ill-prepared to diversify their economic base from extractive activities to tourism (Schmallegger and Robinson, 2011; Carson and Koster, 2015).

Policy support (especially at the local level) is viewed as vital for rural tourism enterprises. The international experience is, however, that the progress of rural tourism often has been limited by poor planning, lack of infrastructure and corruption (Dashper, 2014: 6). Based upon evidence from New Zealand Zahra (2010) points to institutional issues and the lack of understanding of rural tourism both by central government and local government as feeding into poor tourism policy implementation. In rural tourism development – especially in the Global South – there is often little common ground between different rural stakeholders which results in conflict and uneven development. It is observed that the interests of powerful stakeholders with more resources to invest take precedence over less powerful groups such as poor local communities. The centrality of power relationships in the shaping of rural tourisms is a theme re-iterated by George et al. (2009). As rural tourism development often is contingent upon and strongly influenced by the negotiation of power relationships between different stakeholders, including government, “this makes it somewhat problematic as a tool of regional development and poverty alleviation” (Dashper, 2014: 7). Arguably, this is most especially the situation in the setting of rural tourism development in countries of the Global South (Lenao, 2014), such as South Africa.

THE SOUTH AFRICA CASE STUDY – THABA CHWEU LOCAL MUNICIPALITY

Thaba Chweu local municipality is situated in Mpumalanga Province and was formally established after the December 5th 2000 local government elections in South Africa. Its four main towns are Mashishing (formerly Lydenburg), Sabie, Graskop and Pilgrim’s Rest. The area’s main economic sectors are forestry, agriculture, mining, business services and tourism. Essentially there are two sub-regions: (1) the area around Lydenburg which is dominated by agriculture and farming; and, (2) Sabie and Graskop where forestry and tourism are the main economic activities (Figure 1).

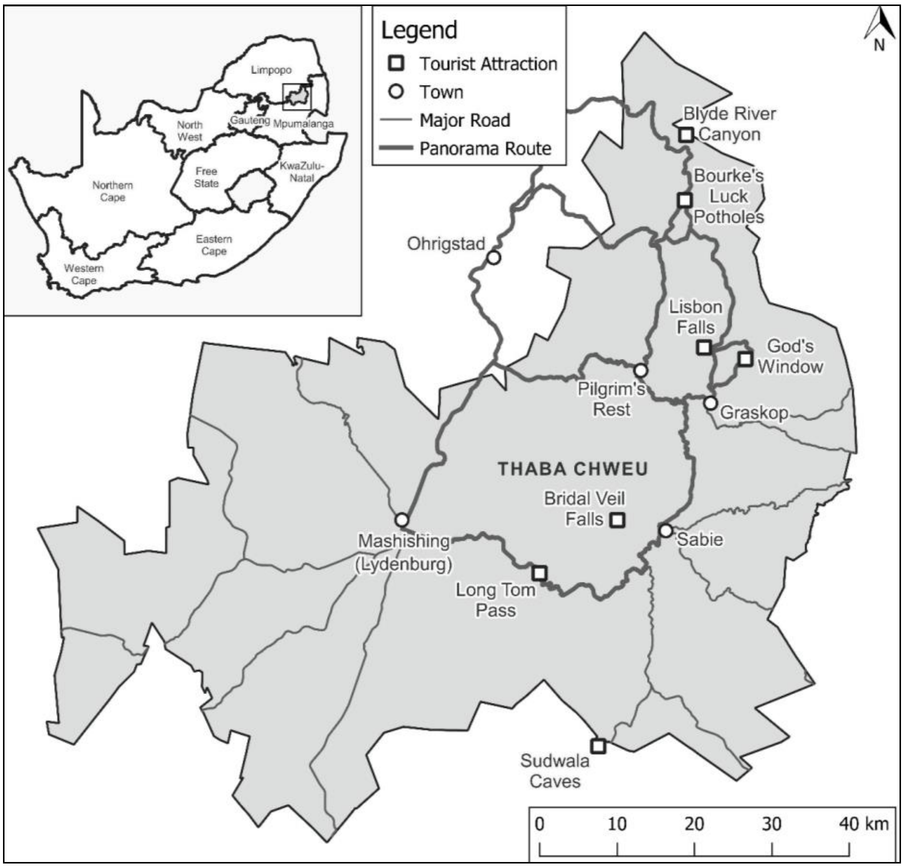

Figure 1. Location of the Thaba Chweu Local Municipality and Major Tourism Attractions (Source: Authors)

The case study material is organized into five sub-sections of discussion concerning: (1) the institutional environment; (2) the evolution of local tourism and recent tourism trends; (3) local businesses and perceptions of tourism assets; (4) rural tourism business challenges and COVID-19 adaptations; and (5) the role of local government.

Institutional Environment

The municipality is described as "plagued by high levels of unemployment, poverty and low skills levels (Koma, 2017). Arguably, as observed by Dube (2018: 9), the economic potential of the municipality and its comparative economic advantages "have not been fully grappled with and actualized by the administrative and political leadership in the municipality". In addition, as regards opportunities for local economic development "the municipality has not performed well" (Dube, 2018: 10). For nearly two decades the multiple shortcomings of local government have impacted negatively upon this municipality and its local development prospects in terms of the business environment. In 2004 the Mpumalanga Provincial Executive Council placed Thaba Chweu under the intervention of an administrator in terms of Section 139(b) of the Constitution (Koma, 2017). The administrator was mandated to examine financial mismanagement and maladministration which Councillors and officials were alleged to be involved in. The administrator was appointed for 12 months. At issue were irregular granting of loans. In 2006 with local government elections a new Municipal Manager was appointed. In 2009 the municipality was again placed under Administration. The Provincial Executive Council in 2009 appointed an administrator as a "result of the violent public service delivery protest that ensued and persisted for a few months and also the suspensions of the Municipal Manager and Chief Financial Officer over maladministration allegations and the removal of the Executive Mayor by the sitting Municipal Council" (Koma, 2017: 30). The administrator was appointed to turnaround the municipality regarding restoring basic service delivery and to improve institutional capacity. The issue of "flawed financial governance systems" was identified at the heart of the municipality's troubles (South African Local Government Association, 2010: 1).

The governance issues in this municipality seemingly have been not resolved. During 2018 the Mayor's report admitted the municipality faced many issues "amongst others being the slow pace of service delivery and unemployment" and in defence pointed to "this cumbersome task of reversing the legacy of colonialism" (Thaba Chweu Local Municipality, 2018: 5). In a 2019 report the mayor concedes that political and administrative leadership should provide "a vibrant local economy" but notes that "the day to day struggles of ageing and poor infrastructure and limited financial and human resources continues to place strain on the ability of Thaba Chweu Local Municipality to provide and improve its service delivery" (Thaba Chweu Local Municipality, 2019: 6). The Thaba Chweu Local Municipality has been listed amongst the distressed municipalities of Mpumalanga Province and placed under section 139 of the Municipal Finance Management Act on mandatory intervention emanating from financial crisis the municipality experienced in prior years (Thaba Chweu Local Municipality, 2019: 6). The 2019-20 report of the Auditor General on the state of local government audit outcomes in South Africa identified Thaba Chweu as one of a group of 'worst case' municipalities which were under administration which signalled that "there has been a total collapse of internal control, severe financial health problems, and a complete lack of accountability" (Auditor-General of South Africa, 2020: 62). Thaba Chweu appears on the list of 87 municipalities categorised as "distressed or dysfunctional" by the Department of Cooperative Governance and Traditional Affairs (2018). Koma (2017: 29) notes the deficiencies of local government must be set against the municipality's strategic geographic position within Mpumalanga together with its various tourist attractions, agricultural, fly fishing and mining potential that could be turned into "profitable, beneficial and productive assets toward the creation of employment opportunities, poverty reduction and economic development".

Local Tourism Evolution and Trends

The development of tourism in the area of this municipality can be traced back to at least the 1920s. As occurred across much of South Africa this "somewhat remote" region was made accessible to visitors by South African Railways & Harbours through its network of trains and motor coaches (Van Eeden, 2011: 608). The area gained the reputation of one of the most beautiful landscapes of South Africa. The attractions of this region were further supported by the introduction during the 1920s of special excursion tours from Johannesburg and Pretoria. By 1930 the region was styled both as 'the gateway' to Kruger National Park but also as a scenic 'wonderland' (South African Railways and Harbours, 1930). Tourism growth in the post-World War 2 period was boosted by the re-launch in 1947 of special tourist trains including 'Round in Nine' (days) which included Graskop and Sabie in the schedule alongside visits to Kruger National Park. Marketing publicity about tourism in the area surged in the 1960s. The Sabie Publicity Association produced pamphlets (in English and Afrikaans) proclaiming the town and its surrounds as 'the jewel of the Lowveld' (Sabie Publicity Association, 1965). During the 1960s, according to van Eeden (2011: 609) the tourism economy was boosted by construction of a government-sponsored resort "offering mass affordable accommodation for lower-middle-class white holiday makers". In parliament debates the Minister of Tourism flagged the generous government support as influential for boosting tourism to the Blyde River Canyon (*House of Assembly Debates*, 31 August 1970). The establishment and spread of caravan parks and camping facilities in the 1960s and 1970s provided further accommodation options for budget travellers to the area (Rogerson and Rogerson, 2021d). Throughout the 1970s and 1980s the market provided by white South African domestic tourists – mostly coming from the metropolitan areas of Johannesburg, Pretoria and the Witwatersrand – provided the anchor for developing the area's tourism economy.

In terms of tourism development opportunities Thaba Chweu is the location for several of South Africa's major tourism attractions, many of which form part of the 'Panorama Route' (Figure 1). Among the iconic attractions in the municipality are the Blyde River Canyon, Bourke's Luck Potholes, God's Window, Berlin and Lisbon Falls, Long Tom Pass, the heritage town of Pilgrim's Rest, and Sudwala Caves. In addition, the Lydenburg area, the oldest settlement in modern-day

Mpumalanga, is viewed as "a hub of heritage"where the famous Lydenburg Heads (dating back to 400 AD) were discovered in the 1950s (Thaba Chweu Local Municipality, 2017: 5). The heritage assets of the municipality are concentrated also at Pilgrim's Rest, the site of the first real gold rush in South Africa (Mabin and Pirie, 1985: 64). Arguably, Pilgrim's Rest, an open air urban museum, represents a "remarkable achievement in the field of public presentation of the past" (Mabin, 1994: 31). The tourism offerings within Thaba Chweu were recently strengthened by the opening of the Graskop Gorge Lift Centre which is now a major attraction in the area and a first such attraction in Africa. The tourism assets of the area appeal to the market segment which is termed by Nduna and Van Zyl (2017: 16) as 'nature-escapists' who search for "a peaceful, calming and pleasant aesthetic environment". As regards ownership of businesses, the long-established tourism economy of Thaba Chweu is historically dominated by white entrepreneurs. Recent tourism trends in the Thaba Chweu local municipality can be investigated with the use of statistics extracted from the IHS Global Insight data base for the period 2002-2020. The major finding that emerges from the analysis of the IHS Global Insight data is that the Thaba Chweu local municipality ranks as one of South Africa's few local municipalities where tourism has exhibited progressive expansion for over 20 years until interrupted by the COVID-19 crisis. Figure 2 shows the pattern of total trips and origins in terms of domestic as opposed to international travel. Figure 3 gives a profile in terms of purpose of travel.

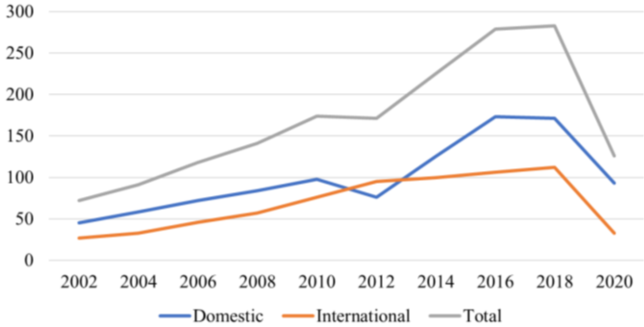

Figure 2. Thaba Chweu Municipality: Total Trips by Origin 2002-2020 (Source: Authors based on IHS Global Insight data)

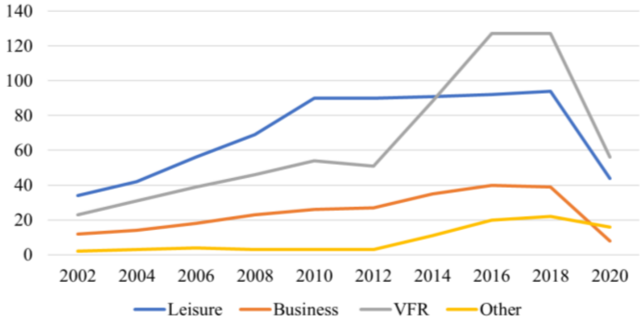

Figure 3. Thaba Chweu Municipality: Purpose of Trips 2002-2020 (Source: Authors based on IHS Global Insight data)

It is evident that between 2002 and 2018 the total numbers of all tourism trips almost quadrupled from 72 000 in 2002 to 283 000 in 2018 and as high as 324 000 in 2019 before the onset of the COVID-19 crisis.

What is notable in terms of origin of trips is consistent growth of both domestic and international trips with the exception of the downturn in domestic trips in the period 2010-2012 (Figure 2). International trips represent in most years at least 40 percent of all trips to the Thaba Chweu local municipality. The critical role of international tourists for the Thaba Chweu economy is underlined by bednight data differentiated by origin of trip which reveals that in 2016 international trips accounted for 69% of bednights a share which rises to 73% by 2018. Looking at purpose of travel the Thaba Chweu local municipality is distinctive in terms of rural tourism for the consistently high numbers of leisure trips and share of leisure trips in total trips recorded for the municipality. For the period 2002-2012 leisure trips exceeded those of all other forms of tourism to the municipality (Figure 3). Since 2014, however, the largest number of trips is accounted for by the segment of visiting friends and relatives (VFR). Leisure trips in total grew from 34 000 in 2002 to 90 000 by 2010 and stabilised around that number until 2019 when they reached a new peak of 116 000 trips. As is demonstrated on Figure 3 VFR travel trips spiked to over 100 000 in total from 2016.

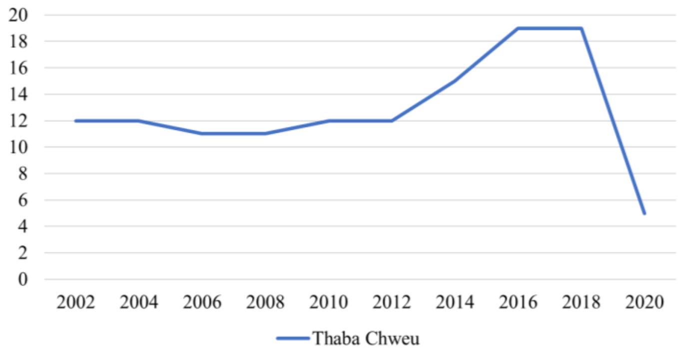

Figure 4. Thaba Chweu Municipality: Tourism Contribution to Local GDP 2002-2020 (Source: Authors based on IHS Global Insight data)

Table 1. COVID-19 Impact on the Tourism Economy of Thaba Chweu Local Municipality (Source: Authors extracted from IHS Global Insight data)

Indicator	2019	2020
Total Trips	324 910	125 773
Leisure Trips	116 263	44 824
Business Trips	24 843	7 988
VFR Trips	142 859	56 875
Other Trips	40 946	16 076
Domestic Trips	228 330	93 069
International Trips	96 580	32 705
Domestic Bednights	695 964	271 042
International Bednights	1069 454	370 119
Total Tourism Spend (R'000 current prices)	1609 295	616 919
Tourism Spend as % Local GDP	12.3	4.8

Thaba Chweu tourism was hit hard by the COVID pandemic impacts as leisure travel collapsed from the 2019 peak of 116 000 to 44 000 trips which put the leisure numbers back to 2004 levels. The COVID-19 decline is manifested in both the dramatic fall in both domestic and international trips; in the case of domestic travel from a 2019 peak of 228 000 to 93 000 in 2020 and from 96 000 to 33 000 for the international trip segment. The data relating to tourism's contribution to local GDP highlights the vital role of the sector for local economic development and job creation (Figure 4). With tourism contributing at least 11 percent to local GDP throughout the period 2002-2012 and growing to 19 % by 2018 Thaba Chweu must be classed in the category of a tourism-dependent locality. The ravage of COVID-19 for the local economy through the downturn in tourism is reflected in tourism's share of local GDP falling precipitously to 4.8% in 2020. Table 1 captures the COVID-19 impact of tourism for this municipality with a series of indicators.

Local Businesses and Local Tourism

A total of 25 interviews were conducted throughout the Thaba Chweu municipality. The majority of interviews (24) were with local tourism operators; one was with the local ward councilor in Lydenburg who is responsible for the provincial tourism portfolio. A concerted effort was made to interview a geographic spread of tourism businesses. Most operators interviewed were lodges and other forms of accommodation. Since much of the area is remote and many operators are in isolated locations, accommodation was an essential component of rural tourism. Several businesses were getaway locations where activities, accommodation and food were all provided. Additional assets included restaurants, craft breweries, venues, and activities operators. An overview of some basic attributes of the businesses is given on Table 2.

Table 2 Overview of Thaba Chweu Businesses (Source: Authors)
Note: LM - Lydenburg/Mashishing, GPR – Graskop/Pilgrim's Rest, * - Staff reduced since COVID, FT - Full Time, PT - Part Time

	Location	Type of Establishment	Years in Operation	Number of Permanent Employees	Primary Income	Operates All Year
TC1	LM	Accommodation	30	4 FT	Yes	Yes
TC2	LM	Nature Retreat	Owned Property for 30 years	3 FT	Retired	Yes
TC3	LM	Venue/Accommodation	15	4 Ft/3 PT	Used to be - Also have farm	Yes
TC4	LM	Accommodation	17	9 FT	Yes	Yes
TC5	LM	Accommodation	2	1 FT/1 PT	Yes	Yes
TC6	LM	Brewery	7	3 FT/5 PT*	Yes - owners have several tourism businesses	Yes
TC7	LM	Brewery and Accommodation	13	4 FT/2 PT	Yes	Yes
TC8	LM	Accommodation, Restaurant, Activities	Owned Property for 45 years	24 FT/4 PT *	Yes - owners have several tourism businesses	Yes
TC9	LM	Accommodation	20	7 FT*	Yes	Yes
TC10	LM	Nature Retreat	3	N/A	Retired	Yes
TC11	LM	Accommodation	20	9 FT	Retired	Yes
TC12	GPR	Resort	53	90 FT*	N/A	Yes
TC13	GPR	Restaurant	2	5 FT	Yes	Yes
TC14	GPR	Restaurant	7	1 FT*	Yes	Yes
TC15	GPR	Restaurant/Distillery	2	11 FT	Retired	Yes
TC16	GPR	Accommodation	4	2 FT/2 PT	Yes	Yes
TC17	GPR	Resort	New owner March 2020	43 FT/3 PT	No	Yes
TC18	GPR	Accommodation	12	1 FT/3 PT	No	Yes
TC19	GPR	Restaurant	4	13 FT	Yes	Yes
TC20	GPR	Restaurant	4	4 FT*	Yes	Yes
TC21	GPR	Activity/Attraction	4	42 FT/32 PT	Yes	Yes
TC22	GPR	Accommodation	14	12 FT/1 PT	Yes	Yes
TC23	GPR	Lodge and Restaurant	3	7 FT/2 PT	Yes	Yes
TC24	GPR	Accommodation	4	6 FT	Yes	Yes
TC25		Ward Councillor				

Differences are observed between the business profiles in the two sub-regions. The Lydenburg cluster consisted primarily of remote business facilities on large pieces of land. Many were on land owned prior to establishing a tourism business. Some businesses were established on existing farms which still operate for commercial purposes. Other businesses were built on properties which were originally second homes for the current owner(s), who in retirement or for a change of lifestyle decided to convert the property to a tourism business. One operator stated "*we bought the property as extra cattle grazing space but saw the opportunity for tourism in the area*" (TC3). Another said: "*We bought the property when we were living in Johannesburg as a holiday house but it costs a lot to maintain so we decided to develop a business*" (TC11). By contrast, in the Graskop cluster most businesses were developed specifically for tourism purposes; some are part of larger companies which manage several tourism assets. One of the lodges is part of the Forever Resort group of resorts and originally built as a publicly funded development (TC12). Another is run by a group which operates numerous tourism businesses throughout the Lowveld. Some of the more recently established businesses developed because they saw missed opportunities for tourism in the area. One respondent, an owner of three local restaurants, stated "*There was a lack of good all-around service for foreign tourism. We were looking to give an all-around South African experience with local food. That's what made it popular*" (TC20). Looking across both clusters certain similarities are discerned in business profiles. As seen in Table 2, the majority of tourism businesses have relatively small numbers of permanent staff, and many are owner-managed. A few remarked staff numbers decreased over COVID-19, but many were able to hire back staff who were previously let go. For most respondents the tourism business was the primary income, albeit some said this changed as a result of the pandemic. Another source of income was retirement pensions. Many businesses were post-retirement start-ups. Others cited additional tourism products as sources of income. Finally, some businesses are located on working farms which contributes additional income. Many respondents flagged that COVID-19 made it difficult to rely on income from the tourism businesses which had previously been the primary source of income. "*It used to be [our primary source of income] but right now we can't live off of it. Luckily we are both retired and have pensions*" (TC2). Nearly all businesses operate year-round with minor exceptions for certain products (e.g. one of the wedding venues only operates in wedding season). An accommodation respondent in Lydenburg contended: "*There's not much of a 'season'. In the winter people come for fishing*" (TC11) in reference to the trout fishing in the area.

Much enthusiasm was expressed by respondents in both clusters about the diverse tourism offerings and assets in the area. As a major tourism route and destination, it is not surprising that respondents, almost unanimously, highlighted the range of tourism products available throughout the area. The majority of respondents focused on tourism products and assets related to nature-based tourism and the wide range of natural attractions throughout the area. Many stated that typically tourists visit the area to spend time outdoors, outside of dense urban areas, for nature photography and for outdoor leisure recreation activities such fishing, hiking and camping. "*People want to get into nature. Get out of the hustle and bustle of the city"* (TC2). Many also indicated that both regions are common stop-overs between Kruger National Park and Johannesburg. However, many in the Lydenburg cluster mentioned that the area used to be a major stop-over to Kruger, but because of the increasingly bad quality of the road, many tourists bypass the area and opt for stop-overs in more accessible places such as Dullstroom or within the Graskop cluster. One accommodation service provider stated: "*Overseas visitors used to come as a stop-over to Kruger or as a gateway to the Panorama Route but not anymore*" (TC9). In recent years much local leisure tourism has been lost because of the bad quality of the roads and poor municipal services such as power outages and water shortages. The Lydenburg cluster attracts also a flow of business travellers linked to local mines.

Nature-based tourism is the primary draw for visitors throughout the municipality according to local tourism enterprises. As for specific attractions in the Thaba Chweu municipality, most respondents discussed sights along the Panorama Route. In the Graskop cluster, nearly all respondents named attractions such as God's Window, Bourke's Luck Potholes and the Three Rondavels. Those specific to the Lydenburg cluster included the Long Tom Pass and numerous archaeological attractions, such as ancient stone circles, as well artefacts and sites from the Anglo-Boer War (TC2). In addition, there are numerous waterfalls scattered throughout the region which are attractions. Another important asset between Sabie and Graskop, is the historical village of Pilgrim's Rest. The entire town of Pilgrim's Rest is a heritage site, preserved because of the long history of early gold mining which occurred in and around the town. One respondent in the town of Pilgrim's Rest said "*People are drawn to the history of the town, the storytelling and the feel of the town*" (TC15).

From field visits and observation, the state-run natural attractions in the Graskop cluster appeared better-run than those in Lydenburg. Several respondents in the Lydenburg cluster referred to the beautiful sights, such as the waterfalls, albeit visitors are deterred by the lack of upkeep surrounding these sights as well as significant safety concerns. One respondent said "*All the major attractions around Lydenburg are closed. No one attends to them. We have major historical sites, but they are not maintained… some have sewage running down them*" (TC9).

Business Challenges and Adaptation

The COVID-19 crisis had a negative impact on most businesses and compelled adaptive responses of various kind. The evidence of adaptation was widespread: "*People got more innovative, they put a lot more effort in*" (TC16). Most businesses had to adapt their business practices during the pandemic, including the introduction of outdoor seating. Several businesses discussed the addition of the safety protocols with associated costs. The ways in which they did so were to reduce prices and offer more self-catering options. Certain businesses closed parts of their operations, particularly the restaurants and meal services. A small number of enterprises introduced new products. One establishment added quad bikes and off-road scooters which are "*very popular with local visitors from the area who come for the day*" (TC8). Some planned future upgrades variously to open a hospitality training programme (TC9), a teambuilding product for work retreats (TC10), and themed evenings, where groups come for a themed meal (TC18). One distillery, hit by alcohol bans introduced by government as a pandemic response, decided to redirect their efforts and started to produce hand sanitizers in order to generate some income (TC15). Many businesses adapted products to meet the demands of local tourists. One operator stated that they had created an informal takeaway restaurant to meet pandemic demands (TC21). Both breweries adjusted their products and prices to meet the demands of the local market; one introduced flavoured vodka to their product line (TC7), the other added a form of "*spiked seltzer or sparkling water*" (TC6). Another respondent upgraded the camping sites to add more 'glamping' options due to the changes in the market demand (TC5). Certain businesses were not interested in offering new products or expansion. One said "*Something that we don't want to do is open for day visitors. We get lots of requests but there are lots of issues with day visitors and we don't have the facilities*" (TC8).

Most businesses adjusted their marketing strategies in response to changes in tourism demand and reworked their marketing to appeal more to local visitors. All had to adjust to changes in patterns of bookings, many of which are last minute, and mainly weekend visitors: "*we have record weekend that beat pre-COVID*" (TC19). Several respondents noted the changes in the tourism market. One said "*Business has maintained but the market has completely changed*" (TC21). The first shift has been growing reliance on domestic rather than international visitors. Although the Lydenburg cluster has long-suffered from poor infrastructure, which has all but eliminated the area as a stop-over for (especially international) tourists heading to Kruger Park, the Graskop cluster continued to serve as a stop-over. The towns of Pilgrim's Rest, Graskop and Sabie were often day stops or overnight stops for international tourists on their way to Kruger. These completely ceased because of COVID-19. In the interim these towns have seen a rapid growth in domestic tourism, particularly to the Graskop cluster. Another change with COVID-19 has been in the demographics of visitors. One respondent said there had been a major campaign to attract Black domestic leisure tourists to the Panorama Route, partially driven by the owners of the Graskop Gorge Lift. Another asserted "*the Black South African population really saved us, kept us going and is keeping us going*" (TC22). The racial change in tourist demographics has resulted in the need to adapt the tourism sector. This said, whilst many businesses wished to accommodate the new market, there is a lack of research and understanding of market demands of this group. One respondent noted that a need for specific facilities to draw the Black leisure tourism market: "*there is a growth in budget-tourists and day visitors. They want to relax, braai but there is currently no space to do this*" (TC21). Respondents pinpointed there were significant opportunities for developing tourism to meet the needs of this new emerging market. One indicated: "*Growth that needs to happen in this area is that products need to be increased to meet the demand of local Black South Africans*" (TC18). This same respondent further emphasized the need for more budget facilities offering aspects such braai facilities, satellite television, wifi and a swimming pool (TC18).

A striking finding which contrasts to other research on the topic, including a study by Giddy and Rogerson (2021) on an adjacent local municipality, was the majority of respondents did not consider COVID-19 as the primary threat or concern facing their businesses. Overall, the issues that were most prevalent among this group of respondents related to those surrounding poor infrastructure development and maintenance. Most felt that whilst COVID-19 made survival difficult for the periods in which strict lockdowns occurred, that it was not their primary challenge. The core challenges facing their businesses, for the most part, were long-established and prevalent prior to the COVID-19 pandemic and subsequent government lockdowns. Indeed, it was evidenced that only one or two businesses in the local area had not survived the pandemic albeit a few businesses changed ownership or downsized. The Graskop cluster, in particular, appeared to have survived COVID-19 relatively well, with several respondents unaware of any businesses which had closed.

In the Lydenburg cluster closures were recorded as a result of underlying issues that existed prior to COVID-19 which was the "*nail in the coffin*" (TC3). Several respondents said in response to a question on the state of their business prior to COVID-19, that it was "*ticking along*" (TC1) or "*reasonable but already having issues because of the state of the roads*" (TC3) or "*there were issues before COVID*" (TC9). Questioned about what could be done to improve or expand visitor numbers the central issues all referred to the local municipality. The majority of responses indicated that the conditions of the roads were particularly problematic and a deterrence to visitors. One respondent said "*The roads! Guests sometimes can't get through to the resort*" (TC12). Another noted "*Even the roads next to the municipality have so much potholes. It's embarrassing*" (TC23). Several other mentioned additional issues of service delivery. One said "*Basic services affects tourism and we are not getting basic services*" (TC15). Another argued "*We are a resort. We are not built to operate on a generator*" (TC12). Several others reported issues with crime, stating "*Crime is a big issue, there is a lack of safety. Some tourists have been hijacked*" (TC13). Other concerns listed were related to issues of sanitation, the upkeep of attractions and litter. One said "*There's rubble everywhere next to the roads. It looks terrible*" (TC12). Several noted that attractions need to be maintained and upgraded, particularly given the fees for entry for each attraction. As the majority of attractions in the area are state-run the responsibility for maintenance rests with local and provincial government. Some examples of shortcomings were a lack of ablution facilities, litter surrounding the sights, no regulation of visitor numbers (i.e. overcrowded), safety concerns, issues with basic maintenance of facilities, this in addition to general concerns over road quality and broad service delivery challenges. A restauranteur said "*We can't improve visitor numbers because there is ineffective town management in general*" (TC19). An accommodation service provider also noted that the first step is to develop existing attractions: "*Get the municipality to develop what's there*" (TC9). Improved marketing campaigns were also listed as a mechanism for increasing visitor numbers. One Lydenburg respondent compared the area to the Graskop cluster stating "*The trouble is that Lydenburg is not the place that people go to anymore. They go to Graskop or Sabie. Lydenburg needs a proper marketing campaign. Graskop has done much better with this*" (TC10).

Several specific challenges impacted individual businesses, notably financial concerns as a result of declining visitor numbers: "*We used to have big international groups who came on buses. That has not returned*" (TC17). Others noted that whilst the number of domestic visitors was strong that the business was not generating the same revenue "*We're not getting as much spend*" (TC21). An accommodation provider said "*Even if we did get the same occupancy rates we would still be struggling because of the reduced prices*" (TC11). Some noted challenges with staffing because of a lack of funding for full-time staff coming out of the pandemic lockdowns. Others said that last-minute bookings and drastic differences in week versus weekend numbers made it difficult to ensure enough staff are onsite. The resort respondent said that there is a "*big fluctuation from week to weekend*" (TC17). Other respondents highlighted the issue of staff mentality as a result of the uncertainty; the pandemic "*brought about a serious change in thought process about their jobs*" (TC19) with tourism businesses having difficulty in getting people to commit to a job because of the precarious character of employment in hospitality and tourism. The demands of the new domestic market proved difficult for certain respondents: one mentioned that their establishment is 'rustic' and issues arose with visitors who were not pleased with the facilities because there was no television or swimming pool (TC2). Another said that "*you have to work harder with local tourists. They're more demanding*" (TC8). The businesses located in the town of Pilgrim's Rest noted challenges unique to the heritage town. Serious problems surrounded maintenance of the town and its structures. The town is owned entirely by the Public Works Department which is responsible for the maintenance of the town and its buildings. From several reports it is apparent the government has not assisted with the town's upkeep particularly since the onset of the pandemic (albeit it was clear these issues existed pre-COVID-19). One interviewee said: "*The buildings are not safe and they're not doing anything about it*" (TC15). They went on to discuss that despite the fact that business operators typically only have short leases (around 5 years) and none own their premises, they are constantly required to conduct their own maintenance in order to keep the facilities going. This is despite payment of rent to the public works department for such services. Another local respondent indicated that even when some lockdown restrictions eased that they were unable to open their restaurant "*for 8 months because the Royal Hotel [across the road] became a quarantine facility*" (TC14).

The Role of Local Government

The role of government was a major issue for local enterprises. The core focus was upon local government as it was considered that national government neglected small towns: "*National Government doesn't do anything for small towns*" (TC6). Significant findings emerged relating to the role of local government in tourism development. All respondents had negative perceptions of local government, though to varying degrees. All stated that local government was a problem, with two stating that although local government was the major problem it had helped their businesses. One indicated that the government assisted with a grant to start-up their business (TC13). The other that there had been some effort in the past month or so to initiate some repairs of the roads, though they attributed this to the upcoming local elections: "*They started rehabbing roads because of elections but I'm sure it'll stop when the elections are over*" (TC25). Respondents typically, however, stated that the municipality is in complete disarray, having been in arrears for at least 15 years. An accommodation provider asked simply: "*What local government?*" (TC1). It was clear from these respondents that they feel very little can be accomplished through the municipality and tourism businesses are suffering in a number of ways as a result. One respondent stated: "*If they don't do their job, we can't operate our businesses*" (TC20). The biggest issues, noted by respondents across the municipality, related to basic service delivery and inadequate infrastructure maintenance and provision. The question of road maintenance came up amongst all respondents, with those in the Lydenburg cluster particularly emphasizing the poor quality of the roads. A lodge operator said "*The municipality is not helpful at all. Potholes in a small town like this? They can't get anything done!*" (TC23). The respondent for a long-established resort located along a municipal road further out of the town argued that: "*Visitors often can't get through to our resort because of the roads*" (TC12). At another resort it was highlighted that the state of local roads was giving the area a bad reputation: "*One client arrived here and exclaimed 'this is the last time we will visit the area' because of the bad roads*" (TC17). Two specific instances were noted where visitors had made comments on review and social media platforms one saying '*Don't go to Lydenburg. Roads are awful. Never again!*' and the other '*Lydenburg is filthy! Will never be back*' (TC25). It was evident that serious problems surround perceptions of the area: "*Word of mouth marketing is getting really bad*" (TC18). Likewise, an activity provider expressed the view: "*We are suffering reputational damage because of the roads. It's a hindrance to growth*" (TC21).

For the Graskop cluster, poor service delivery was more prominent in discussions of the failure of the local municipality. "*Number 1 problem is service delivery. Service delivery is completely ineffective"* (TC19). Some of the major issues were debt owed by the municipality to Eskom (the national electricity provider) which prevents consistent electricity supplies. Several businesses obtain their electricity directly through Eskom rather than through the municipality. One respondent observed: "*They charge us rates and tax but they don't supply anything. We get our water and electricity directly. So what are they providing us?*" (TC3). Beyond issues of access to power, only minimal maintenance had been done with the result inconsistent power supplies. Local businesses endure regular national loadshedding and these additional electricity outages because of powerline failures. Some businesses had taken it upon themselves to repair faulty powerlines because of both a lack of municipal maintenance staff and they are also often ill-equipped to deal with repairs. Along with issues of service delivery two respondents experienced issues with protest action along the roads in response to local communities' issues with poor service delivery (TC12, TC13). A Lydenburg accommodation provider gave the following vignette: "*We had a powerline which was damaged, just outside our guesthouse. We called for maintenance but it was difficult to get someone because no one is paid overtime. One guy did come eventually but he didn't have any tools to fix the damage. Not even a ladder. My husband had to come help him and bring him tools so that we could get the repair done. It was a dangerous situation and they don't have even the tools to be able to fix it*" (TC9).

A further problem raised was issues around inadequate policing. Several respondents noted that there have been incidents where tourists were victims of crime, highlighting inadequate policing. Another noted that they had been burgled during lockdown (TC4). This is echoed in the following statement: "*the big issue is enforcement and regulation. Traffic cops don't help with major traffic problems. On top of issues with crime, there are problems with litter in the most pristine natural space on the Earth. Public drinking, drinking and driving, noise and public indecency have all become prevalent*" (TC19). Further concerns related to misuse of funds by the municipality. Several stated that they are not aware of any resources which are being put forward by the municipality for tourism development. One said the municipality is "*unrealistic about budget. There are lots of underfunded departments with directors with very high salaries but no employees*" (TC22). Others cited issues of corruption within the municipality. Typically, when one respondent tried to file a complaint case at the police station it was not admitted as police knew the municipal employee in question and made clear "*the case would not go anywhere*" (TC9). Regarding all the above issues, it was evidenced that the local municipality does not engage with tourism operators on nearly any level: "*Politics is killing towns. People are randomly appointed. No one who really cares about the town. Local government shouldn't be politicized*" (TC25). Overall there is little evidence of commitment from the local municipality to develop tourism: "*There's so much potential but the politicians need to get on it. We can't do it alone*" (TC3). Further, there is lack of transparency from the local municipality with the result that local businesses often feel neglected or ignored. A resort respondent stated "*They are not involved. They don't aid the situation at all. We were supposed to have a breakfast for tourism operators but the guys at the municipality just didn't even show up*" (TC12). Often the state of local roads was cited as evidence of a poorly-run municipality. It was considered that given the municipality was unable to even provide basic infrastructure and services, that they were incapable of running an effective tourism destination. An accommodation provider said pointedly that "*Tourism is limited because of experiences with bad infrastructure. And it's been that way for more than 10 years*" (TC22). Another reflected that "*We want Graskop to be a tourism destination but the infrastructure isn't there*" (TC23).

CONCLUSION

Kastenholz and Lima (2011: 62) observe that "rural tourism has deserved increasing interest from tourism researchers and practitioners in the past decades as a result of the recognition of both its potential for enhancing rural development and of market trends making rural areas stand out as spaces particularly apt to accommodate new tourism and market demands". In an international overview of progress made in rural tourism scholarship Ruiz-Real et al. (2020) record the most undeveloped literature is for the global South and point to major knowledge gaps in Africa. This paper contributes to the limited African literature by providing insight into the challenges faced by rural tourism firms in South Africa.

The results reveal that in the case of rural Thaba Chweu Local Municipality leisure tourism had been expanding for several decades because of strong local assets relating to nature, open space and scenic attractions. These assets suggest that amidst the COVID-19 environment of changing consumer travel preferences favouring rural destinations that a further expansion of rural tourism may occur. The challenges of rural firms disclose structural weaknesses which have existed in the local institutional environment for the past two decades. The central constraints on expansion on rural tourism in this area surround issues around mismanagement and corruption in local government. As consequence, a marked deterioration occurred in the public sector provision of basic services and maintenance of critical infrastructure, most especially roads, water and power supplies, which are essential for successful rural tourism development. The nature of the core challenges facing rural firms and the development of rural tourism in South Africa therefore is markedly different from issues pinpointed in scholarship concerning rural tourism in the Global North.

Acknowledgements

Arabella Rogerson is thanked for editorial inputs and Arno Booyzen credited for preparation of the map. At various times Robbie, Dawn and Skye Norfolk offered valued inputs. The Department of Tourism provided research funding.

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Article history: Received: 15.11.2021 Revised: 12.02.2022 Accepted: 11.03.2022 Available online: 01.04.2022

GeoJournal of Tourism and Geosites
ISSN 2065-1198, E-ISSN 2065-0817

Year XV, vol. 41, no. 2, 2022, p.354-361
DOI 10.30892/gtg.41203-837

INVESTIGATION OF ENVIRONMENTAL DETERMINANTS FOR AGRITOURISM DEVELOPMENT IN ALMATY REGION OF KAZAKHSTAN

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Citation: Plokhikh, R., Fodor, G., Shaken, A., Berghauer, S., Aktymbayeva, A., Tóth, A., Mika, M., & Dávid, L.D. (2022). INVESTIGATION OF ENVIRONMENTAL DETERMINANTS FOR AGRITOURISM DEVELOPMENT IN ALMATY REGION OF KAZAKHSTAN. *GeoJournal of Tourism and Geosites*, 41(2), 354–361. https://doi.org/10.30892/gtg.41203-837

Abstract: This study aims to comprehend relations between environmental determinants and agritourism by example of the Almaty region of Kazakhstan. As a basis for the research of this specific content the representation about agrarian recreational-tourist complexes (ARTCs) was developed and applied (ARTCs are special territorial and intersectoral integrities which largely depend on environmental determinants). Agritourism development is presented as the most important prerequisite for different successful tourism activities in Kazakhstan. With use of the developed instruments, information of different types and cartographical data 15 ARTCs were identified within the Almaty region as well as the influence of the environmental determinants for agritourism was studied. In bare outlines, the methods of functional agritourism and ecological agritourism analysis of the ARTCs' territory based on analysis of the environmental determinants are described. The results of the research can be used for the establishment of prospects for agritourism development within the ARTCs as well as for the development of address recommendation system.

Key words: agritourism, environmental determinants, complex, assessment, Kazakhstan

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INTRODUCTION

The concept "agritourism sector of the economy" is gradually becoming more and more blurred. In a market economy it is possible to observe the development not of individual agritourist enterprises, but that of the special intersectoral agrarian recreational-tourist complexes (ARTC), which are formed on the basis of a business partnership. This is due to the fact that the agritourism sector of the economy produces consumer goods (for example, food, souvenirs, special catalogues, maps etc.) and services (for example, accommodation in a guest house, transfers, excursions, entertainment etc.) (Sznajder et al., 2009). One of the main prerequisites for sustainable development of the ARTCs (agritourism at the regional level) is a system of concrete

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environmental determinants. The concept "environmental determinants" can be attributed to both theoretically and practically quite poorly studied agritourism, because there is no generally accepted definition and there is no consensus about its composition. The researchers provide recommendations for assessing individual environmental determinants but the examples of assessment technologies are generally lacking (Sharpley and Sharpley, 1997; Okumus et al., 2018). An important role in spatial research of environmental determinants is played by geographical, geoecological and cartographic approaches, which are especially useful for the analysis of heterogeneous and multifunctional ARTCs. Conducting special studies on environment and the environmental determinants for territories of agritourism at regional level allows optimizing the common use of natural resources in agritourism and other economic activities, as well as equipping the stakeholders with accurate information about environmental threats of natural and anthropogenic nature for agritourism. The study of environmental determinants is equally necessary for planning and generating alternative options for agritourism development, for formation of plans with required optimization measures, for monitoring the negative impacts, environmental conditions and for efficient managing the use of the spatial resources. Agritourism is defined as one of the high-priority types of recreation (short-term rest) and tourism (specialized long-term rest) in the Almaty region of Kazakhstan at the state level. However, modern environmental management in the region does not take into account its stringent requirements for the quality of the environment and local foodstuffs. The interests of agritourism are considered by most nature users as secondary, therefore agritourist nature management is superimposed on the existing form / forms of nature management with insufficient consideration of environmental sustainability and development of nature management conflicts. In conditions of not using the achievements of environmental audit and environmental impact assessment, it is possible to destroy positive determinants, valuable resources and qualities of agritourism territories. Assessment and mapping of the environment and its components can help in solving the problem of sustainable development of agritourism.

THEORETICAL BACKGROUND

When providing a theoretical basis for the research, the main attention was paid to: (a) images and typologies of agritourism which are promoted by various organizations and farmers and are interesting for tourists; (b) presentations about the ARTCs, which are extremely poorly identified in modern scientific literature; (c) environmental determinants of agritourism development, which are the most important conditions for successful agritourism activities, but are very ambiguously perceived in the sphere of scientific support development for agritourism and practical work.

1. Typologies of agritourism

Practitioners and researchers apply the term "agritourism" to different activities (Brandth and Haugen, 2011; Potočnik et al., 2013). There is no common understanding of the "agritourism" concept in the scientific community, which proves the use of a large number of terms: "agritourism", "agrotourism", "farm tourism" etc. This causes difficulties from the view of improving the knowledge basis of this activity and the identification of the environmental determinants for its successful development. From theoretical point of view, agritourism can be a sustainable form of tourism, often integrated into regional development, main purpose of which must be to promote rural capital and stimulate the local economy (Phelan and Sharpley, 2012; Flanigan et al., 2014; Streifeneder, 2016). An interesting interpretation of the "agritourism" concept was proposed by R. Sharpley and J. Sharpley: "tourist products that are directly related to the agrarian environment, agrarian products or agrarian stay" (Sharpley and Sharpley, 1997). Some definitions of the "agritourism" term emphasize the different natural-geographical resources (Roberts and Hall, 2001; Sznajder et al., 2009; Phillip et al., 2010; LaPan and Barbieri, 2014; Kline et al., 2015), sociocultural (Roberts and Hall, 2001; Phillip et al., 2010; LaPan and Barbieri, 2014), political and economic aspects (Frater, 1983; Roberts and Hall, 2001; Tew and Barbieri, 2012; Dubois et al., 2017). Agritourism is based on the environmental determinants of the rural area, features of local agriculture offer many options for recreation programs. Among them: resting in a "green" or natural environment (Gao et al., 2014), rural gastronomy (Kline et al., 2015), rural lifestyle (Disez, 1999; Garrod et al., 2006; Tew and Barbieri, 2012), getting familiar with the local material and non-material cultural heritage (Domenico and Miller, 2012; Choo and Petrick, 2014). Rich variety of interpretations confirm the need to develop a typology of agritourism, causing difficulties in identifying the environmental determinants of its development.

Creating a typology of agritourism is not an easy task and is largely related to the properties of the rural environment, which determines the development of specific types of agritourism in a certain area. The typology developed by Phillip et al., 2010 and its modified version (Flanigan et al., 2014) represent a serious attempt to classify agritourism on the basis of a systematic set of criteria. In particular, Flanigan et al. (2014; 2015) revealed the common features and differences in definition of the term "agritourism" among its providers and the tourists. In general, they found out that a working agritourism enterprise, which provides interaction with agriculture, corresponds to the ideas of both groups in the best way. Gil Arroyo et al. (Arroyo et al., 2013) applied Phillip et al. (2010) original model in the study on agritourism among farmers, residents and agents for dissemination of the knowledge on the example of Missouri in North Carolina in the United States of America. Its outcomes confirm the results of Flanigan et al. (2014; 2015). Lane (2009) came to a conclusion that agritourism is "a series of product types, but not one homogeneous whole". And the production of each product depends on a specific set of environmental and other determinants.

The authors' concept of agritourism typology is based on the hypothesis that the influence of a certain range of environmental determinants initiates the development of specific agritourist products and services and can be made up of specific indicators for each ARTC. In assessing the complexes of one region, it is important to create a system of environmental determinants, which, to the greatest extent, reflects the natural factors, conditions and processes that influence the development of different types of agritourism. Figure 1 shows the proposed organizational graph of agritourism typology for conditions of the Almaty region of Kazakhstan. It can be displayed with the mapping of links between the environmental determinants and tourism types and can be adapted rather quickly taking into account the characteristics of another region. Detailing the most important environmental determinants has little effect on increasing the accuracy and reliability of the research and leads to an increase in the number of indicators, therefore, to an increase in practical difficulties (in the volume of work on searching and processing the representative data).

2. Presentation about ARTCs

The concept of agrarian recreational-tourist complex (ARTC) as a producer of an agritourism product is largely based on the cluster concept and the theory of networks. There are many definitions of the term "cluster" in the works of various scientists (Novelli et al., 2006; Lane, 2009; Arroyo et al., 2013; Simonyan and Turitsyn, 2014; Flanigan et al., 2015; Karmanova et al., 2015). Cluster approach is broader and deeper than it is considered in most of the sources, because its goal is not only to explain the links between the individual components of the production system, but also the use of innovative technologies and alternative methodologies to achieve sustainable development. From this point of view, the cluster approach is appropriate in any multicomponent system as a tool to achieve maximum competitive advantages (Darbellay and Stock, 2012). Theory of networks forms an explanatory structure of interrelations, how separate rural areas within the ARTC as a tourist destination can interact, develop and be connected (Becheru et al., 2015).

ARTC is a set of determinants and stakeholders that ensure the production of agritourism products and interconnected links of different types (Klochkova, 2007). System-forming elements for ARTC include:

(a) recreation and tourist resources of rural areas as a factor in the formation and satisfaction of the demand for agrarian leisure and tourism;

(b) business entities as suppliers of agrarian goods and services;

(c) tourists as consumers of the final agritourism products. In the functional-territorial aspect, ARTC is a spatial network of recreational-tourist enterprises of different levels and the producers of goods, services and works. The level of ARTC development is characterized by:

(a) saturation of the rural territory with enterprises and producers (for example, number of agritourism farms, variety of produced agritourism goods, services and works etc.);

(b) volume of the costs (for example, cost of accommodation and meals for guests, payment for employees etc.);

(c) achieved level of infrastructure development (for example, capacity of accommodation sites, landscaping of agritourism territories etc.)

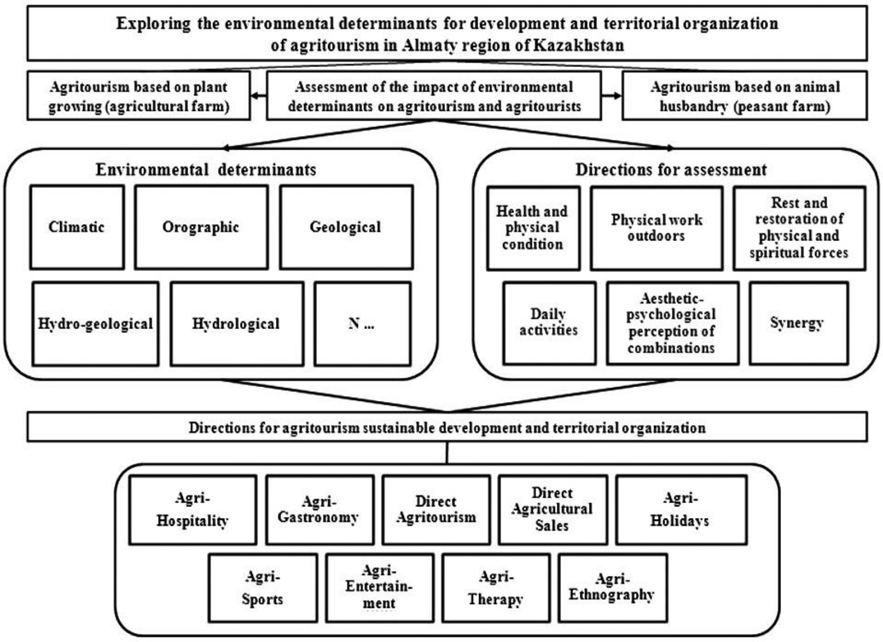

Fig. 1. Organizational graph of agritourism typology for the conditions of Almaty region of Kazakhstan [compiled by the authors)

The existence of a large number of unique natural and historical-cultural sites as well as comfortable environmental conditions increase the attendance of an ARTC. The main principle of the allocation and mapping of an ARTC is the identification of holistic territorial entities by nature of the favorable conditions of different determinants for agritourism development. When such territories are close to each other, the possibility for development of different ties (production and economic, transport and communication, information and others) between them is higher.

3. Environmental determinants of the development of agritourism

Environmental determinism, also known as geographical determinism, is the determination of the influence of the physical environment and its components on occurrence of certain development ways (Rozman et al., 2009; Keighren, 2015). Scientists have noted for long the impact of the geographic environment on humans and their entire livelihood. Jared Diamond (Diamond, 1999), Jan Morris (Phillips, 2001), Jeffrey Herbst (Herbst, 2014) and other scientists explain the advantages of different civilizations by the available geographical factors that allow them to develop faster and more efficiently. The philosophical school "Neoecological determinism" is focused on the study of geographic and ecological forces that predetermine the state-building, economic development and other aspects of human society's activity. On one hand, empirical evidences show that economic development accelerates environmental degradation (Sörlin, 2013; Araújo Rios et al, 2015; Omri et al., 2019; Wang and Yotsumoto, 2019). On the other hand, environmental determinants have a strong influence on all types of economic activity and can accelerate or slow down their development (Hung et al., 2016; Sellers-Rubio and Casado-Díaz, 2018). The presence of adverse environmental determinants reduces the agritourism capacity and attractiveness of a territory, but the presence of favorable ones, on the contrary, increases these features. Diversity of environmental determinants in large areas, uneven allocation and use of resources, ecological and socio-economic characteristics of the territory determine the formation of ARTCs with different combinations of agritourism specialization: plant growing, animal husbandry, vine-growing, apiary, gastronomy, entertainment and others. Studying the advantages of two types of agricultural areas producing agritourism products on the example of farms and cultivated forests showed the similarity of the services provided in general. But the respondents' assessment of the lifestyle resulting from the exposure to various environmental determinants and attractive elements of the agritourism environment differed quite remarkably (Barbieri et al., 2019). The study also demonstrated the hidden impact of environmental determinants on agritourism, which is expressed not only through the direct impact on agritourism products, goods and services, but also on the lifestyle of the owners as an additional attractive factor. Besides the environmental determinants, the development of agritourism is strongly affected by the size of its enterprises, quantity and quality of human resources as well as the business model of agritourism itself (Stange et al., 2010; Cucari et al., 2019).

RESEARCH FRAMEWORKS

1. Research background and design

This study was conducted in 2017-2018 as a component of a doctoral dissertation, but it is rooted in four more large research projects. Among them are the following ones: "Geographical basis for ensuring the safety of nature management of mountain and lowland territories of the Republic of Kazakhstan" and "Geographical support of accelerated tourism development in Kazakhstan" (conducted by the Institute of Geography by order of the Ministry of Education and Sciences of the Republic of Kazakhstan, 2012-2014); "Sustainable livelihood initiative in Russia and Kazakhstan" (conducted by a working group under the supervision of R. Plokhikh within the framework of the World Wildlife Fund (WWF) grant number WWF419/RU007422/GLO, 2014); "Conceptual model for activation of rural territories of the Republic of Kazakhstan through agritourism development" (conducted by the Research Institute of Ecology Problems at the Al-Farabi Kazakh National University by order of the Ministry of Education and Science of the Republic of Kazakhstan, 2015-2017). These projects, to a small extent, have dealt with the problems of environmental determinants of agritourism and sustainable development of the ARTCs. At the same time, at working meetings of the Tourism Department of the Almaty region and the Department of Tourism and External Relations of the city of Almaty, emphasizing the importance of solving the tasks of developing the regional economy the agritourism sector was noted repeatedly. The study, described in this article was implemented on the basis of a logical scheme that included 13 areas of work combined in four stages. The preparatory stage included the definition of the object, subject and objectives of the study. As part of the methodological stage, a research plan was drawn up, work with various sources of published and stock information was carried out, methods were defined and research conditions were organized. The implementation stage included works on data collection and its processing. The main type of work at the final stage was the formulation of conclusions and their discussion with stakeholders.

2. Location

The study was conducted in the Almaty region, which is located in South-East Kazakhstan. It was established in 1932, has an area of 223.6 thousand km^2 (8.2 % of the country's area) and includes 20 administrative-territorial units: 16 rural areas, 3 territories subordinated to the administrations of Taldykorgan, Kapshagay and Tekel towns and the Almaty agglomeration which is the largest in the country. As of January 1, 2019 the total number of rural districts equaled to 246. The administrative center is located in the Taldykorgan town, which is near the Karatal river. The topography of the territory is very complicated. The northern part of the region is bounded by the southern coast of the large, intra-continental Balkash Lake (area 16.9 thousand km^2). This area is represented by the slightly inclined aeolian plain of Zhetysu with elevations of 300–500 m. The southern and eastern parts of the region are represented by the foothill and mountain landscapes of Ile Alatau (Talgar peak, 4973 m), Zhetysu Alatau (Besbakan mountain, 4622 m), Ketmen or Uzynkara (Nebesnaya mountain, 3653 m). From the southeast to the northwest the territory is crossed by the valley of the river Ile, in the central part of which one of the largest reservoirs in Kazakhstan, the Kapshagay was built (water-surface area – 1,874 km^2, length – 80 km, width – 40 km) (Regions of Kazakhstan in 2017: statistical compilation, 2018). The foothills are the most comfortable in their natural characteristics, therefore this is a highly urbanized area. As of January 1, 2019 he total population of the region reached as high as 3,893.9 thousand or 21.2 % of Kazakhstan's total population. The rural population was 1,552,800 people or 39.9 % of the total population of the Almaty region (About changes in population of the Republic of Kazakhstan: statistical publication, 2019). Development of all possible types of tourism in the region is defined as one of the main long-term priorities. The urgency of solving this task is reinforced by the development of tourist infrastructure near "Western Europe – Western China" international transport corridor, which runs through the Almaty region.

3. Communities and participants

Within the framework of the methodological stage the research conditions were organized. An agreement about the assistance in the works of the "Atameken" National Chamber of Entrepreneurs of Kazakhstan was obtained. In course of the research 45 agritourism enterprises located in 15 ARTCs were studied. They represent the following directions for sustainable development of agritourism: a – agri-hospitality; b – agri-gastronomy; c – direct agritourism; d – direct agricultural sales; e – agri-holidays; f – agri-sports; g – agri-entertainment; h – agri-therapy; i – agri-ethnography (Table 1). The largest amount of examined agritourism enterprises is located in the Kapshagay and Ile-Alatau ARTCs. This is explained by their proximity to the Almaty agglomeration, which is the main consumer of the agritourism products in the Almaty region.

4. Materials and methods

As a source of initial information statistic, analytical and cartographic materials were used. Primarily, data of the

Department of Statistics of the Almaty Region and of the Committee on Statistics of the Ministry of National Economy of Kazakhstan as well as the official information of public and private institutions for 1991–2018 years were studied. Additional qualitative and quantitative data were collected in 2017–2018.

Table 1. Territorial distribution of the examined agritourism enterprises

ARTCs	Amount of agritourism enterprises	Directions of the sustainable development of agritourism
Ile-Alatau	10	a+e; a+c; a+b; a+e; a+b+d+i; g+b; a+i+h; a+b; a+b; a+i+b+g
Chimbulak-Tabagan-Akbulak	3	a+e+f; a+f+g+i; a+i
Kapshagay	11	a+h+b+d; a+b+c+g; a+e; a+h+b+d; a+i+b; a+i; a+e; a+h+d+b; a+h; a+b+f+i; a+c+e+g
Kolsay-Kegen	2	a+i; a+e+b
Zharkent	1	a+e
Taldykorgan-Zhetysu-Alatau	2	a+c+d+g; a+e
Alakol-Sasykkol	1	a+f+i
Sarkand-Zhetysu-Alatau	1	a+d+f
Koyandytau-Toksanbay	5	a+d; a+d+h+i; a+d; a+c+d; a+d+h
Shonzhy-Naryn	2	a+g+c; a+g+c+i
Uzynkara	1	a+b+g+i
Ile-Balkash	2	a+c+e; a+e+d+i
Lepsy-Aksu	2	a+f; a+f
Arganaty-Zhekeshagyl	1	a+e
Aralkum	1	a+e

The existent informative systems and additional refreshed and filled-up information sources also were used: Kazakhstan National Electronic Library (http://www.kazneb.kz); “Әділет” Database of Regulatory-Legal Acts of Kazakhstan (http://adilet.minjust.kz); official portal “Electronic Government of the Republic of Kazakhstan” (http://www.e.gov.kz), official sites of the Ministry of Education and Sciences of the Republic of Kazakhstan (http://www.edu.gov.kz), the Ministry of Healthcare and Social Development of the Republic of Kazakhstan (http://www.mzsr.gov.kz), the Ministry of Culture and Sport of the Republic of Kazakhstan (http://mk.gov.kz), the Akimat (government representative) of Almaty region (http://zhetysu-gov.kz), the Akimat of Almaty city (http://almaty.gov.kz), the Program of Monitoring of the Government Social Order Execution (http://monitoring.academy.kz), “All Kazakhstan” Reference Portal (http://www.kps.kz) and the Portal About Real Estates (http://www.kn.kz). For making the information database more complete, the annual reports and statements of the Almaty Akim, heads of agencies and organizations of Almaty region, the archive of the JST “National Center of Scientific and Technical Information” of Kazakhstan, scientific articles, scientific conferences’ proceedings and publications in mass media were also used. Besides that, an integrated approach of studying the environmental determinants of agritourism development in Almaty region of Kazakhstan was applied in the research.

It relied on a combination of the following methods and techniques: web-analysis for identification of useful information resources; content analysis of the documents, archive data, scientific literature and other text materials; applying classification and categorization methods for logical structuring and generalization of the information; statistical analysis for establishing development patterns for natural phenomena and processes as well as for determining the possibility of their repetition; expert assessment for obtaining the assessment in conditions of information lack for analysis; method of aggregated indicators, in particular the calculation of the degree index for environmental sustainability threats on territories of agritourism and its gradation in the form of an assessment scale; extrapolation of regularities for whole territory of the ARTCs, identified on model sites of agritourism enterprises; visualization in form of graphical schemes based on CorelDraw Graphics Suite X7; analysis of maps based on ArcGIS 10 of the ESRI company. The technique of functional agritourism analysis was based on the cumulative assessment of the environmental determinants and the existing and potential services of agritourism in the ARTCs. The threshold (maximum) values of the functional diversity coefficient for services and products of agritourism by the specially developed equation are calculated as follows (Sznajder et al. 2009):

$$E = \frac{Ms_{1...5}}{Ms_{max}} * 100\%$$

where: T – threshold (maximum) value of the functional diversity coefficient for agritourism; $Ms_{1...5}$ – diversity assessment of the existing and possible agritourism services on a five-point scale; Ms_{max} – the maximum value of existing and possible agritourism services in the region (equals to 25).

Index of degree of threats for environmental sustainability on agritourism territories is also calculated by using a specially developed equation (Okumus et al. 2018):

$$\overline{TD} = \frac{\sum_{i=1}^{n} A_i SA_i}{\sum_{i=1}^{n} SA_i} = \frac{A_1SA_1 + A_2SA_2 + A_3SA_3 + A_4SA_4 + A_5SA_5}{SA_1 + SA_2 + SA_3 + SA_4 + SA_5}$$

where: $\overline{TD}$ – degree of threats; A_1, A_2, A_3, A_4, A_5 – expert assessments of phenomena / processes on the territory of each ARTC in 1 point, 2 points, 3 points, 4 points and 5 points; SA_1, SA_2, SA_3, SA_4, SA_5 – sum of assessed phenomena / processes on the territory of each ARTC with expert rating in 1 point, 2 points, 3 points, 4 points and 5 points.

RESULTS AND DISCUSSION

Within the Almaty region 15 agrarian recreational-tourist complexes (ARTCs) were identified by using cartographical data. They are under the influence of certain combinations of environmental determinants and business partnerships which were formed in the sphere of agritourism. Table 2 shows their main properties: significance; seasonality; natural conditions; area in km^2 and the proportion from total area of the region in %. These data demonstrate that the importance of ARTCs does not depend on their areal characteristics and predominant seasonality, but it is closely related to natural conditions. The spatial dispersion of population and economy, which are identified of the environmental determinants of the mountainous and lowland areas results in a generalized assessment ineffective for all Almaty region. Since the space is very diverse concerning the environmental determinants, this predetermines the specificity of each ARTC in terms of the agritourism development possibilities.

Table 2. Main properties of agrarian recreation-tourist complexes in Almaty region

ARTCs	Significance	Predominant seasonality	Natural conditions	Area in Almaty region	
				km^2	%
Ile-Alatau	National	Year-round	Extremely comfortable	14287	6.4
Chimbulak-Tabagan-Akbulak	National	Winter	Extremely comfortable	1675	0.7
Kapshagay	National	Summer	Extremely comfortable	12629	5.6
Kolsay-Kegen	National	Summer	Extremely comfortable	6916	3.1
Zharkent	National	Year-round	Extremely comfortable	5541	2.5
Taldykorgan-Zhetysu-Alatau	National	Year-round	Extremely comfortable	14319	6.4
Alakol-Sasykkol	Regional	Summer	Comfortable	5888	2.6
Sarkand-Zhetysu-Alatau	Regional	Year-round	Comfortable	13647	6.1
Koyandytau-Toksanbay	Regional	Summer	Comfortable	6409	2.9
Shonzhy-Naryn	Regional	Year-round	Comfortable	8043	3.6
Uzynkara	Local	Summer	Complicated	2482	1.1
Ile-Balkash	Regional	Year-round	Comfortable	3913	1.7
Lepsy-Aksu	Regional	Summer	Comfortable	22631	10.1
Arganaty-Zhekeshagyl	Local	Summer	Complicated	5533	2.5
Aralkum	Local	Summer	Complicated	5879	2.6

Table 3. The functional-agritourism analysis

ARTCs	Agritourism's natural potential	Coefficient of functional diversity for agritourism services and products (%)	Existing and possible agri-tourism services (units)
Ile-Alatau	very high	80–100	21–25
Chimbulak-Tabagan-hAkbulak	low	0–20	1–5
Kapshagay	high	60–80	16–20
Kolsay-Kegen	middle	40–60	11–15
Zharkent	middle	40–60	11–15
Taldykorgan-Zhetysu-Alatau	very high	80–100	21–25
Alakol-Sasykkol	high	60–80	16–20
Sarkand-Zhetysu-Alatau	high	60–80	16–20
Koyandytau-Toksanbay	middle	20–40	6–10
Shonzhy-Naryn	low	0–20	1–5
Uzynkara	low	0–20	1–5
Ile-Balkash	high	80–100	16–20
Lepsy-Aksu	middle	0–20	1–5
Arganaty-Zhekeshagyl	very low	0–20	1–5
Aralkum	very low	0–20	1–5

Table 4. The ecological-agritourism analysis

ARTCs	Index of environmental sustainability degree threats for agritourism territories			
	natural		anthropogenic	
	value	degree threats	value	degree threats
Ile-Alatau	more than 4.2	very high	more than 4.2	very high
Chimbulak-Tabagan-Akbulak	1.8–2.5	moderate	less than 1.7	low
Kapshagay	2.6–3.3	increased	3.4–4.1	high
Kolsay-Kegen	2.6–3.3	increased	less than 1.7	low
Zharkent	3.4–4.1	high	2.6–3.3	increased
Taldykorgan-Zhetysu-Alatau	more than 4.2	very high	more than 4.2	very high
Alakol-Sasykkol	2.6–3.3	increased	1.8–2.5	moderate
Sarkand-Zhetysu-Alatau	3.4–4.1	high	3.4–4.1	high
Koyandytau-Toksanbay	more than 4.2	very high	1.8–2.5	moderate
Shonzhy-Naryn	2.6–3.3	increased	less than 1.7	low
Uzynkara	3.4–4.1	high	1.8–2.5	moderate
Ile-Balkash	3.4–4.1	high	2.6–3.3	increased
Lepsy-Aksu	less than 1.7	low	1.8–2.5	moderate
Arganaty-Zhekeshagyl	3.4–4.1	high	less than 1.7	low
Aralkum	1.8–2.5	moderate	less than 1.7	low

The study of environmental determinants implied an assessment of their features, needs and opportunities for use. Positive environmental determinants are understood as the presence in the territory of certain unique or interesting features of natural properties which are valuable not only for the local residents. For balanced development of such territories intended for agritourism, environmental determinants must represent an integral self-organizing system and can appear in unequal structural and dynamic states. Natural potential of the territory is variable. According to its characteristics, it is not heterogeneous, because some of the objects have a hard-to-estimate character of attraction. Among environmental determinants the following were considered: orographic, climatic, hydrological, floristic, faunistic, balneological (of different genesis). The assessment of the functional diversity of agritourism in each ARTC was carried out with the help of the amount of existing and possible types of services. The attractions for agritourists are the ARTC sites with the most extensive opportunities for agritourism services development, which create the choice of the recreation and tourism type for the consumers. The agritourism value of the territory decreases with the diminishing of the positive environmental determinants and has the smallest importance with monotonous relief and uncomfortable climate, water deficiency, poorly represented flora and fauna which limit the staying in open space. It was established that the total coefficient of functional diversity for agritourism services and products in % varies at five ranges: low (0–20 %), moderate (20–40 %), elevated (40–60 %), high (60-80 %) and very high (80–100 %), which corresponds to the following options: (1) natural potential – very low, low, middle, high, very high; (2) the number of existing and possible agritourism services – 1–5, 6–10, 11–15, 16–20, 21–25 (Table 3). The analysis of environmental determinants of ecological agritourism in the territory of the Almaty region was carried out based on study of limitations for agritourism development within each of 15 ARTCs, caused by: (a) natural environmental threats; (b) anthropogenic environmental threats. Then, index of environmental sustainability degree threats for agritourism territories was calculated (Table 4). The sum of phenomena / processes estimated on a five-point scale was the following: 76 – for natural character threats; 37 – for anthropogenic character threats.

CONCLUSIONS AND RECOMMENDATIONS

Completed researches of environmental determinants of agritourism development in the Almaty region gave the following results:

(a) we generalized agritourism images and proposed agritourism typology, which can be represented differentially by mapping of relations between environmental determinants and types of agritourism as well as can be quickly adapted for characteristics of another region;

(b) we could fill with specific content presentations about the ARTC as agritourism product producer, which largely depends on environmental determinants;

(c) we presented authors' interpretation of environmental determinants for agritourism development as the most important conditions for successful agritourism activities, though this concept is perceived very ambiguously in the sphere of developing scientific support for agritourism and practical work;

(d) 15 ARTCs within the Almaty region were identified as well as we studied the influence of certain combinations of environmental determinants on agritourism;

(e) methods of functional-agritourism and ecological-agritourism analysis of the ARTC territory based on environmental determinants were developed and tested;

(f) functional-agritourism analysis allowed to evaluate the following characteristics for each ARTC: agritourism natural potential; functional diversity coefficient for agritourism services and products; existing and possible services of agritourism;

(g) ecological-agritourism analysis allowed to evaluate for each ARTC the indexes of degree for environmental sustainability; natural and anthropogenic threats on agritourism territories.

Based on the results of the functional-agritourism and ecological-agritourism analysis, it is possible to establish the prospects for agritourism development within each ARTC and develop a system of actions for its support as important tourism type for the region from the strategic point of view.

Acknowledgments

Researches were developed within the framework of the contract No. 375 dated 12.24.2018: "Clause 18) include the following proposals on packages (labels) of the final product obtained as part of the project: "Product of Kazakhstan's Science" and "Financed by JSC "Science Fund"; project "Modernization of digital tourism content: mobile applications, panoramic 3D tours, interactive maps and QR codes".

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Article history: Received: 27.12.2021 Revised: 14.02.2022 Accepted: 14.03.2022 Available online: 04.04.2022

GeoJournal of Tourism and Geosites
ISSN 2065-1198, E-ISSN 2065-0817

Year XV, vol. 41, no. 2, 2022, p.362-367
DOI 10.30892/gtg.41204-838

LANDSCAPE AND RECREATIONAL POTENTIAL OF THE MOUNTAINOUS TERRITORIES OF THE TURKESTAN REGION OF THE REPUBLIC OF KAZAKHSTAN

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Citation: Mukayev, Z., Ozgeldinova, Z., Dasturbayev, S., Ramazanova, N., Zhanguzhina, A., & Bektemirova, A. (2022). LANDSCAPE AND RECREATIONAL POTENTIAL OF THE MOUNTAINOUS TERRITORIES OF THE TURKESTAN REGION OF THE REPUBLIC OF KAZAKHSTAN. *GeoJournal of Tourism and Geosites*, 41(2), 362–367. https://doi.org/10.30892/gtg.41204-838

Abstract: This article presents the criteria for a component integral assessment of the landscape and recreational attractiveness of the mountainous territories of the Turkestan region. The method is based on a component assessment of landscapes, which consists of the main indicators that make up the landscape: relief, climate, water bodies, vegetation cover, and specially protected natural areas. As a result of the study, the mountain landscapes of the Turkestan region were zoned according to the degree of landscape and recreational potential. The study allows you to get an idea of the availability of natural and recreational resources and determine the priority areas of recreational activities in the study region.

Key words: tourism, recreation, landscape, recreational potential, mountain territories

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INTRODUCTION

As our daily lives become faster and more hectic, increasing numbers of people are discovering mountains as places for recreation and spiritual connection. As urbanization and population growth continue apace, mountains – which are often quite remote – are increasingly perceived as among the surviving «untouched natural treasures», offering attractive landscapes and a wide variety of plant and animal species. From mountaineering to skiing, trekking to climbing, mountain-biking to canyoning, wildlife observation to recreational activities at medicinal mineral water sources and spas, the spectrum of opportunities for mountain tourism is particularly broad (Debarbieux et al., 2014).

Tourists frequently seek transcendent locations and landscape. The same can be said of wellness tourists. Mountains with their spectacular scenery, majestic beauty, and unique amenity values, are one of the most popular destinations for tourists. It is no coincidence that many international tourist resorts are located on mountain tops (Smith and Puczky, 2008; Nepal and Chipeniuk, 2005). However, the steepness, fragility, marginality, and high cost interms of economic resources are limitations for the development of tourism in the mountains. Yet, for a long time, recreational tourism was the dominant type of tourism in mountain areas, with activities such as fishing, hiking, skiing, snowmobiling, and snowboarding (Heberlein et al., 2002). With the emergence of alpine wellness (Weiermair et al., 2007), studies on mountain tourism gradually moved to focus on its positive effects on health and other specialized, differentiated products. Wellness tourism in mountain areas is becoming a hot topic in tourism research (Ramazanova et al., 2020; Berdenov et al., 2021).

Tourism and recreation have a clear focus on the use of natural resources, while recreational activities include not individual components of nature, but the entire natural complex (landscape) as a whole. This article analyzes the state of the landscapes of the mountainous territory of the Turkestan region and a ranked landscape and recreational assessment of the components (Dirin and Madry, 2019), (Gurova, 2018). The studied mountain territories (Karatau, Boraldai, Talas-Alatau, Maidantal, Ugam, Karzhantau ranges) are located in the center of the Turkestan region, from northwest to southeast. These mountain ranges are the western spurs of the Western Tien Shan mountain system. The total area of the

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mountainous territories of the Turkestan region is 21988 km^2 (18.7%), the Karatau and Boraldai Karatau ranges are located within Kazakhstan, the rest (Ugam, Talas-Alatau, Maidantal) are located in the border regions of Uzbekistan and Kyrgyzstan.The landscapes of the mountainous territories of the Turkestan region are the object of assessment of recreational attractiveness. The basis for drawing up a landscape map of the studied region was made up of field research materials involving component maps and literary sources (Isachenko, 1991; Solntsev, 2001; Medeu, 2010; Gvozdetsky, 1978; Tretiak and Marchenkova, 2020). In the mountainous territory of the region, we have identified 13 geosystems at the level of the landscape type. The purpose of this study is to assess the landscape and recreational potential of mountainous areas for further use of the results obtained in determining the priority areas of recreational activity of the studied region.

MATERIALS AND METHODS

This paper based on a secondary and primary sources, that aims to provide theoretically based case studies analysis of the essential characteristics and key resources of the south mountain regions in the Republic of Kazakhstan as a potential tourist destinations. The methodology that was applied is widely used in geographical and tourism studies.

Based on the methods proposed by V.I. Popov, M.V. Gudkovsky (Popov and Gulyaeva, 2003), (Gudkovskikh, 2017), we have proposed criteria for a component-by-component integral assessment of the recreational potential of mountain landscapes. Methods for assessing landscape and recreational potential are based on the definition of individual indicators, which are eventually integrated into the overall assessment. The choice of indicators depends on the components of the nature of the selected region, in our case, a mountainous area is selected.

This methodology is based on a component-by-component assessment of landscapes, which consists of the main components of the landscape (relief, climate, water bodies, vegetation cover and specially protected natural areas). The structural scheme of the study of the landscape and recreational potential of mountain territories is presented in Figure 1. The main evaluation criterion is the degree of favorability of landscape components and its functional suitability.

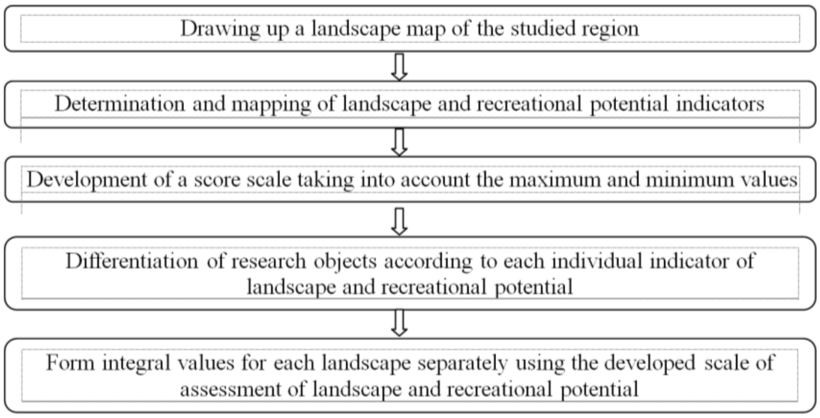

Figure 1. Block diagram of the study landscape and recreational potential of mountain territories

Table 1. Scale of assessment of landscape and recreational potential of mountain territories (Popov and Gulyaeva, 2003; Gudkovskikh, 2017)

Terrain assessment component						
№	Indicators	Score scale				
		1 s.	2 s.	3 s.	4 s.	5 s.
1	Absolute height, m	<1000	1000-2000	2000-3000	3000-4000	>4000
2	Slope angle, degree	<80		84		> 88
Climate assessment component						
3	Duration of sunlight h / year	<1500	1500-2000	2000-2500	2500-3000	>3000
4	Average annual precipitation, mm per year	<300	300-500	500-700	700-900	>900
5	Average annual wind speed, m/s	<1	1-2	2-3	3-4	>4
6	The duration of a comfortable summer period is t.15°C, the sun.	<150	150-160	160-170	170-180	>180
7	Average long-term number of days with favorable weather in summer	<50	50-60	60-70	70-80	>80
8	Average long-term number of days with favorable weather in winter	<50	50-60	60-70	70-80	>80
9	Average snow cover Height, cm	<20	20-30	30-40	40-50	>50
10	Has a stable snow cover average duration of days	<150	150-200	200-250	250-300	>300
Water resources assessment component						
11	River network density km / km^2	<0,10	-	0,15	-	>0,20
12	Average July water temperature, °C	<2	2-3	3-4	4-5	>5
13	Availability of mineral springs, number of wells	<1	-	2	-	>3
14	Availability of therapeutic mud sites, units	<1	-	2	-	>3
Vegetation cover assessment component						
15	Woodiness %	<5	10	15	20	>25
16	NDVI	<0,10	0,10-0,15	0,15-0,20	0,20-0,25	>0,25
Component of the assessment of specially protected natural areas (protected areas)						
17	Protected area, %	<20	20-30	30-40	40-50	>50

Most scientists believe that the morpho lithogenic basis is the leading component of the landscape. The relief, along with other natural components (the same type of geological structure, climate, and a specific combination of soils, flora, and fauna), determines the possibilities of tourist and recreational development of the region, increases or limits the variety of possible tourist and recreational activities, affects the aesthetics of the landscape. Scientists such as Nefedova V.B., Smirnova E.D. (Nefedova et al., 1973), and Bredikhina A.V. (Bredikhin, 2004) have assessed the favorability of the relief for recreation (Table 1). Bredikhin A.V. considers the relief (in the aspect of recreational geomorphology) as a recreational resource that provides recreation, i.e. a means of maintaining and restoring people's ability to work, health, and satisfaction of their cultural and aesthetic needs. The action of endogenous and exogenous forces of varying intensity in time and space is manifested like relief. At the same time, the relief itself largely determines the nature of its further development, since it is the most important property of the geographical environment and depends on the natural conditions of climate formation, the distribution of surface and groundwater, the structure of soils, and vegetation cover (Bronguleyev, 1961). The absolute height of the mountainous territories of the Turkestan region was determined using the SRTM digital Earth model.

Based on the indicator of the absolute height of the mountainous territory of the Turkestan region, we can determine what types of recreational mountain tourism we can organize in this territory. How high is the absolute altitude we are engaged in mountaineering, hiking in the mountains, or rafting. The slope angle - that is, the slope, among the orographic recreational resources, mountain resources occupy a special place. The variety of natural conditions of the mountains, the presence of extreme, and even favorable conditions for recreation and sports create all the prerequisites for the development of various types of recreational activities. Mountain walks have various opportunities both for the entertainment of different categories and for sports-this is due to overcoming passes, rocks, snow, ice. Mountain hikes cover all high-altitude zones-from low-lying to high-altitude, but the most interesting in terms of sports is the nival-ice zone. The category of mountain tourist routes is influenced by technical complexity, their length, absolute height, snow cover and icing, the number of overnight stays on the route, climatic conditions, and severity of weather conditions (Buvalkin, 1978). The slope indicators of the mountainous territories of the Turkestan region are determined using the tools of the «Spatial Analysis» module for ArcGIS.

The analysis of the annual temperature and the course of precipitation is a mandatory component of tourist characteristics. The average monthly values of temperature and precipitation are presented in the form of a table, the analysis of which makes it possible to determine the presence and duration of the summer and winter tourist seasons, the degree of their favorability for tourism, and the possibility of using the directions and types of tourism. When describing the temperature, it is necessary to know the distribution of air temperature by season and annual temperatures. The temperature of the coldest (winter) and warmest (summer) seasons are determined by climate maps. Based on the data of the isotherm and the analysis of the annual course of temperatures, the presence, and duration of the tourist seasons are determined: winter and summer. One of the components of the assessment of the recreational potential of the mountainous territory as a whole is the climate. The greatest influence of climate is the human reaction to heat, namely lighting, the length of the day, the total intake of solar and ultraviolet radiation, air transparency, temperature and humidity, wind speed, cloud cover, etc. climatic conditions of the region, of course, can have a great impact on the development of tourism. The implementation of many recreational activities, such as swimming, sunbathing, many types of climate therapy, is possible only in certain climatic conditions.The duration of sunlight has a positive effect on the organization of this recreation.

The average long-term number of days with favorable weather in summer and winter, the duration of a comfortable summer period is 15°C / day, when describing precipitation, it is important to indicate their total amount, the change in their amount over the study area, the annual course (the mode of precipitation by month) and the form of precipitation. The total amount of precipitation and its geography is determined by the climatic maps of the research region and the data of the Republican State Enterprise «Kazhydromet». The analysis of snow cover assumes an indication of its presence, stability, and duration of lying, the higher the values of these indicators, the more favorable conditions for the development of winter types of recreational and sports tourism. On tours in this climatic zone, it is necessary to note the main winds. Only the so-called main winds. But in some cases, it is necessary to name the most important local winds (bora, barguzin, samum, etc.), which significantly affect the possibility of tourism development in this area during a certain tourist season (Valeev, 1986).

The water components of the natural complex make up a significant part of the natural recreational resources of the mountainous territory. In tourist and recreational activities, they provide great opportunities: rafting on mountain rivers, boating, fishing, many are interested in magnificent waterfalls or aesthetically relaxing by the water. When determining the recreational favorability of water bodies in the study area, the following characteristics were taken into account: the density of the river network, the average water temperature in July, the presence of mineral springs, the number of wells, the presence of therapeutic mud deposits. The importance of vegetation cover as a recreational resource is very great for all other types of natural tourism, as it is associated with the health-improving effect of the landscape, the presence of attractive plants and animal species due to ionization, and phytoncide properties of plants.

The recreational attractiveness of the vegetation cover of the mountainous territory of the Turkestan region was carried out (determined) by the following indicators: forest cover and NDVI (Normalized Difference Vegetation Index). Forest cover - the degree of forest cover of any territory, expressed as a percentage, determined by the ratio of forested land to its total area (Kazakh Soviet Encyclopedia, 1975). NDVI, the vegetation index is an indicator calculated as a result of operations with various spectral ranges of remote sensing data and related to plant parameters in a given pixel. The effectiveness of vegetation indices is determined by the reflection features. The calculation of most of the vegetation indices is based on the two most stable regions of the spectral reflection curve of plants. We determined the indicator of the normal vegetation index using the ArcGIS 10.4 program using the 4th and 5th channels from the multispectral wood of the Landsat-8 satellite, an artificial Earth satellite.

The development of ecotourism, i.e. nature-oriented, not causing significant harm to the natural environment, aimed at environmental education, taking care of the preservation of the local socio-cultural environment, ensuring the sustainable development of the areas in which it is carried out, should be planned in specially protected natural areas (protected areas).

The development of ecological tourism in the modern world is inextricably linked with protected natural areas, national parks, nature reserves. It is impossible to develop mass tourism in our reserves, which no one has ever planned, and it is technically impossible. Unlike nature reserves, the development of tourism for national parks is one of the main and officially announced areas of activity. However, the creation of an effective infrastructure for the development of tourism is required in national parks. In the Turkestan region, the protected area covers most of the mountainous territory. We have determined the volume of protected areas using the National Atlas and standard applications of the ArcGIS 10.4 program.

The relief, climate, water resources, and indicators of vegetation cover and protected areas of the mountainous territories of the Turkestan region were obtained for each mountain range. The integral evaluation of a component is the sum of the scores of those indicators that were used to evaluate it. According to this amount, a ranking was carried out, and the final evaluation of the component was revealed. The integral assessment of recreational attractiveness is the total value of the above parameters and was calculated using the formula (1):

$$LRP = \frac{Si * 100}{Smax} \quad (1)$$

where LRP is landscape and recreational potential, Si - score of indicators, Smax-the maximum possible score. The present formula has been adapted according to Orlova's formula (Orlova, 2006).

In our studies, the maximum possible score is 85, since we have 17 indicators, where the highest score is 5. Then the values of the value of recreational attractiveness for each landscape were found. Based on the data obtained, a corresponding map was compiled. According to the results of the assessment of the value, four types of territories with different degrees of recreational attractiveness were identified.

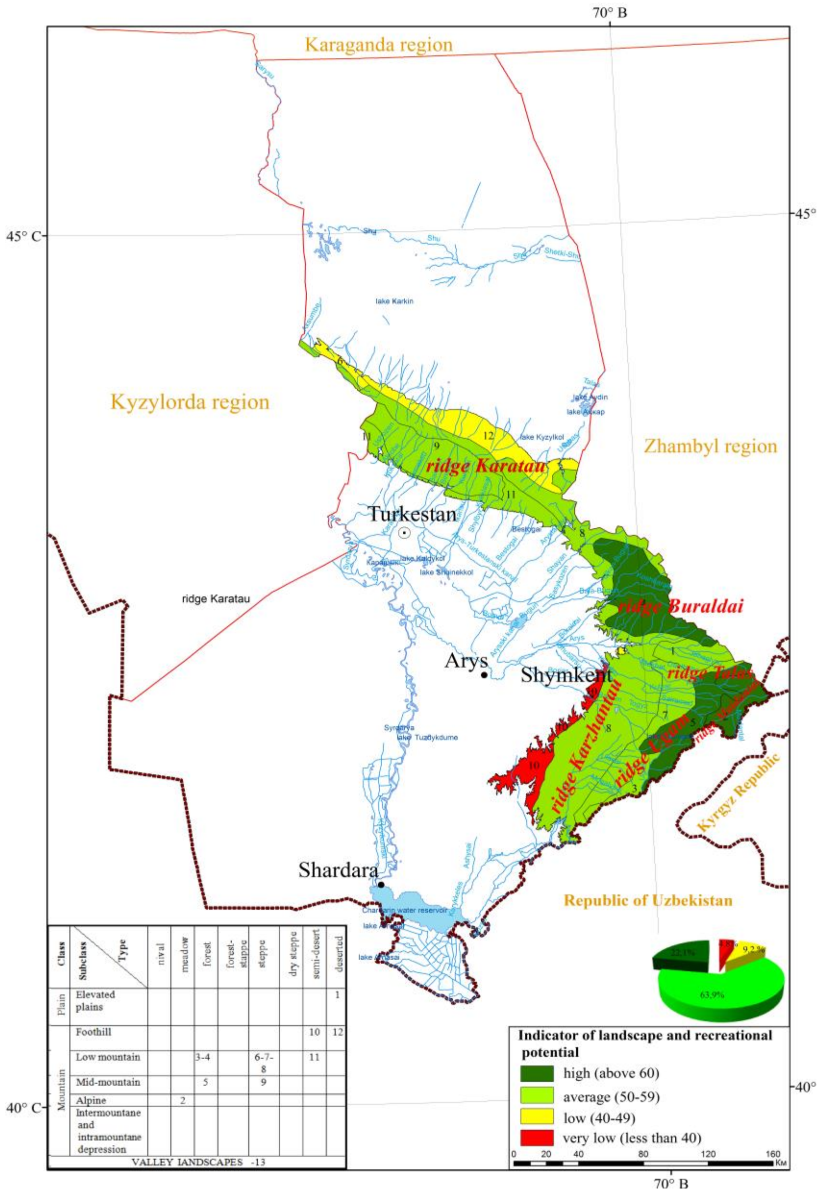

Figure 2. Zoning of mountainous territories of Turkestan region according to the degree of landscape and recreational potential

RESULTS DISCUSSIONS

To assess the landscape and recreational potential of the mountainous territories of the Turkestan region, we studied stock materials, weather service data, and cartographic material. Based on the collected materials, we have compiled a map of the zoning of the mountainous territories of the Turkestan region according to the degree of landscape and recreational potential.

The analysis of the map showed that as a result of the assessment of the landscape and recreational potential of the mountainous territories of the Turkestan region, landscape No. 10 belongs to the areas with a **very low** degree of potential. This landscape is located at the foot of the mountains, consisting of clay, sand, gray soil in the usual conditions of the south of the territories of Kazakhstan, consisting of mint and ephemeral vegetation. The impact of the foothills and the desert natural zone is characterized by low rainfall and sparse density of the river network with the number of days with constant snow cover. A territory with low landscape and recreational potential, the share of specially protected natural areas is only 0.1%.

Of the natural unique objects, the Spring "Koshkar ata" can be noted. The landscape under consideration includes the foothills of the Karzhantau and Ugam Mountain systems and covers 4.8% of the mountainous territory of the entire Turkestan region. According to the integral scale, this landscape area is estimated at 38.8 points (Figure 2). Therefore, it belongs to an area with a very low degree of attractiveness for recreational activities. Landscapes 6, 12-13 are characterized with **low** landscape and recreational potential, which are mainly represented by foothill alluvial-proluvial poorly divided plains,composed of loess-like loams, boulder-pebbles, with ephemeral-boyalych-seropolynny vegetation on gray-brown normal soils and occupy 9.2% of the territory of the entire studied object. The terrain ranges from 896 to 1757 meters, the slope averages 78.9 degrees. Low-potential landscape territories are characterized by the absence of mineral springs, wells, and areas of therapeutic mud. The average annual wind speed is 2.1 m/s. The duration of sunshine is 2962 hours per year. The share of specially protected natural territories in the region, characterized by low landscape and recreational potential, is 15%. Among the unique natural objects: Lake Karaguz, the Bessaz massif, the Zhylagan ata spring, the Turlan and Balaturlan plateaus, Lake Kyzyl. Forests cover 3.3% of the area. These landscape zones include the northern foothills of the Karatau ridge and the lowlands of the Talas Ridge system. According to the integrated scale, these landscape areas are estimated at an average of 48.2 points.

The group of landscapes with an **average** degree of landscape and recreational potential includes landscapes № 1, 3, 7, 8, 9, 11 and occupy 63.9% of the entire study area. The landscapes of this group extend from the elevated plains to the middle mountains and include the Karatau, Boraldai, Talas, Ugam, Karzhantau ranges at an altitude of up to 1700-3000 meters. The slope of the slope angle is characterized by an average of 80 degrees. The average annual precipitation is 950 mm. The duration of sunlight is 2535 hours per year. The average annual wind speed is 2 meters / sec. The density of the river network is on average 0.13 km / km^2 . Unique natural objects: Mashat Gorge, Kyryk Shilten Valley, Akkum Canyon, Ulkentura and Kishitura plateaus, Oguztau tulips, Shert well, upper Biresek River, Ushayryksay tulip basin, Aksheshek creek, Bolshoy Aktas. Specially protected natural areas occupy 15.5% of the landscape area of the total average potential (Korytny, 2001).

Low-mountain landscapes (2, 4, 5) composed of limestones, sandstones, conglomerates, jaspers, with deciduous xerophilic woodlands and shrubs on mountain chestnut soils have a **high** landscape and recreational potential. These landscapes cover 22.1% of the mountainous territory of the Turkestan region. It covers the high peaks of the Karatau, Boraldai, Talas, Maidantal, Ugam and Karzhantau ranges. These landscapes have high indicators of relief, climate, water resources, and vegetation cover. According to the absolute height of the relief, it is possible to distinguish the peak of Sairam at the height of the Ugam ridge 4238 meters. The slope angle, on average 86.1 degrees. The average amount of precipitation shows 900 mm. The average height of the snow cover is 35-40 cm. The average duration of days with stable snow cover is 281 days, nival zones are found on high peaks. The area occupied by protected areas is on average equal to 72% of the territory. Of the unique natural objects in landscapes with high indicators: Leontievsky collapse, Akmeshit cave, Aragonite hill, etc. According to the integral score indicator, these landscape zones are estimated at 63.5 points.

The improved and adapted methodology is generalizing. Main advantage is an attempt to take into account all the components of nature that affect to the whole recreational potential. The results of landscape and recreational assessment allow us to obtain information about the availability of natural and recreational resources and determine priority areas of recreational activity in the studied region.

CONCLUSION

Having studied the landscape formation of the mountainous territories of the Turkestan region, as a result of their typological grouping, and then structural and genetic classification, 13 landscapes of hierarchical taxonomy were identified. A landscape map of the mountainous territory of the Turkestan region has been compiled. These landscapes subject and subheadings in the legend define the following classification categories: classes (flat, mountain, and valley landscapes), classes (upland plains, foothill, low-mountain, mid-mountain, high-mountain) species (meadow, forest, steppe semi-desert, and desert). The methodology for assessing the landscape and recreational potential of mountain areas has been improved and adapted, taking into account the local characteristics of the study area. To assess the landscape and recreational potential (relief, climate, water resources, vegetation cover, and specially protected natural areas), 17 indicators of natural components were determined using literature, agro-climatic definitions, and aerospace surveys.

The assessment of the landscape and recreational potential of the mountainous territory of the Turkestan region consisted of two stages. Component assessment each natural component is separately taken and an appropriate assessment is given. The evaluation of these components was carried out on a point scale. At the second stage, the results obtained were integrated into an integral assessment. Maps have been compiled for each indicator of a single evaluation component, as well as for an integrated assessment of the landscape and recreational potential of the studied region.

A landscape 10 with a low potential for evaluation results has been identified. This landscape has a foothill landscape and all component indicators to a lesser extent. The slopes of the Karzhantau ridge. 2,4,5-landscapes have high potential. Identified in high-altitude areas of the Boraldai, Ugam, Talassky Alatau, Maidantal ridges and have high indicators of estimated components. The method allows you to get an idea of the availability of natural and recreational resources and determine the priority areas of recreational activity in the mountainous territories of the Turkestan region. The article focuses on the description of the successive stages of evaluation by the balance method, the definition of the selected evaluation criteria. The issue of the points ranking system is considered in detail.

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Article history: Received: 31.11.2021 Revised: 15.02.2022 Accepted: 15.03.2022 Available online: 04.04.2022

GeoJournal of Tourism and Geosites
ISSN 2065-1198, E-ISSN 2065-0817

Year XV, vol. 41, no. 2, 2022, p.368-375
DOI 10.30892/gtg.41205-839

ELABORATIVE ANALYSIS OF CAVES AS SPECIFIED TOURISM DESTINATION IN MALANG REGENCY – INDONESIA

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Citation: Sahrina, A., Fadlan, M.S., Withuda, F.A., Labib, M.A., Fitriani, D., & Ma'asika, N.M. (2022). ELABORATIVE ANALYSIS OF CAVES AS SPECIFIED TOURISM DESTINATION IN MALANG REGENCY – INDONESIA. *GeoJournal of Tourism and Geosites*, 41(2), 368–375. https://doi.org/10.30892/gtg.41205-839

Abstract: Malang Regency has variety of landscapes. In the southern part of Malang Regency, there is a karst landscape showed by the existence of caves scattered in Wonosari Formation. The existence of those caves holds an important potential as the environmental services, one of those is as a specified tourism destination. The aim of this study is to know the condition and to analyze the potential of the caves a specified tourism destination in Malang Regency. The data in this study was collected by observing the condition of the cave through the cave passage and by doing in-depth interview with the manager of tourism objects in Malang regency. Field documenting and literature studies were also being conducted in order to support the analysis of this study. Data analyzing was conducted by using interactive data analysis consisted of data reduction, data presentation, ended by conclusion drawing. The result of the study showed that 134 caves had been recorded and 49 caves been mapped. Caves in Malang Regency potentially support the specified tourism destination. This was showed by the passages varied into horizontal cave passage and vertical cave passage. Some of the caves also have long passage. Besides the variety of caves passages, the caves in Malang Regency also have variety of ornament and the condition brings the value of education to the tourists. Some of the caves have subterranean river which can be used by the people. Thus, it becomes tourists' attraction. The caves in Malang Regency are located close to coastal areas that become beach and marine tourism, so it will really support the development of caves as a specified tourism destination in the future. In order to acknowledge and enrich the society with skills dealing with the existence of caves as a specified tourism destination, the improvement of human resources should be carried out.

Key words: cave, cave tourism, specified tourism destination

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INTRODUCTION

Tourism is an attraction for domestic and foreign tourists to visit an area. These visits can be carried out in various tourism destination according to the tourists' wish, whether nature tourism, religious tourism, education tourism, marine tourism, special tourism object attraction or others. The visits of tourists hold a significant impact on the social economic and the development of the tourism destination. The influence of tourist visits hold significant role in developing tourism industry and regional income, so the domestic and foreign tourists will come and visit. Besides, the large number of visits allows the potential tourism sector to increase the regional income (Purwanti, 2014). Malang Regency has various types of tourism potential, both natural and the artificial one. Based on topographical conditions, Malang Regency is located in a mountainous area which is influenced by the Tengger Mountains in the east, Mt. Kawi and Kelud in the west, and Mt. Arjuna and Welirang in the north. Then, based on the altitude preview, Malang regency is located between 0-2000 meters above sea level and shows very varied conditions, such as sloping conditions to mountainous conditions (RPIJM, 2015).

Therefore, Malang Regency has a supportive landscape. The landscape includes mountains, hills, lowland, karst and coasts. The diverse landscape conditions have the potential to create a tourism object attraction in Malang Regency. Coastal

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resource is one of potential nature tourism attraction which is distinguished into coastal water and coastal land by applying the sustainable coastal tourism concept. The concept of sustainable tourism is tourism that is able balancing the current needs of tourists and tourist destinations, while protecting and encouraging similar opportunities in the future (Tatali et al., 2018). Coastal tourism in Malang Regency is located in the southern part, which stretches across 6 sub-districts; those are Ampelgading District, Tirtoyudho District, Sumbermanjing Wetan District, Gedangan District, Bantur District, Donomulyo District. Coastal tourism in Malang Regency includes coastal and marine tourism. Beach tourism can be done with sunbathing activities, playing water and sand, doing beach sports, and others.

Meanwhile, marine tourism can be carried out by snorkeling, diving, rowing, underwater shooting, and so on. Coastal tourism can be done at Ngliyep Beach, Kondang Merak Beach, Balaikambang Beach, Tiga Warna Beach, Ungapan Beach, and many other beaches along the Southern Cross Line (*Jalur Lintas Selatan*) and the southern area of Malang Regency which attract tourists to come to Malang Regency. The rapid development of coastal tourism can also be supported by the existence of nature tourism and special tourism object attraction, one of which is cave tourism. Caves are characteristic of subsurface karst that has high value and potential as special tourism object attraction. The accessibility of the existence of the cave is not all easy to reach by vehicle, sometimes people have to walk. Therefore, to be able to enjoy this tourism attraction requires good physical conditions and the preparation of supporting equipment, as well as high costs so that not everyone can enjoy it (Harmony and Pitoyo, 2012). The form of this tourism object attraction such as in Gunung Kidul Regency provides alternative tourism other than coastal tourism such as Kalisuci Cave, Pindul Cave, Baru Cave and other caves. The cave also has its own charm to the tourists. These attractions include the uniqueness of cave ornaments, stalactite and stalagmite as well as the biota inside (Santosa et al., 2016). Basically, a specified tourism destination is related to adventurous and challenging activities found in remote areas, such as: tracking, hiking, mountain climbing, river rafting, and other activities (Brahmanto et al., 2017). In addition, the existence of cave tourism also has an impact on the economy of the surrounding citizen; for example tour guiding, toys and adventure equipment renting, food vendor, opening parking lots, and so on (Suparwi, 2017). The existence of caves also offers environmental services as seen in Kedawung Cave in Bogor which offers tourist attraction services, as fauna habitat, as a water source, and as carbon dioxide absorption (Mijiarto et al., 2014). In addition, the existence of caves on the island of Nusakambangan also has benefits for the surrounding citizen, including for irrigation activities, bats hunting and taking bats dropping (guano), and pilgrimages (Harmony and Pitoyo, 2012).

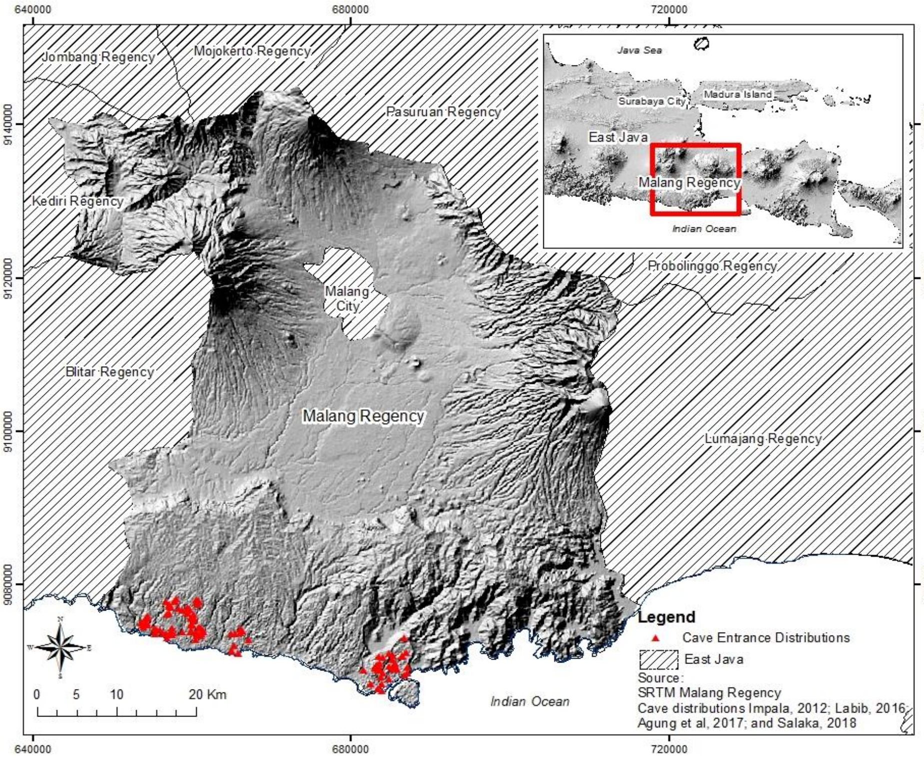

Figure 1. Cave Entrance Distributions Malang Regency (Source: Fauzi et al., 2015; Impala, 2012; Labib, 2016; Labib and Haryono, 2019; Salaka, 2018; Suprianto et al., 2017, and data collect by author, 2021)

So far, South Malang Regency is famous for its coastal and marine tourism. Tourism which is related a spesified tourism destination, such as caves, has not been explored widely. Malang Regency has the potential to be developed into special tourism attraction. Malang Regency also has the potential for the existence of caves located near coastal areas. So far, there are 134 cave mouths in Malang Regency (Figure 1) that have been recorded (Fauzi et al., 2015; Impala, 2012; Labib, 2016; Labib and Haryono, 2019; Salaka, 2018; Suprianto et al., 2017) and 49 caves have been mapped. The existence of these caves has different characteristics, according to the conditions of the space in the cave. Of course the caves in Malang Regency have ornamental appearances like the condition of other caves that have been used as tourist attractions. The caves existence in the southern part of Malang regency Indonesia can be attraction object for the tourists, for example Harta Cave, Coban Perawan Cave, Kedung Pitu Cave, Bagus-Jebrot Cave, etc. Elaborative analysis of caves and the mapping of cave passages are interesting to do before turning them into tourism destination, because the natural condition of caves is damage vulnerable so it needs mapping and deep analysis about it. The purpose of this study is to elaborate the condition of the cave and analyze the caves that have the potential to an ecotourism-based specified tourism destination.

RESEARCH METHOD

This research method used in this research was descriptive qualitative. Data collection techniques were carried out by doing literature studies, observation, in-depth interviews, and documentation. The data collected then were identified based on the caves existence. The writers did an observation of potential caves passage mapping and documenting to strengthen and support the data. The writers also conducted interview with the nature lovers and local tourism manager in southern part of Malang regency to dig their point of view about specified tourism destination. Furthermore, the data obtained were analyzed using interactive data analysis consisting of data reduction, data presentation, and conclusions drawing (Moleong, 2016). The collected data about caves conditions, caves mapping, documentation, and the result of interview were sorted based on the need of this research. The presentation of mapping data was in the form of map of caves conditions, photos, while the interview was analyzed descriptively. The research location can be seen in the following Figure 1.

RESULTS AND DISCUSSION

The things studied include the conditions of the cave, as well as the organisms in it. In addition, the cave is also a very important place in the course of human history. There are still many caves in Indonesia in particular that are not yet known and explored by humans (Suparti, 2019). This natural space can of course be entered by humans, so that humans can take advantage of and maintain conditions in the cave, considering that in the cave there are environmental services that are very important for humans such as tourist attraction services, as fauna habitat, as a water source, and as carbon dioxide absorption (Mijiarto et al., 2014). The caves in Malang Regency are still not used by the citizen, both in the use of water resources, as well as natural tourism services or special attraction tours.

The caves in Gunung Kidul Regency are designated as Geosites which is the part of National Geo-park the attract tourists (Cahyadi et al., 2017; Purnama et al., 2016) where the natural features such as subterranean river and cave ornaments inside the cave are used as visitors interactions. Besides, the caves in the area of Gunung Sewu regency geosite have vertical and horizontal passages. It also can be seen in Malang regency caves, which have the same characteristics such as subterranean river and cave ornaments (Impala, 2012; Labib, 2016; Labib et al., 2020; Salaka, 2018). The following will explain the condition of the cave on the coast of Malang Regency.

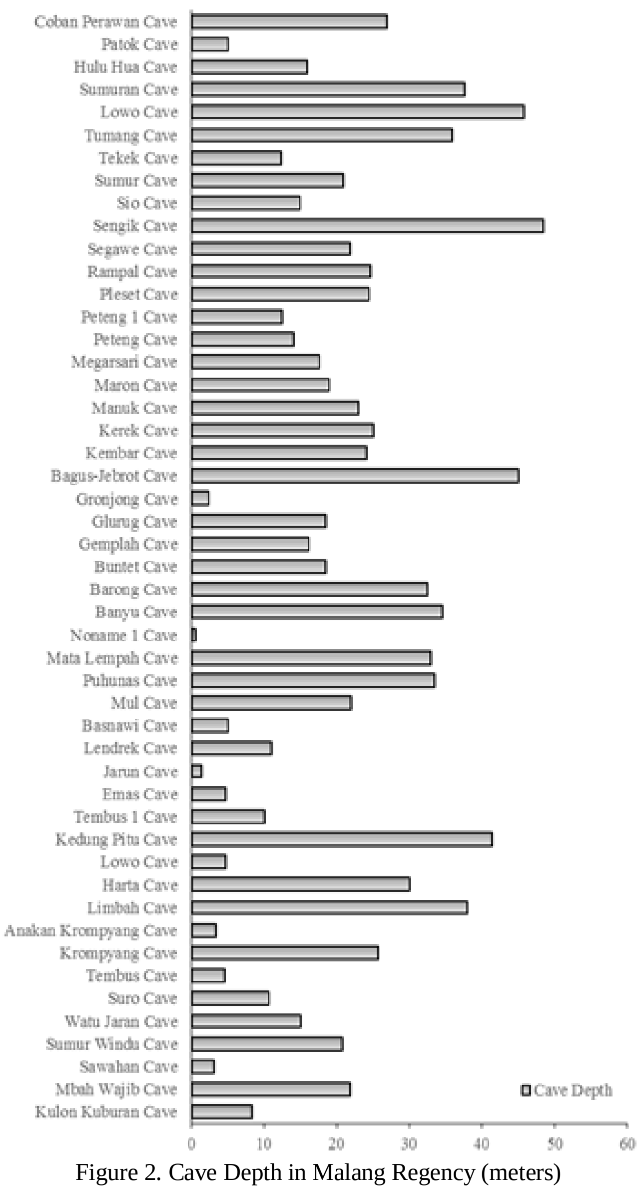

Figure 2. Cave Depth in Malang Regency (meters) (Source: Data Collect by Labib, 2016; Salaka, 2018)

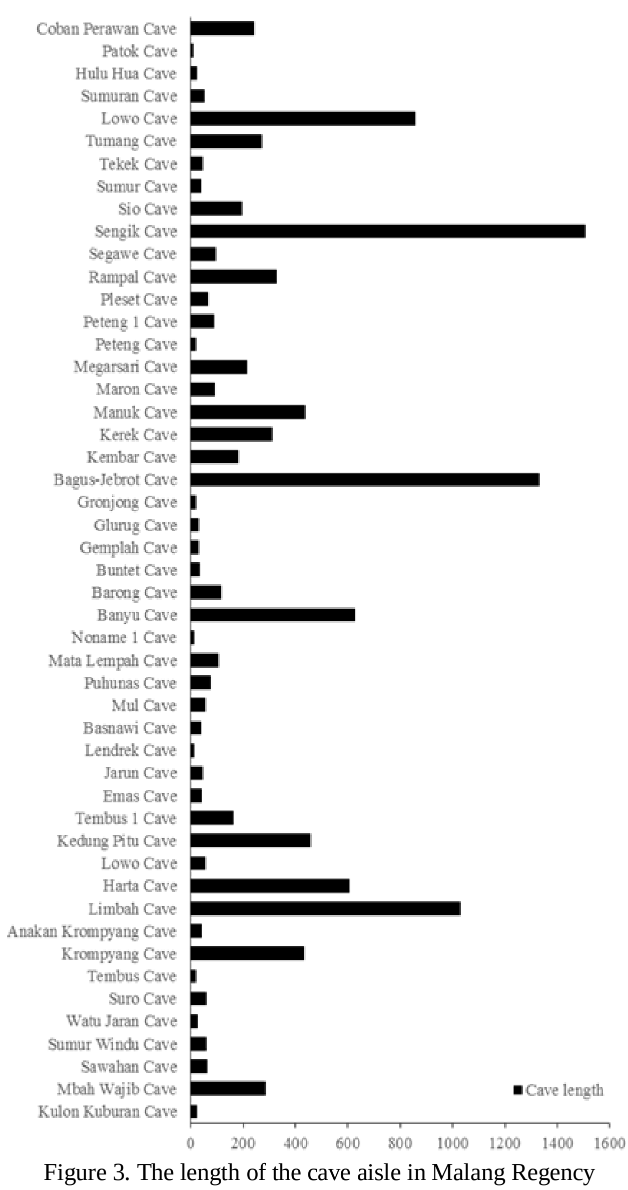

Figure 3. The length of the cave aisle in Malang Regency (meters) (Source: Data Collect by Labib, 2016; Salaka, 2018)

Cave conditions in Malang Regency

The caves in Malang Regency are formed in the limestone area of the Wonosari Formation (Suyanto et al., 1992). The 134 caves that have been discovered so far and scattered in several sub-districts, including Dampit District, Sumbermanjing Wetan District, Gedangan District, Bantur District, Pagak District, and Donomulyo District. The discoveries of new caves will certainly increasing the number of caves considering the location of the wide distribution of limestone in Malang Regency. From the number that has been recorded, only 48 have been mapped by nature lovers or other communities. Only a little about the conditions in the cave is known. Quantitative information related to the condition of the cave is the length and depth of the cave (Figure 2 and Figure 3). In addition to these quantitative aspects, the condition of the cave passages, the presence of water resources, cave ornaments, and cave fauna are important aspects in the utilization of caves on the coast of Malang Regency.The cave tunnels that developed in Malang Regency have horizontal, vertical, and a mixture of vertical and horizontal passages. The existence of the passage forms the difference in elevation between the cave passages. Figure 2 shows the difference in elevation or depth of the cave passage from the highest point to the lowest point. From the picture, it can be seen that caves have a long cave system and have large elevation differences, such as Sengik Cave (48.39 m), Bagus-Jebrot Cave (45 m), Lowo Cave (45.8 m), and Kedung Pitu Cave (41.42 m) (Labib, 2016; Salaka, 2018).

Each cave has a pattern of variations in the form of a hallway in the form of a horizontal and vertical passage. In addition, caves those develop and only have vertical passages include the Sumuran Cave with a depth of 32 m, Sumur Cave with a depth of 25 m, Sumur Windu Cave with a depth of 12 m and other caves (Labib, 2016; Salaka, 2018). There are also multi-pitch caves such as Mata Lempeh Cave, Tumang Cave, and Buntet Cave. Caves are formed through a long process and have dynamics in their development. The difference in the cave passages can also be seen from the length of the cave passages. The length of this cave is calculated vertically and horizontally from the cave passage (Figure 3). Caves that have subterranean rivers appear to have long passageways such as Sengik Cave (1505 m), Bagus-Jebrot Cave System (1330 m), Limbah Cave (1029 m), Lowo Cave (858 m) (Labib, 2016; Salaka, 2018). Sengik Cave and Limbah Cave are still very possible to be mapped again considering that the mapping of the cave passage has not been completed.

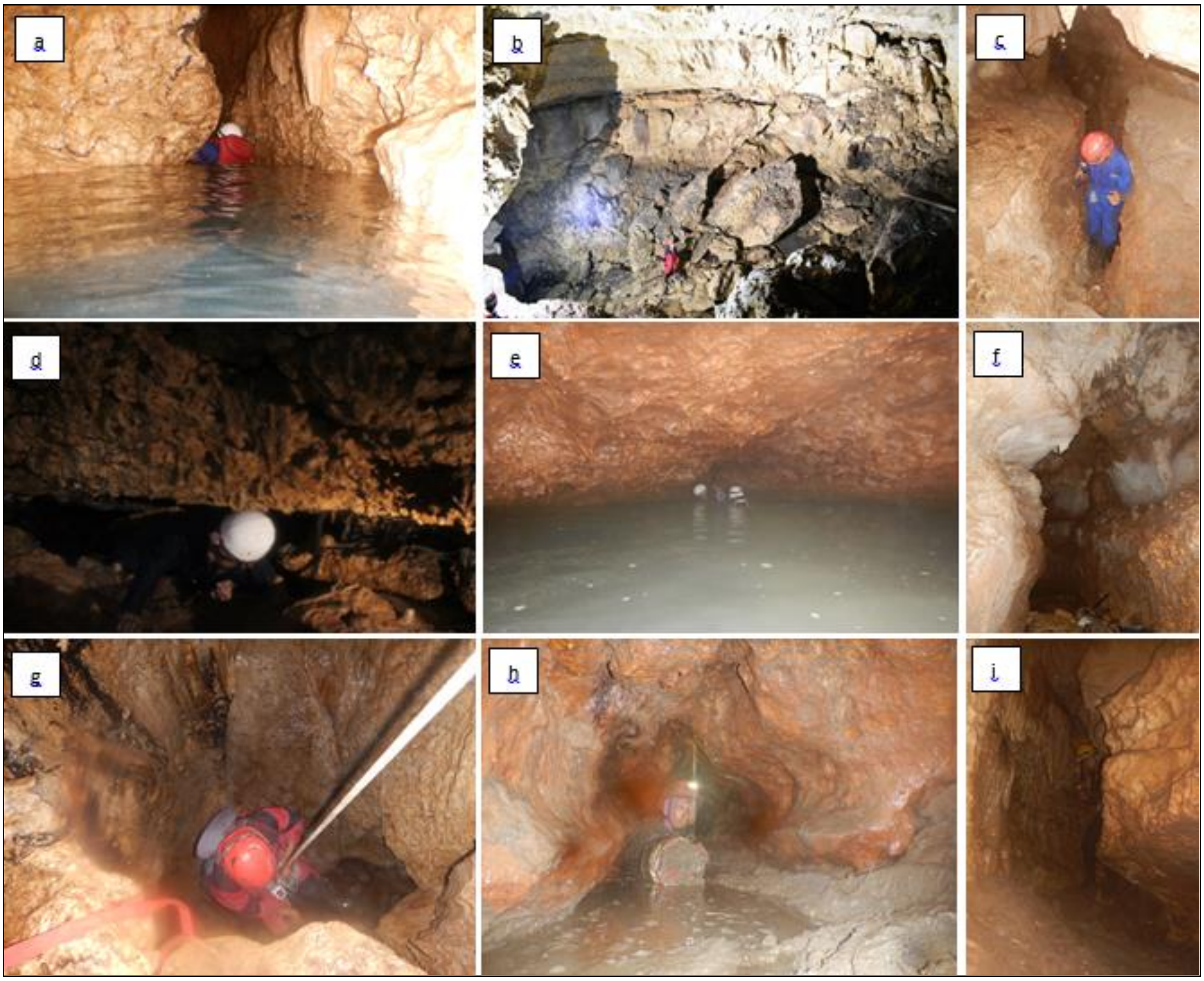

Figure 4. The Condition of the Cave Passage in Malang Regency, a- Groundwater in Kedung Pitu Cave; b- Chamber passage in Limbah Cave; c- Keyhole passage in Harta Cave; d- Small passage in Mbah Wajib Cave; e- Groundwater in Emas Cave; f- Canyon passage in Limbah Cave; g- Vertical passage in Kedung Pitu Cave; h- Small passage in Sawahan Cave; i- Kirek Cave with canyon passage (Source: Prepared by the authors, 2018-2021)

The short cave passages are generally in the form of overdrafts that do not have an subterranean river flow system. The condition of the cave passages in Malang Regency is shown in Figure 4. In Figure 4 there are caves that have subterranean rivers such as the Kedung Pitu Cave (Figure 4a), Emas Cave (Figure 4e), Lowo Cave, Bagus-Jebrot Cave, Limbah Cave, Mbah Wajib Cave, and Krompyang Cave. The presence of large chambers can also be seen in several caves, such as Limbah Cave (Figure 4b). These large rooms are generally located near the cave entrance, such as Mbah Wajib Cave, Kedung Pitu Cave, Sengik Cave, Kembar Caves, Pak Mul Cave, and generally dominated by rock debris. The existence of vertical passageways can also be seen in several caves. This vertical aisle is in various conditions of the aisle. There is also a cave which is only a single vertical passageway and does not have a horizontal passage. In addition, there is also a cave that has a multi-level passage. This indicates a significant change in the condition of the cave passage. Figure 4g shows a vertical passageway in the Kedung Pitu Cave. This passage is near the entrance of the cave and is the main access to the subterranean river. The narrowing of the passage also occurs in several caves. Figures 4c, 4f, and 4i are vertical narrowing of the cave passage, where the cave has a short passage width and a long roof. Figures 4d and 4h show a narrowing of the cave passage where the roof of the cave is low so that in conducting observations and tracing the cave passages the researcher must be in a crawling or crawling condition. Another appearance is the decoration of the cave passage in the form of cave ornaments. Ornament cave is the deposition of the dissolving process of carbonate rock. Cave ornaments can be formed in various conditions of cave rocks, both on the floor, ceiling, and cave walls. Caves in Malang Regency generally have cave ornaments, although sometimes these ornaments look dead. Common ornaments found in caves include stalactites, stalagmites, scarves, pillars, soda straw, flowstone, canopy, micro and macro-gours. These ornaments will keep developing, such as the presence of stalactites and stalagmites that are connected to become pillars. It is also common that cave ornaments are usually formed in groups due to the concentration of dissolving rock in the area. Figure 5 shows various visible cave ornaments, such as the presence of stalactite (Figure 5a), flowstone (Figure 5b, 5f, 5i), micro-gours (Figure 5c), soda-strow (Figure 5d and 5h), macro-gours (Figure 5e), and ornamentation clustered (Figure 5g).

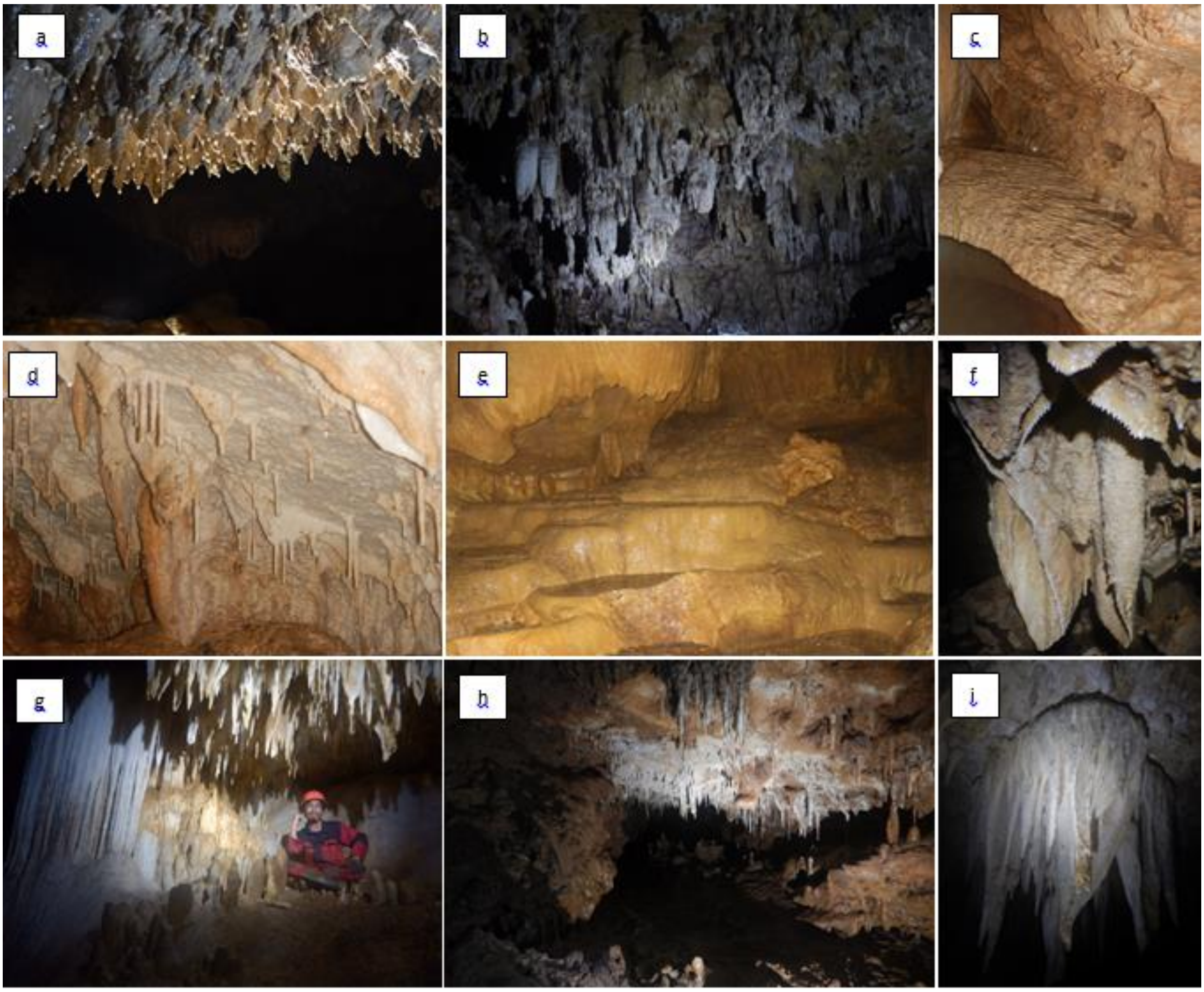

Figure 5. Appearance of Cave Ornaments in Malang Regency, a- Stalactite group in Tembus Cave; b- Flowstone features in Kedung Pitu Cave; c- Microgourdam in Lowo Cave; d- Drepery, Stalactite in Bagus-Jebrot Cave System; e- Macrogourdam in Krompyang Cave; f- Flowstone in Sumur Windhu Cave; g- Collumn, Stalactite, and Stalacmite in Harta Cave; h- Stalactite Sodastraw in Basnawi Cave; i- Flowstone in Harta Cave (Source: Prepared by the authors, 2018-2021)

A potential specified tourism destination of South Malang Caves

The mapping result showed many characteristic of caves passage. A potential specified tourism destination caves have horizontal passage and offer attraction to the visitors. The caves conditions have various characterizations such as subterranean river (groundwater), caves ornaments, debris, vertical passage, horizontal passage, level of difficult and caves managers. Table 1 explains the caves conditions in Malang regency.

Table 1. Cave Passage Characterization in Malang Regency (Source: prepared by the authors, 2021)

No	Cave	Groundwater	Ornament	Debris	Vertical passage	Horizontal passage	Difficulty passage	Manager
1	Kulon Kuburan Cave			√		√	√	
2	Mbah Wajib Cave	√			√	√	√	
3	Sawahan Cave					√	√	
4	Sumur Windu Cave		√		√			
5	Watu Jaran Cave		√			√	√	
6	Suro Cave					√		
7	Tembus Cave			√		√		
8	Krompyang Cave	√		√		√		
9	Anakan Krompyang Cave					√	√	
10	Limbah Cave					√		
11	Harta Cave	√	√	√		√		
12	Lowo Cave							
13	Kedung Pitu Cave	√	√	√	√	√	√	
14	Tembus 1 Cave			√		√		
15	Emas Cave	√				√		
16	Jarun Cave			√		√		
17	Lendrek Cave				√			
18	Basnawi Cave		√			√	√	
19	Mul Cave			√	√	√		
20	Puhunas Cave			√		√		
21	Mata Lempah Cave			√	√		√	
22	Noname 1 Cave					√		
23	Banyu Cave	√	√			√		
24	Barong Cave			√	√		√	
25	Buntet Cave				√		√	
26	Gemplah Cave					√		
27	Glurug Cave				√		√	
28	Gronjong Cave					√		
29	Bagus-Jebrot Cave	√	√	√	√	√	√	
30	Kembar Cave			√		√		
31	Kerek Cave	√			√	√	√	
32	Manuk Cave			√		√		
33	Maron Cave			√		√		
34	Megarsari Cave			√		√		
35	Peteng Cave			√	√	√		
36	Peteng 1 Cave			√	√			
37	Pleset Cave			√	√			
38	Rampal Cave	√	√	√	√	√		
39	Segawe Cave		√	√		√		
40	Sengik Cave	√	√	√		√		
41	Sio Cave	√	√	√		√	√	
42	Sumur Cave				√		√	
43	Tekek Cave			√		√		
44	Tumang Cave	√	√	√	√	√		
45	Lowo Cave	√	√	√	√	√		
46	Sumuran Cave				√		√	
47	Hulu Hua Cave				√		√	
48	Patok Cave					√		√
49	Coban Perawan Cave	√	√	√		√		√

A special tourism attraction requires skills and knowledge in outdoor tourism activities. In addition, the equipment used must also fulfill the safety standards in carrying out the tour. Caves are part of a special tourism attraction, because doing cave exploration requires adequate skills, knowledge, and equipment. Visitors are expected to fully understand the safety standards in the cave because the cave is vulnerable to the environmental changes and is vulnerable to rock slide.

The condition of the cave passages offers important education for visitors/tourists. The existence of various cave ornaments, cave environments, and the development of cave passages that occurred in the past can provide additional knowledge for cave visitors who come to special tourism attraction sites. Generally, local people have the names of the halls that are considered sacred to be used as information to visitors. It is also one of the attractions for the tourists. In addition, the existence of alleys that are considered sacred is also one way to maintain the environmental conditions of the cave and cave ornaments from damage caused by tourism activities. The management of caves in Malang Regency by the citizen or agencies is still very low-graded. One of the caves that have been managed by the citizen is the Coban Perawan Cave in Gedangan District (Figure 6b). This cave is a horizontal cave and at the end of the cave passage there is a vertical passage, where water can enter the cave. In addition, to enter the cave, tourists must swim first and walk in exploring the cave. In addition, there is also a hallway that is not too big so tourists have to crouch. The Coban Perawan Cave tour manager provides complete cave tracking equipment such as shoes, buoys, flashlights, and helmets. In addition, there are guides who accompany tourists during their entry into the cave. The condition of the Coban Perawan Cave has a good ornament and there is a waterfall which is an attraction for tourists. Besides Coban Perawan Cave, the caves which located in coastal areas are also used as religious tourism such as Patok Cave and Cina Cave.

Both caves have short passages and the ornaments are not developed. Several caves in the Regency that have the potential to become a special tourism attraction objects are Harta Caves (Figure 6a). Figure 6a shows a map of the top view of the Harta Cave, where this cave has a long passage. The Harta Cave hallway has the potential to be used as a special interest tourist attraction along 70 m from the entrance of the cave, because it has abundant ornamental appearances and is safe for tourism activities. After that, it is a dangerous area, because the alley is narrow, slippery and prone to flooding during heavy rains. Thus, in its management, special policies are needed such as limiting the number of visitors who enter the cave and maintaining a distance between visitors and cave ornaments so that environmental conditions and cave ornaments are protected and tourists are also safe from potential dangers. In the management of the Harta Cave tourism attraction, a special model is needed. Harmony and Pitoyo (2012) made a management model for a special tourism attraction, where there is treatment for cave objects, surrounding communities, tourism managers, and tourists. The management of the cave is monitored on the conditions before the tour is carried out by knowing the natural conditions of the cave. For example: the humidity of the cave, air temperature, soil, and decoration of the hallway in the cave. In addition, there is a path for tourists to enter the cave passage and there are arrangements for entry and exit of visitors in the cave. If the condition of the cave contains many cave ornaments, then there must be a barrier between visitors and cave ornaments, so that visitors cannot hold the ornament. Another aspect related to the citizen around the cave must be given knowledge and skills so that they can become qualified workers and can open new jobs. Aspects of managing tourism objects, of course, also require the participation of the citizen as professionals in the field of a special tourism attraction, conducting comparative studies on existing special attraction tours, strengthening infrastructure, establishing close cooperation between the citizen, government, and private parties in promoting cave -a cave that will be used as a specified tourism destination. For tourists, this can be done by providing special tourism object tour packages that can provide education for visitors, so that visitors can receive benefits from their visits.

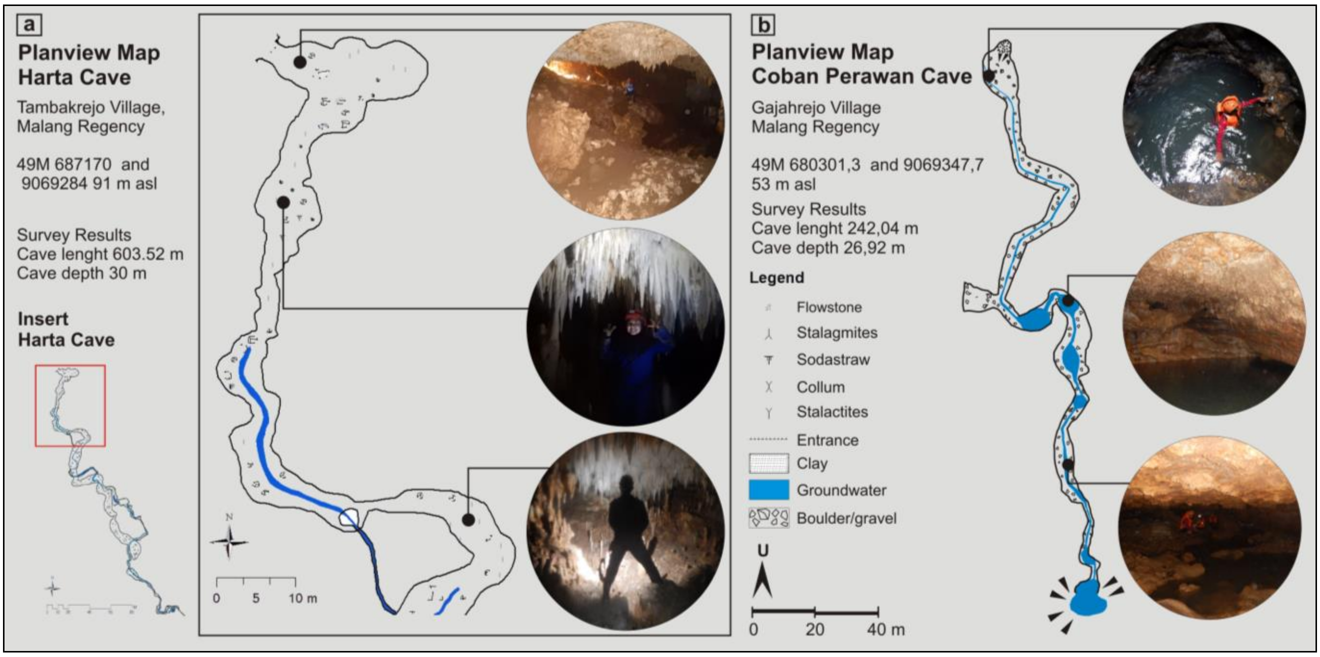

Figure 6. Map of Harta Cave (a) and Coban Perawan Cave (b) (Source: Modification of Salaka, 2018)

CONCLUSION

The results of this study indicate that there are 134 caves that have been recorded and 49 caves that have been mapped in Malang Regency. The condition of the cave in Malang Regency has the potential to support it as a special tourism object, for example Harta Cave and Coban Perawan Cave. This can be seen from the cave passages that have variations in horizontal and vertical passages and have long hallways. In addition to variations in cave passages, caves in Malang Regency also have a variety of ornaments and cave conditions are important educational values for tourists. Some caves in Malang Regency also have subterranean rivers that can be used by the citizen.

This potential can be an attraction for tourists who like to explore caves and tourists who have a love for the natural beauty contained in the ground surface. In addition, the caves in Malang Regency are adjacent to coastal areas which are coastal and marine tourism and are well known by the wider citizen. This is very supportive in the development of a special tourism attraction in the future. Improvement of human resources must be carried out to provide understanding and skills for the citizen regarding the existence and condition of caves, so that the management of special attraction cave tourism can be wiser and protect the environment.

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Article history: Received: 22.10.2021 Revised: 17.02.2022 Accepted: 16.03.2022 Available online: 07.04.2022

GeoJournal of Tourism and Geosites
ISSN 2065-1198, E-ISSN 2065-0817

Year XV, vol. 41, no. 2, 2022, p.376-386
DOI 10.30892/gtg.41206-840

INVESTIGATING THE CHALLENGES FACED IN DESIGNING CULTURAL LANDSCAPE AT PANTAI LIDO URBAN WATERFRONT, JOHOR BAHRU, MALAYSIA

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Citation: Hussain, M.A., Mohd Yunos, M.Y., Ismail, N.A., Mohd Ariffin, N.F., Ismail, S., & Qianda, Z. (2022). INVESTIGATING THE CHALLENGES FACED IN DESIGNING CULTURAL LANDSCAPE AT PANTAI LIDO URBAN WATERFRONT, JOHOR BAHRU, MALAYSIA. *GeoJournal of Tourism and Geosites*, 41(2), 376–386. https://doi.org/10.30892/gtg.41206-840

Abstract: Pantai Lido of Johor Bahru has a diversity of cultures, beautiful landscapes, and unique nature along its waterfront. This diversity at one time, made Pantai Lido a tourist's option for domestic as well as international visits. After more than fifty decades of being a landscape of magnificent landmark for Johor Bahru, Pantai Lido is now experienced alteration which has resulted in the de-territorialisation of its cultural landscape. This inevitably eroded the identity and symbolism of the place. Thus, the objective of this paper is to explore and investigated the challenges that faced in designing cultural landscape at Pantai Lido, to preserve Pantai Lido from the de-territorialisation of cultural landscape. To achieve the objectives of the paper, a qualitative research method using a case study approach has been conducted in order to investigated the challenges in designing cultural landscape at Pantai Lido, and Pantai Lido was the context for data collection. A total of 12 informants were involved in this study comprising of the local authorities. The data were primarily gathered through focus group discussions (in-depth, semi-structured interviews) participant observations and supported by relevant information from document analysis, and audio-visual materials. It is hoped that the findings of this study can assist the state government and the related parties in developing cultural landscape design strategies framework for the urban waterfront at Pantai Lido, and thus mitigate the de-territorialisation of the cultural landscape areas at the said location. The implications of this study are not only beneficial to assist in the planning of the cultural landscape at Pantai Lido, but can also be applied to other similar regions throughout Malaysia. The objective of this paper is to explore and investigated the challenges that faced in designing cultural landscape at Pantai Lido, to preserve Pantai Lido from the de-territorialisation of cultural landscape. Qualitative Research Method using a case study approach, and to increase understanding of the findings, the primary data has been gathered from Focus Group Discussion (In-depth, semi structured interview), participant observations and supported by relevant information from document analysis, and audio-visual materials.The findings thus presented, this section closes with a list of challenged that faced in designing cultural landscape at Pantai lido- that is based on all of the theme, for the sustenance of symbolism within a cultural landscape at Pantai Lido urban waterfront; these also work as a potential cultural landscape design strategy to mitigate the de-territorialisation of cultural landscape areas at the said location. The data information faced in designing the cultural landscape for the urban waterfront: could assist local authorities and related parties to take necessary actions to solve the challenges in designing the cultural landscape for the urban waterfront at Pantai Lido.

Key words: Cultural landscape; the symbolism of place; urban waterfront; Pantai Lido; Malaysia

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INTRODUCTION

One of the most remarkable characters of an old town centres is the riverfront or waterfront. The importance of the river or water edge is that it determines the allocation of old town places in Malaysia (Shamsuddin, 2011). Accordingly, Yassin, et al. (2009) have explained that the waterfront is the most important and valuable natural resource for living creatures to ensure a sustainable development of human civilisation, with great potential for a country's environmental

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balance and advancement. For this reason, Shams et al. (2013) have denoted that the urban waterfront may become a promising place in terms of economic, cultural, social, and of nature. It may as well be a symbolism and the identity of the place for a town facing the river or sea (Gonawan, 2012; Isa et al., 2018). Over the years, with rapid development and globalisation, the urban waterfront areas in Malaysia have experienced developmental effects that lead to place attachments crisis (Abu et al., 2016; Ahmad et al., 2018). This situation has resulted in the overlapping urban identity crisis, where cities, places, customs, and behavioural patterns resemble one another (Sepe, 2013).

At the same time, this aspect is often overlooked and consequently has deteriorated the symbolism values of the place in the developments, which is related to the de-territorialisation of cultural landscape areas at the urban waterfront (Mohamed and Salim, 2018). Poli (2020), and Mohamed and Salim (2018), have explained that the de-territorialisation of cultural landscape areas is a situation when such a place is adulterated by uncontrolled urbanisation, globalisation and rapid development, which slowly but surely deteriorate the symbolism and place identity. This de-territorialisation of the cultural landscape area at the urban waterfront landscape will lead to monotonous content, alienated design, and the lack of cultural characteristics in its roles to enliven the historical and human spirit on the basis of functions due to the designers' insensitivity toward the locals' need (Boulhila et al., 2022; Huang, 2008; Xu and Ma, 2017).

The de-territorialisation of cultural landscape area can be seen in the rapid development of the urban waterfront that is located in Johor Bahru under the five flagships of Iskandar Malaysia development, chasing its vision to become an international and sustainable metropolitan region in 2025 in Johor Bahru (Gonawan, 2012; Salisu, 2015; Sultan et al., 2016). The Iskandar Malaysia flagships plan is a regional development corridor that is located in the southernmost part of Peninsula Malaysia that has resulted in massive land use development, particularly in Johor Bahru (Sultan et al., 2016). The whole landscape of Johor Bahru which geographically includes Pantai Lido (Lido Boulevard) is now transformed dramatically, thus worrying the locals, the environmentalists, and surprisingly including the Singaporeans as well (Othman, 2014; Sultan et al., 2016; Rizzo and Khan, 2013). According to the written report by Malaysiakini Online (2019), the Sultan of Johor (the King of Johor), Sultan Ibrahim Ismail had once expressed his disagreement at the aggressive development that was made to Pantai Lido. In the same report, Sultan Ibrahim Ismail has also mentioned to have addressed the utter needlessness of the Pantai Lido's change, considering that such unpleasant changes have also been made to the Danga Bay.

This situation has witnessed the widespread of new urban and suburban projects which resulted in distinct differences in physical, socio-cultural, daily activities and socio-economic changes to that of the symbolism that has been attached to the prior cultural waterfront (Raman et al., 2019; Shepard, 2018). As has been reported by the local reputable newspaper the News Straits Times (2010), after the phase one development is completed Lido Boulevard is believed to be able to accommodate high-end condominiums, hotels, office suites, shopping malls, an indoor snow park, and an esplanade centre on the 50 hectares site along the Tebrau Straits. However, in the current situation the entire beach has been reclaimed for a multi-billion-dollar worth of developments, and Pantai Lido has lost its old charm (Azzaro, 2020; Mohamad, 2010; Sultan et al., 2016). In 1997, the socio-cultural activities settings, natural landscape, and coastal ecosystems, have been demolished to make way for the expansion of Iskandar Malaysia where this development geographically and indefinitely has included Pantai Lido (Sultan et al., 2016). The result of the development and modernisation at the said location have disrupted the cultural landscape areas, leaving it with eroded cultural values by the ill-conceived projects, insensitivity towards the locale antiquities, and the demolition or dislocation of the traditional physical settings. These settings unfortunately have been moved to new locations jeopardising the locals' significance (Aimran, 2013; Ahmad, 2019; Hussain et al., 2021; Rostam et al., 2011; Sultan et al., 2016). Gonawan (2012) revealed that the Pantai Lido waterfront has become dull, failed to function as a socio-cultural place and has lost its image as a cultural waterfront and its vitality due to rapid development, urbanisation and environmental degradation.

In addition, the design guidelines that are issued by the relevant parties' regard to coastal or waterfront development in Malaysia still lack focus on the importance of the cultural landscape characteristic. Yassin et al. (2018), have stated that most of the waterfront guidelines in Malaysia are more focused on the punishment for misconducts on river or water pollution, and that the guidelines that are introduced are very general, they also less specifically monitor the importance of the waterfront area for the public, nature, culture and heritage. This statement is also supported by The et al. (2020) and Musa et al. (2018), as most of the guidelines that are issued by the relevant parties also insufficient provide the detail on aspects of the cultural and landscape characteristics, but are more on the administration, management, development, and protection of land, physical type, and biological life. The same authors have stated that the landscape characteristics are a source of national pride that is so precious, and that it includes a unique and great natural and cultural heritage. At the same time, an appropriate design strategy and guideline is believed to be able to preserve the urban waterfront from facing de-territorialisation (Hussain et al., 2020). However, the lack of design strategies in implementing this cultural landscape, have resulted in the lack of implementation of the antiquities of the past environment on the new urban waterfront. Nevertheless, Pantai Lido consists of various unique cultural landscape characteristics which could be developed as the symbolism of cultural landscape in urban waterfront design, and to strengthen the tourism destination. Hence, a good solution to keep the cultural landscape at Pantai Lido in order for it to thrive is that the strategies and design guideline that are related to urban waterfront development need to be improved, by emphasising the importance of the cultural landscape at the said location. This strategies and design guideline will conserve the cultural heritage that demonstrates the heritage to the next generations. At the same time, it will strengthen the symbolism of the cultural landscape in urban waterfront design to preserve it from de-territorialisation.

This justifies the importance of this study in developing the cultural landscape strategies and design guideline for the urban waterfront. Understanding the importance of the cultural landscape must be rooted from its holistic perspective, systematically. In doing so, the cultural landscape resources that form the symbolism of the local landscapes can be conserved, preserved, and protected accordingly. In short, this study explores and investigated the challenges that faced in designing cultural landscape in urban waterfront design at Pantai Lido. Notably, the regeneration in the urban waterfront areas in Malaysia lacks the focus on the importance of cultural landscape as part of its development and design guideline. Nonetheless, the linkage between the cultural landscape and urban waterfront design strategy might potentially be implemented in the urban waterfront design development in Malaysia so as to exude the symbolism of place as well as to mitigate the de-territorialisation of cultural landscape areas at the urban waterfront. Thus, this study aimed to look into the challenges faced in designing cultural landscape at Pantai Lido urban waterfront, Johor Bahru, Malaysia. This study is much needed to guide future development within the urban waterfront centre to achieve the goals of conserving the characteristics of the culture and heritage materials whilst allowing for more sustainable development to take place.

MATERIALS AND METHODS

This section discusses the study collection methods that are used by the authors in order to achieve the set study aim with its corresponding study objectives and questions; this consists of explanations of the research design in response to the research question. The study was conducted using a qualitative method and had adopted the case study approach to explore and investigated the challenged that faced in designing cultural landscape at Pantai Lido. As has been suggested by Yin (2014), the case study approach allows the researcher to obtain a clear understanding by analysing the past and current situation in which this study has chosen the cultural landscape at Pantai Lido as referred to *Figure 1*. This initiative has taken into accounts the contemporary phenomenon with regards to the tremendous change of the past and present, which have resulted in the development of a design strategies to augment the symbolism of cultural landscape in the urban waterfront design of Pantai Lido. The primary data for this study have been gathered from in-depth, semi-structured interviews though out focus group discussion with the local authorities to gather information about their knowledge, perceptions, views, and experiences that are related to Pantai Lido's history, in the effort of developing the competitive advantage of the cultural landscape characteristics for an urban waterfront design. The case study approach has been adopted in order to explore the challenges that faced in designing cultural landscape at Pantai Lido. To triangulate the findings and enhance this study's topic of interest, participant observations have also been conducted. In addition, data have also been collected and are supplemented with secondary data through document analysis, and audio-visual materials.

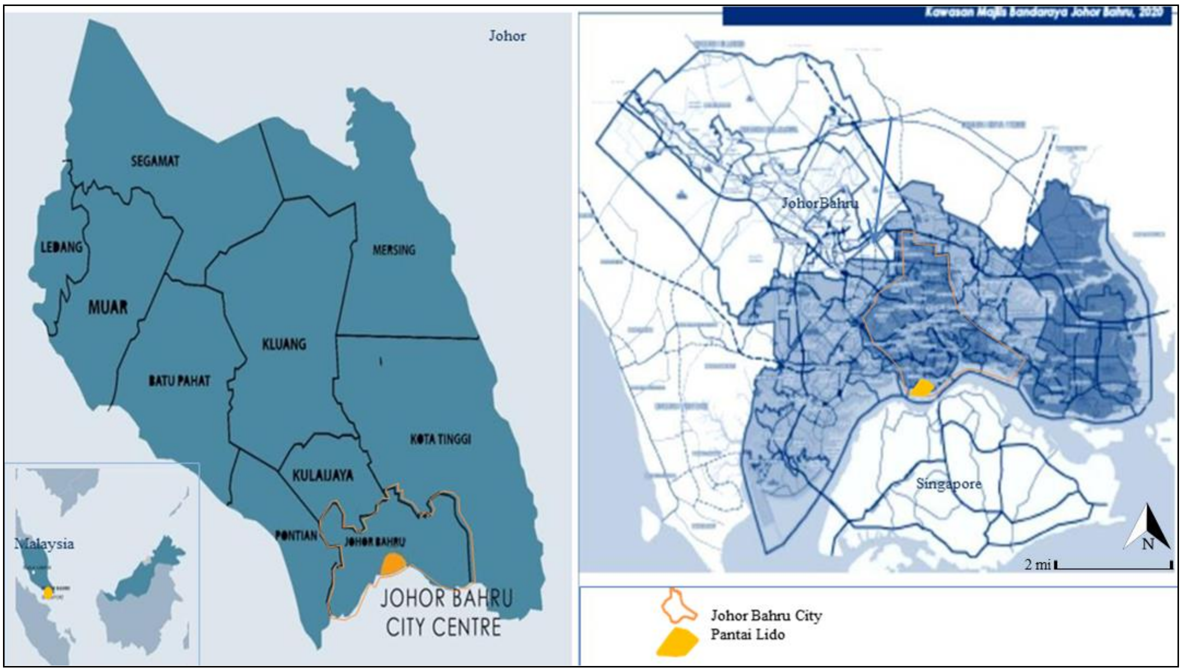

Figure 1. Left: The of state of Johor in Peninsular Malaysia. Right: The location of Pantai Lido map at Johor Bahru (Sources of image: Gonawan, 2012)

Pantai Lido is located in the southern part of Johor Bahru (JB) of Peninsula Malaysia. It is located approximately 350km away from Kuala Lumpur City Centre. Referring to other known city, Singapore City Centre is located at the south of Johor and it is located about 40km from JB. Pantai Lido at JB can be reached by various types of transportations such as airways, waterways, railways and land roads. JB is known as the southern gateway to Malaysia and acts as the international gateway linking Singapore to Malaysia. From the historical perspective, JB was once known as Iskandar Puteri with Tanjung Puteri as the centre of governance, which started in the beginning of 1855. This was an event that had happened after the officiated agreement of understanding between Sultan Ali and Temenggung Daeng Ibrahim (Husain, 1995; Thukiman, 2011). In addition, according to Thukiman (2011), JB is a southern gateway for the development of civilisation, culture, and intellectuals. The same author has also pointed out that this phenomenon has created a complex, unique and diverse society culture that is known as *Bangsa Johor*. With the differing ethnicities living harmoniously, there used to be a famous gathering and tourism area. It was synonymous with the local community as well as with foreign tourists- this was

Pantai Lido. Its beautiful position stretches along the banks of the Tebrau Strait covering various interesting socio and cultural landscape characteristic locations from Danga Bay towards the JB city centre. Pantai Lido used to be an ideal place for the locals to relax, take a bath, take a walk, enjoy the beautiful scenery, and also a great place for fishing. According to the local folklore, the name of Pantai Lido is believed to have originated from the incident of a British who resides in the area, a British Officer is also known as a British Resident during the British protectorate in 1885 in Johor Bahru.

The British Resident had repeatedly uttered the word ‘lido’ as he headed to the beach for a picnic when riding in a *lanca* (referred to as a human-pulled traditional rickshaw) (Thukiman, 2011). Eventually, the word ‘lido’ became synonymous with that particular beach, thus, Pantai Lido has been given that name ever since. It is called Pantai Lido, for according to the Cambridge Dictionary ‘lido’ relates to a public outdoor swimming pool or part of a beach where people can swim, lay in the sun, or do water sports. According to Thukiman (2011), from a historical point of view, in the old days, the royal family of Johor used to picnic at Pantai Lido on the weekends and thus, had stayed at their holiday palace that was known as *Istana Hinggap* which was facing the Tebrau Strait. Previous researchers have also stated that in every festive seasons, Pantai Lido will be so lively along its length, with various local food stalls serving delicious local cuisine while the youngsters are running around happily playing on the beach, catching a native molluscs, i.e., the *kupang* (mussels), *lokan* (Mangrove clams), *kijeng* (glauconomyas), and *kepah* (clams), together with other crustaceans such as *belangkas* (horseshoe crabs), and *ketam ragi* (common moon crabs) (Thukiman, 2011; Sultan et al., 2016). Pantai Lido is facing up to the Tebrau Strait, under the district of Majlis Bandaraya Johor Bahru (MBJB) which covers almost 800 hectares and consists of 3.5km length of waterfront, where more than 75% of the area is covered by the water (Tebrau Strait). The site is surrounded by some remarkable cultural landscape characteristics (physical, socio-cultural and human activities) within the Pantai Lido boundary such as Pantai Lido waterfront, Dataran Bandaraya Johor Bahru, Laman Tun Sri Lanang, Jalan Dhoby, and Medan Tepian Tebrau. Due to the development and construction of the costal highways to widen the existing roads, the cultural landscape characteristics at Pantai Lido has been ignored and reclaimed (Gonawan, 2012; Mohamad, 2010). As a result, where once it has the most nostalgic and remarkable cultural landscape, Pantai Lido has now lost its old charm and has surrendered to development. Gonawan (2012), Mohamad (2010), Salisu (2015), and Woo et al. (2017) has also added, that the changes by the development have blocked the open view towards Tebrau Strait, gentrification of ecological resources, and have eroded the local's socio-cultural activities such as harvesting native molluscs and other crustaceans, street hawkers; the changes have also put a limitation between the interaction and intimacy of the people with nature. Figure 2 illustrates the changes that have happened at Pantai Lido from the 1990s to the year 2018. The same figure also shows the transition of socio activities and land uses up to the time when the beach has been closed for the land reclamation.

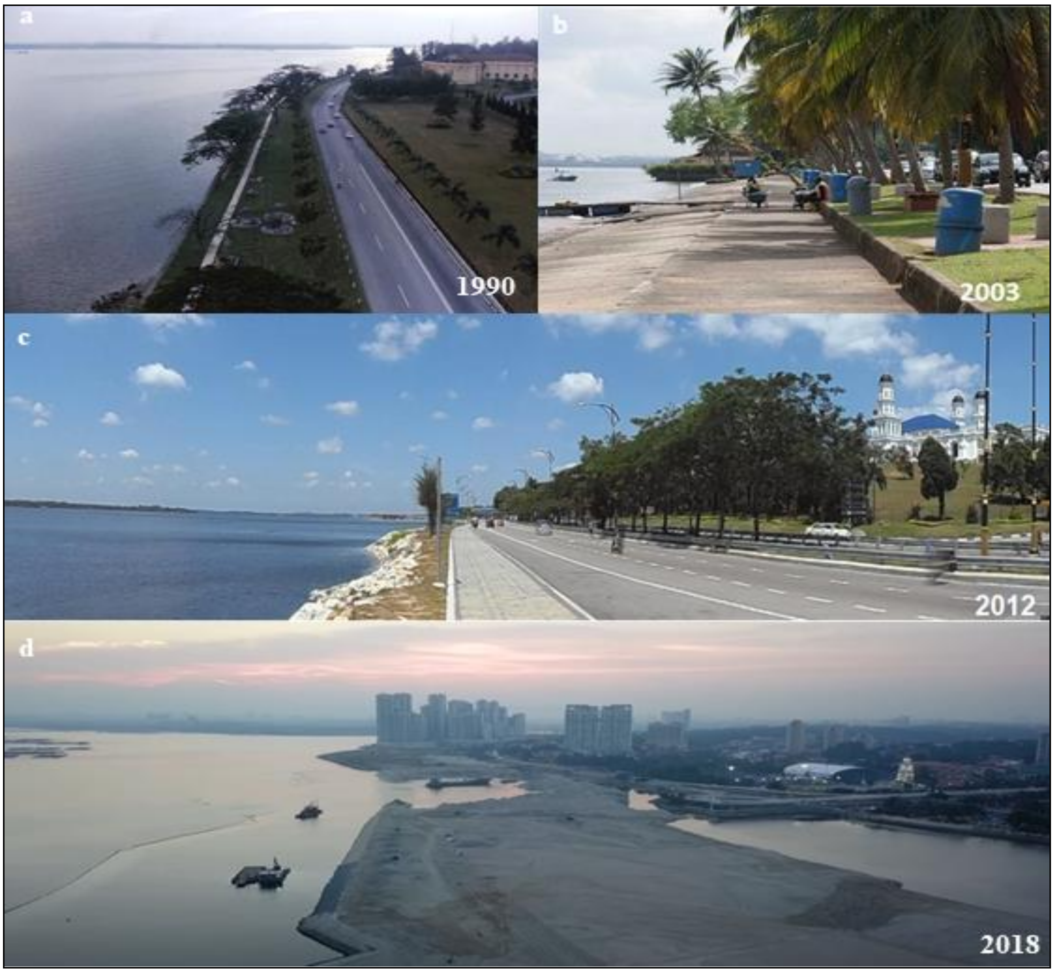

Figure 2. The process of urbanisation that took place at Pantai Lido (Source of image: Johor Bahru City Council, 2019)

Focus Group Discussion (FGD)

In this study, the authors had conducted FGD to explore the challenges that faced in designing cultural landscape at Pantai Lido through the eyes of a local authorities that is representative from two differences government body known as Yayasan Warisan Johor (YWJ) and Majlis Bandaraya Johor Bahru (MBJB), they have been selected based on their experience in handling the Pantai Lido development plan for Pantai Lido. This measure aligns with the scope of this study, which requires a deeper understanding of the local authorities' perspective about their experience in handling the Pantai Lido development plan and executions. Besides that, the conjoining interviews from informants of multiple backgrounds have allowed the researcher to obtain richer perspectives. Thus, the authors conducted FGD with the local authorities to explore the knowledge and experience in facing challenges in designing a cultural landscape symbolism within the urban waterfront of Pantai Lido. In addition, the intent of the FGD was also to find out more about the opinions and views of essential considerations that were needed to properly design an emblematic cultural landscape at Pantai Lido. Their opinions and views are very important for this study in improving the existing list in the waterfront guideline. Besides, the FGD is also important to gather deeper information about the existing situation at Pantai Lido, the perspectives on the changes, and the overall views on the current urban waterfront design guideline that is endorsed by The Department of Town and Country Planning (JPBD). This is consistent with Stewart et al. (2007) who have stated that FGD is useful for an exploratory study, especially when little is known about the study phenomenon.

The FGD session for this study was performed with two moderators. Merriam and Tisdell (2016) explained the relevance of having two responsible personnel within a FGD so that one can focus on facilitating the group while the other takes detailed notes and arranges technical requirements such as recorders, cameras, and caters to the different individual needs. In this study, two sessions of FGD were conducted by the researcher because the purpose was only to triangulate and support the data from in-depth interviews from the local community. Correspondingly, Stewart et al. (2007) have stated that one or two sessions of FGD can be sufficient to produce satisfactory data in line with the purpose of the study. This study conducted FGD with a total of 12 experts, who were representing two local authorities in the related fields such as landscape architects, town planners, and cultural and heritage officials. The 12 informants were divided into two sessions of FGD respective to their representative body. Their diverse knowledge and experience in the culture and tradition studies, cultural landscape design, and urban waterfront planning were deemed to be insightful for the rigour of this study. Other than that, FGD participation with the minimal number of informants is due to the suitability of the study, to avoid conflicts of interest during the session and instead facilitating the aimed saturation point as is set by the researcher. Tobi (2016) and Merriam and Tisdell (2016) have noted that a FGD usually consist of six to twelve participants, which is an optimum size, while Stewart et al. (2007) believe that fewer participants per group (less than six) limits the discussion, and too many (more than twelve) restricts the time that is available for the participants to contribute. The saturation point for this study was reached at informant number 12 based on the fact that no more new discovery or information has emerged thereafter.

The first FGD session has been held in the MBJB office at Hutan Bandar on 5th. January 2019. In this session, the informants are representatives of the MBJB who hold positions of senior officers. The second FDG session has been held at the Yayasan Warisan Johor Complex, in Johor Bahru on 12th. January 2021. The six informants who were also gathered for the session hold the position of senior staff at the Department of Yayasan Warisan Johor. Both authorities are related and aware of the matters involving the development and design planning at Pantai Lido. They also have broad experiences and knowledge of the highs and lows of Pantai Lido over the years, until this day. In this study, the name and identity of the informant are not disclosed. To ensure that their name is not mentioned, a pseudonym is given to each informant when explaining the theme that has emerged from the findings i.e., LA1 for local authority 1. Apart from using FGD as the main technique for data collection, this study has also employed participant observations in a few Pantai Lido's local events, namely, the *Liga Gamentra* Festival, *Pasar Karat* (Rust Market), *Pasar Pagi* (Morning Market), *Pasar Malam* (Night Market), and the *Jualan Boot Kereta* (Car Boot Sale), all of which have occurred in the setting of the study.

Furthermore, to enhance the understanding of the cultural landscape at Pantai Lido, document analysis was employed on the Pantai Lido's cultural landscape with reference to related books entitled; *Sejarah Johor Dalam Pelbagai Perspektif*, *Pesta Pembangunan Negeri Johor*, *Siri Mengenal Johor*, *Asal Usul Nama Tempat dan Jalan Serta Bangunan di Johor Bahru*, *Johor Bahru: Kebanggaan Jauhar Selatan* (The Southern Jewel Pride), Johor: Local History, Local Landscape, and Urban Character of Johor Bahru. Also, reports from the newspapers, articles, and journals that were related to Pantai Lido were reviewed. Besides that, to cross-check the finding's, complementing data was also retrieved from audio-visual materials including pictures (Facebook, Blogs) and videos (YouTube) of the cultural landscape at Pantai Lido. Combining all of the methods within this study, the researcher had aided with multiple-angle views of the case in the Pantai Lido's urban waterfront cultural landscape. From the basics of knowing the meaning, how it is translated into symbolism, identifying obstacles and then the considerations to prosper, the researcher has been rained with rich data explaining the case study deeply and holistically. The selection of methods was therefore appropriate to provide thorough inputs in explore and investigated the challenged that faced in designing cultural landscape at Pantai Lido.

RESULTS AND DISCUSSION

This section presents and discusses the findings of the paper through data that have been collected and analysed by the authors in order to investigate challenges that faces in designing cultural landscape at Pantai Lido. With all of the findings thus presented, this section closes with a list of challenged that faced in designing cultural landscape at Pantai lido- that is based on all of the theme, for the sustenance of symbolism within a cultural landscape at Pantai Lido urban waterfront; these also work as a potential cultural landscape design strategy to mitigate the de-territorialisation of cultural landscape areas at the said location. The authors chose to explore and investigated the challenges that faced in designing cultural landscape at Pantai Lido from eyes of local authorities at Pantai Lido, as a way to gain a better perspective of the study. The most informants have experienced more than 20 years and possess deep knowledge about the transition of sociological and cultural landscape at Pantai Lido have been the primary subjects for this study. Some of the informants were involved in policy development, strategic planning, guideline, and the waterfront design for Pantai Lido.

Investigate the Challenges that Faced in Designing Cultural Landscape at Pantai Lido

This study objective addresses the challenges that are faced by the local authorities in regards to the designing of cultural landscape at Pantai Lido. Findings for this research objective were gathered through Focus Group Discussion (FGD) with local authorities, and supported from participant observation, audio-visual material and document analysis. The data collected were transcribed and analysed by coding, classifying, and then organising into themes. Three themes have been formed based on the findings regarding the challenges that are faced in designing the cultural landscape at Pantai Lido, they are as follows:

1. Authorities' revocation due to inconsistent policy
2. Appreciation indigence
3. Insufficiency in planning guidance

Table 1. Informant Profiles (Source: Result of the study)

Informants	Ages	Gender	Years experiences living at Pantai Lido (year)	Notes
LA 1	48	Female	26	Government officer
LA 2	52	Female	28	Government officer
LA 3	34	Female	34	Government officer
LA 4	44	Female	44	Government officer
LA 5	39	Female	39	Government officer
LA 6	52	Female	52	Government officer
LA 7	44	Male	30	Government officer
LA 8	47	Male	47	Government officer
LA 9	39	Male	39	Government officer
LA 10	52	Male	52	Government officer
LA 11	57	Male	57	Government officer
LA 12	46	Male	46	Government officer

1. Authorities' revocation due to inconsistent policy

a) Social and Cultural events are no longer being organised

From the finding, it has been found that a significant number of cultural events have seen their end or are decreasing practices. *Karnival Bot Berhias* (Decorated Boat Carnival) and *Pesta CitraRasa* (Locals Food Festival) for example, are no longer organised at Pantai Lido. According to the LA 2, the changed of the new political party during the 14th Malaysian general election was one of the reasons why these festivals have not been continued. He stated that previously, these events were organised once biannually or within three years at Pantai Lido. The last time it was held was in 2015 for *Karnival Bot Berhias*, and 2016 for *Pesta CitraRasa*. However, up to date, the local authorities did not receive any information on when and how this event should be organised again, particularly under the new political party. He said:

"…previously the festivals were held every two or three years, but they have stopped due to the change of the new political party after the election, so we have no idea what is their next project... since all the local council member are revoked".

These findings were consistent with that of LA 1 who remarked on the newly appointed political party, which also mark the discontinuance of the previous political party's effort in promoting hereditary festivals. No more events incorporating traditional games and local foods which initially are thought to promote the diversity of cultural landscape at Pantai Lido. Needless to say, that she utters her disappointment on the discontinuation of these local events by the new political party. According to her, this is the best strategy to promote local sociological and culture elements at Pantai Lido. LA 1 stated:

"…the best thing that has been made, and I think it should be continued, it is the socio-cultural festival, it's not just a festival...but it also promotes the local socio-cultural and local character...I am not sure since it is not fixed, it is seasonal, previously it was...the change in the new political party probably causing it slower…"

Another informant has further stressed these findings and stated that the *Karnival Bot Berhias* and *Pesta CitraRasa* has not been continued by the new political party is believed due to the announcement of limited budget from federal and the problem of discord between politicians. In addition, LA 6 has stated, when politicians are inexperienced in local cultural affairs, it will be erratic with inconsistent proposals or planning aside from elucidating 1,001 excuses not to pursue such events if it does not benefit to their political party. From there, he has said, that the Sultan of Johor was once furious and said that politicians should not interfere in the affairs of the state government to promote the development territory of Iskandar Malaysia and attract investors and visitors to come to the area. LA 6 said:

"The Sultan of Johor once said ... this is a warning to all politicians and among them, do not politicised the Johor administration with their political agenda ... they need to prioritise the interests of the state over self -interest or politics, for the well -being of the people and the economic prosperity of Johor".

These findings are supported by the document analysis regarding the Sultan of Johor issuance of a warning to all politicians to not to intervene in the Johor administration with their political agenda. From that, the LA 4 had a similar view with the above findings and emphasised, when such events are no longer held as a result of political unrest. Many visitors who came here asked us about these festivals, when it will be held and including the other question been asked about the festival. She stated:

"…lately there is a sign of declination of social-cultural festival event, the *Karnival Bot Berhias* and *Pesta CitraRasa* that has become an attraction are no longer being held... when there are no such festival happening, the regular visitors who came before asked about it... it means that the visitors can see various kinds of local social-cultural attraction through such festival… however no initiative taken by the current political party, or any other related government agencies…"

Despite the many initiatives that have been employed by the local authorities, there were several issues relating to the lack of development and design guideline about the cultural landscape at Pantai Lido. One of the issues is the discontinuation of the social and cultural elements festival that has the significant character to Pantai Lido. The change in the appointed leader from the 2018 general election may be a reason for the discontinuation of such events apart from the issues on high-cost. The majority of the local authorities have mentioned that the reason why these social-cultural events have to be discontinued was due to the change of new political party. Jalis (2016) has described that every leader in the political party has a different strategy and interest to promote the local, social culture, and character.

b) Undecided planning of Pantai Lido significance

Another important finding is about the changes of ideas regarding Pantai Lido's development planning from the new political party. LA 4 raised the concern about this constraint and highlighted the problem she encountered with the new political party. She said that most of the planning with the previous political party that expand the cultural landscape for tourism had to be stopped and needed to be changed. She also said that the Yayasan Warisan Johor representative told her the same thing about this issue. She stated:

"…another issue is politic when the government changed, there is a bit of change, that is the current problem, we had to pass over to another party, we have not received any feedback from them on the program we have planned ... as long as we do not get the green light, we have to postpone it first, as well as release the existing program until informed, even Yayasan Warisan Johor said so, the current problem is the changes in government, all arrangements have been stopped, we are unable to do anything…"

Another informant had a similar view on the above findings and emphasised on the lack of information and idea from the new appointed councillors regarding the cultural landscape promotion strategy. The same informant also stated that, she did not know who the new appointed representative head was or how to communicate with him regarding the events promotion planning. This was different from the previous councillors who had always updated the information regarding local social and cultural promotion planning with the Yayasan Warisan Johor. Then the LA 6 said:

"…yes, usually to arrange such program must go through the appointed councils, they will make an announcement, but we have no idea how the newly appointed councils work…"

These findings were consistent with that of LA 5 regarding the unclear idea of the event planning by the new political party. She also stated that the former chief of parliament had worked with the mass media through a television and local broadcast program to promote any event held at Pantai Lido. However, for the newly appointed chief parliament, she was still unsure about the promotion plan, specifically on social-cultural and tradition. Her stated:

"…yes, there was media involvement and there were a lot, as far as I remember in the past, I had joined a program organised by the member of parliament, this program was shown on television, radio, and newspaper, the show explained the whole arrangements made by the member of parliament and what is special in the member's area for examples local food, local people, traditional dance and art performance, traditional game, and more… we are not sure about the newly appointed member of parliament especially what is his arrangement with regards to local social cultural promotion…"

These findings are in line with the audio-visual material and document analysis regarding the involvement of the former chief of parliament in promoting cultural and heritage activities that have been held at Pantai Lido at one time as referred in Figure 3. Unclear ideas from the newly appointed political party state's leader is one of the main challenges that is faced by local authorities relating to the designing and promoting of local cultural landscape as part of the attractions. International Tourism Highlights (UNWTO) reported that in promoting local culture and tradition at a destination, the political situation must be correctly assessed (Amir et al., 2020). The support from the local and state government's leaders is important in developing and designing the cultural landscape at Pantai Lido. As Jalis (2016) and Steinmetz (2010) asserts that communication gaps between the planners and local authorities are one of the barriers in promoting local, which resulted in a misunderstanding between the two parties.

Figure 3. Traditional Malay games tarik upih that happening at Dataran Bandaraya Johor Bahru (Source of image: Fadzli, 2015)

2. Appreciation indigence

a) Not enough efforts and support

Another challenge to designing the cultural landscape at Pantai Lido was the insufficient efforts and support of the local tourism organisation, local government bodies, and other stakeholders. According to the LA 2, the underlying problem was about the minimal supports that has been given to the local authorities such as Yayasan Warisan Johor, and local activists such as *Persatuan Bangsa Johor* and *Pasal Johor* to further promote the uniqueness of Pantai Lido through the social media. He also added that the promotion of the local's uniqueness as an attraction was mainly through individual effort and was not much supported from the responsible bodies. He said:

"…as what I have mentioned, this promotion effort cannot be done individually, we need help from others who can facilitate us in developing cultural landscape design strategy and promotion at Pantai Lido, if we want to promote there must be someone who can bring it for promotion, for example, the Department of Tourism, National Landscape Department, and National Department for Culture and Arts should give their concern…"

These findings are consistent with that of LA 5 who commented that the individual effort was never enough to promote the whole of local cultural landscape here. She also said that this effort must be supported by other large organisations such as the Tourism State Department and Development Planning Department. The authorities need to play their roles in creating a cultural landscape design guideline, particularly in help to enhancing the existing physical landscape and social-cultural activities at Pantai Lido keep-alive. The LA 5 said:

"…there is someone who has taken the initiatives, but it is ineffective, and if we want to ask for help it should be from the related departments, which is the department from tourism, heritage, and authorities they should play their roles to highlight the cultural landscape at Pantai Lido, that is what I think..."

Another informant had a similar view about the above findings and remarked that the local social and cultural promotion was not captured sufficiently and required more efforts in order to make it more attractive and marketable for both local and international tourists. LA 8 stated, the responsible authorities need to revamp the existing guideline and incorporate the importance of the cultural landscape design in it so that the cultural landscape at Pantai Lido can continue to be maintained through set guidelines. The same informant has also added that, the current guideline about the cultural landscape is still debatable, while another obstacle that is faced in designing the cultural landscape at Pantai Lido is the lack of cooperation from responsible department and the support from the authorities. LA 8 said:

"We have tried to take this matter to the forefront ... to review back the existing guidelines for improvement...but it still hasn't got any feedback from them… it seems like only our department is serious, but the party in power doesn't seem to care about our proposal and idea".

As the same informant has stated, to bring the cultural landscape at Pantai Lido to another level, there will be requirements for more efforts from all parties working together to raise the local culture and tradition at Pantai Lido to the international level. According to LA 4 this is like a suggestion from the Sultan of Johor who wants the development carried out to have the characters and culture of Johor. She said,

"…the Sultan once expressed every development in Johor must emphasise the local culture… so that this culture continues to remain intact". This is so that it can be used as a backbone to the identity of the *Bangsa Johor* in promoting matters that are related to local culture, traditions, customs and heritage to the outside community. Yassin et al., (2011) and Ismail (2021) have argued that developing a specific cultural landscape at the waterfront or townscape indeed requires collaboration from the stakeholders and the local authorities. It is not enough to provide cultural experiences from singular effort alone, especially for a culturally sensitive destination like Pantai Lido. Thus, the cultural landscape promotion cannot rely on just one party in the effort towards awareness about the embedded social and cultural elements. Support from government bodies and related organisations in coordinating the promotion strategy and waterfront development guidelines are deemed important to maximise the potential of cultural landscape tourism.

b) Lack of awareness among the community

The lack of awareness among the community has been another finding regarding the challenges of designing the cultural landscape at Pantai Lido. According to LA 3, the lack of knowledge and concept regarding the cultural landscape and the role that it plays in tourisms, as well as the little awareness among the community have been the obstacles in developing Pantai Lido as a cultural landscape tourism destination. He said:

"…there are efforts from NGO and authorities in promoting cultural landscape at Pantai Lido, however, they are also waiting for the community whom maybe might not understand, maybe the community cannot see what to do for the development of Pantai Lido in term of promoting local culture and tradition…"

These findings are consistent with that of LA 6 who has further emphasised the lack of awareness among the younger generation in appreciating and promoting cultural landscape at Pantai Lido. According to LA 6, it was hard to get young people to volunteer in traditional dance and art performances, and promoting heritage food at carnivals or events compared to the older generation. She has felt that the younger generation is still lacking in terms of knowledge, interest, and the awareness to promote the uniqueness of the local culture. She said:

"I don't really understand the needs of the younger generation now ... we have classes and training to learn local cultural arts, but those who come are not the youths ... are they not interested in learning our heritage art…we have tried to bring the younger generation to participate in this program...but they are less interested".

LA 6 further elaborated that on this finding, apart from the lack of interest of the younger generation to learn and continue this legacy, the lack of encouragement by parents to their children to learn local cultural arts is among other factors that hinder the success. In addition, there are limited new ideas in attracting the attention of the younger generation to enrich this knowledge and culture. As LA 5 said:

"We need to sit at the same table and discuss with all parties such as; parents, schools, the local community, and the authorities too… in encouraging the younger generation to love and deepen this local culture and heritage ... so that it does not become extinct… besides increasing the number of cultural spaces at Pantai Lido for the convenience of the local community to carry out cultural activities freely".

The same informant stated that, the number of social-cultural space at Pantai Lido were insufficient and cannot solely rely on what they have now to promote Pantai Lido as a cultural landscape tourism destination. She also added, even though the cultural landscape is not the main motivation for a tourist to visit a destination, nevertheless it potentially creates tourist satisfaction for the overall experience. However, for some reason, the cultural landscape is viewed as not being interesting enough and something a visitor or tourist would not want if it does not show something unique about the local community, their culture, their traditions and their heritage (Luekveerawattana, 2012; Kebete, 2021). The same author has highlighted that the lack of knowledge regarding the local cultural landscape among the people as one of the challenges for the locals to promote their cultural landscape as the main attraction. This can lead the cultural landscape to at least receive attention as a potential marketing tool because many local people are losing their sense of appreciation of the cultural landscape due to ignorance in doubting the place potential to be a travel motivation to visit the destination. They do not feel proud of their cultural heritage and tradition, especially among the younger generation. There are many opportunities to utilise cultural landscape as a tourist attraction, but certain people do not know how to utilise the local resource to relate it with tourism development.

3. Insufficiency in planning guidance

a) The current guideline is still inadequate and needs to be improved

The lack of focus on the importance of the cultural landscape as part of the development and design guideline in the urban waterfront such as Pantai Lido has been another important finding concerning the challenges that are faced in designing the cultural landscape at Pantai Lido. These findings have been highlighted by LA 10 who has commented on that the current guideline regarding the "Waterfront Development Planning Guidelines in Malaysia". Apparently, it still lacks emphasis on the importance of cultural landscape in the coastal areas. She has also explained that in the existing guidelines, the authorities have only outlined the importance of conserving historical or archaeology sites if those are available in the development areas, but did not mention important detail about the cultural landscape. LA 10 said:

"If we refer to the guidelines issued by authorities, we find that there are fewer specific conditions or guidelines on cultural and landscape control in coastal areas… moreover, Pantai Lido is not under any sensitive area development nor heritage site...it is quite difficult for us to control the development here, as it is not the same as the historic area of the UNESCO site".

LA 7 had the same view with the above findings and commented about the development that was carried out at Pantai Lido which had followed the appropriate guidelines as issued by the authorities. However, she had also added that the existing guidelines that were issued by the authorities consist of some shortcomings regarding the strengthening of the importance of cultural landscape in coastal areas. Hence, the guideline seems to be a bit outdated, is biased and not in line with the current situation which probably is due to the fact that it has not been updated and that it is time for the responsible department and authorities to discuss this issue and bring it to parliament. LA 7 said:

"The existing guidelines for development and control in coastal areas are as outdated ... the rules and proposals listed are not very favourable to us (landscape architects) ... so reforms need to be carried out, old guidelines need to be drafted and improved".

The other informant has supported the findings by commenting on the constraints of the existing guideline that do not emphasise the importance of the cultural landscape. LA 2 said:

"The federal, stakeholders and local authorities need to sit at the same table, and discuss the role of the cultural landscape in its contribution to local heritage, economy, knowledge and tourism .... it is time for the existing guidelines to be reshuffled".

The same informant has said that landscapes often change according to specific needs, whether they are to be developed, preserved or conserved. The landscape changes are particularly evident and significant in small and rapidly developing countries, with a high diversity of natural and cultural landscapes. But if we have specific guidelines to preserve the cultural landscape, it will be easier for designers or the related agencies to use it so that the development can be carried out and does not deviate from the aim. LA 4 has the same view with the above findings and have commented that if they have a specific guideline, it will be easy to control any changes or development at those specific sites. The existing guideline is to control the change of cultural landscape accordingly so that no major change is being put upon the place that deviates from the essence of the place. This is because development, preservation, and conservation can either be controlled or not. Thus, through a legal guideline in this cultural landscape application, the control over each landscape change can be monitored. If there is a violation of the applicable laws and regulations, action may be enforced accordingly.

According to him, such matters are also supported by the Sultan of Johor who wanted changes on the development in Johor Bahru by creating Johor Bahru as a city of character, as mirrored to its nickname of *Jauhar Selatan* (The Southern Jewel). These findings were consistent with document analysis regarding the constitutional amendments and guidelines which says that, the Sultan of Johor has also given his support that any outdated amendments are to be revisited and enacted in order to be in line with the current situation. As been reported in local prestigious newspaper the Berita Harian Online (2018), The Sultan of Johor recommends any constitutional amendments and guidelines made in the past and has a negative impact on the present, to be corrected in order to ensure the nobility and well-being in the future.

Moreover, in the FGD sessions, most of the informants have thought that the new guidelines for the waterfront development in Malaysia should emphasise on the importance of the cultural landscape and to continuously rehabilitate the waterfront. The informants have also thought that the guidelines for the waterfront development should include provision to promote local characters, sensitivity to the development control, contextual consideration and the strengthening of the social cultural elements. LA 3 said: "I am sure if responsible department and authorities care about our views, maybe the cultural landscape at Pantai Lido will enhance accordingly ... become the focus of cultural landscape tourism ... not the same as other urban waterfront that are monotonous and boring".

These findings are consistent with the other informants, who further emphasised that the current trend of insensitive and bad planning must be stopped and be replaced by more effective approach in order to allow the regeneration of their heritage and cultural environment that will not destroy the sense of place. According to Yassin et al. (2018) the cultural landscape at any townscape must be appreciated as a living part of the city where a community is needed to ensure its continuous vitality. Thus, the stakeholders and authorities must recognise the need for a complete system of design and guidelines to ensure the sustainability of the community in this most treasured part of the townscape.

CONCLUSION

As with any efforts, obstacles are there to hinder the process. Exploring the challenges from the past and current that made Pantai Lido today, is the next research objective in this paper. The findings of the challenges have been treated as the shortcomings in developing the symbolism of cultural landscape in the urban waterfront design at Pantai Lido. The result for this research objective has disclosed the list of challenges that are faced by the local authorities in the designing and project implementations of the cultural landscape at Pantai Lido. The changing of political autocracy, lack of appreciations, the planning guidelines voids for urban waterfront have been among the challenges that are highlighted by the informants. Identifying and classifying gaps as well as challenges in designing a cultural landscape at Pantai Lido is supporting the elements, by addressing issues that are related to the study. Improvements to the existing gaps can ensure the continuity of the place thus enhancing its competitiveness and controlled development.

Furthermore, the authorities must frame and be led by the same goals in formulating actions that are related to the importance of the cultural landscape of the country. This action is important in making the cultural landscape be elevated as an important factor in the design of an area, in particular as well as to help in sustaining the balance of future developments of the modern landscape incorporation in the cultural landscape- as a means to mitigate de-territorialisation of cultural landscape at the urban area. It should start with the understanding of the importance of cultural landscape- holistically and systematically, so that cultural landscape resources that formed the character of the local landscapes can be conserved, preserved and protected.

Therefore, policies, acts and guidelines that emphasise strictly on the cultural landscape character should be formulated and made available. This is to be applied in tandem with the existing planning guideline in order for it to be a better strategy for an elevated distinctiveness and significance of the cultural landscape.

Acknowledgement

The authors would like to thank Universiti Putra Malaysia and Universiti Pendidikan Sultan Idris for the financial support given. Also, this work was supported by the Geran Putra - Inisiatif Putra Siswazah (GP-IPS) (grant number-9666500).

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Article history: Received: 12.12.2021 Revised: 18.02.2022 Accepted: 17.03.2022 Available online: 07.04.2022

GeoJournal of Tourism and Geosites
ISSN 2065-1198, E-ISSN 2065-0817

Year XV, vol. 41, no. 2, 2022, p.387-392
DOI 10.30892/gtg.41207-841

TOURISTS' TRAVEL BEHAVIOUR AFTER COVID-19

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Citation: Wut, T.M., Ng, M.L.P., Lee, S.W., & Xu, J.B. (2022). TOURISTS' TRAVEL BEHAVIOUR AFTER COVID-19. *GeoJournal of Tourism and Geosites*, 41(2), 387–392. https://doi.org/10.30892/gtg.41207-841

Abstract: The aim of this research is to examine tourists' travel behaviour using the extended theory of planned theory (TPB). Two research questions were proposed. First, what are the factors affecting tourists' attitude toward travel after COVID-19? Second, what are the factors affecting tourists' behavioral intention to travel after COVID-19? Finally, what are the boundary conditions on the relationships for the research model? A cross-sectional survey involving 132 Hong Kong participants was conducted in March 2021. A pilot test was carried out to refine the wordings of questions beforehand. It was found that perceived psychological risk and safety climate were associated with subjective norm. Protection motivation and subjective norms were associated with tourists' attitude toward travel. Behavioral intention to travel was affected by attitude towards travel and Resilience via perceived behavioral control. It was also found that protection motivation was associated with attitude toward travel in mature people but not the young age group. Also, protection motivation was associated with attitude towards travel only in female group.

Key words: Tourists' travel intention; COVID-19; theory of planned behaviour; safety climate; psychological risk; psychological resilience; protection motivation

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INTRODUCTION

The purpose of this study is to investigate tourists' travel behaviour using the extended theory of planned behaviour (TPB). Cross-broader travel has been severely affected by the coronavirus disease (COVID-19) (Wut et al., 2021). Almost all the Governments in the world have closed borders since March 2020. The total contribution of travel and tourism to gross domestic product worldwide was dropped from US$9,170 billion in year 2019 to US$4,671 billion in year 2020 (Statista, 2022). It is anticipated that travel activities will remain to be limited until end of year 2022 and possibly, beginning of year 2023. In view of this, some countries have come up with the idea of travel bubble, which refers to a contract between nearby nations, allowing travelling between alliance countries without compulsory quarantine period requirement. Such a measure is expected alleviate problems brought about by COVID-19 for the tourism industry, as individuals may refrain from travelling due to the stringent requirement of quarantine restriction (normally 14 days to 21 days in arrival cities/areas depending on the situation). Travel bubbles have been proposed. For example, travelling between Australia and New Zealand have is allowed on the condition that the pandemic is under control. Hong Kong and Singapore established an agreement earlier on to allow people to travel between the two cities for leisure purposes in year 2021. It had been postponed twice in November 2020 and May 2021 due to the rise in COVID-19 cases in Hong Kong and Singapore respectively. Travel restrictions between Macao and mainland China have eased in the beginning of 2021. Travel restrictions between Hong Kong and mainland China will be eased in the year 2022. There are more challenges for long-haul cross-broader travel. This paper adds to the literature by proposing a new model which is an emerging area of research in the present tourism landscape based on the theory of planned behaviour. Consequently, there are two research questions worth asking. First, what are the factors affecting tourists' attitudes toward travel after COVID-19? Second, what are the factors affecting tourists' behavioural intention after COVID-19? Finally, what are the boundary conditions on the relationships for the research model?

LITERATURE REVIEW

The theory of planned behaviour (TPB) is a well-established model. Attitude, subjective norm and perceived

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behavioural control were regarded as variables affecting behavioural intention (Lapkin et al., 2015). The model has been applied in risk-oriented behaviour (Quinlan et al., 2006). More than two hundred studies have applied TPB in tourism context (Ulker-Demirel and Ciftci, 2020). The model has been extended to the tourism context (Han et al., 2020). According to Ajzen (1991), attitude toward a behaviour is affected by behavioural belief; subject norm is determined by normative beliefs about other people's perception; and perceived behaviour control is influenced by control belief (Ajzen, 1991). In this study, we introduce the antecedents to those predictors: protection motivation to attitudes toward travel after COVID-19; safety climate and perceived psychological risk to subjective norms; and psychological resilience to perceived behavioural control (Zhang et al., 2021; Low et al., 2017). Protection motivation is a behavioural belief. Safety climate and perceived psychological risk are normative beliefs. Psychological resilience is an example of control belief. When tourists are aware of possible risks pertaining to their upcoming trip, they will consider cancelling the journey. If tourists decide to go ahead with the trip, they will usually adopt protective measures to prevent infections (Lwin et al., 2010). This is called protection motivation. A hypothesis was proposed as follows:

Hypothesis 1: A positive correlation exists between protection motivation and attitudes toward travel after COVID-19.

Perceived safety climate refers to people's perception of the pandemic situation. In this context, perceived pandemic situation may be influenced by the opinions of family and peers. A hypothesis was proposed as below:

Hypothesis 2: A positive correlation exists between safety climate and subjective norms

Perceived psychological risk refers to travel concern, fear, and anxiety which are more personal (Han et al., 2020). A hypothesis was proposed as follows:

Hypothesis 3: A positive correlation exists between perceived psychological risk and subjective norms

Higher perceived psychological risks may be associated with more stress and discomfort when travelling, particularly after COVID-19. It is expected that individuals with high perceived psychological risk are likely to be more seriously affected by other people's opinions. Tourists' psychological resilience is defined as the ability to cope with adversity and bounce back swiftly (Singh and Yu, 2010). Perceived behavioral control is one's belief that a particular behavior is under his or her control, based on the perceived difficulty level of the behavior (Ajzen, 1991). People with greater internal capacity would overcome difficulties to move forward. It is expected that people with greater psychological resilience would have higher perceived behavioral control.

Hypothesis 4: A positive correlation exists between psychological resilience and perceived behavioral control

Attitude was defined in the theory of planned behavior as "the extent to which one has a positive or negative opinion of the behavior (Ajzen, 1991, 188). That is to say, the more positive one's opinion is toward a certain behavior, the stronger one's intention to perform the behavior. In the travel context after COVID-19, we hypothesised that if a prospective tourist has a favorable attitude towards travel, he or she would have higher intention to travel:

Hypothesis 5: A positive correlation exists between tourist's attitudes toward travel and tourists' intention to travel

Subjective norm was defined as "the perceived social pressure to perform the behavior (Ajzen, 1991, 188)." Other people's opinions are associated with one's behavioral intention. Individuals usually travel with friends and family members. One usually studies reviews online when planning their trip and booking hotel accommodation (Schuckert et al., 2015). Past literature shows that subject norms may explain up to 40% of the variance in intention (Lapkin et al., 2015). Thus, we could have the following hypothesis:

Hypothesis 6: A positive correlation exists between subjective norms and tourist's intention to travel

Perceived behavioral control was defined as "the perceived difficulty of engaging a behavior (Ajzen, 1991, 188). When some behaviors are perceived as difficult to perform, such as travelling after COVID-19, perceived behavioral control becomes a determining factor. When a prospective traveler has higher perceived control, the more likely he or she has higher intention to travel to the destination.

Hypothesis 7: A positive correlation exists between perceived behavioral control and tourists' intention to travel

An individual's attitude might be affected by other people's opinion (Jalilvand and Samiei, 2012). Social pressure could influence our attitude towards travel behavior. Thus, we have the following hypothesis:

Hypothesis 8: A positive correlation exists between subjective norms and tourist's attitude towards travel

Finally, comparison were made between gender and age on our mode. Thus our research framework is presented as below:

METHODOLOGY

Quantitative method was used and the survey was administrated in March 2021online due to the pandemic. Residents in Hong Kong were contacted by electronic email using convenience sampling. Before the pandemic, people in Hong Kong enjoyed travelling abroad and usually more than three times a year before the pandemic (Census and Statistics Department, 2020). Hong Kong is a small cosmopolitan city. Convenience sampling method was used in view of homogeneous nature of the population. Pre-determined limits were set regarding demographics of the population including age, gender, education level and occupation level to ensure the representativeness of the sample in the region. All measurement items are from established valid and reliable scales. Safety climate items are obtained from Cooper (2000).

Psychological Risk items are adapted from Law (2006). Protection motivation items are from Connor and Davidson (2003) and psychological resilience items are from Mahoney et al. (2018). Other constructs were adapted from Theory of Planned Behaviour (Ajzen, 1991) and (Han et al., 2020). These items were adapted to suit the research context (Table 1).

There are two parts in the questionnaire. Part A is related to main questions. Part B refers to the questions on demographic data.

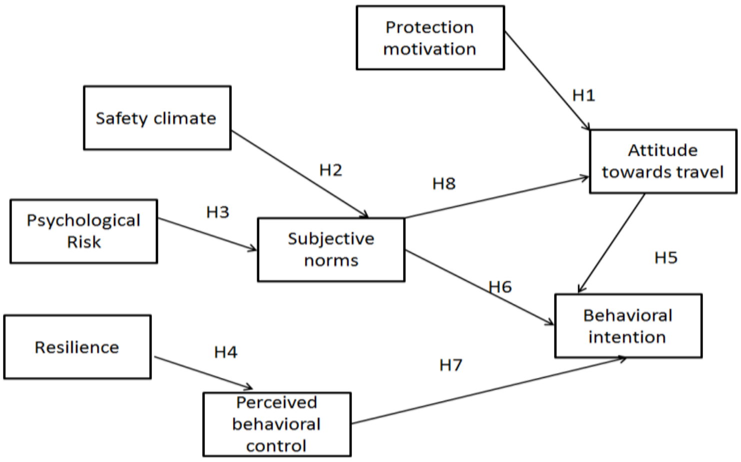

Figure 1 Research framework (Source: authors)

Table 1. Questionnaire items

Construct Name and abbreviation	Adapted Items
Resilience (RES), Mahoney et al., 2018; Zhang et al., 2021, 104261.	
RES1	"I am able to adapt to change in travel."
RES2	"I can deal with whatever comes in travel."
RES3	"I can see the humorous side of problems in travel."
RES4	"I can cope with stress in travel that can strengthen me."
RES5	"I can handle unpleasant feelings in travel."
Protection Motivation (PM), Connor and Davidson, 2003; Zhang et al., 2021, 104261	
PM1	"I protect myself from being infected by COVID-19 when travelling."
PM2	"I engage in activities that protect myself from being infected by COVID-19."
PM3	"I expend effort to protect myself from being infected by COVID-19."
PM4	"I obey polices to protect myself from being infected by COVID-19."
Safety Climate (SC), Cooper, 2000.	
SC1	The government of the country that I plan to travel provides adequate safety measures.
SC2	The government of the country that I plan to travel has a firm commitment to safety by monitoring safety.
SC3	My friends are very concerned about my own safety situation.
SC4	I feel great satisfaction whenever I am in high safety situation
Attitude toward the travel behavior (AT), Ajzen, 1991; Han et al., 2020, 6485.	
AT1	"Traveling to a country that is not seriously affected by the COVID-19 outbreak for my next vacation trip is good."
AT2	"Traveling to a country that is not seriously affected by the COVID-19 outbreak for my next vacation trip is wise."
AT3	"Traveling to a country that is not seriously affected by the COVID-19 outbreak for my next vacation trip is pleasant."
Behavioral intention (BI), Ajzen, 1991; Han et al., 2020, 6485	
BI1	"I plan to visit a country that is not seriously affected by the COVID-19 outbreak for my next vacation trip after the pandemic has ceased."
BI2	"I will exert effort to travel to a country that is not seriously affected by the COVID-19 outbreak for my next vacation trip after the pandemic has ceased."
BI3	"I am willing to visit a country that is not seriously affected by the COVID-19 outbreak for my next vacation trip after the pandemic has ceased."
Subjective Norm (SN), Ajzen, 1991; Han et al., 2020, 6485	
SN1	"Most people who are important to me think I should travel to a country that is not seriously affected by the COVID-19 outbreak for my next vacation trip."
SN2	"Most people who are important to me want me to travel to a country that is not seriously affected by the COVID-19 outbreak for my next vacation trip."
SN3	"People whose opinions I value prefer that I choose a country that is not seriously affected by the COVID-19 outbreak for my next vacation trip."
Perceived Behavioral Control (PBC), Ajzen, 1991; Han et al., 2020, 6485	
PBC1	"Whether I travel to a tourist destination in a country that is not seriously affected by the COVID-19 outbreak is entirely up to me."
PBC2	"I am confident that I can travel to a tourist destination that is not seriously affected by the COVID-19 outbreak."
PBC3	"I have sufficient resources, time, and opportunities to visit a tourist destination in a country that is not seriously affected by the COVID-19 outbreak."
Psychological Risk (PR), Law, 2006; Han et al., 2020, 6485	
PR1	"The thought of traveling to tourist destinations in countries seriously affected by the COVID-19 outbreak makes me nervous."
PR2	"The thought of traveling to tourist destinations in countries seriously affected by the COVID-19 outbreak makes me feel psychologically uncomfortable."

Partial least square structural equation modelling (PLS-SEM) was used with SmartPLS software. PLS-SEM has been used in recent studies in tourism marketing (Harrigan et al., 2018; Ting et al., 2019). The greatest number of paths points a construct is three in the study. Given minimum R square is 0.10 and significant level is 6%, the sample size is 124. Thus, sample size requirement is met to this study (Hair et al., 2019).

RESULTS AND DISCUSSION

There are 132 valid respondents, of which 58% were female and the rest were male. 65.9% were 18–30 years old, 20.5% were 31–40 years old and 13.5% were 41 years old or above. Amongst them, 28.8% were students, others are professionals (12.9%), executive and management (13.6%), administration and clerical (20.5%), civil servant (3.8%), teacher (3.0%), self-employed (3.0%), retired or in career break (11.4%) (Table 2).

Measurement model

The constructs in the study meet recommended guidelines of 0.70 on Cronbach's alpha & composite reliabilities and of 0.50 on average variance extracted (AVE) requirements (Table 3) (Hair et al., 2019). The HTMT scores were not greater than 0.85 (Table 4). Thus, all constructs were reliable and valid. Then the structural model was assessed subsequently.

Table 2. Demographic data of respondents (Source: authors)

Category		Frequency	Percentage %
Gender	Male	56	42.4
	Female	76	57.6
Age	18-30	87	65.9
	31-40	27	20.5
	41-50	5	3.8
	51-60	7	5.3
	61 or above	8	4.5
Education Level	Secondary or below	6	4.5
	Higher Diploma/Ass Deg	54	40.9
	Bachelor degree	61	46.2
	Master degree or above	11	8.3
Occupation	Professionals Self-employed	17 4	12.9 3.0
	Civil servant	5	3.8
	Education Executive/Management	4 18	3.0 13.6
	Clerical/administration	27	20.5
	Retired/career break Full time student Others	15 38 4	11.4 28.8 3.0
	Total	132	100

Table 3. Measurement Model Assessment (Source: authors)

Construct	Item	Loading	Cronbach's alpha	Composite Reliability	AVE
Attitude toward travel	AT1 AT2 AT3	0.905 0.946 0.944	0.924	0.952	0.869
Behavioural intention	BI1 BI2 BI3	0.941 0.932 0.916	0.922	0.950	0.865
Perceived behavioural control	PBC1 PBC2 PBC3	0.848 0.918 0.875	0.855	0.912	0.776
Subjective norms	SN1 SN2 SN3	0.926 0.915 0.918	0.909	0.943	0.846
Protection motivation	PM1 PM2 PM3 PM4	0.809 0.871 0.896 0.814	0.870	0.911	0.720
Psychological risk	PR1 PR2	0.972 0.965	0.943	0.968	0.938
Resilience	RES1 RES2 RES3 RES4 RES5	0.816 0.843 0.670 0.817 0.783	0.848	0.891	0.621
Safety Climate	SC1 SC2 SC3 SC4	0.754 0.759 0.748 0.811	0.792	0.852	0.590

Table 4. Assessing Discriminant Validity (HTMT) (Source: authors)

Construct	Attitude	Behavioural intention	Perceived behavioural control	Protection motivation	Psychological risk	Resilience	Safety climate	Subjective norms
Attitude								
Behavioural intention	0.567							
Perceived behavioural control	0.474	0.805						
Protection motivation	0.414	0.356	0.262					
Psychological risk	0.313	0.317	0.255	0.451				
Resilience	0.271	0.460	0.586	0.614	0.329			
Safety climate	0.515	0.572	0.588	0.700	0.404	0.773		
Subjective norms	0.579	0.546	0.504	0.372	0.624	0.135	0.486	

Table 5. Result of hypotheses testing

Hypothesis	Item	(β) Path Coefficient	t-value	p-value	Result
H1	Protection motivation >> Attitude toward travel	0.220	2.132	0.033*	Supported
H2	Safety climate >> Subjective norms	0.292	3.367	0.001**	Supported
H3	Psychological risk >> Subjective norms	0.458	4.870	0.000***	Supported
H4	Resilience >> Perceived behavioural control	0.516	4.870	0.000***	Supported
H5	Attitude toward travel >> Behavioural intention to travel	0.214	2.340	0.019*	Supported
H6	Subjective norms >> Behavioural intention to travel	0.135	1.197	0.231	Unsupported
H7	Perceived behavioural control >> Behavioural intention to travel	0.563	4.651	0.000***	Supported
H8	Subjective norms >> Attitude toward travel	0.462	4.171	0.000***	Supported

(Bootstrap samples = 5000, n = 132 cases); *$p < 0.05$; **$p < 0.01$; ***$p < 0.001$

Assessment of Structural Model Fit

First, the R^2 values of attitude to travel, subjective norms, perceived behavioural control and behavioral intention were 0.330, 0.403, 0.266 and 0.583 respectively. They indicated 26.6% to 58.3% variances were explained, and resulted as a weak to moderate result. Second, the Q^2 values ranged from 0.186 to 0.461, which almost showed rather large predictive relevance of our model. f^2 effect sizes were ranged from 0.029 to 0.573 of construct, which showed from large to small effect on the dependent variable. Figure 2 shows the PLS model result (Figure 2). All the relationship paths, except the one from subjective norms to travel intention, were significant. Our proposed structural model was well supported (Table 5).

Multi-group analysis was used to compare subgroups in the research model according to age and gender. There are two subgroups for age: younger age group (age equal or less than 30, n = 87) and older age group (age greater than 30, n =45).

It was found that safety climate was associated with subjective norms in young people (path coefficient = 0.331, t value = 3.114, and p value = 0.002 which is smaller than 0.01) but not the mature age group (path coefficient = 0.231, t value = 1.329 and p value = 0.184 which is larger than 0.1).

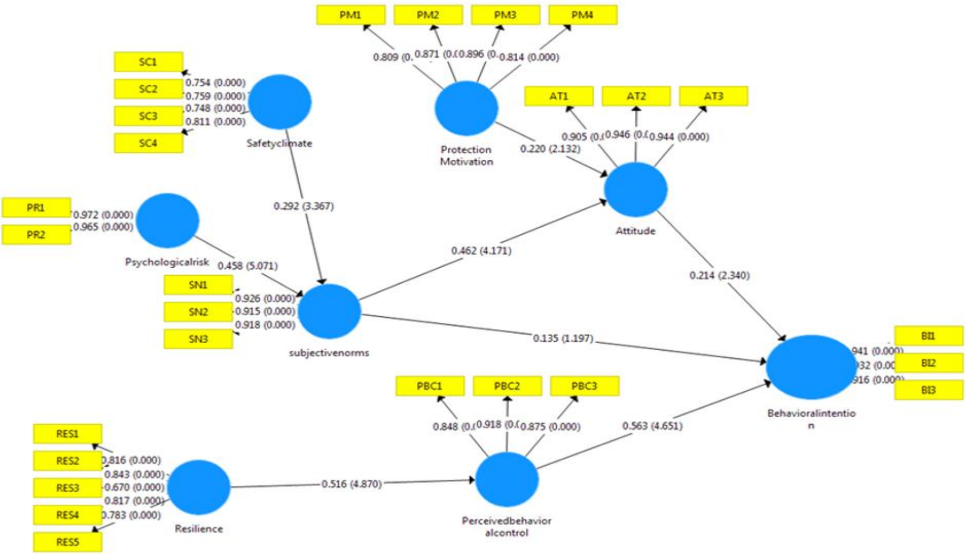

Figure 2. Partial least square-SEM result (Source: authors)

It was also found that protection motivation was associated with attitude toward travel in mature people (path coefficient = 0.610, t value = 4.416, and p value is less than 0.001) but not the younger age group (path coefficient = 0.073, t value = 0.757 and p value = 0.449 which is larger than 0.1). Regarding gender, it was found that protection motivation was associated with attitude towards travel in female group (path coefficient = 0.327, t value = 2.773, and p value = 0.006 value is smaller than 0.01) but not the male group (path coefficient = 0.151, t value = 0.897 and p value = 0.370 which is larger than 0.1). It was also found that psychological risk was associated with subjective norms in female group (path coefficient = 0.559, t value = 6.281, and p value is smaller than 0.001) but not male group (path coefficient = 0.241, t value = 1.593 and p value = 0.111 which is larger than 0.1).

It is expected that subject norms affect tourists' behavioural intention to travel from Theory of Planned Behavior. In our study, the effect was eliminated by a mediator 'Attitude towards travel.' Hypothesis 6, which proposed that subjective norms and intention to travel are associated, was not supported. The effect of subjective norms on behavioral intention to travel is via 'attitude towards travel', with a full mediation effect (Figure 3).

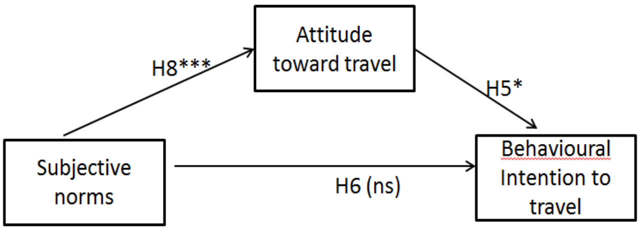

Figure 3. Mediation effect (Source: authors)

Previous literature proposes that protection motivation influences travel intention but underlying mechanism or boundary conditions are ignored (Zhang et al., 2021). The study adds to the existing knowledge by suggesting a mediator "attitude toward travel" between protection motivation and behavioral intention to travel. Also, it was found that female tourists aged 30 years and older would seek more protective measures in order to form higher 'attitude toward travel' after COVID-19 period.

In contrast, providing more protective measures do not affect young male tourists' attitude toward travel. This concurs with previous result men and young people are more willing to take risks (Znajmiecka-Sikora and Salagacka, 2020). Female tourists' perceived psychological risk influenced perceived social pressure.

We would interpret this as selected listening. Young people's perceived safety climate affects perceived social pressure. One is bombarded with information everyday, but we are inclined to process only fraction of the information which is relevant to us. Young people's perceived safety climate affects their perceived social pressure.

There are important implications to travel agencies and tourism practitioners when engaging prospective tourists in post-COVID period. Travel agencies and companies should first identify possible destinations for their customers. Then they need to make sure safety measures are in place for those destinations so that a good climate could be cultivated. Second, travel companies need to demonstrate they facilitate their prospective customers to obtain sufficient protective information and also how to have full gear to protect themselves from COVID virus during travel.

With the above effort, we aim to reduce perceived psychological risk. In particular, perceived psychological risk and protection motivation is important consideration for female tourist. Similarly, protection motivation is important for mature tourist and safety climate is crucial for young tourist. At the end of the day, more people would start their leisure travel. Third, travel agencies might encourage the tourist to publish their review on social media so that somewhat create a safety climate for certain destinations. Travelers can exchange their travel experience after COVID.

Their opinions might be more convincing as those travelers do not have conflict of interest. Finally, tourism practitioners have to facilitate the building of psychological resilience of people. Measures include stress handling workshop, full orientation and health seminar could be considered.

CONCLUSION

It was found that psychological risk and safety climate were associated with subjective norm. Protection motivation was associated with attitude toward travel and psychological resilience was associated with perceived behavioral control. Attitude toward travel is a mediator between the relationship of subjective norm and travel intention.

The study contributes an important extension of Theory of Planned Behavior. Attitude toward travel is a mediator between the relationship of subjective norm and travel intention. The relationship between protection motivation and attitude toward travel is significant for female tourists but not for male tourist. The same relationship is significant for mature people but not for young people. The relationship between psychological risk and subjective norm is significant for female tourist but not for male tourist. Tourism practitioners might consider to enhance resilience and protective measures of tourists in order to increase tourists' attitude toward travel.

Due to the extreme small number of people engaged in leisure travel in the beginning of the year 2021, measures on tourist travel behaviour after COVID-19 is not possible. Further research on tourist travel behaviour is needed. Other moderators such as past travel behaviour, travel countries and mode of travel could be included as well. Also, the sample used in the study was restricted to a small region. In the future, a more diverse sample could be employed.

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Article history: Received: 19.12.2021 Revised: 17.02.2022 Accepted: 18.03.2022 Available online: 07.04.2022

GeoJournal of Tourism and Geosites
ISSN 2065-1198, E-ISSN 2065-0817

Year XV, vol. 41, no. 2, 2022, p.393-399
DOI 10.30892/gtg.41208-842

THE MANAGEMENT OF BANGSRING UNDERWATER AS CONSERVATION - BASED ECOTOURISM FOR INTERNATIONAL TOURISM DESTINATION

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Citation: Sumarmi, S., Ensiyawatin, A.Z., Astina, I.K., Kurniawati, E., & Shrestha, R.P. (2022). THE MANAGEMENT OF BANGSRING UNDERWATER AS CONSERVATION-BASED ECOTOURISM FOR INTERNATIONAL TOURISM DESTINATION. *GeoJournal of Tourism and Geosites*, 41(2), 393–399. https://doi.org/10.30892/gtg.41208-842

Abstract: Bangsring Underwater site has high potential of ecotourism attraction for international tourists. The purpose of this study was to determine 1) the potential of Bangsring Underwater ecotourism based on attractions, accessibility, amenities, and 2) Bangsring underwater management as conservation-based ecotourism for the international tourist destination. The research design used qualitative descriptive methods. The primary data were obtained from observations and focus group discussions (FGD) with related parties, while secondary data obtained from government agencies, institutions, and communities in the Banyuwangi Regency. The data were analyzed using qualitative descriptive analysis. The results showed that Bangsring underwater has high potential in attractions, accessibility, amenities, and 2) the management of Bangsring underwater can make the place an ecotourism destination for international tourists. Furthermore, it is recommended that the alternative policies are needed to create conservation-based ecotourism for international tourist destinations.

Key words: ecotourism, conservation-based, international tourist destinations

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INTRODUCTION

The tourism industry is one of largest industrial economic sector in the world. World Travel and Tourism reported that in 2018 the tourism sector contributed to 10.4% of global GDP. The huge potential of tourism also makes a significant contribution to reducing poverty (Sumarmi et al., 2020a; Marlina et al., 2021). In several developing countries, tourism has proven as a solution to poverty issues (Eshun and Tichaawa, 2020). Tourism can also tremendously contribute to local and national economic development (Dilwan and Astina, 2019; Untari and Suharto, 2020; Atmodjo et al., 2019).

The famous Indonesian tourism destination is Bali. Over time, tourism in Bali has experienced overload, so there are many attempts to find other destinations as new tourist centers. The search for "The Next Bali" will be beneficial for other areas of Indonesia with high tourism potential (Sumarmi et al., 2019). One of them is Banyuwangi, which is located and not far from Bali. Also, Banyuwangi has tourism potentials to be developed, such as Bangsring Underwater. In Banyuwangi regency, the total number of tourists has increased eight folds more in last 10 years compared to the situation of 2010 (Table 1). The majority (98%) are the local tourists, which exhibits not only changing social and recreative lifestyle but enormous implications on local economy from the tourism sector.

Bangsring Underwater is located in Krajan, Bangsring Village, Wongsorejo District, Banyuwangi. The location is on the north coastline of Banyuwangi, about 1 km from the main highway, and can be reached within 45 minutes from Banyuwangi city. The coral reefs spreading across 15 hectares with rich marine life and natural conservation area serves as a special attraction for tourists. The attraction of the natural resources that is maintained in this tourist spot is the main attraction for tourists so that every year there is always an increase in the number of tourists (Sumarmi et al., 2020b). The increase in the number of tourists in Bangsring Underwater can be seen in Figure 1 below.

International tourist destinations provide services for recreational and business purposes with international visitors (Montemayor et al., 2020; Untari and Suharto, 2020). Besides, international tourist destinations must also have high competitiveness with other world tourist destinations. The competitiveness of tourist destinations can be assessed using the

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Travel & Tourism Competitiveness Index. The travel and tourism competitiveness index into four main factors, including 1) environmental carrying capacity, 2) travel & tourism policies and supporting circumstances, 3) infrastructure, 4) natural and cultural resources (World Economic Forum, 2017). Meanwhile, based on the Constitution Law no. 10 of 2009 defines tourism destination areas as geographic areas in one or more administrative areas where there are tourist attractions, such as public facilities, tourism facilities, accessibility, attractions, accessibility, amenities and related communities. The purpose of this study was to determine: 1) the potential for Bangsring Underwater ecotourism based on attractions, accessibility, amenities, and 2) Bangsring underwater management as conservation-based ecotourism for the international tourist destination.

Table 1. The Number of Tourist Visits in Banyuwangi Regency (Source: BPS, 2020)

No	Year	Tourist Visits		Total
		Local	International	
1.	2010	654.602	16.977	671.579
2.	2011	789.101	13.377	802.478
3.	2012	860.831	5.502	866.333
4.	2013	1.057.952	10.462	1.068.414
5.	2014	1.363.530	30.068	1.393.598
6.	2015	1.727.958	45.569	1.773.527
7.	2016	4.022.449	77.139	4.099.588
8.	2017	4.832.999	98.970	4.931.969
9.	2018	5.200.000	127.420	5.327.420
10.	2019	5.307.054	101.622	5.408.676

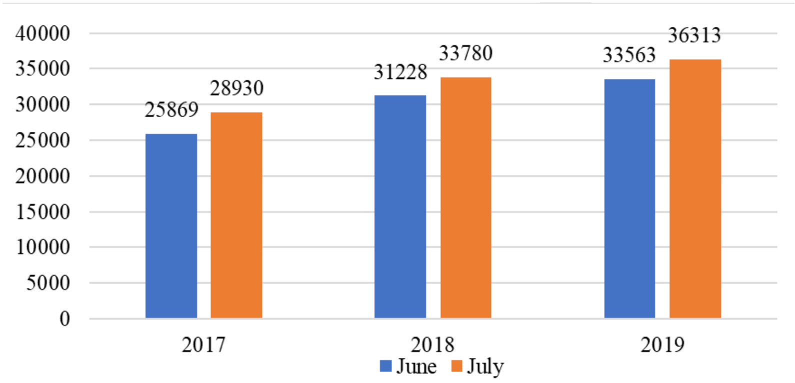

Figure 1. Tourists at Bangsring Underwater from June-July 2017-2019 (BPS, 2020)

METHODS

The research object was the Bangsring Underwater ecotourism, which is located in Bangsring Village, Wongsorejo District, Banyuwangi Regency. The research method used is a qualitative descriptive method. The data used in this study are primary and secondary. Primary data was obtained from in-depth interviews, observations, and focus group discussions (FGD) with tourism managers, villagers, and sub-district governments. In-depth interviews of visitors, tourism managers, business communities, and fishermen were conducted in the conservation area around Bangsring Underwater area. Secondary data were obtained from government agencies, institutions, and the community.

An interactive analysis model developed by Miles and Huberman (2002), and Moleong (2004) was selected to analyze the data. The analysis included three stages: (1) data reduction by selecting, simplifying, abstracting and transforming the raw data obtained from the field, (2) presentation of reduced data according to the topic for an easier interpretation, (3) draw conclusions by verifying and checking the collected data.Several criteria are used to ensure the validity of the data obtained during research activities: (1) the degree of trust by making in-depth observations, triangulation, and member-checking, (2) transferability by describing in detail, thoroughly, carefully and deeply during the subject matter, so that it can be distinguished between the data obtained and the interpretation of the researcher, (3) dependence by careful re-examination of the components, processes, and results of the research, and (4) result by conducting peer discussions with Geography student who has been worked as an intern at Bangsring Underwater related to tourism management problems. The location of Bangstring Beach can be seen in the following Figure 2.

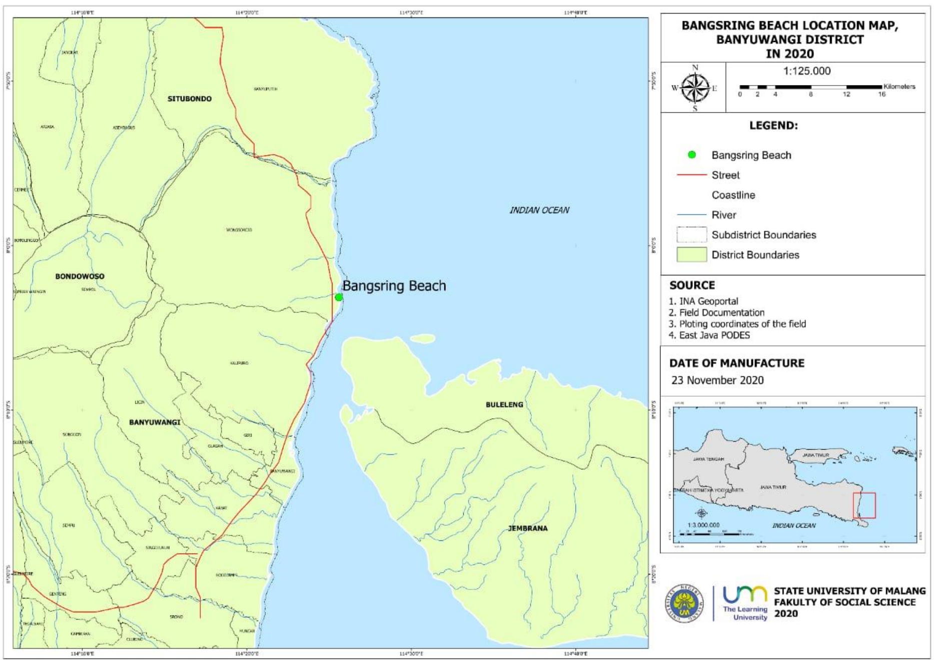

Figure 2. Map of Bangsring Beach, Indonesia

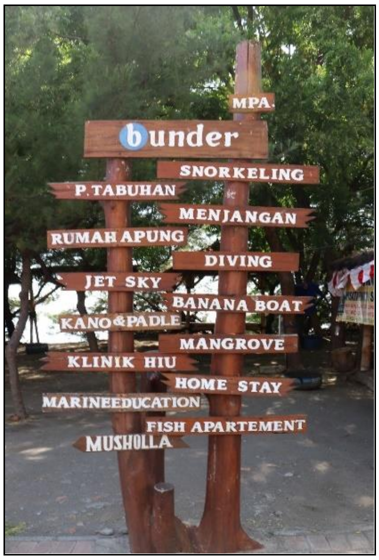

Figure 3. Tourist Attraction at Bangsring Underwater (Source: Author, 2020)

RESULTS AND DISCUSSION

Bangsring Underwater is located in Bangsring Village, Wongsorejo District. Bangsring Underwater is a beach that is rich in coral reefs and beautiful fishes. Activities carried out by the community for the conservation are planting cypresses, making artificial coral reefs, making fish houses, and transplanting coral reefs to make Bangsring Underwater an international tourist destination. The conservation initiated by the Samudera Bakti group is good for the marine environment, but fishers also have a positive impact by increasing knowledge and improving the community's economy. Bangsring Underwater is famous as water sport destination and as research site, especially in marine and fisheries sciences (Hadi, 2019).

Tourism Potential in Bangsring Underwater is Divided into Tourist Attractions, Accessibility, and Amenities (3A)

A. Tourist Attractions at Bangsring Underwater

Bangsring Underwater is located in the Bali Strait. The waves on Bangsring Beach are relatively small, with a depth of 2–15 m so that sunlight can penetrate the clear seawater. The condition makes Bangsring Underwater rich for coral reefs and beautiful fish. Tourist attractions that are served at Bangsring Underwater shown in Figure 3 include:

1. **Diving:** It is an activity in the deeper sea. Diving requires expertise, skills, and adequate equipment such as air tubes, diving suits, and fins (Lucrezi et al., 2020). Bangsring Underwater provides rental packages for diving equipment. There are a dive equipment rental price and a guide service of divers who are not experts for Rp. 800,000; divers who already have a diving license, the rental price is Rp. 400,000; beginner divers can use the Try on Diving package for 15 minutes with the equipment and guide services for Rp. 150,000. Every year the Banyuwangi regency government holds a Bangsring Underwater Festival to promote Bangsring Underwater ecotourism. The festival contains educational activities to save the marine environment, such as competitions for waste processing and trash collecting, and underwater attractions such as dancing and Pencak Silat under the sea.
2. **Snorkeling**: It is a diving activity at sea level that is carried out at a depth of 2-5 meters. The tools needed are a snorkel for breathing and a frog's leg or fin to move in the water (Lucrezi et al., 2020). Everyone can snorkel at Bangsring Underwater, and for those who cannot swim can use a life jacket for safety. Visitors can rent snorkel equipment for Rp. 35,000. Visitors who have never done snorkeling must be accompanied by local fishermen to keep them safe and enjoyable.
3. **Swimming with Sharks**: Bangsring Underwater has a shark conservation area called the Shark Clinic. The clinic has a cage of 3x3 meters to treat injured sharks that are accidentally caught in a fishing net. When the sharks have recovered, they will be released back into the sea. The management of Bangsring Underwater places the clinic far from the snorkeling spot so that the sharks feel safe during treatment. The manager of Bangsring Underwater provides an opportunity for visitors to experience swimming with sharks. Visitors will be guided by divers and given directions to be comfortable and safe while swimming with the sharks.

Figure 4. Coral reef farming (Source: Author, 2020)

Figure 5. Fish Apartment (Source: Author, 2020)

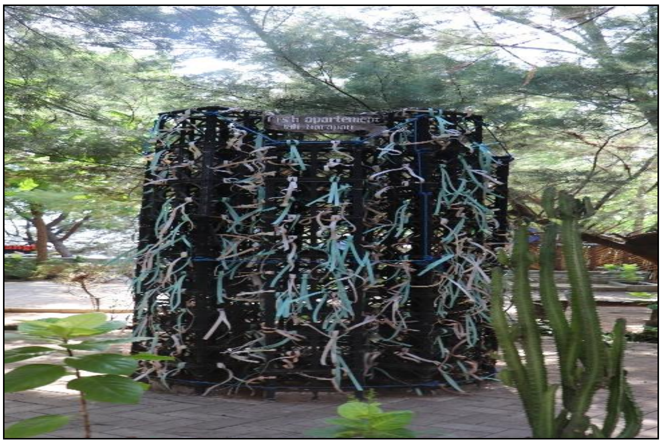

Figure 6. Prototype of Fish Apartment (Source: Author, 2020)

Figure 7. Bangsring Underwater Floating House (Source: Author, 2020)

4. **Planting Coral Reefs**: Bangsring Underwater offers visitors to participate in preserving the marine environment by planting coral reefs. The activity was part of the Marine Education program carried out by the Bhakti Samudera group, which also manages Bangsring Underwater area. Coral seedlings are taken from existing coral reefs and tied to racks made of PVC pipes. Another method used in coral planting is called the Fish Apartments. The fish apartment is made by assembling PVC into a 2-meter-high building. For this activity, the manager will charge to replace the pipes and take coral seedlings. It is shown in the following figure 4, 5 and 6.

5. **Feeding Fish**: Visitors can enjoy the beauty of Bangsring Underwater while feeding the fish that are gathered around the Floating House to gives a memorable atmosphere to visitors. Visitors do not need to go into the sea, throw the crumbs of bread into the sea, and the fish will immediately come. The activity shown in the following figure 7.

B. Accessibility to Bangsring Underwater

Bangsring Underwater Tourism Object is located about 20 kilometers to the north from Banyuwangi City. Visitors from Banyuwangi mostly use private cars or rent motorbikes because the location of Bangsring Underwater is 1 km from the Banyuwangi-Situbondo highway. Visitors from outside Banyuwangi can reach the location through the following transportation options.

1. **Airplane**: visitors from various cities or other countries can go to Banyuwangi with several choices of planes and airlines. After landing, visitors can continue the road trip by renting a car. The route is through Rogojampi - Kabat - Banyuwangi - Kalipuro - Bangsring.

2. **Train**: the closest train station to Bangsring Underwater is Banyuwangi Baru Station. Then visitors can continue the road trip by renting a car or motorbike through Ketapang - Bangsring route.

3. **Ferry (Ship)**: visitors from Bali can reach Banyuwangi using a ferry or ship from Gilimanuk Port to Ketapang Port. Then visitors can reach the destination by renting a car or motorbike through Ketapang - Bangsring route.

4. **Intercity buses**: the transportation option is mostly used by visitors from Situbondo Regency. The location of Bangsring Underwater was in the Banyuwangi-Situbondo axis road so that visitors can get off directly in front of the entrance gate to Bangsring Underwater. From the gate, visitors can continue by renting motorbikes that serves the Bangsring Underwater-highway route for Rp. 15,000.

C. Amenities (Facilities) at Bangsring Underwater

Bangsring Underwater has several facilities to provide the best service and comfort during the visit. The facilities include:

1. **Floating House**: floating House is located 20 meters from the beach. It is the biggest attraction in Bangsring Underwater. Visitors can take a boat to reach the Floating House and rent a boat back from there to sail. The types of boats that can be rented are canoes and banana boats. The number of canoes provided is 17, while there are 4 banana boats available. The floating house has an area of 27x7 meters, which is equipped with toilets for visitors. Around the house, there are 8 pieces of cages and a shark clinic with an area. Visitors can see the view from the balcony if they are unable to go down. The floating house was built in the middle of the cage so that the sharks could survive comfortably. The house is also the best place to see the sunset. The shape is simple but unique, which is the main attraction for tourists who come (Sumarmi et al., 2020b). Visitors can rest while waiting for the sunset. The exotic view of the sunset will look even more beautiful in the middle of the Bangsring Underwater sea of 3x3 meters.

2. **Car and Motorcycle Parking:** one of the things that must be considered in a tourist location is parking space availability, both for cars and motorbikes. The parking area provided is quite large, with a cheap rate of Rp. 3,000 for motorbikes and Rp. 5,000 for the car.

3. **Public Toilets**: The public toilets with sufficient numbers and clean conditions are services provided in Bangsring Underwater. Visitors can clean easily after snorkeling, diving, or just playing on the beach.

4. **Canoe Boats, Banana Boats, and Jet Ski:** The Bangsring Underwater complements water sports facilities with canoes, banana boats, and jet skis. There are 17 canoes available and 4 banana boats. Canoe rates for Rp. 30,000 per 30 minutes, banana boat Rp. 5,000 and jet Ski for Rp. 200,000.

5. **Homestay.** The homestay is located in the Bangsring Underwater Ecotourism area and is managed by the Bhakti Samudera Group. It is located approximately 10 meters from the beach, making it easier for visitors to enjoy all of Bangsring Underwater's nature. There are 5 rooms for a single or double bed. Homestay is built using semi-permanent materials so that visitors can feel the nature and the life of fishers in the past. It is shown in the following figure 8.

6. **Taking Photos with Beautiful Fish:** vacation to Bangsring Underwater will be completed by having a photo with beautiful wild fish in the Bali Strait. The management provides an underwater camera for Rp. 150,000/unit. For the cheapest package, visitors can rent a waterproof case for Rp. 35,000 and visitors can freely take pictures using their phones. Visitors also can ask to be captured by divers for the best result. Then the photos can be printed directly on the information stand. Visitors can pay a photo printing fee for Rp. 15,000/each.

7. **Crossing to Tabuhan Island:** Tabuhan is the name of an uninhabited island located in the east of Bangsring Underwater. Administratively, this island is included in the Banyuwangi Regency area. The small white sandy island also has snorkeling and diving spots. Visitors can visit Tabuhan Island by renting a boat from Bangsring Underwater for Rp. 500,000 for 10 people.

The satisfaction at Bangsring Underwater with tourism products is quite high, but several factors need to be improved, such as the cleanliness of the area and cleanliness of the facilities at Bangsring Underwater. The development of tourism products at Bangsring Underwater needed to care about the environmental aspects. Bangsring Underwater is friendly to the natural underwater environment. Management maintains ecotourism activities in Bangsring Underwater so that it can last. Bangsring Underwater management should always improve the cleanliness of facilities and beaches on land and in the sea.

Figure 8. Homestay in Bangsring Underwater (Source: Author, 2020)

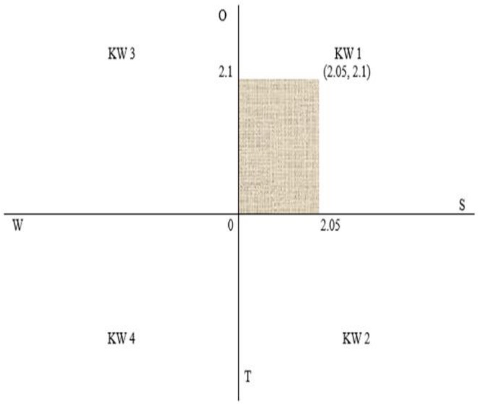

Figure 9. The SWOT Analysis Quadrant of Bangsring Beach

Bangsring Underwater always gets visits from international and local tourists every day. Visitors can snorkel, dive, swim with sharks, and use guide services to guide their activities, help take pictures in the water, or share other information related to Bangsring Underwater ecotourism. Some visitors also provide additional tips for the guides and visitor satisfaction with the guide's services. Bangsring fishers were only depending on fishing, now have more promising income from ecotourism. Business opportunities are also open to the Bangsring community. The management establishes stalls run by residents around Bangsring Underwater area. The stalls provide food, drinks, toys, and swimwear equipment. Bangsring Underwater is a place where fishers look for fish, which is underwater fills with coral reefs. Bangsring fishers use it as a land to find fish for sale.

Bangsring Underwater has tourism potential, which is currently being managed seriously for international tourism purposes. Currently, Bangsring Underwater has turned into a center for various types of water sports. Various choices of water sports are available with adequate facilities. Snorkeling, diving, banana boat, paddleboard can be enjoyed at Bangsring Underwater. The increase in the Bangsring Underwater destination occurred due to the active role of Bangsring fishers to improve the marine environment and to build the coastal area as a tourist destination (Nurhidayah, 2017).

Management of Bangsring Underwater Ecotourism as a Conservation-Based International Tourism Destination

The use of chemicals in fishing for ornamental fish has caused damage to the marine environment. However, the livelihood of the fishermen in Bangsring underwater was very much dependent on the sea. If the marine environment is damaged, it is difficult for fishers to catch fish, and it will affect to their economy (Montemayor et al., 2020; Untari and Suharto, 2020). Therefore, they were finally moved to improve their marine environment and try to improve their lives.

The awareness of Bangsring Underwater fishers to protect the environment arises from their love for their residence. The fishermen have been organized and have formed a community group called as the Samudera Bakti Group in around (samuderabakti.files.wordpress.com), and the members are seriously farming the coral reefs (Hadi, 2019). It took a long time to enjoy the benefits until they could enjoy the results. Natural conditions have changed fishermen's behavior, which was initially destructive, to protecting the marine environment (Asmit et al., 2020). "Nature is the home for all living things, if we destroy nature or other living things, this means we destroy ourselves" as a mindset embedded in the hearts of Bangsring fishers. The fishers made a deal, and the consequences for people who took the reef in the conservation area were penalized for returning 5 times. If someone takes 1 coral, they must replace it by planting 5 corals, and the multiples apply. The goal is that the underwater environment of Bangsring Underwater is preserved. The concern of fishermen for the preservation of the sea has now paid off. Bangsring Underwater is a marine ecotourism destination that is internationally acclaimed and brings economic benefits to them. The economic benefits they get actually make them even more enthusiastic about preserving the sea (Montemayor et al., 2020). Fishers are aware that visitors who come want to know the results of their hard work in planting coral reefs. Another advantage is that it is easier to invite visitors to take part in conservation activities and love the sea. The sea belongs to everyone, so everyone is obliged to protect and preserve. Bangsring fishers take effort to invite all levels of society to participate in preserving nature. It began with a visit to elementary schools on the coast of Bangsring and the surrounding villages. The fishers will enter the class and explain the importance of preserving the sea for approximately 2 hours. The activity is carried out voluntarily because they want to invite all people to be aware of the sea's importance for their lives. After visiting the elementary school, students and teachers were also invited to come to Bangsring Underwater to learn firsthand about the protection of coastal and marine life. The success of marine education at the elementary level encourages fishers to enter junior and senior high school levels.

Currently, fishers no longer need to come to every school, because the school comes directly to Bangsring Underwater to get marine education. Bangsring Underwater management built a theater on the beach to support the program as a learning facility. Many students, teachers, university students, and researchers come to Bangsring Underwater to learn directly from fishers. Marine education activities receive support from the Banyuwangi Marine and Fisheries Service. Marine education topics include care and planting of coral reefs. The activity is free of charge. Participants are only asked to replace the pipes used for planting. The pipes will have the school or institution name that planted or written on it. It is expected to create a sense of belonging and love for nature (Sulistiowati et al., 2020). The potential natural resources in Bangsring Underwater include various kinds of soft and hard corals and fish that live in Bangsring Underwater. The potential natural resources in Bangsring Underwater are scattered in several points in Bangsring Underwater, namely the Floating House, Coral garden, and the core zone. The tourism products offered at Bangsring Underwater include floating houses, snorkeling, scuba diving, canoeing, tourist boats, and transportation to Tabuhan Island and Menjangan Island. The satisfaction level of visitors at Bangsring Underwater with tourism products is high, but there are still several factors that need to be improved, such as the cleanliness of Bangsring Underwater and the cleanliness of the facilities at Bangsring Underwater (Budiman et al., 2017). Analysis of community-based ecotourism management was done using a SWOT analysis (Asmit et al., 2020). The management strategies, including 1) joint policymaking between the government and the community regarding sustainable ecotourism management; 2) educating tourists to create environmentally friendly tourism; 3) optimizing the role of stakeholders and increasing the role of the government in developing ecotourism in Bangsring Underwater (Nurhidayah, 2017; Sulistiowati et al., 2020). SWOT analysis resulted from internal factors (IFAS) and external factors (EFAS) in the Bangsring Underwater can be seen in the following Table 2 and Figure 9.

Table 2. Internal Factors (IFAS) and External Factors (EFAS) (Source: Reseach Data 2020)

Internal Factors (IFAS)				
Strengths (S)		**Weight**	**Rating**	**Score**
1.	Cultivating coral reefs are used as conservation objectives and main attraction	0.15	5	0.75
2.	Floating house as a shark conservation area	0.10	5	0.50
3.	There are many facilities to support water sports	0.15	5	0.75
4.	The main connecting route with The Private Island (Tabuhan Island)	0.15	5	0.75
5.	Wave height was in the low category	0.15	4	0.60
6.	There are many restaurants and homestays	0.05	4	0.20
7.	Large parking area and enough toilets	0.10	4	0.40
8.	Beach security is helpful	0.10	4	0.40
9.	NGO is managing the beach tourism	0.15	5	0.75
10	Promotion by governance is carried out regularly	0.10	4	0.40
11.	Connected with the Java-Bali national road	0.15	4	0.60
Total				**6.1**
Weaknesses (W)				
1.	The location is quite far from the city because it is located on the border with Situbondo Regency	0.25	5	1.25
2.	There is no visitor limit to preserve the environment carrying capacity	0.20	4	0.80
3.	The location is close to the river estuary, so the beach will be filled with garbage on the rainy days	0.40	5	2.00
Total				**4.05**
Strengths-Weaknesses		**2.05**		
External Factors (EFAS)				
Opportunities (O)				
1.	Cultivation of coral reefs is the main focus of all parties, from managers, fishers, traders, and stakeholders	0.20	5	1.00
2.	Spots for water sports are very safe with relatively flat wave heights	0.20	5	1.00
3.	Being one of the best underwater trends in Banyuwangi District	0.10	4	0.40
4.	The location is relatively close to Ijen Crater tourism, which is the main icon of natural tourism in Banyuwangi Regency	0.10	4	0.40
5.	The community and stakeholders are trying to start marine education as a tourist attraction and environmental conservation education	0.10	5	0.50
6.	Visit costs are relatively cheap	0.10	4	0.40
7.	There are many tour and travel agencies that provide visit packages for tourist	0.10	4	0.40
8.	Active involvement in the Banyuwangi cultural performance of "Majestic Banyuwangi"	0.10	5	0.50
Total				**4.6**
Threats (T)				
1.	Located near Watu Dodol Beach, which has the same characteristics and is located right on the main road connecting Banyuwangi-Bali	0.25	5	1.25
2.	Lack of awareness to maintain the cleanliness of the beach and there are no penalties	0.25	5	1.25
Total				**2.50**
Opportunities- Threat		**2.1**		

Based on the results, it can be concluded that the Bangsring Underwater coral reef ecosystem provided economic and ecological benefits for the communities around Bangsring Underwater. However, the long-term use of coral reefs also impacts coral reef ecosystems. Therefore, conservation works undertaken by management to preserve coral reef ecosystems include rehabilitating coral reefs with coral transplants, limiting visiting times for the ecotourism sector, and enforcement (Dilwan and Astina, 2019). Regulations related to the use of both fishing and ecotourism are also needed. Besides, fishers should make sea farming to maintain coral reefs' ecology in good condition to fish or coral reefs (Marlina et al., 2021). Management is expected to establish accommodation for tourists from outside Banyuwangi. Further research is expected to study more about sea farming (Yudhantara, 2017). Healthy coral reefs can support the local community's economy and generate profits every year, so sustainable management of the Bangsring Underwater area is needed to conserve coral reef resources (Asadi and Andrimida, 2017). The research results from SWOT table showed that the condition of coral reef cover in the core zone and the Bangsring Underwater Joint Protection Zone is dynamic and continues to change in a positive direction (Anugrah, 2015). Because of the important role of these waters for the community's economy as a tourist attraction and for the richness of biodiversity, especially in Banyuwangi, it is necessary to carry out sustainable coral reef conservation activities. The rehabilitation activity will be carried out jointly between the BISA Indonesia organization and Pokdarwis (Tourism Awareness Group) of Bangsring Underwater with Pertamina TBBM Tanjung Wangi's support (Bisaindonesia, 2018; Eshun and Tichaawa, 2020). Apart from coral reef rehabilitation activities, other activities were also carried out, such as increasing the capacity of BISA Indonesia counterparts (Bangsring conservation groups) in managing the Bangsring waters area. So that with this program, it is assumed that the community can independently manage the marine ecosystem so that the sea can be of better quality, and its benefits will be more significant for the welfare of the community, especially the people of Bangsring and Banyuwangi (Bisaindonesia, 2019).

CONCLUSION

Bangsring underwater has a high potential with some attractions, is accessible, and has amenities needed for the tourists. Management of underwater Bangsring ecotourism as a conservation-based coastal tourism destination is shown from various cultivations carried out with managers, stakeholders, and the community to maintain the ecology on the coast. As a result of various actions that can potentially damage the coastal environment, the Bangsring Underwater tourism environment has been developed by prioritizing environmental conditions. Systematic and sustainable management focused on ensuring the continuity of underwater life to increase domestic and foreign tourists. Coastal conservation has the main coordinator, namely the Samudera Bakti Group, who also works closely with all communities and stakeholders. Significant developments after implementing the conservation strategy have saved the rehabilitation of the marine environment and increased the economic growth of the surrounding communities.

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Article history: Received: 26.11.2021 Revised: 19.02.2022 Accepted: 21.03.2022 Available online: 11.04.2022

GeoJournal of Tourism and Geosites
ISSN 2065-1198, E-ISSN 2065-0817

Year XV, vol. 41, no. 2, 2022, p.400-407
DOI 10.30892/gtg.41209-843

INFLUENCE OF MACRO ENVIRONMENT ON TOURISM VALUE CHAIN IN VIETNAM: CASE OF DAKLAK PROVINCE

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Citation: Ha, T.K.D., Nguyen, T.K., Pham, T.M.N., Nguyen, D.Q., Truong B.T., Le, V.S., & Nguyen, H.T. (2022). INFLUENCE OF MACRO ENVIRONMENT ON TOURISM VALUE CHAIN IN VIETNAM: CASE OF DAKLAK PROVINCE. *GeoJournal of Tourism and Geosites*, 41(2), 400–407. https://doi.org/10.30892/gtg.41209-843

Abstract: The main aim of this research is to clarify the macro – environment factors that stimulate the visit intention and purchase intention of tourists. To reach the end this research applied the quantitative approach by the data collected from a questionnaire survey. There are 288 valid questionnaires that are collected from tourists who visit Daklak province – in the Central highlands of Vietnam. The authors tested the proposed hypothesis by SPSS software. The results showed that the economic, infrastructure, integration, politics have positive effects on both tourists' visit intention and product purchase intention. Moreover, the resource has positive influences on tourists' visit intention but do not has effect on purchase intention.

Key words: Tourist, value chain, macro environment, Vietnam, developing country

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INTRODUCTION

As the quality life increasing, the travel demand of people around the world is increasing rapidly. Currently, there are many different concepts of tourism and approaches from different angles. From the perspective of tourists, tourism is the activity of people going to a place outside their regular environment, in a certain period of time, the purpose of the trip is not to conduct money-making activities within the area visited (Aragon-Correa et al., 2015). From a broad perspective, tourism activities are activities of tourists, tourism business organizations and individuals, residential communities and state agencies related to tourism. Or tourism is a business that includes activities of organizing tour guides, production and exchange of goods and services of businesses to meet the needs of travel, food, accommodation, and sightseeing, entertainment, learning and the needs of tourists. Such activities must bring practical socio-political economic benefits to the tourism country and the business itself (Pulido-Fernández et al., 2015). Tourism product is a set of services necessary to satisfy the needs of tourists during a travel trip. Tourism products have the characteristics of being intangible, associated with tourism resource factors, and are seasonal (Ivanov et al., 2017). The tourism industry is an industry that provides all kinds of products and services to tourists conducting travel, excursions and sightseeing activities for the purpose of collecting fees. The tourism industry takes tourists as an object, takes natural resources as a support, takes tourism facilities as material conditions, and provides a variety of products and services for tourism activities (Han and Hyun, 2015). The tourism industry plays a role in establishing the relationship between visitors and tourism resources, and through business activities promotes local development. Tourism value chain is a concept to refer to a series of interconnected tourism services, representing the journey and activities of tourists. This system only works when all services are ready at the right time and quality. Previous studies have focused on studying the factors affecting the value chain in the tourism industry

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(Song et al., 2013), the role of value chain development in the socio-economic development (Mitchell, 2012; Thomas, 2014). Studies show that tourism value chain development is of great importance in reducing the proportion of the poor in society, helping the country's socio-economic development. However, to date, there have been few studies focusing on clarifying the influence of macro-environmental factors on the development of the tourism chain (Saner et al., 2019). Previous studies indicate that there is a need to further study the influence of the macro environment on the development of the tourism value chain, especially in developing countries. Therefore, this study wishes to clarify the research question: How do macro-environmental factors affect the tourism value chain in developing countries? To which extent the macro-environmental factors influence the tourism value chain? The macro environment in this study includes the economic environment, the political and legal environment, the socio-cultural environment, the international integration environment, and the infrastructure environment (Marin, 2015; Tohmo, 2018). This study will focus on clarifying the influence of these factors on the tourism value chain, namely the intention to visit and the intention to purchase local tourism products.

BACKGROUND THEORY AND HYPOTHESIS DEVELOPMENT

1. Tourist value chain

Value chain is a concept that was first introduced by Porter in 1985, in which every firm is a bunch of activities that are performed to prepare, produce, market, deliver, and support its product. The cooperation of these activities create benefits for the firm and creates value for customers. Value chain is the key source of the competitive advantage of firms. But previous scholars also showed that value is created not only by the firm itself, but also by different companies located across different areas or even countries. This is the concept of the macro value chain has also proposed (Anderson, 2018; Saner et al., 2019).

The macro value chain involves the full range of value-added activities required to bring a product or service from the conception or design stage, through the different phases of production, delivery to the ultimate consumers, and then to final disposal or recycling after use (Rylance and Spenceley, 2017). Components in the macro value chain are bundled together to co-create and co-deliver use value to customers (Anderson, 2018). At the same time, with sales of use value, players seek to capture the exchange value and generate profit for themselves if this exceeds the collective costs of performing all the required activities (Mitchell, 2012). Instead of firm-specific activities, the concept of a macro value chain has been applied mainly to industry activities, with much interest in the relationships between different actors participating in the value chain (Anderson, 2018). This research focuses on the macro level. In terms of definition, individuals, organizations, and firms involved in the tourism industry can be considered as nodes in a tourism value chain, collaborating to co-create and co-deliver sustained value for tourists while at the same time generating profits for themselves (Anderson, 2018). There are many aspects in the tourism value chain, but this research focuses on two main activities of a tourist, namely, visit intention and purchase intention as in research of (Kwak et al., 2019). Intention to visit a place is a common thread in measuring behavioral intentions (Su et al., 2020). Intention to visit is an important outcome variable, as it has a substantial correlation with travel behavior (Hosany et al., 2020). Purchase intention is the decision process psychologically (Chang, 2017).

With demands, a consumer would search for relevant information according to personal experiences and external environments in order to satisfy the demands. Once the information was sufficiently collected, the consumer would precede evaluations and considerations and decide to purchase a product after comparisons and judgment. In the decision process, a consumer would possibly take purchase behaviors on certain products when appearing demands and preference to the products (Chen and Chang, 2018). In other words, purchase intention was the possibility of a consumer purchasing certain products that the higher purchase intention presented the larger purchase probability (Filieri et al., 2017).

2. Hypothesis development

The macro environment includes factors of a broad nature, they affect and affect the entire competitive environment and the internal environment of the organization. Organizations cannot control the changes of factors in the macro environment, but organizations can use the advantages and disadvantages caused by it, turning it into their business opportunities. This study examines the influence of macro-environmental factors affecting the value chain so that the legislators and relevant agencies understand and have solutions to develop the local tourism chain as well as develop the value chain and the sustainable tourism.

2.1. Economic factors

Economic factors plays an important and decisive role in the business activities of enterprises. Specifically, economic growth rate, economic structure, exchange rate are economic factors that often affect the operation of all organizations in general and the tourism industry in particular. For the tourism industry, if the indicators of the economy grow well, the income of the population will increase, the living standard will be improved, the demand for tourism will therefore also increase, creating favorable conditions for the tourism industry development (MacNeill and Wozniak, 2018). Previous research showed that economic development increase the revenue and quality life of people in society, which in turns stimulate their demand for tourism services (Marin, 2015; Tohmo, 2018). We hypothesis that:

H1: Economic factor has a positive influence on tourists’ intention to visit.

H2: Economic factor has a positive influence on the purchase intention of tourists.

2.2. Infrastructure and value chain

Infrastructure in general has a special role to play in promoting tourism. The nature of tourism is to move, so it depends on the network of roads and means of transport. Communication is a necessary condition to ensure information between tourists and suppliers. In the infrastructure for tourism, it is also necessary to mention the electricity and water systems that directly serve the leisure and entertainment needs of guests. Today, the improvement of infrastructure is also considered as a direction to improve the quality of tourism services, a method of competition between tourist destinations and between countries (MacNeill and Wozniak, 2018). Technical facilities: play a very important role in the process of creating and implementing tourism products as well as determining the level of exploitation of tourism potentials to satisfy the needs of tourists (Jovanović and Ivana, 2016). The diversity and abundance of tourists' needs requires tourism technical facilities including many different components: accommodation, dining, sports and entertainment facilities... exist relatively independently but have a close relationship: the uniformity of the tourism service system contributes to improving the synchronization of tourism products and the attractiveness of tourist destinations (Grünewald et al., 2016). Therefore, the development of the tourism industry is always associated with the construction and completion of tourism technical facilities. We hypothesis that:

H3: Infrastructure has a positive influence on tourists' intention to visit.

H4: Infrastructure positively influence on the purchase intention of tourists.

2.3. Integration and value chain

Globalization is an objective trend, with more and more countries participating, peace, cooperation and development is still a trend that reflects the aspirations and requirements of each country and each people. In that context, tourism demand has increased, world tourism has developed rapidly with a tendency to gradually shift to the East Asia-Pacific region, especially Southeast Asia (Mowforth and Munt, 2015). This is really an opportunity to create momentum for Vietnam's tourism to develop. Regarding the increasing demand of tourists entering Vietnam from the markets of Japan, China, Germany, the US, and Southeast Asia. The entry and exit procedures have been significantly improved, making it convenient for tourists entering Vietnam to travel. Especially the visa exemption or allowing Chinese guests to enter all provinces in the country. However, tourism competition in the region and the world will be pushed to a high level in the context of globalization. Currently, the source of international tourists is dominated by large international travel agencies, unpredictable fluctuations of financial crisis, natural disasters, local wars, armed conflicts, ethnic conflicts, etc. religion, arms race, subversive intervention, terrorism (Tolkach and Pratt, 2019). Vietnam's tourism is in the early stages of development, the starting point is too slow compared to tourism in many countries in the region. Infrastructure has not kept pace with development, service quality is low, prices are high, products are not diversified... The system of policies and legal regulations related to tourism development is not synchronized (Danish and Wang, 2018). The mechanism is not very open compared to the requirements of development and international integration, and the relationship between management and development has not been well resolved. This fact leads to low competitiveness. Investment capital for tourism development is still very lacking, while investment is not synchronized and inefficient, which is a big challenge for the development of the tourism industry (Jovicic, 2016). Social awareness about tourism still has many shortcomings, lack of consistency in the formulation, direction, management and implementation of sectoral and territorial planning. We then hypothesis that:

H5: Integration has a positive influence on tourists' intention to visit.

H6: Integration positively influence on the purchase intention of tourists.

2.4. Politic environment and value chain

In the reality, a clear, open and stable political and legal institution will be the basis to ensure the convenience and equality for organizations in the economy (Bianchi, 2018). In particular, the tourism industry is an industry that is directly affected by the political and legal environment, and therefore it is very sensitive to the fluctuations of this environment. The industry is influenced by the development direction of the country, which is reflected in the legal system and sub-law documents, the state's policy tools and the organization of the administrative apparatus from the central to local levels (Ghalia et al., 2019). The policy of multilateralization, diversification of international relations, and respect for countries as friends and reliable partners are favorable opportunities for the tourism industry to develop in terms of market exploitation, avoid the risks in business due to political riots, and ensure the safety and security for international tourists. We then hypothesis that:

H7: Politic environment has a positive influence on tourists' intention to visit.

H8: Politic environment positively influence on the purchase intention of tourists.

2.5. Tourism resources and value chains

Tourism resources are natural and cultural historical totalities and their components that contribute to the restoration and development of human performance and intelligence, their working capacity and health, these resources used for direct and indirect needs, for the production of tourism services (Buckley et al., 2017). Tourism resources are divided into 2 categories, natural tourism resources and humanistic tourism resources. In which, natural tourism resources are objects and phenomena in the natural environment that surrounds us. Natural tourism resources are the living environment of tourism activities. The components of nature that are most important to tourism are topography, climate, water sources, animals and plants. In other side, humanistic tourism resources are objects and phenomena created artificially, such as historical - cultural - architectural relics, festivals, cultural - sports objects and other cognitive activities (Rahayuningsih et al., 2016). Tourism is one of the industries with clear resource orientation. The scale, nature, attractiveness and seasonality of tourism activities in a territory are determined on the basis of the volume, nature and value of tourism resources. Tourism resources have a direct influence on the territorial organization of the tourism industry, on the formation of structure and specialization of tourist areas and on the economic efficiency of tourism activities. Where there are richer tourism resources, the more attention and visits of tourists are attracted (Fossgard and Stensland, 2021). At the same time, as previous scholars indicated that rich tourism resources also enhance the behavior of tourists to buy tourism products and local products during their visit intention. Hence, we assume that tourism resources have an influence on the development of the local tourism industry value chain:

H9: Tourism resources have a positive influence on tourists' intention to visit.

H10: Tourism resources have a positive influence on the purchase intention of tourists.

2.6. Socio-cultural factors

This is an important group of factors that create the personality and lifestyle of consumers, and is also the basis for businesses including the tourism industry to choose and adjust business decisions. Socio-cultural impacts of tourism can be viewed from different and overlapping viewpoints: tourism impact studies, tourist – host interaction, tourist systems and tourists and their behavior (Wondirad et al., 2021). Research on the social and cultural impacts of tourism mostly falls into three categories: the tourist, the host, and the tourist – host interrelationships. In the tourism industry, high or low cultural and intellectual level determines the behavior towards tourists in communication, affects the quality of tourist services, creates attractiveness to attract tourists (Zhuang et al., 2019). Previous researchers indicated that a place where has abundant and particular sociocultural is a source of tourism development because these factors stimulate tourists visit and discover this place (Ooi et al., 2015). We then hypothesis that:

H11: Socio-cultural has a positive influence on tourists' intention to visit.

H12: Socio-cultural positively influence on the purchase intention of tourists.

From these hypothesis, the research model can depict as follow:

RESEARCH METHOD

1. Questionnaire design

To examine the research model and test the proposed hypothesis, this study applies the questionnaire survey to collect the data. Respondents who are tourists have visited Daklak and stayed there some days in their journey where they also buy some other products such as souvenirs or local specialties. The authors selected this type of respondents because they experienced already the tourist services and they can have a comprehensive about the macro aspects that this research focus on. Moreover, they participate directly in the value chain of tourism so they can give useful information that this research need. This research adapted items from previous studies and modified them to fit the new context of tourist value chain in Vietnam. All observed variables are expressed in the form of Likert-5 which range from 1 representing totally disagree to 5 representing totally agree. In which, politics scales include of 6 items adopted from (Farmaki et al., 2015); natural resource composes of 8 items applied from (Nathaniel and Adedoyin, 2020), sociocultural aspects with 7 items adapted from (Zhuang et al., 2019); infrastructure scales include of 8 items adopted from (Jovanović and Ivana, 2016), economic aspects compose of 6 items applied from (Kim and Kim, 2018), integration aspects with 7 items adapted from (Malek and Costa, 2015). This research focuses on two important aspects of tourist value chain, namely, visit and purchase, in which, visit scales include of 6 items adopted from (Seow et al., 2017) and tourist products purchase with 7 items modified from (Escobar-Rodríguez et al., 2017). To assure the validity of the questionnaire, this research applies the back – translation technique by specialists in English and in tourist field. That means the original items in English were translated into Vietnamese and then translated back into English, the specialists in English and tourism compared these versions and form a draft version. This draft version was examined and checked with 30 tourists through a pilot test. From that the authors formed the final version of the questionnaire.

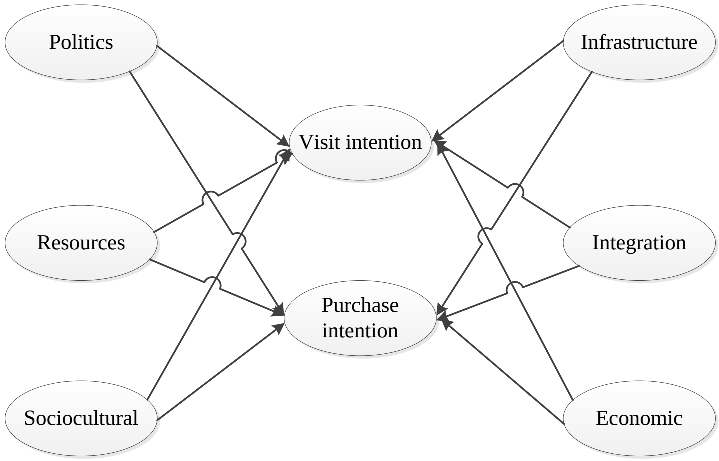

Figure 1. Research model

Table 1. Demographic information of respondents
[*] Notes: The per capita income in Vietnam (2020) is 2750 USD (General Statistics Office of Vietnam)

Factors	Component	Amount	%
Gender	Male	138	47.9
	Female	150	52.1
Age	Under 25	45	15.6
	25 – 35	102	35.4
	36 – 45	104	36.1
	Over 45	37	12.9
Yearly income[*] (USD)	Under 2000	25	8.7
	2000 – 3000	159	55.2
	3000 – 5000	70	24.3
	Over 5000	34	11.8
Education	High school	47	16.3
	College	70	24.3
	University	148	51.4
	Other	23	8.0

2. Data collection

The main objective of this research is to evaluate the value chain of tourist in Daklak (Vietnam). In detail this research focuses on the intention to visit and purchase tourist products of tourists. So the population for this research is all the tourists who have visited Daklak. Dak Lak province is located in Central Highlands, the upper course of Serepok River and a part of Ba River. Its geographic coordinates are from 107°28'57" to 108°59'37" east longitude and from 12°9'45" to 13°25'06" north latitude with an average elevation about 400 - 800m. Dak Lak is 1,410km far from Ha Noi and 350km from Ho Chi Minh City: The East borders Khanh Hoa, Phu Yen provinces; The North borders Gia Lai province; The South borders Lam Dong, Dak Nong provinces; The West borders the Kingdom of Cambodia. Daklak occupies an area of 13,125.37 square kilometers. There are 47 ethnic minorities living in Daklak, of which the Kinh accounts for about 70%, and ethnic minority communities such as: Ede, M'nong, Thai, Tay, Nung, etc. account for 30 percent of the total population. Dak Lak province in the Central Plateau Viet Nam, a land famous for its coffee, rubber and festivals. Forests in Dak Lak is distributed throughout the district with a variety of wood and rare animals, mainly in Yok Don National Park, Nam ka conservation areas, nature reserves Eakar. Natural geographical conditions of Daklak suitable for tourism development, with the river system lakes, streams, waterfalls, such as Serepok River, Lake Lak, Dray Nur, Gia Long waterfall, waterfall ChuYangSing KrongKmar... national parks, Yok Don, the nature Ea So. That means Daklak has a vast natural resources and condition to develop the tourism. The authors applied a simple random sampling method using questionnaires at the hotels in Daklak. The questionnaire consisted of 55 main questions, so according to (Hair et al., 1998) the minimum sample size would be 275 questionnaires. To collect the most appropriate responses, the research team selected 15 tourist places in Daklak and 20 respondents for each places. The survey was performed during one month. Finally, the result has a total of 288 valid questionnaires collected after the survey, means the rate about 96%. The demographic information of the respondents is presented in the Table 1 as above.

RESEARCH RESULTS

This study applied the partial least square regression (PLS-SEM) path model to test hypotheses through Smart PLS 3.0 software (Ringle et al., 2015). In comparison with other empirical analytical methods, the proposed research model is the most suitable for this research because it focuses on predicting and explaining the complex relationship between the variables in the model and consistent with the small research sample in comparison with the total items (n = 288). Furthermore, it can explain a relationship of reflective construct and formative construct.

Table 2. Measurement model evaluation

Variables	AVE	CR	Cα	Rho_A
Economic	0.549	0.827	0.745	0.919
Infrastructure	0.703	0.95	0.94	0.945
Integration	0.61	0.862	0.796	0.846
Politics	0.722	0.928	0.903	0.911
Resources	0. 64	0.942	0.923	0.923
Sociocultural	0.617	0.863	0.805	0.867
Visit	0.665	0.888	0.831	0.836
Purchase	0.659	0.906	0.87	0.873

Table 3. Construct AVE correlation

	Economic	Infrus.	Integration	Politics	Resources	Social	Visit	Purchase
Economic	0.741							
Infrustructure	0.268	0.839						
Integration	0.206	0.267	0.781					
Politics	0.249	0.425	0.126	0.849				
Resources	0.133	0.583	0.299	0.404	0.812			
Social	0.363	0.5	0.105	0.503	0.359	0.874		
Visit	0.185	0.25	0.006	0.122	0.147	0.434	0.786	
Purchase	0.191	0.63	0.264	0.462	0.52	0.502	0.38	0.815

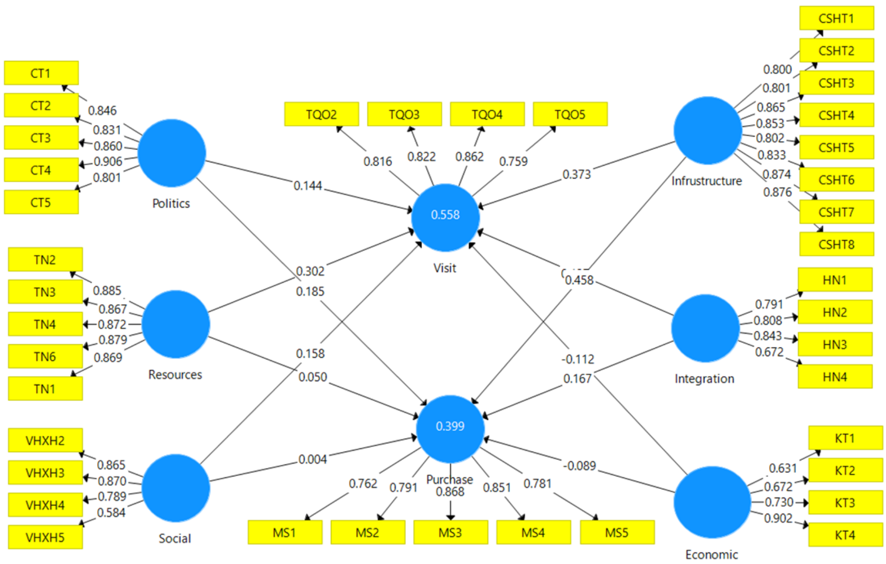

Figure 2. PLS testing results

1. Scales measurement evaluation

To evaluate the scales, the current research used Cronbach's alpha (Cα), composite reliability (CR) and average extracted variance (AVE). In which, the minimum loading factor is 0.63 and the highest is 0.90, satisfying the cut-off value 0.5. Besides, values of Cα ranging from 0.79 to 0.94 and values of CR ranging from 0.82 to 0.95 are both greater than the level 0.7 (Bagozzi and Yi, 1988). These evidence confirm the reliability of the scales satisfying the requirements. In addition, AVE values from 0.55 to 0.76 both satisfy cut – off value of 0.5 (Fornell and Larcker, 1981), indicating that the convergence value is satisfactory (Table 2). To test discriminant validity, this research first used the AVE value of each variable in the correlation to other variables (the Fornell - Larcker criteria). Then, the analytical results showed that the square root of AVE is greater than the correlation coefficient with other variables, demonstrating that the scales ensure discriminant validity (Table 3). Because this research using self-assessment questionnaire, the authors also tested the potential multicollinearity by using variance inflation factors (VIF). As proposed by (Hair, 2009), if VIF value is more than 4 that means there exist the multicollinearity. The VIF testing results showed that VIF values of all scales are less than 2.3 that means the multicollinearity do not exist in this research.

2. Evaluation of structural model

After evaluating the scales by testing reliability, convergence, discriminant validity, and potential multicollinearity, the authors applied the PLS-SEM model to test the relationship of variables using SmartPLS software. The results of the relationships are shown in Figure 2. The results of data analysis show is seen detail in the Table 4 as follow:

Table 4. Testing results of path coefficients

	Original Sample (O)	Sample Mean (M)	Standard Deviation	T Statistics	P Values
Economic -> Purchase	0.09	0.08	0.05	1.67	0.09
Economic -> Visit	0.11	0.10	0.05	2.44	0.01
Infrastr. -> Purchase	0.46	0.46	0.07	6.78	0.00
Infrastr. -> Visit	0.37	0.37	0.04	8.71	0.00
Integration -> Purchase	0.17	0.17	0.06	2.89	0.00
Integration -> Visit	0.14	0.14	0.03	4.10	0.00
Politics -> Purchase	0.18	0.18	0.06	2.94	0.00
Politics -> Visit	0.14	0.14	0.04	3.65	0.00
Resources -> Purchase	0.05	0.05	0.08	0.63	0.53
Resources -> Visit	0.30	0.30	0.05	6.23	0.00
Social -> Purchase	0.00	0.00	0.05	0.08	0.34
Social -> Visit	0.16	0.16	0.05	3.28	0.00

The results showed that economic environment has a positive and significant effect on visit ($\beta = 0.11$; $p < 0.05$, t-value = 2.44) but do not has impact on purchase intention of tourists ($\beta = 0.09$; $p > 0.05$, t-value = 1.67). Tourist infrastructure positively influence on both visit intention ($\beta = 0.37$; $p < 0.01$, t-value = 6.78) and purchase intention of tourists ($\beta = 0.46$; $p < 0.01$, t-value = 8.71). In the same vein, tourist integration has a positive effect on both visit intention ($\beta = 0.14$; $p < 0.01$, t-value = 4.1) and purchase intention of tourists ($\beta = 0.17$; $p < 0.01$, t-value = 2.89). In addition, politic environment positively influences on both visit intention ($\beta = 0.18$; $p < 0.01$, t-value = 3.65) and purchase intention of tourists ($\beta = 0.14$; $p < 0.01$, t-value = 2.94). Natural resources have a positive and significant effect on visit intention ($\beta = 0.3$; $p < 0.01$, t-value = 6.23) but do not has impact on purchase intention of tourists ($\beta = 0.05$; $p > 0.05$, t-value = 0.63). In the same vein, sociocultural environment has a positive and significant effect on visit intention ($\beta = 0.16$; $p < 0.01$, t-value = 3.28) but do not has impact on purchase intention of tourists ($\beta = 0.00$; $p > 0.05$, t-value = 0.08). The evidence showed that hypothesis H2, H3, H4, H5, H6, H7, H8, H10 and H12 are supported but the hypothesis H1, H9 and H11 are not supported.

CONCLUSION

Nowadays, tourism is becoming one of the most important industries for all the countries in the world but to develop this industry is not easy that need to have a more comprehensive understanding of the value chain in this industry. That means knowing the activities that create the values for the company or for the local community. In this research, the authors focus on the two main activities in the tourist industry, namely, visit intention and purchase tourist products intention. That means in the tourist value chain, tourists visit a place, apart from the main tourist products, they can purchase other local products or services. To date, there are many research on the tourist industry value chain but a little focusing on the influence of macro environment. This research attempts to clarify how macro environment aspects influence the tourist value chain of Daklak province in Vietnam. Specifically, this research focus on the economic, politic, sociocultural, infrastructure, integration and natural resources to the intention of visiting and purchase local tourist products. Research shows that the infrastructure have strong effects on the tourist value chain in Daklak province. In detail, the higher the development of infrastructure investment, the higher level of tourist visit intention ($\beta = 0.37$; $p < 0.01$, t-value = 6.78) and purchase intention of tourists ($\beta = 0.46$; $p < 0.01$, t-value = 8.71). This research contributes the new knowledge to the literature in the hospitality and tourist industry. The evidence also show that infrastructure has the strongest effect on the visit intention and purchase intention of tourists. In addition, the results also indicated that the natural resource has a strong effect on visit intention of tourists' intention ($\beta = 0.3$; $p < 0.01$, t-value = 6.23) but do not has impact on purchase intention of tourists ($\beta = 0.05$; $p > 0.05$, t-value = 0.63). This finding partly confirms the results from (Nathaniel and Adedoyin, 2020) but contrast with (Chia-Jung and Pei-Chun, 2014). In the same vein, this research confirm the findings of (Assiouras et al., 2019) in term of evidence that politic environment has positive impact of both purchase and visit intention. Moreover, this is among the first research that has discovered the relationship between integration on tourist value chain, both visit intention ($\beta = 0.14$; $p < 0.01$, t-value = 4.1) and purchase intention of tourists ($\beta = 0.17$; $p < 0.01$, t-value = 2.89). Furthermore, the evidence also showed the influence of sociocultural has positive effect on visit intention of tourists' intention ($\beta = 0.3$; $p < 0.01$, t-value = 6.23) but do not has impact on purchase intention of tourists ($\beta = 0.05$; $p > 0.05$, t-value = 0.63). This result confirmed the finding from the research of (Lee et al., 2010) but this research also give more insight of other research in term of determinant factors of tourist value chain (Han, 2020).

Beside theoretical contribution, this research also give some practical contribution as follow. Firstly, this research proposes that policy makers need to understand the importance of the macro environment factors on the development of tourist. Tourist value chain is a new construct but can be understood of two components, namely, tourist visit intention and purchase intention which contribute to the development of local community. Moreover, the results showed that infrastructure has the strongest influence on both tourist intentions to visit and to purchase tourist products. That means, it is necessary to have a suitable investment policy in the infrastructure of the tourist industry because this factor has positive effect on the value chain (visit and purchase). Secondly, this research indicates the important role of natural resource contributes to the tourist value chain. In Daklak, there are many tourism resources because this is a province in the highlands, with many beautiful scenes, mountains, rivers, streams and lakes to develop eco-tourism. This place also has many ethnic minorities, with their own unique cultures, which is the foundation for the development of community tourism and spiritual tourism. In addition, the rich natural scenery and many typical local products are also the foundation for Daklak to develop resort tourism with new types such as homestay. In addition, the results of the study indicate that tourism resources play an important role in the intention to visit, but there is no evidence that it affects the intention to purchase products. Therefore, the study suggests policy makers to synthesize, select and develop the type of tourism that is suitable for the locality and at the same time have policies to develop related tourism products to increase the tourist value chain.

Thirdly, this research shows that the more politically stable of a place is, the more favorable conditions for the development of tourism there. Therefore, local authorities need to take measures to maintain stability in the locality. To do this, it is necessary to have policies in term of dissemination the law to the people. At the same time, there are appropriate solutions to improve the quality of life of local people. Thereby creating confidence in the leadership of the Party for political stability, local economic development in general and tourism value chain in particular.

Fourthly, in the context of current globalization, the trend of traveling has become popular, and people's demand for travel is increasing. This is a favorable condition for localities to develop tourism products suitable to their potential and advantages. The results of this study also show that integration has a positive effect on tourists' intention to visit and shop when traveling. They tend to buy local specialties as gifts for friends, relatives and memories for the trip. Therefore, the locality needs to research and develop unique, attractive products and attract tourists to develop local tourism.

Fifth, the study also shows that socio-cultural factors have an impact on the intention to travel but not on the shopping intention of tourists. This is understandable because people only need to visit, they have little habit of shopping during the trip. Moreover, tourist trust towards sellers in term of product quality sold at tourist destinations is still low, tourists are afraid to buy low-quality, high-priced goods. Therefore, local tourism people need to have policies to build brands of local products and communicate to tourists. At the same time, it is necessary to take measures to ensure the quality and appropriate prices of tourism products for tourists to trust and recommend to others to buy. Thereby developing local tourism value chains and improving people’s lives. Finally, the study shows the effect of economic factors on the intention to visit but not on the purchasing behavior of tourist products. This implies that when economic conditions increase, people's demand for sightseeing increases but they do not really intend to buy products. This is consistent with the socio-cultural factors analyzed above. Research shows that the State, government and localities need to have appropriate policies for economic development, thereby promoting the development of tourism, thereby creating a premise for sustainable development in the locality. Even having a lot of theoretical and practical contributions, this research also exists some limitations. Firstly, this research only collected the data from tourists who visited and stayed in Daklak, which may lead to incomplete and unrepresentative Vietnamese tourists. So that, future research could expand the investigated area to have a more complete and comprehensive research sample. Secondly, this research did not indicate some of the variables that could moderate these relationships, such as gender, income, age, and education level. This limitation suggests for further research clarifying a more comprehensive understanding of the relationship between macro environment and tourist value chain. Last but not least, future research could propose new variables to give a deeper knowledge to this topic, as well as other hot topics in the practice of developing countries.

Acknowledgments

Thank VNU University of Economics and Business, Hanoi for financing the Research Project number KT.20.01. This paper has been extracted from this research.

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Article history: Received: 04.10.2021 Revised: 20.02.2022 Accepted: 22.03.2022 Available online: 11.04.2022

GeoJournal of Tourism and Geosites
ISSN 2065-1198, E-ISSN 2065-0817

Year XV, vol. 41, no. 2, 2022, p.408-414
DOI 10.30892/gtg.41210-844

EMPIRICAL EVIDENCE FROM HOTEL INDUSTRY ON THE DIMENSION OF CUSTOMER RELATIONSHIP MANAGEMENT & THEIR INFLUENCE ON ORGANISATION PERFORMANCE

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Citation: Sanasam, L., Pradhan, B., & Mohanty, S. (2022). EMPIRICAL EVIDENCE FROM HOTEL INDUSTRY ON THE DIMENSION OF CUSTOMER RELATIONSHIP MANAGEMENT & THEIR INFLUENCE ON ORGANISATION PERFORMANCE. *GeoJournal of Tourism and Geosites*, 41(2), 408–414. https://doi.org/10.30892/gtg.41210-844

Abstract: The aim of this paper is to study the dimensions of Customer Relationship Managment (CRM) viz., Customer Orientation, CRM Organisation, Knowledge Management and Technology based CRM and its impact on the organisational performance in hotel Industry in Odisha. To assess to what extent the dimensions of CRM impact the hotel performance, this research employs Balance Score Card (BSC) approach. This is a quantitative study that incorporated convenience sampling technique wherein the responses were taken from 160 managers of classified hotels (three star to five star category only) via an online survey method. Inorder to meet the study's objectives statistical methods like Pearson Corelation and Multiple Regression Analysis were used. The results of the study stated that Customer Relationship Managment and its dimensions have a positive relationship with hotel organisational performance. Managerial implications are based on the premise that in order to enhance the organizational performance in hotel industry in Odisha, it is pertinent to build and have in place an effective and efficient dimensions of CRM.

Key words: customer relationship management, dimensions of CRM, organisational performance, inferences drawn from the study

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INTRODUCTION:

Customer Relationship Management is one of the essential tools for hotels in order to have a competitive edge. The paper is about the Customer Relationship Management (CRM) and its dimensions customer orientation, CRM organisation, knowledge management and technology based CRM and its relationship with organisational performance in hotel industry in Odisha. To assess to what extent the dimensions of CRM impact the hotel performance, this research employs the Balance Score Card (BSC) approach and the conceptual research framework adopted and used by Abdul et al. (2013). This is a quantitative study that incorporated a convenience sampling technique wherein the responses were taken from 160 managers of classified hotels (three-star to five- star category only) via an online survey method. In order to meet the study's objectives statistical methods like Pearson Correlation and Multiple Regression Analyses were used. The results of the study stated that Customer Relationship Management and its dimensions have a positive relationship with hotel organisational performance. Managerial implications are based on the premise that to enhance the organizational performance in hotel industry in Odisha, it is pertinent to build and have in place effective and efficient dimensions of CRM. It is paramount that hotels embrace strategic technology based CRM to enable the managers of hotels to serve their customers in an efficient and effective manner and to enhance hotel's performance (Abdel, 2016). Further, it has been hypothesized by Mohammad et al. (2014) that customer relationship management is widely accepted tool that supports customer-oriented organization decisions for modern day business organizations. By and large, it is today is one of the best strategies and practices to improve the organization performance on a long-term sustainable basis (Wu and Lu, 2012; Sigala, 2005 and Kasim and Minai, 2009).

In Odisha, the hotel industry functions in a highly competitive and vulnerable environment where the total tourist arrivals (domestic & international) in the year 2015-16 was 1,20,67,695 and in 2019-2020 till March 2020 was 1,50,35,593 (Odisha Tourism Annual Report, 2019-20). Besides, the occupancy rates of star category hotels in Odisha having 860 rooms and 1731 beds have varied between 2014 and 2018 (Statistical Bulletin 2018, Department of Tourism, Government of Odisha). This shows that the performance of hotel in Odisha needs further growth. In other words, an appropriate strategy may be used by hotel managers to cash in on the tourist's arrivals to the State in accordance with the number of rooms and beds available and to develop the overall performance of the hotel organizations (Alshourah, 2012). Moreover, to ensure effective CRM and to maintain effective employee relations, the management of various star categories of hotels

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in Odisha has been constantly endeavoring to remain relevant, focused to connect and communicate with their prospective clients and customers through digital and social media platforms during the pandemic. These leading hotels have left an indelible mark through various promotional activities such as interactive videos, photos, etc. sending a strong message with a touch of assurance with regards to safety, hygiene and cleanliness (Smrutirekha et al., 2020).

Subsequently, to enhance the profits of hotel organisations, an effective and efficient CRM is needed. Hence, hotels should lay emphasis on implementing strategic customer relationship management software that collects, stores and shares relevant data at hotel and different organisational levels for improved personalized and unique guests and customers experience (Mohammed et al., 2014; Ammari, 2014; Abdullateef, 2011). In this regard, Mahatma Gandhi understood the need for CRM and he also quoted that "Customer is the most important person for a business. He is not an interruption to our work but the purpose of it. He is not an outsider; he is a part of it. We are not doing him a favour; he is doing us a favour allowing us to serve him". This implies that he strongly advocated the need to implement customer relationship management and this quote by him firmly resonates with underlying principles of CRM that propagate building and maintaining long-term relationships to maximize profits through the implementation of appropriate customer-centric strategies. Despite of the need and the use of customer relationship management in today's organizations and although there is extensive use of CRM in the tourism industry, research and studies are limited as far as the hotel industry is concerned (Ammari and Nusair, 2015; Hermans et al., 2009; Vogt, 2011; Wu and Lu, 2012). Further, research on dimensions of CRM and organizational performance have been inadequate from the academics and research perspectives with only a few empirical studies carried out (Piskar and Faganel, 2009; Kumar, 2008; Krasnikov et al., 2009). And more so a few researches are mentioned on the captioned subject in the hotel industry (Wu and Lu, 2012). Sin et al. (2005) opined that there is a need to explore the relational dynamics between CRM and its dimensions and organizational performance, whereas, Zablah et al. (2004) emphasized that whether customer relationship management improves organizational performance is not adequately agreed upon, hence, managers are found wanting as far as customer relationship management and performance of organization is concerned. Based on this premise and to fill in the research gap, it has been proposed to carry out the study and the main research question in this analysis is – To what degree the CRM and its dimension affect the hotel organisational performance. The solution to the problem in question will provide important insights to the field of academia and the industry practitioners in particular to fill the study-gap in the study of customer relationship management literature (Sin et al., 2005; Akroush et al., 2011; Wu and Lu, 2012).

Furthermore, findings of this study will enable the management of hotels to ascertain which CRM dimension strongly impacts the hotel organizational performance and which dimension moderately affects the performance. This will allow them to use and realign the internal resources of their hotels to enhance their performance. The flow of the study will be in the following order: Discussion of CRM and its dimensions and organizational performance and its measurement, hypotheses of the study, methodology, findings, discussion, inferences and conclusions.

Customer Relationship Management (CRM) and its Dimensions

Antonio Torres (2004: 14) defines customer relationship management "a strategy or activities employed by an organization to have an edge over its competitor. In essence, it is identifying and implementing the right activities at the right time to out-do their counterparts". According to (Herman et al., 2020) is a strategy in identifying the needs of the customers and developing a relationship by providing them with specific products and services to make them loyal customers. This helps the organization in reducing its marketing costs and improving customer relationships (Al-Dmour et al., 2019; Herman et al., 2020). Sin et al. (2005) and Yim et al. (2005) postulated, customer relationship management is a multi-dimensional concept that includes four behavioural dimensions customer orientation, CRM organisation, knowledge management and technology-based CRM on the basis of the literature review on customer relationship management and interviews with managers of selected organisations. They further affirmed that their findings are in line with the generic concept of CRM implementation featuring Business Process, Strategic function, Technological advancement and above all human architects- the people within the organisation (Fox and Stead, 2001) and their intertwining with the factors as mentioned above to enhance the performance of the organization (Yim et al., 2005 and Sin et al., 2005). Further, customer relationship management has been derived from the customer orientation perspective that has been implemented to improve the customers and hotel organizations (Wu and Lu, 2012). Hence, this study incorporates the Customer Relationship Management and its determinants examined earlier and as matter of fact, these dimensions strongly conform to the underlying concept of customer relationship management – business process, strategic function, technological advancement and the people.

Customer Orientation

As the term suggests, it is nothing but the approach or initiation by an employee to meet the needs of a customer. It has a significant positive effect on the satisfaction level of customers. This customer-centric approach not only helps in maintaining a harmonious relationship with the customers but also enhances the overall performance of the organization (Brown et al., 2002). Further, various studies in the past have indicated a significant positive effect as far as the overall organisational performance is concerned (Kim, 2008; Yilmaz et al., 2005). The outcome of these studies suggests that managers in service-oriented organisations need to focus and implement customer oriented behavioural strategy that promotes customer satisfaction, customer loyalty and increased organisational performance (Minghetti, 2003). Hence, a good strategy that is aimed at customers' satisfaction and loyalty in the hotel organization will lead to enhanced brand image and increased performance (Fan and Ku, 2010; Tajeddini, 2010). The ever-changing organisational dynamics of hotels has paved the way for the hoteliers to carve out initiatives to identify, develop and retain prospective customers. All these initiatives are carried out under the ambit of CRM (Ibrahim and Ahmad, 2010; Alshourah, 2016). Studies by (Ou and Banerjee, 2009; Sohrabi et al., 2010; Urban et al., 2014; Alshourah, 2016; Jaber and Simkin, 2017) hypothesized that a significant precursor to the success of customer relationship management is customer orientation.

CRM Organization

Customer focus is important to a company as its organization around CRM system as the organization needs to be in sync with the customer relationships (Yim et al., 2005; Alshourah, 2016). The successful integration of CRM around the organization includes structure, resources, management of human resources, etc. Hence, it is pertinent that for CRM to be successful it is not the technology and the customer orientation that matters, but, the integration of the entire processes around it (Sin et al., 2005; Yim et al., 2005). Ku (2010) also emphasizes that efficient service and appropriate operational procedures are important in CRM implementation. And, this requires the whole hearted support and involvement of dedicated employees to do so (Boulding et al., 2005; Payne, 2006; Tamilarasan, 2011). It is CRM organization that becomes so very important means in the scheme of things to manage the businesses processes with respect to customers and employees. At the end of it, the marketing functions, organisational policies, organization culture and structure need to be incorporated in implementing CRM successfully for better organisational performance (Sin et al 2005; Yim et al., 2005).

Knowledge Management

Knowledge about the customer is essential and vital to the organisational resource as it helps the organization to strengthen its bonding with the customers to have an edge over its competitors (Croteau and Li, 2003; Shi and Yip, 2007). Furthermore, CRM success depends upon the transfer of information pertaining to the knowledge of the customer (String et al., 2004; Plessis and Boon, 2004). In order to meet the needs and wants of the prospective customer, the knowledge that is created about the customer must be disseminated and shared throughout the organization (Ryals and Knox, 2001). It is for this reason; knowledge management supports the organization to a large extent in building a strong rapport and a healthy relationship with the customer who in turn impacts the performance of the organisation (Yim et al., 2005; Akroush et al., 2011; Sin et al., 2005). Thus, for the organisatons to continue relevant in business, they have to gather information about the customer and make the best use of the shared knowledge to maximize organisational performance and to sustain profits in the long run (Sofi et al., 2020).

Technology- Based CRM

The emergence of technology has been a boon to organisations as it plays an important part in successful CRM implementation in the organisation. Organisations in the field of hospitality management extensively use technology to their advantage to strengthen their relationship with the customers and guests via different platforms such as the company's website, marketing based on database, social media and so on (Sota et al., 2019). In this regard (Diffley et al., 2018) found that social customer relationship management helped the organizations in maintaining good customer relationships leading to enhanced innovation and increased financial gains. Talón-Ballestero et al. (2018) too found out the use of Big Data from the technology-based CRM system in not only profiling the customers but also identifying the repeat customers and guests of the hotels. Similarly, there have been various studies related to technology like Data Mining (DM), Facebook (FB), organisational website usage, cell phone technology and Information Systems (IS) (Dursun and Caber, 2016; Suet al., 2015a; Bilgihan and Bujisic, 2015; Anne Coussement and Teague, 2013; Ku, 2010). These apart, technology- based CRM studies in the past have provided us with ample evidence about their role in influencing organisational performance (Sin et al., 2005, Akroush et al., 2011; Kasim and Minai, 2009). It is, therefore recommended that CRM Based Technology must be implemented by the hotel organisations to gather, analyse and disseminate customer knowledge and information both within and outside for achieving better organisational goals and performance (Sofi et al., 2020).

Hotel Organizational Performance and its Measurement

According to (Mohammed et al., 2013), the measurement of an organisation's performance have to be a multi-dimensional approach which means the performance should not and cannot be evaluated based on a single entity. To evaluate the hotel organisational performance, we have used the Balanced Scorecard (BSC) that focuses on customers, internal processes and learning & growth (Mohammed et al., 2013). This is widely used in non-profit firms and manufacturing units (Kaplan and Norton, 1992) has been extensively used by many writers of business while reporting the measurement of organisational performance (Goulian and Mersereau, 2000). Chang and Ku (2009) reiterated that this approach ensures the translation of organisational mission, vision and strategies in measurable terms from internal processes and financial perspectives. In support of this, researchers have highlighted that measurement of financial performance cannot fully justify the importance and impact of CRM strategies within the organization, therefore, all the vital dimensions need to be embedded with CRM to evaluate overall organisational performance and one such approach is the use of BSC (Wu and Hung, 2007). In a nutshell, to examine the performance of an organization using BSC both financial and non-financial factors need to be taken into account (Kaplan and Norton, 2004; Wu and Hung, 2007; Wu and Lu, 2012). Hence, this study uses the BSC to evaluate hotel organisational performance since hotels comprise various activities such as food & beverages front office operations, housekeeping operations, storeroom operations, etc. (Paraskevas, 2001).

Hypotheses

In order to evaluate the hotel organisational performance, this study used four BSC perspectives based upon the previous studies on the influence of dimensions of CRM on Organisational Performance as well as the theory on Resource Based View (RBV). Based on this premise and the literature reviews, the following hypotheses were formulated for this study:

H1: The dimension of Customer Orientation impacts the Hotel Organisational Performance
H2: The dimension of Knowledge Management impacts the Hotel Organisational Performance
H3: The dimension of CRM Organization impacts the Hotel Organisational Performance
H4: The dimension of Technology based CRM impacts the Hotel Organisational Performance

RESEARCH METHODOLOGY

Data Collection

In order to collect the data, a structured questionnaire was emailed to the selected hotels that are three-to-five-star ratings and would be more interested in the implementation of CRM (Kasim and Minai, 2009). The study incorporated Convenience Sampling Technique to collect the data. The respondents of the study were the Hotel Managers that include Senior and Mid-Level. To expedite the process and to enable the respondents to complete the questionnaires, the researcher personally visited some of the hotels. Out of 195 questionnaires distributed, 111 questionnaires were sent via emails and the remaining 84 questionnaires were distributed in person. A total of 175 questionnaires were received and out of these 15 questionnaires were incomplete, hence, not usable. Finally, 160 questionnaires were useful for analysing the data with a response rate of 82.05%.

Measurement Scales

The dimension of Customer Orientation was developed by Moreno and Melendez (2011) and the dimensions - CRM Organisation, Knowledge Management and Technology-based CRM were developed by Sin et al. (2005) and Yim et al. (2005), whereas, the dimension of hotel performance developed by Wu and Lu (2012) were used for the study. All the dimensions were adopted by Mohammed et al. (2013) in their study. The 40 items of the constructs were rated on a five-point Likert Scale where 1= strongly disagree and 5= strongly agree.

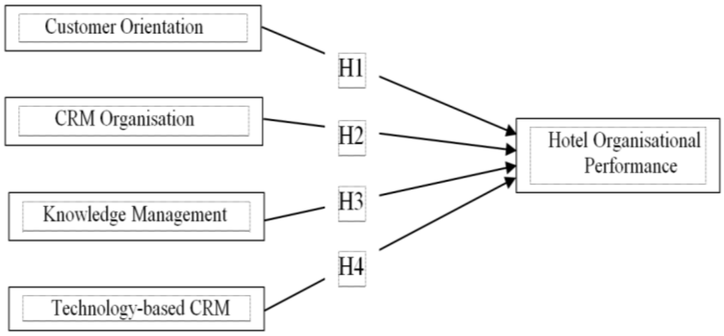

Figure1. Conceptual Framework

Research Design

The research employed Survey Research Design to collect information about respondents' attitudes and beliefts (Hair et al.2010). Likert Scale as considered to be the most appropriate scale by the researchers (Sekaran, 2010) was used for this study. All items were measured using five-point Likert Scale for achieving consistency amongst the constructs and to reduce confusion of the respondents (Ackfeldt and Coole, 2003). The Table 1 reveals the mean and SD values of Customer Orientation (3.810 & 0.474), CRM Organisation (3.712 & 0.512), Knowledge Management (3.694 & 0.586), Technology-based CRM (3.721 & 0.615) and Hotel Organisational Performance (3.881 & 0.485) respectively. The table- 2 provides the Reliability of Scale Analysis using Cronbach's Coefficient Alpha which is the widely used indicator to assess the internal consistency of a scale. The value < .60 is poor, between .70 to .80 is acceptable and over .80 is excellent. The test of Reliability of the Scale of this study revealed that all above mentioned variables of the study have Cronbach's Coefficient value of 0.812, 0.802, 0.832, 0.821 and 0.874 respectively which is considered to be good (Pallant, 2007; Sekaran, 2000; Hair et al., 2006; Nunnally, 1978).

Table 1. Descriptive Statistics (n= 160)
(Source: Primary Data Reliability of Scale)

Variables	Mean	SD
Hotel Organisational Performance	3.881	0.485
Customer Orientation	3.810	0.474
CRM Organisation	3.712	0.512
Knowledge Management	3.694	0.586
Technology-based CRM	3.721	0.615

Table 2.Reliability of Scale (Analysis) (Source: Primary Data)

Variables	Items	Value of Cronbach's Alpha
Hotel Organisational Performance	17	0.812
Customer Orientation	07	0.802
CRM Organisation	07	0.832
Knowledge Management	04	0.821
Technology-based CRM	05	0.874

Table 3. Correlation Analysis (Source: Primary Data ** Significant at the 0.01 level (2-tailed)

	HOP	CO	CRMO	KM	TBCRM
HOP	1.0				
CO	.41**	1.0			
CRMO	.39**	.66**	1.0		
KM	.37**	.59**	.68**	1.0	
TBCRM	.47**	.71**	.73**	.61**	1.0

HOP: Hotel Organisational Performance, **CO:** Customer Orientation, **CRMO:** CRM Organisation, **KM:** Knowledge Management and **TBCRM:** Technology Based CRM.

Pearson Correlation Analysis

From the above Table 3 it is inferred from the analysis that al the variables taken under the study are significant and positivel related to each other.

The above findings in Table 4 in case of hotels revealed that th 4 variables yielded a multiple R of 0.660 explaining 66.0 % of th variance in overall hotel organisational performance. Th standardized regression coefficients are 0.714, 0.685, 0.717 & 0.66 for the variables of Customer Orientation, CRM Organsiation Knowledge Management and Technology Based CRM respectively.

DISCUSSION

In order to test the strength of relationships between the variables taken under the study, Pearson Correlation Analysis was carried out and were found to be significant and positively correlated. A Multiple Regression Analysis was conducted to test the veracity of the study based on the main research question and the hypotheses. The Multiple

Regression Analysis confirmed that the dimension of Customer Orientation has a significant and positive impact on Hotel Organisational Performance with a standardized regression coefficient of 0.714 (Table 4 & 5).

The findings of the study corroborate with the studies carried out in the past that indicated a significant positive effect as far as the overall organisational performance is concerned (Kim, 2008; Yilmaz et al., 2005).

Table 4. Multiple Regression Analysis of all the dimensions of Customer Relationship Management for predicting Hotel Organisational Performance (Source: Primary Data)

Dimensions	Regression Coefficient	t	P	R	R Square
Customer Orientation	0.714	3.231	< 0.05		
CRM Organisation	0.685	4.765	< 0.05		
Knowledge Management	0.717	4.418	< 0.05		
Technology Based CRM	0.669	3.621	< 0.05	0.813	0.660

ANOVA

Source	SS	Df	Mean Square	F	P
Regression	231.684	4	57.921		
Residual	2545.381	155	16.421	3.527	0.002
Total	2777.065	159			

Dimensions	Regression Coefficient	t	P	R	R Square
Customer Orientation	**0.714**	**3.231**	**< 0.05**		
CRM Organisation	0.685	4.765	< 0.05		
Knowledge Management	0.717	4.418	< 0.05	0.813	0.660
Technology Based CRM	0.669	3.621	< 0.05		

Table 5. The above table-5 shows the Customer Orientation dimension with its Regression Coefficient value of 0.714 where t= 3.231 significant at p<0.05

Dimensions	Regression Coefficient	t	P	R	R Square
Customer Orientation	0.714	3.231	< 0.05		
CRM Organisation	**0.685**	**4.765**	**< 0.05**		
Knowledge Management	0.717	4.418	< 0.05		
Technology Based CRM	0.669	3.621	< 0.05	0.813	0.660

Table 6. The above table-6 shows the CRM Organisation dimension with its Regression Coefficient value of 0.685 where t= 4.765 significant at p<0.05

Dimensions	Regression Coefficient	t	P	R	R Square
Customer Orientation	0.714	3.231	< 0.05		
CRM Organisation	0.685	4.765	< 0.05		
Knowledge Management	**0.717**	**4.418**	**< 0.05**	0.813	0.660
Technology Based CRM	0.669	3.621	< 0.05		

Table 7. The above table-7 shows the Knowledge Management dimension with its Regression Coefficient value of 0.717 where t= 4.418 significant at p<0.05

Dimensions	Regression Coefficient	t	P	R	R Square
Customer Orientation	0.714	3.231	< 0.05		
CRM Organisation	0.685	4.765	< 0.05		
Knowledge Management	0.717	4.418	< 0.05		
Technology Based CRM	**0.669**	**3.621**	**< 0.05**	0.813	0.660

Table 8. The above table-8 shows the Technology-based CRM dimension with its Regression Coefficient value of 0.669 where t= 3.621 significant at p<0.05

The Regression Analysis also confirmed that CRM Organisation has a significant effect on Organisational Performance with a standardized regression coefficient of 0.685 (Table 4 & 6). The findings are in line with the studies of (Sin et al. 2005; Yim et al., 2005) who found out that the CRM Organisation is an important means by which they organize the business processes that include both employees and customers for overall organisational performance. The Regression Analysis revealed that the Knowledge dimension has a significant impact on Organisational Performance with a standardized regression coefficient of 0.717 (Table 4 & 7). The findings support the study of Sofi et al. (2020) who expounded that hotel managers who successfully implement CRM strategy and manage customer knowledge properly will stand to gain in terms of enhanced customer satisfaction and loyalty and improved organisational performance in the long run. The regression analysis also revealed that the dimension of Technology Based CRM positively impacted the Hotel Organisational Performance with a standardized regression coefficient of 0.669 (Table 4 & 8). The findings are comparable to those of Diffley et al., 2018) who investigated the usage of social CRM, used of social media platforms for preserving customer connections and discovered that it improves firm innovativeness as well as its financial success and (Kasim and Minaj, 2009) who found out that the technology-based CRM does have a positive and significant impact on the hotel organizational performance. Overall, the study confirmed that all the dimensions of Customer Relationship Management have impacted the Hotel Organisational Performance. The four variables viz., Customer Orientation, CRM Organisation, Knowledge Management and Technology Based CRM yielded 66.0 % of the variance in overall hotel organisational performance. The overall findings are consistent with the studies of Mohammed and Rashid (2012) and Lo et al., (2010) who found out that there is a significant and positive influence of customer relationship management on organisational performance that is further substantiated by Ammari and Nusair (2015).

Inferences drawn from the Study

The findings of the study revealed and confirmed that Customer Orientation, CRM Organisation, Knowledge Management and Technology Based CRM have positively impacted the Organisational Performance in hotels. Further, the dimensions of CRM do impact the Hotel Organisational Performance both significantly and positively. On the other hand, the managers of hotels can use the findings of the study from the practical viewpoint to improve upon their business processes for enhanced organisational performance to stay relevant in a highly dynamic and competitive environment. The findings of the study indicate that the managers of hotels in Odisha need to effectively manage the dimensions of Customer Relationship Management for improved organisational performance.

CONCLUSION & LIMITATIONS

The study contributed widely to the body of knowledge on the impact of CRM aspects on Hotel Organisational

Performance. It will also increase awareness among managers of hotels to pay much needed attention to the dimensions of CRM and to use them to the optimum for improving the hotel organisational performance. Like any other study, this research work does have its limitations. This study is only focused at examining the relationship between dimensions of CRM and Hotel Organisational Performance. Hence, future research may be conducted to examine taking determinants such as attributes of hotel and determinants of the external environment.

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Article history: Received: 10.11.2021 Revised: 20.02.2022 Accepted: 23.03.2022 Available online: 11.04.2022

GeoJournal of Tourism and Geosites
ISSN 2065-1198, E-ISSN 2065-0817

Year XV, vol. 41, no. 2, 2022, p.415-421
DOI 10.30892/gtg.41211-845

TOURISM GOVERNANCE: VILLAGE-BASED TOURISM CRITERIA IN INDONESIA

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Citation: Zaitul, Novianti, N., & Ilona, D. (2022). TOURISM GOVERNANCE: VILLAGE-BASED TOURISM CRITERIA IN INDONESIA. *GeoJournal of Tourism and Geosites*, 41(2), 415–421. https://doi.org/10.30892/gtg.41211-845

Abstract: Recently, village-based tourism has been discussed by practitioners and academics after considering the importance of the criteria before destination development. However, there are limited studies concerning these criteria, specifically village-based tourism. Therefore, this study aims to develop the village-based tourism criteria. The literature review showed that thirteen criteria are being suggested, and the experts from the government agency and academics from the tourism department were surveyed using questioners. The twenty-seven experts who participated in this study were analyzed using nonparametric statistics, such as the Mann Whitney and Kruskal Wallis tests, to gain agreement among samples. Therefore, the exploratory factor analysis was conducted to classify the criteria into several factors, also this study was developed using the measurement model. The result showed two types of village-based tourism criteria: (ii) Attractive condition, and parking factor, and (ii) Appealing activity, essential condition, and mitigation factor. Practically, this finding can be considered while developing the village-based tourism criteria and literature.

Key words: village-based tourism criteria, attractive condition, appealing activity, essential condition, parking area, mitigation

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INTRODUCTION

Significant attention should be given to tourism governance, specifically public policy and planning (Wesley and Pforr, 2010) since it is less frequently used in the literature. Tourism governance utilizes related terms, such as destination management, policy-making and planning, and tourism politics (Hall, 2008). Meanwhile, governance terminology should be used in the context that relates to the concept of "regulation" and "control" (Lukviarman, 2016). It signifies a focus on the "system of governance" and how the societies are ruled or steered and governed (Stoker, 1998). A key requirement for gaining sustainable tourism is effective governance (Bramwell and Lane, 2011). Furthermore, Bramwell and Lane (2011) stated that sustainable tourism also needs an effective governance process.

Graham et al. (2003) proposed five categories for good governance, which are legitimacy and voice, direction, performance, accountability, and fairness. From legitimacy and voices, there are two governance principles: public participation and consensus orientation. In the tourism context, the governance implementation is related to the sustainability of tourism. Sustainability is achieved by analyzing the best criteria in developing a destination, such as village-based tourism or destination. Tourism is one of the most important sectors of the Indonesian economy (Murvianti and Arida, 2015). It contributes to foreign exchange and earnings as well as acts as a tool to grow job opportunities and offer better income distribution to the local people (Utami and Kafabih, 2021).

One of the tourism classifications is village-based tourism, and it has been popular among international tourists due to various cultural and natural resources (Moswete et al., 2009). Besides, Moswete et al. (2009) stated that village tourism is a subset of cultural tourism in which tourists can participate and experience routine activities, customers, and local community traditions. It supports economic development in the poorer region (Gao and Wu, 2017).

Previously, studies on village-based tourism have been conducted in Indonesia (Hermawan, 2016, 2017; Maulana, 2016; Michandani and Arida, 2019; Sastrawan et al., 2017; Wiguna et al., 2018) but are not focused on the criteria. However, a study conducted by Arida and Pujani (2017) investigated the criteria using a qualitative approach. The criteria are an important aspect that should be considered when developing a village-based tourism destination. Studies outside Indonesia have also been conducted (Ling et al., 2011), but they do not focus on the village-based tourism criteria. Therefore, this study aims to develop the village-based tourism criteria and the destination. It is organized into several aspects, namely: study background, theoretical aspect, study method, result, and discussion, as well as conclusion and recommendation. Tourism sustainability refers to tourism that answers the current generation's needs

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without spending the capacity of the next generation (Bazneshin et al., 2015), and there are thirteen criteria identified in the literature. The first is beautiful landscapes (Arida and Pujani, 2017), which include hills, rivers, trees, plants, etc., beautiful, and rare landscapes to attract tourists. Meanwhile, the second criteria are habitat and species diversity (Ling et al., 2011). Variety of habitat and species will bring special attention from tourism, and the village that has a kind of habitats and species has an opportunity to develop tourism sites.

The next criteria are endemic, threatened, and endangered flora and fauna in the village (Arida and Pujani, 2017; Ling et al., 2011), and they can attract tourists' special attention to visiting the place. Critical wildlife area in village is another attractiveness for tourism to visit a village-based tourism area (Arida and Pujani, 2017; Ling et al., 2011). In this case, the tourist can observe this area and feeds the animal during their visit. The next criteria is an opportunity in the village for tourists to conduct tracking, rafting, and snorkeling (Arida and Pujani, 2017).

Tracking and rafting activity is conducted in the village with the hill while snorkeling is by marine resources. Village-based tourism destinations equipped with a lifeguard and lifesaving are more attractive to invite tourists to visit (Chen and Bau, 2016; Ling et al., 2011). In previous studies, clean destination area, local community value, facilities (including parking), emergency plan, and safe public access were suggested (Arida and Pujani, 2017; Chen and Bau, 2016; Liaghat et al., 2013; Ling et al., 2011). The criteria are also demonstrated in Table 1 below.

Table 1. Tourism destination criteria

Criteria	References	Code
Beautiful landscape	(Arida & Pujani, 2017)	C1
Habitat and species diversity	(Ling et al., 2011)	C2
Endemic, threatened, and endangered flora species	(Arida & Pujani, 2017; Ling et al., 2011)	C3
Endemic, threatened, and endangered fauna species	(Arida & Pujani, 2017; Ling et al., 2011)	C4
Critical wildlife area (saltick, feeding area)	(Arida & Pujani, 2017; Ling et al., 2011)	C5
Tracking, Rafting, and Snorkelling opportunities	(Arida & Pujani, 2017)	C6
Lifeguard and lifesaving equipment	(Arida & Pujani, 2017; Chen & Bau, 2016; Ling et al., 2011)	C7
Clean destination area	(Chen & Bau, 2016)	C8
Local community value	(Arida & Pujani, 2017; Chen & Bau, 2016; Yang *et al.*, 2020)	C9
Toilet, restroom, and shop facilities	(Chen & Bau, 2016; Ling et al., 2011)	C10
Parking Space	(Chen & Bau, 2016; Ling et al., 2011)	C11
Emergency plan	(Chen & Bau, 2016; Khosravi, Fischer and Jha-Thakur, 2019)	C12
Safe public access	(Arida & Pujani, 2017; Chen & Bau, 2016; Liaghat et al., 2013)	C13

MATERIALS AND METHODS

The study subjects are tourism academics and practitioners, which were taken from the head of the local government office in west Sumatra (tourism agency). The academics were from the department of tourism studies in Padang. Furthermore, primary data were collected through a mail survey using WhatsApp, and the questioners based on criteria (13 criteria) were suggested by previous literature. Respondents react based on five Likert scales (strongly disagree to strongly agree), and Google form was used to create the link shared with respondents.

Data were presented by google services and analyzed using SPPS and smart-pls. In the three steps used to analyze data, Mann Whitney (2-independent samples) and Kruskal Wallis test (k-independent samples) gained agreement among respondents. Any significant difference of criteria was excluded for the next analysis. Second, explanatory factor analysis (EFA) was used to group the criteria. Several tests should be conducted to have the factor and its loading: KMO and bartlett test (Hair et al., 2014), anti-image correlation, variance extracted, and loading factor (Hair et al., 2014).

The final step developed a village-based tourism criterion using the structural equation (SEM) and the measurement model. The measurement model was assessed using convergent validity and discriminant validity (Hair et al., 2017). Convergent validity was evaluated using outer loading, composite reliability, Cronbach alpha, and average variance extracted (AVE). Meanwhile, there are two statistical properties used to assess the discriminant validity: Fornell-Lacker criterion and cross-loading.the research flow chart is depicted below (Figure 1).

RESULTS AND DISCUSSION

This session describes the result of the study where twenty-seven respondents returned the filled questionnaire, and the demographic data are seen in Table 2. According to gender, twenty were male (74.07%), and the rest were female (25.93%). Based on age, seven respondents belonged to twenty to thirty-five years old (25.93%), followed by thirty-six to fifty years old (44.44%), and above fifty years old (29.63%). Meanwhile, the respondents were also categorized based on the type of experts, where nine were lecturers (33.33%), and the rest were tourism agencies (66.67%). The education level showed that seven respondents have a bachelor's (25.93%) and a master's degree (74.07%).

Analysis of consensus

The normality test for all criteria was conducted to select the statistic (parametric or nonparametric statistics) method for performing the consensus among experts. In this case, the univariate normality test is employed using the Kolmogorov-Smirnov test. The value of test statistic and asymptotic sig value is assessed to conclude whether there is normal data or not, as seen in Table 3. The asymptotic sig value showed that all criteria have 0.00, and can be concluded that they are not normal. Therefore, the nonparametric statistic was used for the next process. Table 4 showed the group difference test using the Mann-Whitney U test for gender. First, it runs all samples (male and female), followed by male and female. Therefore, it is a test for Cronbach alpha (reliability test) and Mann Whitney U test. The reliability test showed that all male and female samples are reliable because their Cronbach alpha is above 0.70 (Nunnally, 1978). The Mann-Whitney U test for a male and female sample showed agreement because all variables have an asymptotic sig value greater than 0.05 (Denis, 2019). It can be concluded that experts agree with all village-based tourism criteria.

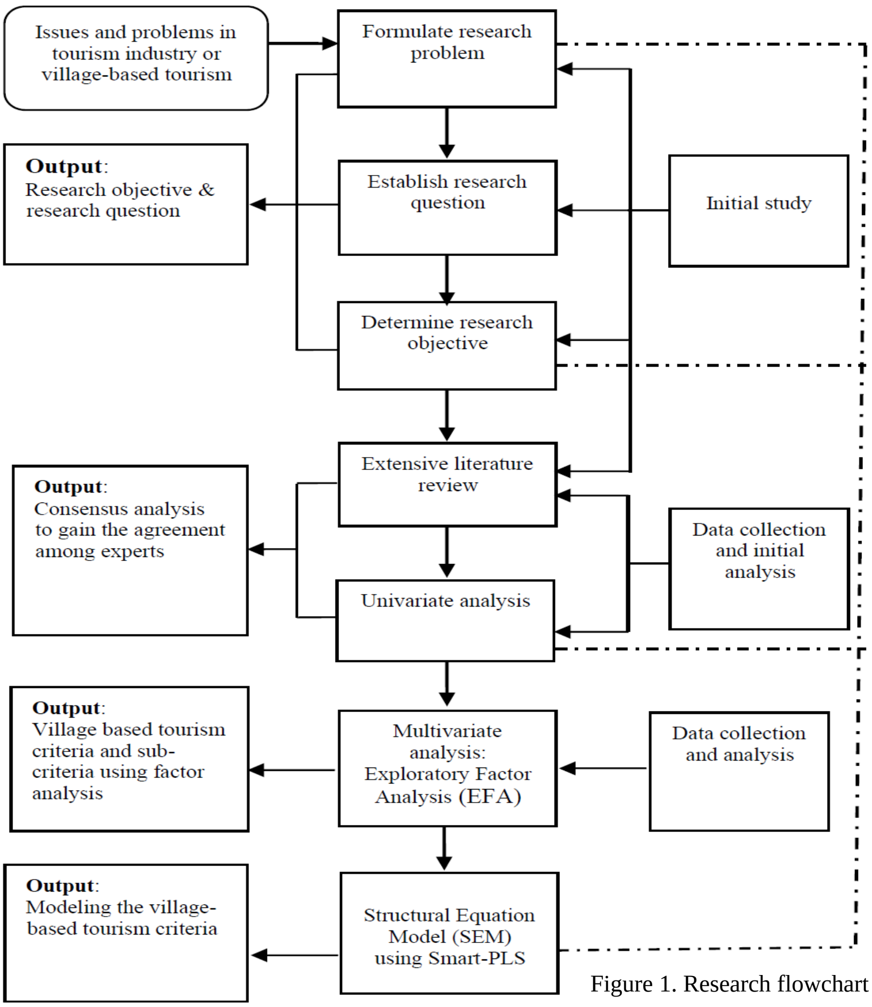

Figure 1. Research flowchart

Table 2. Demography data of the respondent

Demogra-phic data	Category	Frequency	Percentage
Gender	Male	20	74.07
	Female	7	25.93
Age	20 to 35 years old	7	25.93
	36 to 50 years old	12	44.44
	Above 50 years old	8	29.63
Type of Experts	Lecturer	9	33.33
	Tourism Agency	18	66.67
Education	Bachelor	7	25.93
	Master	20	74.07

Table 3. Test for normality

criteria	test statistic	Asym sig	decision
c1	0.31	0.00	not normal
c2	0.32	0.00	not normal
c3	0.23	0.00	not normal
c4	0.19	0.00	not normal
c5	0.23	0.00	not normal
c6	0.28	0.00	not normal
c7	0.23	0.00	not normal
c8	0.29	0.00	not normal
c9	0.31	0.00	not normal
c10	0.29	0.00	not normal
c11	0.30	0.00	not normal
c12	0.27	0.00	not normal
c13	0.28	0.00	not normal

The second test to build agreement among experts (age level) is the Kruskal Wallis (Table 5). KW test is employed because the sample is k-independent (in this case, three independent samples). The result of the reliability test using Cronbach alpha showed that the variable for all sub-sample is reliable. In addition, Cronbach alpha for age level was also greater than 0.70 (Nunnally, 1978), and it can be concluded that all variables for the sub-sample are reliable. The test for three groups (20-35 years old, 36-50 years old, and above 50 years old) using the Kruskal Wallis showed that criteria 9 and 10 (c9, and c10) have an asymptotic sig value lesser than 0.05. In conclusion, experts of different ages do not agree with this criteria. However, they agree with other criterias due to their asymptotic sig value greater than 0.50 (Denis, 2019).

The third evaluation is any difference means between respondents from academia and tourism agencies, and the reliability test showed that Cronbach alpha for all samples and sub-sample (academia and tourism agency) is above 0.90. This value is far above 0.70, which is required by an expert (Nunnally, 1978). Furthermore, the resulting test for these two independent samples using the Mann-Whitney test showed that all variables have an asymptotic sig value above 0.05. Therefore, there is a respondent agreement between academia and tourism agencies (Table 6).

The fourth difference test is respondent education level. There are two types of respondent education levels: bachelor's and master's degrees (Table 7). The reliability test indicates that criteria for all samples and sub-sample are reliable because their value of Cronbach alpha is above 0.70 (Nunnally, 1978). Furthermore, the Mann-Whitney test result for all criteria showed that different education levels of respondents agree with the criteria because the asymptotic sig value is greater than 0.05 (Denis, 2019). Experts do not agree with two village-based tourism criteria following the two independent and k-independent samples using the Mann Whitney and Kruskal Wallis test (c9 dan c10). Therefore, they are excluded from the next process (exploratory factor analysis).

Exploratory Factor analysis

The exploratory factor analysis is used to differentiate the criteria into several factors. Factor analysis is a statistical approach that can analyze interrelationships among large variables. It also explains them in terms of their common underlying dimension (Hair et al., 2014). In addition, it reduces a large set of variables to a smaller and manageable underlying dimension (Fidle, 2009; Kim and Muller, 1978). There are several steps when conducting the EFA, and the first is to test the sampling adequacy using Kaiser Meyer Olkin (Kaiser, 1970), Bartlett test (Bartlett, 1950), and anti-image correlation. The second step is to run the component analysis, and reduce criteria into several factors (Denis, 2019). To assist with interpretation, factor rotation is employed to minimize the distance of each variable from one of the factors. Meanwhile, principal component analysis with varimax rotation is utilized to access the underlying dimensions. Only variable loading on each factor at 0.5 or higher is extracted (Hair et al., 2014). A screen plot and eigenvalue greater than one are used to determine the number of factors in each dataset (Churchill and Iacobucci, 2004).

Table 4. Group difference tests using the Mann-Whitney U test for gender

Variable	All sample		Male		Female		Mann-Whitney U test Asym. Sig.
	Mean	Rank	Mean	Rank	Mean	Rank	
C1	4.41	1	4.50	1	4.14	2	0.21
C2	4.19	6	4.20	7	4.14	3	0.85
C3	4.11	7	4.15	8	4.00	4	0.60
C4	3.74	12	3.70	12	3.86	9	0.86
C5	3.63	13	3.55	13	3.86	10	0.65
C6	4.26	5	4.35	5	4.00	5	0.45
C7	3.89	11	4.05	10	3.43	13	0.15
C8	4.37	2	4.40	3	4.29	1	0.54
C9	4.11	8	4.15	9	4.00	6	0.23
C10	4.11	9	4.25	6	3.71	11	0.12
C11	4.30	4	4.40	4	4.00	7	0.23
C12	3.93	10	4.00	11	3.71	12	0.21
C13	4.33	3	4.45	2	4.00	8	0.10
n	27		20		7		
Cronbach alpha	0.91		0.90		0.94		

Table 5. Group difference test using Kruskal-Wallis for Age

Variable	All sample		20-35 years		36-50 years		> 50 years		Kruskal-Wallis test Asym. Sig.
	Mean	Rank	Mean	Rank	Mean	Rank	Mean	Rank	
C1	4.41	1	4.29	1	4.50	5	4.38	1	0.85
C2	4.19	6	4.00	7	4.42	7	4.00	3	0.25
C3	4.11	7	4.29	2	4.25	10	3.75	7	0.37
C4	3.74	12	3.57	13	4.17	11	3.25	12	0.14
C5	3.63	13	3.71	11	3.75	13	3.38	10	0.77
C6	4.26	5	4.29	3	4.42	8	4.00	4	0.52
C7	3.89	11	3.71	12	4.08	12	3.75	8	0.62
C8	4.37	2	4.29	4	4.67	1	4.00	5	0.08
C9	4.11	8	4.00	8	4.67	2	3.38	11	0.03
C10	4.11	9	3.86	10	4.67	3	3.50	9	0.03
C11	4.30	4	4.14	6	4.58	4	4.00	6	0.19
C12	3.93	10	4.00	9	4.33	9	3.25	13	0.13
C13	4.33	3	4.29	5	4.50	6	4.13	2	0.47
n	27		7		12		8		
Cronbach alpha	0.91		0.89		0.92		0.87		

Table 6. Group difference tests using the Mann-Whitney U test for Expert Type

Variable	All sample		Academia		Tourism Agency		Mann-Whitney U test Asym. Sig.
	Mean	Rank	Mean	Rank	Mean	Rank	
C1	4.41	1	4.44	1	4.39	2	0.73
C2	4.19	6	4.00	5	4.28	7	0.30
C3	4.11	7	4.00	6	4.17	9	0.56
C4	3.74	12	3.78	8	3.72	13	0.87
C5	3.63	13	3.33	13	3.78	12	0.17
C6	4.26	5	4.00	7	4.39	3	0.24
C7	3.89	11	3.67	9	4.00	11	0.43
C8	4.37	2	4.11	3	4.50	1	0.20
C9	4.11	8	3.56	11	4.39	4	0.33
C10	4.11	9	3.67	10	4.33	6	0.21
C11	4.30	4	4.11	4	4.39	5	0.47
C12	3.93	10	3.56	12	4.11	10	0.61
C13	4.33	3	4.44	2	4.28	8	0.50
n	27		9		18		
Cronbach alpha	0.91		0.92		0.90		

Table 7. Group difference tests using the Mann-Whitney U test for Education

Variable	All sample		Bachelor		Master		Mann-Whitney U test Asym. Sig.
	Mean	Rank	Mean	Rank	Mean	Rank	
C1	4.41	1	4.57	2	4.35	1	0.48
C2	4.19	6	4.43	4	4.10	6	0.24
C3	4.11	7	4.57	3	3.95	9	0.10
C4	3.74	12	3.71	13	3.75	12	0.91
C5	3.63	13	4.00	10	3.50	13	0.26
C6	4.26	5	4.43	5	4.20	5	0.55
C7	3.89	11	4.00	11	3.85	11	0.68
C8	4.37	2	4.71	1	4.25	3	0.09
C9	4.11	8	4.43	6	4.00	8	0.55
C10	4.11	9	4.14	9	4.10	7	0.95
C11	4.30	4	4.43	7	4.25	4	0.59
C12	3.93	10	4.00	12	3.90	10	0.86
C13	4.33	3	4.29	8	4.35	2	0.85
n	27		7		20		
Cronbach alpha	0.91		0.90		0.91		

Table 8. Sampling adequacy test

Kaiser-Meyer-Olkin Measure of Sampling Adequacy		0.76
Bartlett's Test of Sphericity	Approx. Chi-Square	153.47
	df	45
	Sig.	0.00

Table 9. Anti-image correlation

variable	c2	c3	c4	c5	c6	c7	c8	c11	c12	c13
c2	**0.77**	-0.33	-0.20	-0.12	0.21	-0.09	-0.24	-0.41	0.39	0.27
c3		**0.90**	-0.27	0.00	-0.21	-0.03	0.16	-0.17	0.00	0.06
c4			**0.77**	-0.51	0.17	0.45	-0.41	0.10	-0.21	-0.36
c5				**0.84**	-0.09	-0.40	0.11	-0.06	0.10	0.07
c6					**0.77**	0.00	-0.50	0.01	0.04	-0.32
c7						**0.62**	-0.21	0.04	-0.25	-0.17
c8							**0.73**	-0.01	-0.36	0.38
c11								**0.78**	-0.50	-0.67
c12									**0.73**	0.23
c13										**0.64**

The factor analysis for eleven criteria was run (two criterias are dropped at the above process: c9 and c10). A criteria (c1) with a low anti-image correlation was deleted, to conduct the second run. Table 8 provided the result of the sampling adequacy test using the KMO for the second run. The sample of this study is adequate because the KMO value is 0.76, and the sig value is lesser than 0.00. Furthermore, the anti-image correlation was used to support the sampling adequacy conclusion as seen in Table 9 above. One criteria (c1) was excluded due to low anti-image correlation (< 0.50). Therefore, ten criteria were used for the next step. The principal component analysis is utilized to extract the factor, and Table 10 showed that two factors (component) are successfully extracted because the eigenvalue is greater than 1. Furthermore, factor 1 has an eigenvalue of 5.29 and 1.22 for factor 2.

Table 10. Factor extraction

Component	Initial Eigenvalues			Extraction Sums of Squared Loadings			Rotation Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	**5.29**	52.87	52.87	5.29	52.87	52.87	3.93	39.28	39.28
2	**1.22**	12.20	65.07	1.22	12.20	65.07	2.58	25.79	65.07
3	0.99	9.94	75.01						
4	0.77	7.66	82.67						
5	0.58	5.80	88.47						
6	0.42	4.24	92.71						
7	0.30	3.03	95.74						
8	0.21	2.05	97.80						
9	0.13	1.30	99.09						
10	0.09	0.91	100.00						

Figure 2 showed that the scree plot has two factors extracted from this analysis. Table 11 showed the loading factor for each criterion. Ten criteria have a loading factor at above 0.50, and the results showed that factor 1 has six criteria (c2, c3, c4, c5, c11, and c13), meanwhile, factor 2 has four criteria (c6, c7, c8, and c12). The results showed that two factors were extracted from the analysis, and factor 1 was labeled as public access, attractive condition, and parking area factor. Meanwhile, the second factor consists of the appealing activity, essential condition, and mitigation factors.

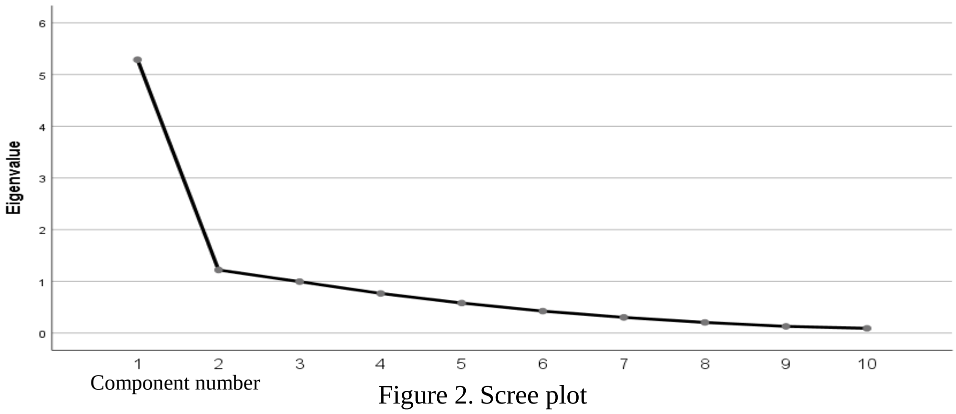

Figure 2. Scree plot

Table 11. Loading factor

Criteria	Factor	
	1	2
c2	0.82	
c3	0.85	
c4	0.85	
c5	0.73	
c6		0.65
c7		0.73
c8		0.73
c11	0.76	
c12		0.79
c13	0.63	

Table 12. Convergent validity

Factor	Criteria	Outer loading	CR	CA	AVE
Attractive condition, and parking factor	c11	0.83	0.93	0.91	0.73
	c2	0.84			
	c3	0.85			
	c4	0.90			
	c5	0.84			
Appealing activity, essential condition, and mitigation factor	c6	0.75	0.88	0.79	0.70
	c8	0.90			
	c12	0.86			

Table 13. Discriminant validity: Fornell-Lacker

Factor	Appealing activity, essential condition, and mitigation factor	Attractive condition, and parking factor
(F2 Appealing activity, essential condition, and mitigation factor	**0.84**	
(F1) Attractive condition, and parking factor	0.63	**0.85**

Modeling the village-based tourism criteria

The model was developed to validate or confirm the above finding. In this case, the measurement model was used to conduct assessment through the structural equation. This study uses the smart-pls to confirm the factor. In smart pls, two assessments of convergent and discriminant validities are used to validate the model (Hair et al., 2017). The four statistic properties used are outer loading, composite reliability, Cronbach alpha, and average variance extracted (AVE).

The first run of the pls algorithm showed that there is one criterion for each factor (c13 for factor 1 and c7 for factor 2) with outer loading lesser than 0.70 (Hulland, 1999) as required. Therefore, they are eliminated, and the pls algorithm runs for a second time. The result of convergent validity is shown in Table 12, where all criteria have outer loading greater than 0.70 and have achieved the requirement. The next step is to assess the composite reliability and Cronbach alpha as an indication of construct reliability, and these values should also be above 0.70 (Bagozzi and Yi, 1988). Therefore, the conclusion that the convergent validity is reached was supported. Finally, the AVE value is also greater than 0.50 (Chin, 2010), and it supports the convergent validity.

The second validity of measurement model assessment is discriminant validity, which is assessed using the Fornell-Lacker criterion and cross-loading (Vinzi et al., 2010). Fornell Lacker criterion (Fornell and Larcker, 1981) was produced by calculating the square root of the construct's AVE, and the result is demonstrated in Table 13. Furthermore, all construct (factor) has a higher square root of AVE than the correlation with other constructs. For example, F2 has a square root of AVE at 0.84, and this value is greater than the correlation of F2 with F1 (0.63).

Table 14. Discriminant validity: cross-loading

Criteria	(F2) Appealing activity, essential condition, and mitigation factor	(F1) Attractive condition, and parking factor
c11	0.62	**0.83**
c12	**0.86**	0.52
c2	0.42	**0.84**
c3	0.47	**0.85**
c4	0.64	**0.90**
c5	0.51	**0.84**
c6	**0.75**	0.45
c8	**0.90**	0.60

The second test for discriminant validity is cross-loading (Table 14), and the criteria should have higher loading to their factor. For example, c11 has a loading factor of 0.83 to factor 1 and it is higher than its loading to F2. The bold number showed that the criteria belong to that factor. Therefore, F1 has five valid criteria (c2, c3, c4, c5, and c11), and F2 has three (c6, c8, and c12). The detail of discriminant validity using cross-loading is exhibited in Table 14, and the measurement model is pictured in Figure 3.

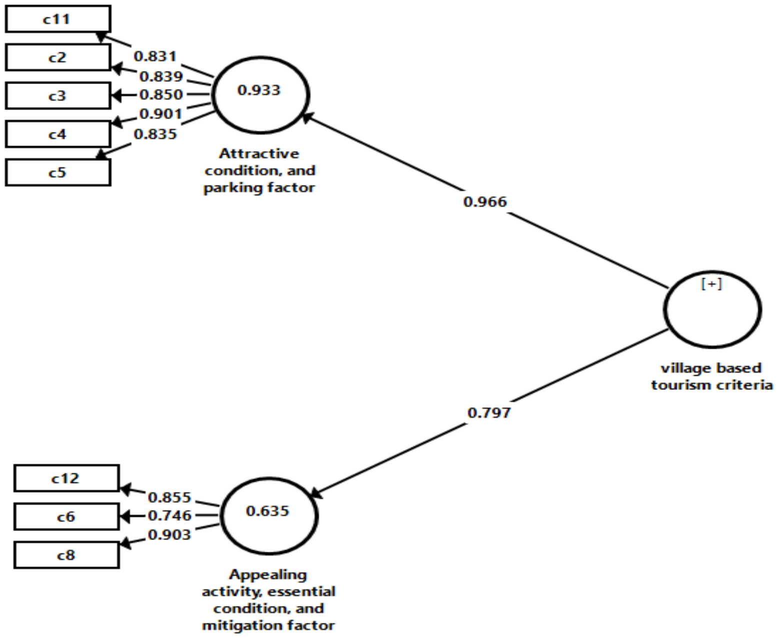

Figure 3. Measurement model

Village-based tourism criteria found two factors: (i) Attractive condition and parking factor, and (ii) Appealing activity, essential condition, and mitigation factor. Attractive conditions and appealing activity are relevant to the previous finding on cognitive destination image and revisit intention (Beerli and Martın, 2004; Pike and Ryan, 2004; Stylos et al., 2016).

CONCLUSION

Village-based tourism sustainability needs effective governance, which considers legitimacy and voice as principles of public participation and consensus. In addition, village-based tourism criteria should be established to have sustainable tourism through good governance practices. Therefore, this study investigates the village-based tourism criteria in Indonesia. The result concludes that there are two types of criteria: (i) Attractive condition, and parking factor, and (ii) Appealing activity, essential condition, and mitigation factor. Furthermore, the study has practical and theoretical implications. Practically, tourism stakeholders can use this finding, such as local and village governments, in developing village tourism. Attractive condition is related to the good quality of infrastructure, standard hygiene and cleaness, and unpolluted natural environment. In addition, appealing activity is associated with interesting culture attractions, historical monument and relevant event, and opportunities for garden-tourism.

Further, essential condition is the form of avaibility of hoels/lodgings/camping, safe place to travel, family oriented destination, and good value for mony. It contributes to the tourism literature and should be considered by future investigation on this topic due to its limitation. Furthermore, it involves limited experts, and in the future, other relevant stakeholders such as the village, the government should be added. It covers the area of West Sumatra, and the next investigation can consider other areas from Indonesia or other countries.

Acknowledgment

The authors are grateful to the Ministry of Education, Culture, Research, and Technology of the Republic of Indonesia for financial support (Contract No. 069/LPPM-PDJ/Hatta/VII-2021). Furthermore, we are also thankful to the Rector of Universitas Bung Hatta and Universitas Putra Indonesia YPTK for immaterial support.

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Article history: Received: 22.10.2021 Revised: 21.02.2022 Accepted: 24.03.2022 Available online: 19.04.2022

GeoJournal of Tourism and Geosites
ISSN 2065-1198, E-ISSN 2065-0817

Year XV, vol. 41, no. 2, 2022, p.422-432
DOI 10.30892/gtg.41212-846

GUARANTEE OF SAFE INNOVATIVE DEVELOPMENT OF THE TOURIST INDUSTRY OF UKRAINE

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Citation: Trusova, N., Krasnodied, T., Demko, V., Zakharchenko, O., Morozova, O., & Katsemir, Y. (2022). GUARANTEE OF SAFE INNOVATIVE DEVELOPMENT OF THE TOURIST INDUSTRY OF UKRAINE. *GeoJournal of Tourism and Geosites*, 41(2), 422–432. https://doi.org/10.30892/gtg.41212-846

Abstract: Introduction. The article considers the conditions for providing a guarantee of safe innovative development of the tourism industry of Ukraine. The study was aimed at finding ways to ensure safe innovative development of the tourism industry in Ukraine. Method. A comprehensive approach to assessing the safe state of innovative development of the tourism industry in the economic system of the country was substantiated. Results and interpretation. The system of indicators for assessing the level of the social component of safe innovative development of the tourism industry in the territorial tourist destination was presented. The trend of changing the number of tourism entities in the TTD and Ukraine as a whole in terms of the functionality of a secure system of innovative development is analyzed. Optimization methods of risk management of safe innovative development of tourist enterprises in the territorial tourist destination are offered. The general index of a safe condition of innovative development of territorial tourist destinations is offered and defined.

Key words: tourism business, territorial tourist destination, security, territorial tourist destination, regulatory barriers

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INTRODUCTION

In the transition of the world to the acceleration of high-tech systems the formation of integrated innovative development of the economic system is to overcome the large-scale crisis not only in the manufacturing sector, where value added is formed, but also in services, where it multiplies most rapidly. The process of innovative development is long and covers not only the latest activities, but also guarantees the spatial, resource, production and consumer potential of the tourism industry. With favorable and adequate levers of state support, the tourism industry is able to make a significant contribution to capacity building and modernization of the spatial economy and economic complexes. Stages of functioning of economic systems of different levels are characterized by cyclical instability, provoking threats and challenges in the modern tourism industry, which, on the one hand, is one of the most promising and liquid areas of innovation, and on the other – is extremely sensitive to destructive factors of different origin.The nature of the tourism industry as a social phenomenon determines its close relationship with the processes that take place within individual tourist destinations.

However, the spread of international terrorism, illegal migration, increasing incidence of socially dangerous diseases, general deterioration of the environmental situation, despite the intensification of tourist flows, lead to a significant increase in their negative impact on tourism, and has varying degrees at the spatial level. This objectivity necessitates the

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introduction of a state guarantee of security of the tourism industry through the modernization processes of important components of the economic system. Thus, there is a number of works devoted to the consideration of the ontological component of the tourism industry (Adam and Adongo, 2016; Alleyne and Boxill, 2003; Barker et al., 2002; Bergkamp, 2017; Bhola-Paul, 2015; Biagi and Detotto, 2014; Davydova, 2015; Gorina et al., 2019; 2020; Guliyeva et al., 2018; Kristjánsdóttir, 2016; Mansfeld and Pizam, 2006; Mawby, 2000; Pavoni and Tulumello, 2020; Williams and Montanari, 2007). Thanks to their scientific developments, the theoretical and methodological bases of the analysis of a condition and prospects of development of the tourist industry in regions are proved. At the same time, taking into account the peculiarities of the current stage of state formation, the methodological principles of safety assessment and modernization of the tourism industry as a supporting framework for the spatial development of the service sector are not fully disclosed.

A characteristic feature of the functioning of the tourism industry of a country as part of the spatial subregional industry in the context of increasing globalization and European integration processes is a comprehensive modernization of safe innovation development as individual tourist destinations and the state as a whole. At the same time, the safe innovative development of tourist destinations based on qualitatively new components with a focus on the basic standards of highly developed European countries requires the modernization paradigm of safe innovative development of the tourism industry. The complex of accelerated capabilities of the tourism industry in the economic system of the state allows to renew existing recreational resources, ensure the safety of historical, cultural and ethnic heritage, as well as stimulate economic security of hotel and restaurant industry without significant investment in their renewal (Barabanova et al., 2020; Bartoshuk, 2011).

The tourism industry as a sphere of economic activity is relatively new and closely related to the stages of innovative development of humankind. After all, the formation of tourist flows in its current state has become possible precisely due to the invention, introduction and dissemination of new types of tourist products and logistics of transport services (Antonenko and Mykhailichenko, 2011). The modern tourism industry is impossible to imagine without information technology, which has significantly increased the level of availability of qualitative tourism services for a wide range of consumers. Despite the still very important "natural" feature, the modern tourism industry is increasingly dependent not only on general but also on special infrastructure (accommodation, food, entertainment, etc.), which requires constant improvement and in combination with tourist facilities and flows form progressive forms of territorial organization – tourist destinations (Goldner et al., 2000).

At the same time, the importance of the social component of the tourism industry and its susceptibility to external threats activates tourist destinations to level the dangerous state of their functioning with the identification of key criteria for high quality tourist services (Nikolaychuk, 2021). Given this, the modern modernization paradigm of safe innovative development of the tourism industry should be based on innovation, infrastructure and security components (Ivanova, 2015). The priority of this study is to substantiate a comprehensive approach to assessing the safe state of innovative development of the tourism industry in the economic system, which requires convergence of the infrastructure of tourism services to minimize the destructive factors to balance the interests of territorial tourist destinations in the international tourism market. Therefore, the aim of the article was to identify ways to ensure safe innovative development of the tourism industry in Ukraine and to suggest ways of developing comprehensive models of economic support of territorial tourist destinations.

MATERIALS AND METHODS

Methodological principles of the innovation component of the modernization paradigm of safe innovation development of the tourism industry should be considered primarily within the factors of modernization of the territorial tourist destination (TTD) and optimization of its spatial structure, in particular in the process of tourism clustering.

Figure 1. Main stages of this research (Source: compiled by the authors)

Thus, this research was conducted in the stages described in Figure 1. The intensification of TTD's innovation activities can be achieved through sources of public-private partnerships and foreign investors, i.e. through solidarity funding (Dolishnij et al., 2001; Guryanova and Prokopovich, 2013). The infrastructural component of the modernization paradigm of safe innovative development of the tourism industry is connected with the strengthening of the role of territories in the processes of decentralization of power. Since infrastructural modernization aims at improving the arrangement of safe places for tourists to stay in a tourist destination, it is natural that at the local level it needs to be considered in the context of assessing the modernization of the tourism business, including its spatial aspect (Randolph, 2019). Of particular note is the security component of the modernization paradigm of safe innovation development of the tourism industry, which has special features of influence on the imperatives of tourism (the ratio of passive action to the active element of tourism) (Kovari and Zimanyi, 2011). That is, the cycle of safe innovative development of the tourism industry depends on the guarantee of economic security (solvency) of tourists, the level of protection of their lives, health, property (Korzh and Zanosko, 2011). It is clear that the guarantee of security should be based on an integrated approach, as the category of "security of innovative development of the tourism industry" is extremely complex and multifaceted. The classic for the modern integrated approach model of security of innovative development of the tourism industry (Moreira, 2010), can be expressed by formula (1):

$S = f(A, P, T)S_i$ (1) where A – the potential (benefits) of innovative development of the tourism industry; P– the degree of security of innovative development of the tourism industry; T– the level of threats to the innovative development of the tourism industry in a particular situation (S_i).

This model can be supplemented by an additional variable – the ability to adequately respond to environmental challenges in the tourism industry. The ability to withstand threats in the economic system is possible only in the conditions of guaranteed state security regulation based on an integrated approach. In this context, the security of innovative development of the tourism industry can be considered as: no danger; system of institutional or non-institutional guarantees of elimination or minimization of threats; the presence of existential values associated with a sense of stability, confidence, duration of favorable conditions. These components of security of innovative development of the tourism industry can be considered only in the complex and cover two approaches to its understanding: as resistance to dangerous situations (threats); as the ability to preserve its internal properties under the influence of threats of different genesis (Trusova et al., 2020b).

There are three groups of concepts of security of innovative development of the tourism industry: concepts related to the genesis of threats to tourism security; concepts that consider the impact of tourism security threats on the tourism business, tourists and the population of tourist destinations; concepts related to the reactions of all tourism entities to existing and potential threats to tourism security (Trusova et al., 2020c). Thus, the modernization paradigm of safe innovative development of the tourism industry takes into account the destructive risk factors. Therefore, their timely prevention and elimination will strengthen opposition in territorial tourist destinations at all hierarchical levels of business. In fact, such an integrated approach, according to the authors, can be the basis of a general concept that will consider the security of innovative development of the tourism industry as a dualistic prerequisite for safe innovative development of tourism and as an important modernization element of the security of the territorial tourist destination in the real and future periods (Trusova et al., 2020a). At the same time, the safest tourist activity of the subjects is considered as the main consumer property, which is objectively and actually possessed by the tourist service. At the same time, other consumers of this property can implement it only if security is guaranteed in the strategy of innovative development of tourism enterprises. Moreover, it will become one of the important factors of competition (Kovari and Zimanyi, 2011). The essence of this approach to assessing the safety of innovative development of tourism activities of the subject can be expressed through formula (2) (Trusova et al., 2020c), according to which the overall quality of tourism services (Q) is calculated as:

$Q = S(B + C + D)$ (2) where B, C, D – some components of the quality of tourist service; S– security of tourist service.

Thus, regardless of the sum of the indicators of individual components of quality, given the low or zero value of the safety indicator, the overall quality of tourist services goes to zero. Taking into account the positions of an integrated approach to economic security of the state, the authors consider safe innovation of the tourism industry as a state of functioning of TTD in a certain period characterized by the absence of destructive impacts, threats and risks. It should be noted that the state of absolute security of innovation development is ideal in the absence of threats. However, their absence does not guarantee a stable cycle of viability of TTD due to the lack of impact on environmental factors. Therefore, it is possible to assess the state of safe innovative development of TTD at a certain point in time, as an intermediate position between the two extreme positions. The closer the state of innovative development of TTD to danger, the higher the instability of the tourism industry in a given area and vice versa – the maximum proximity of the parameters of a particular area of TTD to a safe state, the optimal and stable is the functional potential of innovative development of tourism industry. It is impossible to go beyond the coordinates of safety and danger in this model, because it will lead to a significant change in the state of innovative development of the industry, which loses the hallmarks of timely modernization of one of the areas of tourism services (Voloshenko, 2014; Yefimova and Grynko, 2015).

Authors propose to highlight the structural components of the modernization paradigm of safe innovation development of the tourism industry (Figure 2): security of innovative development of tourism business (economic support for safe innovation development of tourism services); security of tourist objects (economic security of geotories, territorial tourist destinations); safety of tourist flows (economic support of tourist flows); security of tourist flows (economic provision of solvency and protection of tourists). The modernization paradigm of safe innovative development of the tourism industry describes the functional connections and features of the components. The first structural component is most often considered at the level of industry or specific tourism entities, the second one is at the center of ecology and geography and characterizes the destructive anthropogenic impact on natural tourism resources and facilities, the third one is a central link in travel management of various types of active tourism; the fourth one refers to travel insurance and protection of the solvency of tourists (Manzo, 2019; Volchetskyi, 2012; Voskresenska, 2013).

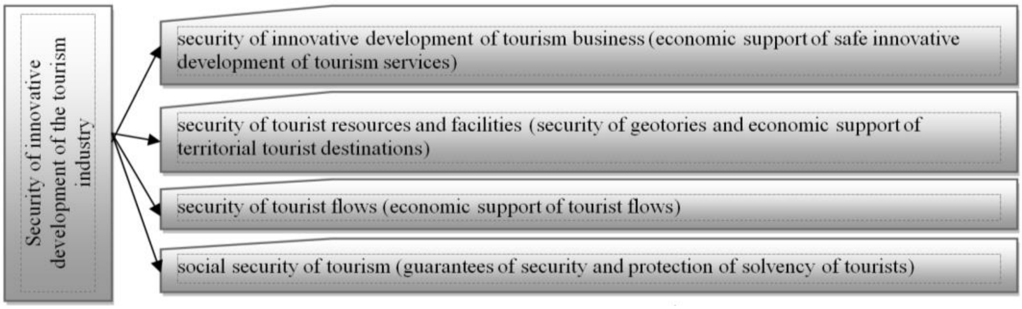

Figure 2. Structural components of the modernization paradigm of safe innovative development of the tourism industry (Source: compiled by the authors)

From the standpoint of the security component of the modernization paradigm, the assessment of the safe state of innovative development of TTD is based on the index method and mathematically formalized by formulas (3)-(4) (Kovari and Zimanyi, 2011):

$$I_j = \frac{\sum_{i=1}^{n} P_i}{n} \quad (3) \qquad I_j = \sqrt[n]{\prod_{i=1}^{n} P_i} \quad (4)$$

where, I_j – integrated index of the safe state of innovative development of the territorial tourist destination; n – the number of indicators being studied; i – the essence of indicators; P_i– indicators for assessing the components of safe innovative development of territorial tourist destinations.

This integrated index of safe innovation development of the territorial tourist destination allows forming optimal indicators for each of the components of safe innovative development of the tourism industry in a certain period, with a sufficient degree of reliability and objectivity of future results, taking into account new conditions (occupation of territories, visa-free regime, quarantine under COVID-19) (Shatska, 2021). The most alaptic for assessing the state of safe innovative development of the tourism industry in the TTD is a system of indicators based on the social component of tourism security in the set of studied elements (Table 1). In the context of intensification of European integration processes, social threats to the innovative development of the tourism industry are becoming cross-border and spread through information technology. While for some territories, a significant problem is the tourist acculturation of the population of destinations, for others – the public rejection of international tourism, which poses a significant threat to the functioning of the tourism business. The social component of the tourism activities of the subjects plays a leading role in the modernization of the TTD. This role is due to the spread of modern lifestyle, increasing social activity of young people, intensifying the process of creating new jobs, increasing the role of age viability of the population in a tourist destination as a factor of its tourist attractiveness (Sukhodub, 2007; Tolstoguzov, 2012).

Thus, the authors believe that at the present stage of the tourism industry in the country it is more appropriate to quantify the state of safe innovation development after the introduction of institutional and spatial mechanisms of TTD to assess the effectiveness of tourism services and develop strategies for their economic support.

Table 1. The system of indicators for assessing the level of the social component of safe innovative development of the tourism industry in the territorial tourist destination (Source: compiled by the authors according to Mason, 2003; Moreira, 2010; Sazonets and Stoian, 2013; Moisyeyeva and Didenko, 2018)

Types of social security of the tourism industry in TTD	Evaluation criterion	Suggested indicators
Cultural security	The intellectual level of the environment for tourism activities and the quality of human resources in the tourism sector	Proportion of people with higher education in the population
	Ethno-national homogeneity of the region and its representativeness from the point of view of the tourist brand of the state	The share of representatives of the titular nation in the population
	Prevalence of deviant manifestations in the socio-economic sphere of the region	Corruption index in the region (for example, according to the results of assessing the investment attractiveness of the regions of Ukraine)
	Favorable socio-cultural environment of the region for foreign tourists, which is expressed through the processes of tourist acculturation	Number of foreigners served in hotels and similar accommodation facilities, per thousand population
Demographic security	Social mobility of the population and the quality of consumer demand for tourist services	The share of the region's population aged 22-34
	The quality of staffing for tourism development in the region	Number of university graduates in tourism and specialties, per thousand population of the region
	The standard of living of the population of tourist destinations as an important component of their image	Disposable income of the population, thousand UAH per person
Public security	The level of employment of the working age population	The share of economically active population aged 15-70 years
	Security of tourist destinations in the region for the tourist	Number of crimes against public safety, order and morality
	Security of tourist destinations in the region for the property of tourists and tourist enterprises	Number of crimes against property
	Safety of transport and traffic, in general, for tourists and tourism enterprises.	Number of crimes against traffic safety and transport operation

RESULTS AND DISCUSSION

The economic efficiency of tourism activities in Ukraine based on available tourism resources is being actively developed and has a sufficient level of tourism infrastructure, which in connection with the relevant pricing policy is quite competitive in the international tourism industry. The main priority of modern state policy in the tourism industry of Ukraine is to minimize external economic threats and change the direction of state regulation of safe innovative development of the tourism industry, which should be transferred to the regional and local levels. Considering the factors of safe innovative development of the tourism industry by genesis, it should be borne in mind that regional factors operating in the external environment relate to the impact of TTD on the overall tourism industry system of the country. Such interregional cooperation of TTD within the state is very important both in the context of innovative development of domestic tourist flows and in relation to competition in the domestic market to meet the demand of foreign tourist flows. It is worth noting that the actual tourism activities of the subjects in the TTD is one of the few examples of interregional competition. At the same time, it should be said about competition in its general sense, when strengthening the competitive advantages of TTD and minimizing their weaknesses is a guarantee of attracting more tourists-clients to be served by TTD travel entities or simply visit its destinations (Kovari and Zimanyi, 2011; Randolph, 2019). National, macro-regional and global factors of safe innovative development of the tourism industry in the TTD work closely together, focusing their influence on the regional level, as the specifics of tourism activities are localized to specific destinations, which are united in a network of tourist routes. At the same time, forming a global environment for safe innovative development of a tourist destination, a number of factors have an overall impact on the functioning of tourist complexes of states and individual TTD (Ćorluka et al., 2021; Korzh and Zanosko, 2011; http://www.ukrstat.gov.ua/operativ/operativ2007/tyr/tyr_u/potoki2006_u.htm). Conditional division of external factors of safe innovation development, in the context of their intensity into significant and insignificant ones, is intended for the general assessment of their impact on the studied tourist facilities. Such an assessment can be both subjective (in the form of a scientific hypothesis) and objective (based on quantitative calculations). At the same time, it should be borne in mind that due to incomplete reflection of the impact of a number of factors of safe innovative development of the tourism industry in the TTD in statistics, quantitative assessment does not always give really objective results, so should combine with others evaluation methods (Balashova, 2008).

The set of priority factors of safe innovative development of the tourism industry, which have the most significant impact on TTD, differs depending on the type of tourism for the purpose of which the organization specializes in territorial tourist destinations. For example, some types of tourism, which do not involve a high level of risk to the life and health of tourists, are affected by socio-economic and political factors, while “nature-oriented” types of active tourism also depend significantly on the impact of geo-economic and social factors (Doroshenko, 2008; Galchynskyj, 2006). For a certain pattern of safe innovation development in those TTD that specialize in “recreational” types of tourism, the main safe area of innovative development is the tourism business. At the same time, in the tourism industry of TTD, which is characterized by intensive innovative development of active and ecological tourism, such priority areas are the modernization of destinations and ensuring the safety of tourists. From the point of view of the effectiveness of measures to modernize the first group of TTD, it is important that in this case regulators will be more effective, including regulatory and organizational and economic ones, because in general the tourism business and infrastructure are more susceptible to this group of factors. At the same time, regulating the social and environmental aspects of safe innovative tourism development is a more complex task and requires, among other things, the active involvement of information technology (Gorodyskyj, 2007).

Thus, the modernization paradigm of safe innovative development of the tourism industry takes place under the influence of a complex combination of external and internal factors, the specifics of which depend on the specialization of TTD, their tourism potential and national and international tourism market. A thorough analysis of the factors of safe innovative development of the tourism industry at the TTD of Ukraine is appropriate, as its current operating conditions are characterized by competitiveness. There are regulators that can be included in the mechanisms of safe innovative development of the tourism industry on certain parameters of the readiness of the TTD for the convergence of infrastructure space with minimizing the manifestation of destructive factors and their interests in the international tourism market (Bakurova et al., 2011). According to the results of the assessment of the parameters of the structural components of the modernization paradigm of safe innovative development of the tourism industry, the number of tourism entities on average per TTD and in Ukraine as a whole, which characterizes the overall functional potential of the tourism industry is determined (Figure 3).

Thus, according to Figure 3, there is a decrease in the number of tourism entities in all TTD of the state, operating in a secure system of innovative development, except for the Kherson TTD. This indicates the systemic nature of the crisis in the tourism industry. It is necessary to pay attention to the presence of depressive factors in terms of tourism business development in the Transcarpathian TTD, as since 2018 there has been a steady decline in the number of tourism entities. Combined with high tourism potential and sufficient infrastructure development, this trend necessitates the development and implementation of targeted programs to modernize the structural components of the tourism industry in these areas.

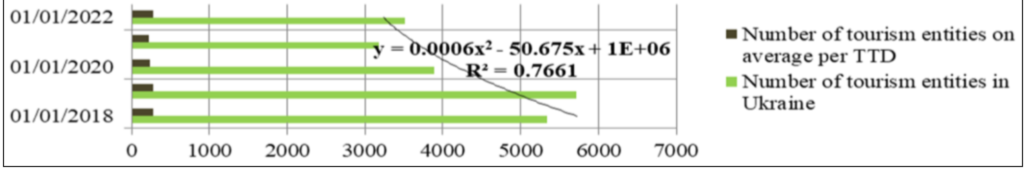

Figure 3. The trend of changing the number of tourism entities in the TTD and Ukraine as a whole in terms of the functionality of a secure system of innovative development for 2018-2021, units (Source: compiled by the authors on the basis of https://ukrstat.org/en)

At the beginning of 2022, the largest number of tourism entities (over 100) was typical of the city of Kyiv, Dnipropetrovsk, Lviv, Odessa, Kharkiv, Zaporizhzhia, Kyiv and Ivano-Frankivsk TTD, which play a key role as an environmental factor and resource prerequisites in concentration safe innovative development of tourism enterprises (http://www.ukrstat.gov.ua/). The decrease in the number of tour operators and travel agents in the TTD of Ukraine is not proportional to the decrease in income from the tourism business (Figure 4). Given inflationary fluctuations and devaluation trends of the national currency, the level of income from tourism in most TTD of Ukraine in 2020 is comparable to the corresponding indicator in 2018. The highest growth rates of profitability of tourism business were in Vinnytsia, Kyiv, Kherson, Chernihiv tourist destinations. From the standpoint of safe innovative development of the tourism industry, there is a significant increase in income from tourism in Lviv, Odessa and Ivano-Frankivsk tourist destinations. An important trend in the transformation of the structure of income from tourism in 2020-2021 is the increase in the share of profits from domestic tourism, due to increasing currency risks.

In 2021, the largest revenues from the provision of tourist services (over 100 million EUR) were received by tourism entities of Ivano-Frankivsk, Lviv, Odessa and Kherson tourist destinations. Zhytomyr, Kirovograd, Mykolaiv, Poltava, Sumy, Ternopil and Chernihiv tourist destinations were characterized by the lowest indicators (less 10 million EUR). The calculation of the share of revenues from the provision of tourist services in the gross regional product (GRP) in 2021 confirmed the insignificant influence of the tourism industry in the formation of revenues of the regional economy of Ukraine. The territory of Ivano-Frankivsk and Kherson tourist destinations is characterized by a high share of income from the provision of tourist services in GRP, where the safe innovative development of the tourist industry is a priority (2.25%). However, this indicator is lower than the minimum share in the GDP of EU countries (2.7% in Slovakia).

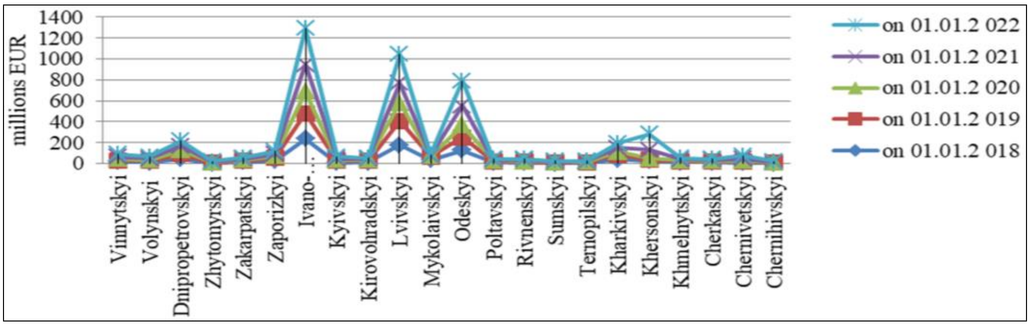

Figure 4. Income from the provision of tourist services in TTD of Ukraine for 2018-2022, millions EUR
(Source: compiled by the authors on the basis of Country Analysis, 2020)

Guarantee of safe innovative development of the tourism industry in the TTD, namely in interregional cross-border cooperation provides the direction of interstate integration of Ukraine with EU countries. In this context, it is necessary to identify several major threats to the tourism business (Bartoshuk, 2011; Davydova, 2015; Gnatenko, 2008):

– increasing competition in the market of tourist services and economic support for the safe innovative development of the tourism industry in all regions participating in cross-border cooperation. On the one hand, there is a threat (or even a challenge) for territorial tourist destinations of Ukraine to increase requirements for the quality and range of tourist services to foreign tourists, on the other – tourist enterprises of neighboring countries face risks of price competition as most of the accommodation establishments in the territories of Ukraine adjacent to the EU countries provide tourist services at much lower prices compared to the EU countries (although of slightly lower quality);

– low infrastructure development is a weak parameter of the functioning of territorial tourist destinations in Ukraine. Accordingly, this situation poses a significant threat to the economic security of the innovative development of tourist areas of the state in the framework of intensifying cross-border cooperation. Without a guarantee of comfortable living and catering conditions for foreign clients in most tourist destinations of Ukraine in the development of competitive tourist routes, there are no quality roads, transport, and information technology and communication services;

– intensification of cross-border tourist exchange inevitably leads to problems of providing tourist enterprises of TTD with qualified personnel with specialized education, fluent in a number of foreign languages and with the skills to work with foreign tourists. However, this problem is gradually being addressed, but remains acute for certain categories of workers. In particular, this applies to specialists-guides who have sufficient knowledge of foreign languages. The lack of such employees in the tourist centers of Ukraine leads to the mass use of foreign tourist support specialists, who are not fully acquainted with the specifics of Ukraine's tourist resources and often give foreign tourists a false impression of the potential of the country's tourism industry;

– intensification of destructive social processes in the intensification of cross-border cooperation in equal areas of the TTD is accompanied by intercultural interaction that arises in the process of tourism. On the one hand, such interaction takes place at the level of tourists and the local population of territorial destinations, on the other hand – tourism enterprises in their activities face a certain degree of perception (rejection) of socio-cultural values in their destinations.

At the same time, the development of cross-border cooperation in the field of tourism also has a number of significant advantages, including (Doroshenko, 2008; Galchynskyj, 2006):

– increasing the intensity of cross-border tourist flows, which helps increase the competitiveness of territorial destinations;

– strengthening labor migration of tourism service workers, which allows to intensify the exchange of experiences and improve the quality of services provided to tourists;

– opportunities to form cross-border innovation structures (clusters) that activate the safe innovative development of the tourism industry in the TTD and increase their international competitiveness;

– improving the development of infrastructure, including transport, and its unification, simplifies the movement of tourists and creates priority conditions for the development of international tourism;

– opportunities to intensify the development of certain types of tourism (business, ethnic, shop tourism) and the formation of a network of alternative accommodation facilities in the border area on the basis of rural tourism estates.

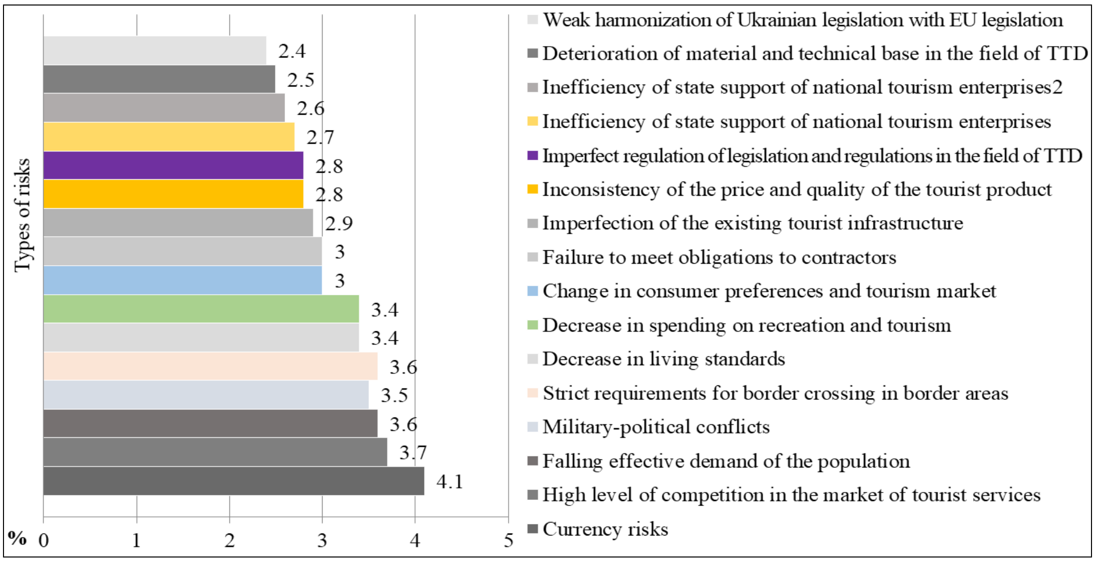

Figure 5. Expert risk assessment of tourism business in territorial tourist destinations of Ukraine, %

In the context of cross-border cooperation, it is important not only to intensify economic ties with international partners, but also to guarantee the competitiveness of TTD in international competition, which can be ensured through the formation of a stable safe situation in recreation and tourism. The main types of risks of safe innovative development of tourist activity in TTD are identified by the method of expert survey of representatives of tour operators and travel agencies. Generalized results are shown in Figure 5. It is determined that the highest level is characterized by currency risks in the context of international tourism activities in TTD (4.1%).

The growth of the US dollar and the euro had a negative impact on the effective demand of middle-class tourists (risk is 3.6%). Tourists of this group choose cheaper foreign tours or trips to Ukraine. Tourists with a sufficient level of solvency did not reduce the cost of recreation and tourism. No less influential internal risk for the country, which hinders the safe innovative development of the tourism industry in the TTD is inflation (3.7%). There is an increase in tariffs for tourist transportation, rising prices for hospitality services (2.8%). Military-political conflicts in the country have a negative impact on tourism enterprises that specialize in foreign (inbound) tourism (3.5%). Significant impact on the activities of tourism enterprises are the risks of lower living standards, reducing the cost of recreation and tourism (3.4%). Quite a high level of risk is associated with strict requirements for border crossing in border areas (3.6%).

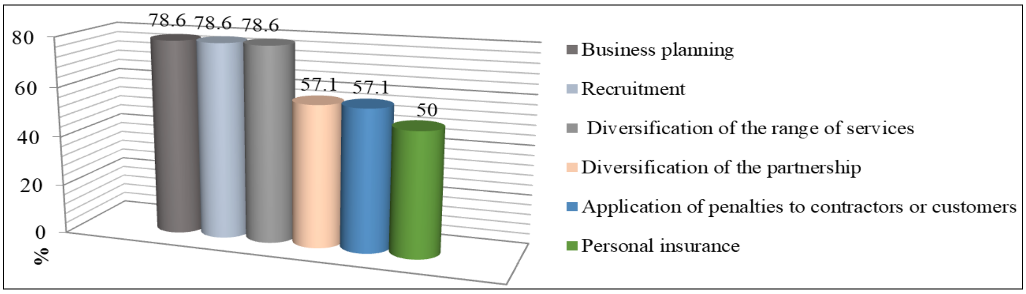

Figure 6. Optimization methods of risk management of safe innovative development of tourist enterprises in the territorial tourist destination

The analysis of the results of the expert survey shows the low readiness of the tourist business environment of the TTD to implement a risk management system (Kalachevska, 2018). At the same time, an adequate perception of the need to implement a modernization paradigm for assessing the safe state of innovative development of tourism enterprises is noted. In particular, most respondents acknowledge that the main components of the safety of tourism entities in the TTD is the ability to adequately respond to external threats and have high potential for innovation through the introduction of business planning methods (78.6%), recruitment (78.6%), diversification of the range of services (78.6%), diversification of the partnership (57.1%), application of penalties to contractors or customers (57.1%), personal insurance (50%), (Figure 6).

The most significant components of safe innovative development of tourist enterprises in territorial tourist destinations of Ukraine are presented in Figure 7. The formation of a positive image of the territorial tourist destination in the safe innovative development of the country's tourism industry as the dominant of its attractiveness should include: harmonization of state regional policy and local government to stimulate tourism and synergies, coordination in the use of information technology in direction of realization of own and spatial competitive advantages (Diegtiar et al., 2021).

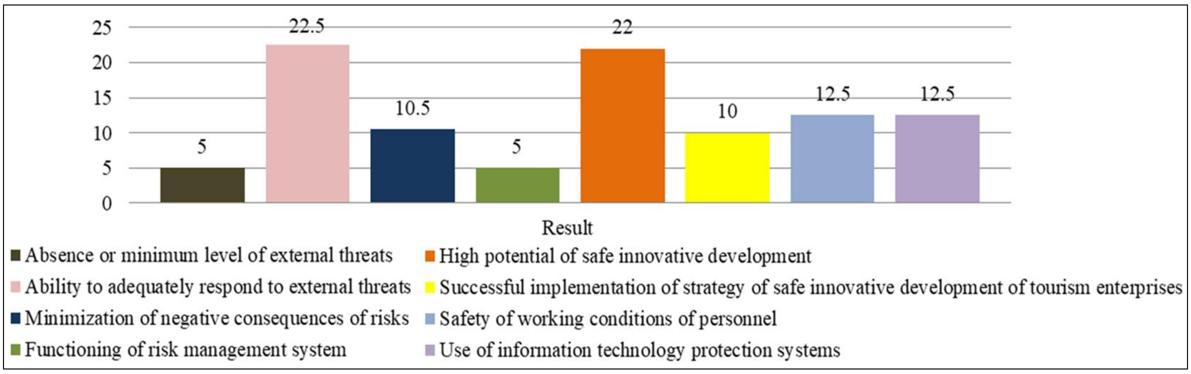

Figure 7. Optimization of structural components of safe innovative development of tourist enterprises in territorial tourist destinations of Ukraine, %

Given the prospects of the structural components of the tourism industry, forming the infrastructural, security and social components of territorial tourist destinations from the standpoint of risk-logical approach, it is necessary to state the urgency of the modernization space of TTD systems of comfortable and safe living. Thus, when choosing between natural tourist sites and anthropogenic sites, for the development of adaptive tourism routes, according to the authors, preference should be given to historical and cultural sites, but it is advisable to consider them within certain landscape units. An important requirement for the formation of flows of adaptive tourism should be a favorable environmental situation and the availability of vital infrastructure, especially transport and medical. That is why hard-to-reach and underdeveloped mountain and forest areas, which have a low level of environmental pollution and high attractive and health-improving value, cannot always be used to enhance adaptive tourism. Therefore, the guarantee of safe innovative development in the tourism industry is possible only in the conditions of the availability of transport routes and medical care at any point along the route, and not only on the selected tourist facilities.

It is proposed to consider the ethno-tourist potential of territorial destinations as a set of spatial resources and objects that make them attractive for the development of the potential of certain social groups, national minorities or special taxonomic formations that distinguish them in the national space. An important factor influencing the level of suitability of a territorial tourist destination for the development of ethno tourism is its ethnographic heritage, which is used in two ways. The first direction is to visit the existing settlements that have preserved the features of traditional culture and life of certain peoples. These settlements can be demonstrative, and can be both permanent and temporary. The second direction is acquaintance with the museums of folk life, the expositions of which contain collections of folk costumes, objects of peasant life and folk art, inherent in the population of certain regions. They acquaint tourists with the historical past of the region, its unique culture, traditional activities, traditions (Bakurova et al., 2011).

Among the main groups of indicators that characterize the tourist suitability of the territorial destination for innovative development as ethnic tourism, the following can be highlighted (Barabanova et al., 2020):

natural resource potential of the territorial destination (n), which is considered as a set of tools and stocks used to create an ethno-tourist product, and can be expressed in both quantitative and qualitative form.

quantity and quality level of historical and cultural ethno-tourist objects (e) that can be used in the process of developing a specialized tourist product.

intensity of tourist flows (t). This indicator is very important because it shows the level of interest of tourists in a particular area, as well as the level of its involvement in tour operators.

availability and quality of infrastructural provision of the territory (i), which includes institutions that provide accommodation, food, transport, communications, entertainment, etc.

Thus, the ethno-touristic potential of a territorial destination ($P^{td}_{ethnotouristic}$) as a function of all four groups of indicators is defined as follows (Barabanova et al., 2020):

$P^{td}_{ethnotouristic} = f(n, e, t, i)$ (5) where, $P^{td}_{ethnotouristic}$ – ethno-tourist potential of the territorial destination; n – natural resource potential of the territorial destination; e – quantity and quality level of historical and cultural ethno-tourist objects; t– intensity of tourist flows; i– the availability and quality of infrastructure of the territory.

Assessing groups of indicators that characterize the level of suitability of a particular territorial tourist destination for ethno-tourism can characterize and predict the prospects of its effective use for ethnic tours, and thus indirectly assess the degree of influence of ethno-tourism potential on the safe innovative development of a particular TTD. One of the ways of safe innovative development of the tourist sphere of the territorial destination is the intensification of ecological tourism, which can ensure a balanced interaction of tourism activities of the subjects with the environment. The current growth rate of the popularity of ecological tourism is directly proportional to the rate of decrease in the number and area of little-changed natural and traditional cultural landscapes. It is proposed to distinguish two areas of ecotourism – nature reserves and rural tourism (agritourism). From the standpoint of the dualistic nature of environmental safety of the tourism industry in the TTD, measures to ensure it should be taken by both tourism enterprises (tourists) and authorities and enterprises of other industries that have a destructive impact on the state and quality of the environment. In view of this, a set of priority measures has been formed to reduce the negative consequences of destructive processes in the system "tourism-environment" (Table 2).

Table 2. Minimization of threats and destructive processes in the system "tourism-environment" for the intensification of eco-tourism in the modernization space of safe innovative development of TTD (Goldner et al., 2000; Barker et al., 2002; Balashova, 2008; Ivanova, 2015)

Natural components	Destructive processes	Negative consequences	Ways to minimize
Rocks	Physical and chemical weathering, karst	Destruction of geophomorphological objects (rocks, caves), landslides, mudflows	- reduction of pollutant emissions into the atmosphere and surface waters; - control over deforestation and intensive reforestation; - control over the tourist use of geomorphological objects;
Surface and groundwater	Pollution by untreated wastewater	Deterioration of drinking water quality, reduction of recreational value of water bodies	- complete wastewater treatment; - updating the technological base of enterprises polluting surface waters;
Atmospheric air	Pollution by harmful substances, dust	Deterioration of air quality, reduction of its transparency	- introduction of new technologies for cleaning emissions at air polluting enterprises; - renewal of the car fleet, transition to environmentally friendly fuels; - strengthening control and responsibility for burning garbage and leaves (grass); - control over deforestation and intensive reforestation; - landscaping of cities and surrounding areas
Soils	Erosion, reduced fertility, pollution from harmful substances and garbage	Destruction of soil cover, deterioration of greenery and agricultural products, deterioration of aesthetic appeal of landscapes	- deforestation control and intensive reforestation; - introduction of new technologies for cleaning emissions at polluting enterprises; - renewal of the car fleet, transition to environmentally friendly fuels; - control over littering of natural areas, streamlining of garbage removal;
Vegetation	Felling, uprooting, trampling, burning	Decrease in forest cover, extinction and threat of extinction of plant species, deterioration of air quality, landslides, mudflows, floods, deterioration of the aesthetic appeal of landscapes	- control over deforestation and intensive reforestation; - expansion of the areas of the nature reserve fund; - equipment of ecotourism routes, zones of organized recreation;
Fauna	Extermination, reduction of areas suitable for life	Extinction and threat of extinction of animal species	- control over deforestation and intensive reforestation; - expansion of the areas of the nature reserve fund; - creating conditions for breeding rare and endangered species; - control over hunting and fishing, fight against poaching.

The calculated values of the total indices of the potential of innovative development of the tourism industry in the TTD, the index of threats to the innovative development of the TTD, allowed determining the general index of safe state of innovative development of the tourism industry in the TTD of Ukraine (Figure 8).

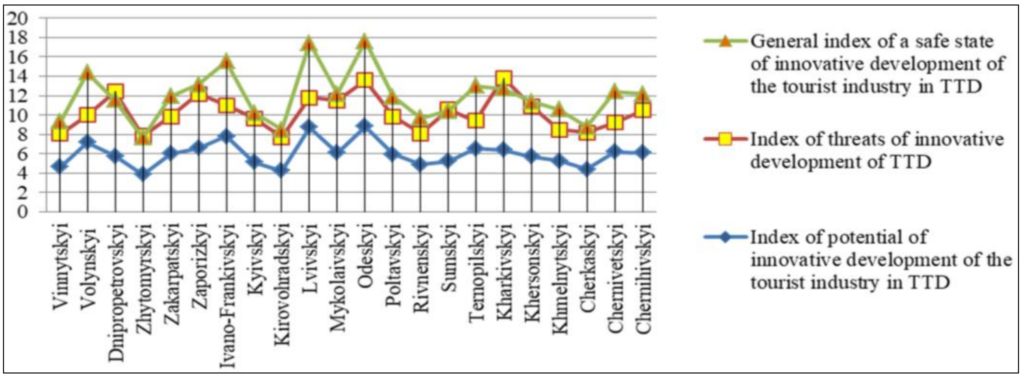

Figure 8. General index of safe state of innovative development of TTD of Ukraine (EUR)
(Source: compiled by the authors on the basis of http://www.ukrstat.gov.ua/druk/publicat/Arhiv_u/Arch_reg.htm)

Thus, the safe level of innovative development is formed by Lviv TTD (5.64), Ivano-Frankivsk TTD (4.57), Volyn TTD (4.37), Odessa TTD (4.03), Ternopil TTD (3.62) and Chernivtsi TTD (3.21). The lowest indicators of the index are typical for Dnipropetrovsk TTD (-0.88), Kharkiv TTD (-1.13). The division of TTD into types of macro-regions allowed to notice their clear spatial localization in Ukraine (Figure 9). This allowed the allocation of relatively homogeneous and related groups of TTD in the modernization space of safe innovation development of the country. Thus, the Type I Macro-region (Western) is characterized by the lowest level of threats to safe innovation development and the first in Ukraine according to the general index of security of development of the tourism industry. The Central Macro-region (Type II) contains the largest number of TTD and is ahead of only Type IV Macro-region (Eastern) in terms of the safety index of the tourism industry. The Macro-region of type III (Southern), despite its coastal position, is characterized by the average values of all calculated indices. The Eastern Macro-region has the lowest security potential for innovative development of the tourism industry and a high level of threats and, as a result, the lowest overall index in Ukraine.

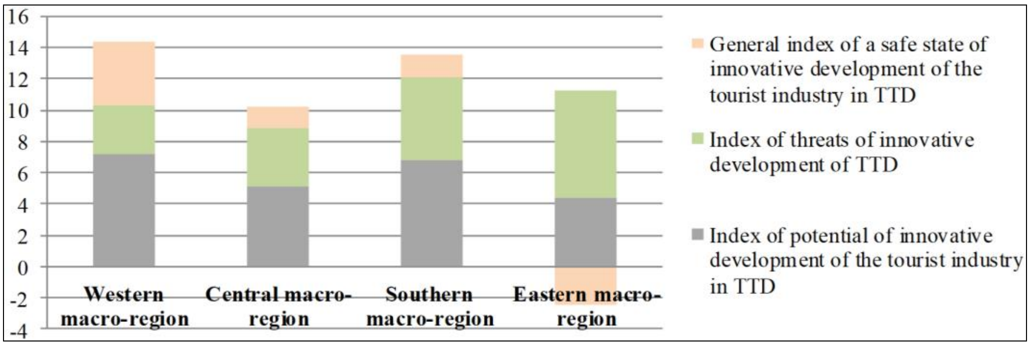

Figure 9. General index of safe state of innovative development by macro-regions of Ukraine

CONCLUSIONS

The formation of a positive image of TTD in macro-regions will harmonize the state policy in the field of tourism industry in order to stimulate safe innovative development of tourism activities of entities and the introduction of regional tourism branding in Ukraine. The brand should embody the most characteristic features of TTD; highlight their advantages and features for positioning among other areas similar in tourism potential in such components as potential originality and information presentation, visualization and verification of branding in domestic and foreign markets.

Thus, to ensure the safe innovative development of the tourism industry in Ukraine, it is necessary to introduce institutional mechanisms in the macro system of territorial tourist destinations. The development of complex models of their economic support will allow eliminating key regulatory barriers for the tourism business, to introduce preventive measures to prevent excessive pressure on the priority rights of tourism flows. Combining national and state interests with world countries will liberalize the licensing conditions of tourism business and introduce global standards of innovative development of the tourism industry in the functional economy, as well as guarantee qualitative tourism services, intensify interregional and cross-border cooperation, develop targeted programs to diversify destinations to realize their competitive advantages.

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Article history: Received: 29.11.2021 Revised: 22.02.2022 Accepted: 25.03.2022 Available online: 19.04.2022

GeoJournal of Tourism and Geosites
ISSN 2065-1198, E-ISSN 2065-0817

Year XV, vol. 41, no. 2, 2022, p.433-439
DOI 10.30892/gtg.41213-847

UKRAINE'S POTENTIAL FOR ACTIVE TOURISM – AN ATTEMPT AT ANALYSIS

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Citation: Kolotukha, O., Myrhorodska, O., Pidhirna, V., & Chubrei, O. (2022). UKRAINE'S POTENTIAL FOR ACTIVE TOURISM – AN ATTEMPT AT ANALYSIS. *GeoJournal of Tourism and Geosites*, 41(2), 433–439. https://doi.org/10.30892/gtg.41213-847

Abstract: The paper discusses methodological and spatial features of an important segment of the recreational and tourist activities - active sport tourism - in terms of geospatial approach (on the example of Ukraine). Geospatial approach is considered by the author as the most appropriate methodological approach to the study of active sport tourism geography, as active sport tourism resources are represented, first of all, by the territory and some of located objects, primarily natural and infrastructure facilities. These objects play a dual role in sports tourism. Second, these are attractive objects which tourists want to see: beautiful peaks, glaciers, icefalls, lakes, waterfalls etc. These individual sports tourism objects are "thread" on the lines of sports tourism routes that may be considered as the linear forms of sports tourism activity. Each category of route difficulty corresponds to a certain set of local and extensive obstacles by type, number and category of difficulty. The network of sports tourism routes with extremely attractive objects constitutes sports tourism region. Every active sport tourism region has own specialization in one or more types of sports tourism. If active sport tourism region is considered only as recipient of tourist flows, it acts as the active sport tourism region-destination. Regionalization of Ukraine in terms of certain taxonomic levels (zone - region (region-destination) - hub - object) is an important result of human-geographical study of active sport tourism in Ukraine. Seven active sport tourism zones have been identified in Ukraine based on the defined criteria. Each zone contains from 2 to 4 active sport tourism regions. Empirical studies have been conducted in the Carpathian mountainous active sport tourism region (research tourist groups).

Key words: active sport tourism, active sport tourism geography, active sport tourism regionalization, active sport tourism zone, Ukraine, Ukrainian Carpathians

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INTRODUCTION

European Conference of Ministers responsible for Regional Planning at its twelfth session in September 2000 in Hanover adopted the «Guiding Principles for Sustainable Spatial Development of the European Continent» determining spatial development policy, required to achieve social cohesion in Europe Guiding Principles, 2000). Sustainable spatial development policy should be directed at harmonization of social and economic territorial development with ecological and cultural functions of respective territories (Golubtsov, 2021). Tourism is recognized as an important component of strategic spatial development in Europe, given that the development of tourism is concentrated in the most attractive and the most vulnerable, both ecologically and culturally, areas of Europe (Cooke and Nunes, 2021; Sharafutdinov et al., 2020).

Spatial development policy aims to increase the opportunities generated by the tourism industry (Zakharchenko and Zakharchenko, 2021). This applies in particular to underdeveloped regions. Today's Ukraine represents such a region within the territory of Europe. Therefore, the development of new forms of sustainable tourism in Ukraine should become a priority (Kifyak, 2019; Kolosinska et al., 2018). In general, there is a necessity in thorough understanding of the functioning of ecosystems, estimation of the possible number of tourists, as well as implementing the new control tools for impact assessment (Wondirad et al., 2020). Thus, according to Pidgirna and Filipchuk (2019) "in the future, it is necessary to maintain the forms of soft tourism, which can easily be adapted to local and regional conditions (e.g., ecotourism, in author's opinion – sport tourism) and create vital development opportunities for many regions".

The World Tourism Organization (UNWTO) includes the concept of "sports tourism": "active sports tourism" (this is the type of activity presented in the article), "event sports tourism" and "nostalgic sports tourism" (Law about tourism,

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2021; UNWTO, 2022). The Kolotukha and Oleksyn (2021) define active sports tourism as "a type of active recreational and tourist activities carried out in the natural environment, and consists in passing tourist sports routes overcoming various obstacles (passes, peaks, rapids, canyons, caves, etc.) by various means of transportation using special technical receptions and equipment ". Active sport tourism is a particular specific form of recreation and tourism activities.

Sports tourism in a number of post-socialist countries (Ukraine, Russia, Belarus, Moldova, Kazakhstan, Kyrgyzstan, Lithuania, etc.) is an official sport. It is included in the sports classifications of these countries with appropriate sports titles and categories (IFST, 2022). The phenomenon of sports tourism in these countries is quite unique. This is not an Olympic sport that has all the official attributes of a sport. These countries are united in the International Federation of Sports Tourism, which includes more than 10 countries. Sports tourism in the economically developed countries of the world is developing at the amateur level and acts as a kind of active, often extreme, recreation. In Europe, the United States, Canada, Australia, New Zealand and others, this type of tourism is similar in content, but not a sport. No sports teams are formed here, no official competitions are held. In this case, we are talking about the so-called adventure, extreme tourism, travel in "wild" natural areas, scout movement and more. In Ukraine active sport tourism at present is developing in two directions: travelling tourism (passage active sport tourism routes) and competitive tourism (training and participation in competitions in sports tourism technique). Therefore, the main forms of active sport tourism activities are tourist travels and tourist competitions. Tourist travel is an event consisting in the human movement in the natural environment by any technical means or without them, alone or in a group, with educational, recreational, sports and other purposes. Travels must take place in accordance with the laws of Ukraine and other state sat which territory the route is mapped. Tourist travels include tourist walks, recreational excursions, and active sport tourism expeditions. However, the main form of tourist travel is sport tourist trip that may be differentiated primarily by the types of tourism – hiking, skiing, mountain, water, cycling, motor tourism, speleological, motorcycle, equestrian and sailing, as well as present their combinations (Kolotukha, 2015; Kolotukha and Kolotukha, 2021). According to organizational forms, sports tourism is divided into: sports hiking, sports tourism competition, expeditions tours. In order of increasing length, duration and technical complexity of tourist and sports routes are divided into I, II, III, IV, V and VI categories of complexity (FSTU, 2022).

The technical complexity of obstacles in active sports tourism is assessed by their category of difficulty. The category of difficulty of the obstacle is determined by the level of qualification, technical skills and physical training required to overcome it safely. There are six categories of difficulty of obstacles - 1A, 1B, 2A, 2B, 3A, 3B.

MATERIALS AND METHODS OF OUR RESEARCH

In tourism geography, which is an essential component of social geography, in the middle of the twentieth century there was a need for a solid methodological foundation that would have combined different scientific approaches into a general concept. Under active sport tourism research as a complex and socially significant trend of recreational tourism, the authors use a multifaceted simultaneous analysis of the study object, taking into account geosystemic, cluster and geospatial paradigms and a number of provisions of modern theoretical and methodological interdisciplinary models for tourism research (Kolotukha, 2015; Kolotukha and Kolotukha, 2021). In addition, it was taken into consideration that in tourism geography has developed a powerful resource approach, according to which the primacy of resources (especially natural and recreational) is noted as a determining factor in the development of tourism in certain areas (Rudenko et al., 2019; Sharafutdinov et al., 2020). The combination of resources determines the level of attractiveness of certain areas for the development of active sports tourism, affects the formation of demand and tourist consumption. Within study of geospatial organization of sports tourism as the main methodological approach of the study it offers a spatial resource approach, the essence of which is to apply for geospatial approach principles on tourism research, which elaborates the resource approach, as resources are thought to be a property of the territory. The resource in sports tourism is the geotory of sports tourism, which includes the aquatory part, part of air area and the accessible part of ground, some, primarily natural, objects, as well as an existing infrastructure (Kifyak, 2019; Wanyonyi, 2021). These individual tourist and sports facilities (obstacles, attractive facilities) are "strung" on the line of tourist and sports routes. Each category of route complexity corresponds to a certain set of local and long-distance obstacles in terms of a type, number and category of difficulty. The network of tourist and sports routes forms a certain tourist and sports destination (Kolotukha, 2015; Kolotukha and Kolotukha, 2021).

Active sports tourism uses basically the same resources as sports and health, but in contrast to the last one, it is particularly attractive for not a favorable and comfortable aspects of these resources, but those which are close to extreme, on the verge of overcoming them (for a particular person), tourists groups) or close to it. Therefore, it can be argued that such a set of resources should be allocated to a separate category – that are of sports, recreational and tourist resources (Kolotukha, 2006; Fedorchenko, 2020). An important result of the research on active sport tourism system in Ukraine was the conduction of tourist and sports zoning of country territory in accordance with the proposed taxonomic levels. At the same time, the method of social-geographical zoning is a powerful method of scientific analysis and synthesis of complex phenomena and systems, which is active sports tourism; it is a complex process of spatial organization of information, a kind of geographical taxonomy, which allows getting deeper understanding of the studied phenomena location and their territorial organization in general.

RESULTS AND DISCUSSION

An important result of socio-geographical research is the taxonomic classification of territorial tourist and sports entities and the development of schemes of tourist and sports zoning of Ukraine. The following taxonomic classification for territorial sports tourism entities may be proposed: geographical space – tourism space – active sport tourism space – active sport tourism zone – active sport tourism region (active sport tourism region-destination) – active sport tourism hub – active sport tourism object (Figure 1).

Figure 1. Taxonomic classification of territorial active sport tourism entities (Source: authors' own research based on Kolotukha and Kolotukha, 2021)

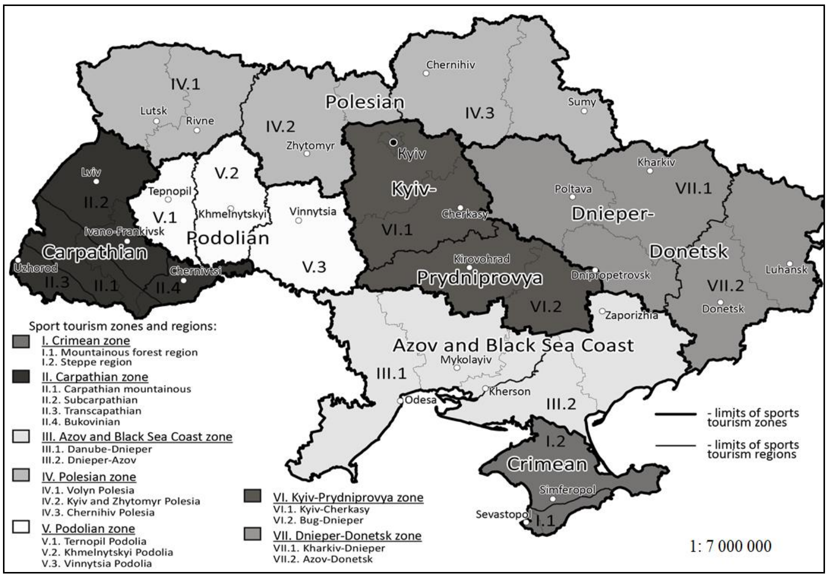

Figure 2. Active sport tourism regionalization in Ukraine (Source: authors' own research based on UNWTO, 2022; Kolotukha and Kolotukha, 2021)

Active sport tourism regionalization in Ukraine.

Some empirical researches have been carried out to confirm the geospatial concept of active sport tourism sustainable development. Active sport tourism space includes all Ukrainian territory without exceptions, because in any location one can make at least the easiest hiking or cycling trip in the summer and skiing in winter. For further structuring of the active sport tourism space in Ukraine we developed the scheme of sport-tourism zoning and regionalization of Ukraine taking into account the complexity of certain types of tourism routes and dates of the tourist trips. The basic typological features of sports tourism zones in Ukraine are shown in Table 1. Scores, reflecting the amount of active sport tourism resources, correspond to the difficulty of active sport tourism routes, available in defined active sport tourism zones. Categories of difficulty in certain tourism types, predicted by the author, are indicated in parentheses.

On the basis of afore mentioned criteria the territory of Ukraine was divided into 7 sports tourism zones (Figure 2):

-***Carpathian***: Zakarpattia, Lviv, Ivano-Frankivsk, and Chernivtsi oblasts;

-***Crimean***: Autonomous Republic of Crimea and the city of Sevastopol;

-***Azov and Black Sea Coast***: Mykolaiv, Odessa, Kherson, and Zaporizhia oblasts;

-***Polesian***: Volyn, Rivne, Zhytomyr, Chernihiv, Sumy oblasts and the northern part of Kyiv region;

-***Podolian***: Khmelnytskyi, Ternopil, and Vinnytsia oblasts;

-***Kyiv-Prydniprovya***: the southern part of Kyiv oblast from the city of Kyiv, Cherkasy, Kirovohrad oblasts and the right bank of Dnipropetrovsk region

-***Dnieper-Donetsk***: Kharkiv, Poltava, Donetsk, Luhansk oblasts and the left bank of Dnipropetrovsk region.

Table 1. The basic typological features of active sport tourism zones in Ukraine
(Completed by authors on the basis of information from the IFST, 2022; FSTU, 2020)

№	Active sport tourism zone	Administrative units (oblasts, unless noted otherwise)	Area (% of the country)	Amount of sports tourism resources									Total score
				hiking	skiing	Mountain-eering	water	cycling	biking	speleological	sailing	alpinism, climbing**	
1.	Crimean	Autonomous Republic of Crimea, the city of Sevastopol	4.4	3 (4)*	2	2 (3)	- (1)	5	2	4 (5)	5	2 (5)	25 (32)
2.	Carpathian	Lviv, Ivano-Frankivsk, Zakarpattia, Chernivtsi	9.4	3 (4)	4 (5)	2 (3)	4	5	5	2	- (1)	2	27 (31)
3.	Azov and Black Sea Coast	Odessa, Mykolaiv, Kherson, Zaporizhia	18.8	1	1	-	2 (3)	2	2	1	5	-	14 (15)
4.	Polesian	Volyn, Rivne, Zhytomyr, Chernihiv, Sumy, Kyiv (northern part)	21.8	2	2	-	2	3	2	-	1	-	12
5.	Podolian	Vinnytsia, Khmelnytskyi, Ternopil	10.1	1	1	-	2	3	2	4	-	-	13
6.	Kyiv-Prydniprovya	Kyiv (southern part), Cherkasy, Kirovohrad, Dnipropetrovsk (right bank)	15.8	1	1	-	3	2	2	-	1	-	10
7.	Dnieper-Donetsk	Dnipropetrovsk (left bank), Kharkiv, Poltava, Donetsk, Luhansk	19.7	1	1	-	1	2	2	-	3	-	10

* - n parentheses indicated the predicted by the authors of increasing the categories of difficulty in certain types of tourism and climbing in contrast to those officially established by the Federation of Sports Tourism of Ukraine

**- score assessment of tourist and sports resources for mountaineering and climbing performed by the authors

Table 1 presents the author's concept of diagnosing the potential of active sports tourism - a score of the degree of tourism and sports resources. It corresponds to the categories of complexity of tourist and sports routes that can be carried out in certain tourist and sports regions. In parentheses - predicted by the authors of the categories of complexity of certain types of tourism and climbing after their reassessment. Crimean active sport tourism zone occupies only the territory of Crimean Peninsula. Despite the small area, Crimean sports tourism zone has very high total score (Table 1). There are opportunities for the development of almost all types of active sport tourism (except the water tourism). Cycling and sailing routes have V category of difficulty. Crimean specialists in speleotourism has estimated that speleological route, passing through Crimean caves, also has V category. Based on the requirements that are imposed on the duration and length of water trips, the North Crimean Canal and its branches can serve as water route I of category. Crimean active sport tourism zone may be divided into 2 active sport tourism regions: mountainous forest region (covering 3 ridge of Crimean mountains) and Steppe region (covering the northern plains of the Crimea and the Kerch Peninsula). *Carpathian active sport tourism zone* covers large East Carpathian Mountain country and the surrounding area within Lviv, Zakarpattia, Ivano-Frankivsk and Chernivtsi oblasts. Carpathian active sport tourism zone also has very high total score (Table 1). There are opportunities for the development of almost all types of sports tourism. Routes for cycling and biking have V category of difficulty. Categories for hiking and mountaineering routes may be up to IV and III, respectively. The surface area of Dniester water reservoir in Chernivtsi oblast, in author’s opinion, deserves I category as the place for sailing tourism. Carpathian active sport tourism zone can be subdivided into 4 active sport tourism regions: Carpathian mountainous (covering all mountain ranges within Ukrainian Carpathians), Subcarpathian (covering the plains and foothills regions of Lviv and Ivano-Frankivsk oblasts), Transcarpathian (covering the plains and foothills regions in Zakarpattia oblast) and Bukovinian (covering the plains and foothills in Chernivtsi oblast).

Azov and Black Sea Coast active sport tourism zone occupies the southern lands of Ukraine. Despite large area, total score is twice less than in the previous two zones (Table 1). Only sailing routes deserve V category of difficulty. III category was assigned to the water kayaking route on the Southern Bug River, which begins in the Kirovohrad oblast and ends in Vosnesensk in Mykolaiv oblast. Routes of the other tourism types have I-II categories of difficulty, and the possibilities for mountain kinds of tourism are completely absent. There are 3 caves classified as I category.

Azov and Black Sea Coast active sport tourism zone can be subdivided into 2 active sport tourism regions: Danube-Dnieper (covering Odessa, Mykolaiv and Kherson oblast of the right bank Ukraine) and Dnieper-Azov (left bank parts of Zaporizhia and Kherson oblasts). *Polesian active sport tourism zone* encloses the northern regions of Ukraine. Geographically, it coincides with the landscape zone of mixed forests. The total score is relatively low (Table 1). Woodlands, wetlands, off-road areas and difficulties in orientation are the main extended obstacles in hiking (II category), skiing (II category), biking (II category) and cycling (III category). River Sluch is the base for water kayaking route, having II category of difficulty. The Lakes of Shatsk are suitable for sailing tourism. Of course, mountain and speleological tourism in the region are not represented at all. It is worth mentioning that almost all Kyiv Polesia and parts of Zhytomyr, Chernihiv and Volyn Polesia are located in the zone of radioactive contamination after the Chernobyl disaster and have been excluded from recreational and tourist use. Polesian active sport tourism zone can be subdivided into 3 active sport tourism regions: Volyn Polesia (Volyn and Rivne oblasts), Kyiv and Zhytomyr Polesia (Zhytomyr oblast and the north of Kyiv oblast) and Chernihiv Polesia (Chernihiv and Sumy oblast). *Podolian active sport tourism zone* includes the territory of Ternopil, Khmelnytskyi and Vinnytsia oblasts. This zone almost coincides with the Podolian Upland. The total score also is relatively low (Table 1) Speleological tourist resources with maximal IV category of difficulty constitute the landmark of this zone. The slopes of Podolian Upland may be the place for cycling (III category) and biking (II category) routes. Podolian rivers – Southern Bug River from Medzhybizh to Hayvoron, Smotrych River and Zbruch River – have II category of difficulty. Hiking and skiing routes have only I category. Mountain and sailing routes are not available.

Podolian active sport tourism zone can be subdivided into 3 active sport tourism regions: Ternopil Podolia (within Ternopil oblast), Khmelnytskyi Podolia (within Khmelnytskyi oblast) and Vinnytsia Podolia (within Vinnytsia oblast).

Kyiv-Prydniprovya active sport tourism zone includes the central regions of Ukraine. Much of the area (south-west of Kiev oblast, Cherkasy and Kirovohrad oblasts, and right bank Dnipropetrovsk oblast) is located within the Ukrainian shield and the slopes of Dnieper Upland. The terrain is characterized by various erosion and fluvioglacial landforms. The total score is low (Table 1). Water kayaking route with III category of difficulty passes through the southern-west part of the zone, and II category of difficulty has been assigned to rivers cutting through the crystalline rocks of the Ukrainian Shield: Ros, Hirskyi Tikych, and Syniukha. The slopes of Dnieper Upland may be the place for cycling and biking routes (II category). Water area of the Dnieper reservoirs, mainly - Kremenchuk, may be the place for sailing trips (I category). Hiking and skiing routes have I category of difficulty. Mountain and speleological routes are not available at all.

Kyiv-Prydniprovya active sport tourism zone can be subdivided into 2 active sport tourism regions: Kyiv-Cherkasy region (southern part of Kyiv oblast and Cherkasy oblast) and Bug-Dnieper region (Kirovohrad oblasts and right bank Dnipropetrovsk oblast). *Dnieper-Donetsk active sport tourism zone* is situated in eastern Ukraine. The zone covers territories, characterized by the highest human-induced load in Ukraine. Consequently, the total score is low (Table 1). Sailing routes in Krasnooskil reservoir and Azov Sea have III category. The slopes of Donetsk Upland may be the place for bicycle and moto-routes (II category of difficulty). Hiking, water and skiing routes may have only I category of difficulty. Mountain and speleological routes are not available. Dnieper-Donetsk active sport tourism zone may be subdivided into 2 active sport tourism regions: Kharkiv-Dnieper region (Kharkiv, Poltava and left bank Dnipropetrovsk oblast) and Azov-Donetsk region (Donetsk and Luhansk oblasts).

Carpathian mountainous active sport tourism region: detailed study

The study of lower taxonomic levels, i.e. active sport tourism hubs and object, has been conducted at the example of one of the most interesting, in our opinion, active sport tourism region – Carpathian mountainous. This mountainous region was deliberately chosen for detailed study. Indeed, according to the previously mentioned «Guiding Principles for Sustainable Spatial Development of the European Continent», European mountain regions have exceptional potential, but require support and promotion of initiatives that contribute to the development of high-quality tourism and take into account the natural, economic, social and cultural environment. Carpathian mountainous active sport tourism region, without a doubt, functions as a active sport tourism region-destination because of high potential for development of most types of active sport tourism (Table 1) and attracts sport tourists not only from Ukraine but also from Central and Eastern Europe, Russia, the Baltic States, etc (every third tourist group met by the authors of the study on the routes represents the above-mentioned areas of Europe). It should be noted that the Carpathian region includes areas that often do not have even the basic tourist infrastructure (accommodation, lifts, etc.), poorly paved and marked tourist routes, sparsely populated.

The author divided the Carpathian mountainous active sport tourism regioninto 4 active sport tourism hubs corresponding to the following mountain ranges: Chornohora, Svydovets, Maramuresh and Gorgany.

Ukrainian Carpathians combine obstacles typical for mountain and forest areas, and have very attractive scenery. Rapid rivers, mountain lakes, slope mountains, green meadows, unique architecture of Carpathian villages and rich history of the region meet cognitive tastes of tourists. Ukrainian Carpathians include areas with significant differences of heights, rocky terrain, water obstacles, and difficult spatial orientation. Mountain system of Ukrainian Carpathians extends over a distance of almost 280 km and has a width of over 100 km. Carpathians belong to medium-high mountains that do not reach the snowline and have no modern glaciers. The vast majority of the peaks are below 2000 m and only Chornohora, most of which belong to the main watershed, has six peaks with altitude higher than 2000 m, including the highest peak of the Ukrainian Carpathians – Goverla (2061 m). The snow line in the era of the last glaciation was located at an altitude of 1450-1550 m. Bright traces of ancient glaciations are glacial relict forms at the highest mountain ranges (Chornohora, Polonynskyi range, Rakhiv range, Chyvchyny) – cirques, basins, alluvial fans, moraine ramparts. Cirque lakes lay at the bottom of cirques at the altitude of 1450-1800 m. Relict glacial cirques at opposite Chornohora slopes have not joined to each other with their back wall and so have not created sharp ridges, as it happens in the high alpine terrain. Sharp ridges, sometimes with cornices, occur only in the spurs of Vododilnyi Range, where certain neighbouring cirques of the same slope brought together. Mountain ranges of the Carpathians are separated by longitudinal valleys and differentiated by deep transverse valleys that extend from northwest to southeast. Longitudinal zonation somewhere is complicated by ring-shaped structures. Carpathian mountainous sports tourism region has high potential for the development of hiking, mountaineering, skiing, cycling, biking, and water tourism. Hiking in the Carpathians can be carried out from May to October. However, one must remember that the highlands have a lot of snow in May, and in October the temperature significantly reduces, especially at night. The most interesting routes pass by the mountain ranges. Thus, to date the most difficult hiking route of III category passes over ranges Chornohora, Svydovets and Gorgany. While organizing hiking trips in Carpathians in winter one should remember that in this season local natural conditions correspond to the more difficult active sport tourism regions. During this period, some parts of tourist routes (passes, peaks) may have higher category of difficulty than usually and require appropriate reassessment. Winter hiking has its own peculiarities, which in some cases make such trips more complex and dangerous than summer hiking in highlands (winter snow is very different from the summer highland snow). Particular attention in the winter and early spring should be given to the study places hazardous in respect of avalanches and mudflow. Despite the proximity of settlements should be borne in mind that situation, when tourist group are walking at the mountain range, is quite similar to being tens of kilometres from housing.

In Carpathians active sport tourism object are represented, first of all, by the local obstacles. To pass local obstacles, tourist need to have appropriate level of technical skills and usually must use special equipment. The most common local obstacles for hiking tourist in Carpathians are water crossing, canyon, traverse, pass, and peak. Roots of each category of difficulty should have a certain set of local obstacles by type, number and difficulty. Most difficult *water crossings* within the III category routes have 1B category of difficulty and are situated only in the upper reaches of Carpathian rivers, such as Prut, Chornyi Cheremosh, Bilyi Cheremosh, Dniester and their tributaries. However, we can speak of a certain “artificiality” of these obstacles, because in almost every corner of the Carpathians one can plan a route so as to overcome water obstacles using bridges. But worsening weather conditions (heavy rains, long rains, etc.) may cause a situation in which the difficulty of the water obstacles could significantly increase. Therefore, tourist groups planning routes in the Carpathians should be prepared to cope with medium and even challenging water obstacles. *Mountain passes* in the Ukrainian Carpathians has low difficulty, maximum 1A category, for example, the pass between the peaks of Syvulia. In our opinion, the list of estimated passes will be complemented. *Mountain peaks* are traditionally included as local obstacles in the hiking routes in the mountainous areas, including the Ukrainian Carpathians. In winter 1B category of difficulty may be assigned to the peaks of Chornohora range: Petros (2020 m) and Goverla (2061 m). In the author’s opinion, 1B category should be assigned to Maramuresh peaks: Pip Ivan Marmaroskyi (1937 m) and Petris (1780 m). A number Carpathian peaks may be evaluated as 1A category, among them: Strymba (1719 m), Popadia (1740 m), Bratkivska (1778 m), Dovbushanka (1754 m), Pip Ivan Chornogorskyi (2020 m), Gutyn Tomnatyk (2035 m), Dogiaska (1761 m) and Syvulia (1818 m).

Traverses of mountain ridges are also traditional local obstacles at hiking routes in mountainous areas. Maximum category of difficulty for route traverses at the territory of Ukraine – 1A. It can be grassy or scree slopes, or easy rocks, where personal fall-arrest system is needed, the slope along the ridge should have inclination 20-25 degrees and length at least 2 km. Such requirements are met by most ranges of Ukrainian Carpathians – Chornohora, Svydovets, Maramuresh, Krasna, Borzhava, Polonyna Runa, Gorgany etc.

Canyons and canyon areas as local obstacles are specific to certain areas of the Ukrainian Carpathians.

Extensive obstacles represent conventionally isolated kind of obstacles that are primarily characterized by their extension and amount of physical vigour needed to overcome them. Hiking routes pass through following main kinds of extensive obstacles: vegetation (from easily traversable forest to creeping), wetlands (moors, swamps), scree and moraine, ice and snow areas. Roots of each category of difficulty should have a certain set of extensive obstacles by type, difficulty and length.

Vegetation is typical extensive obstacle in the Ukrainian Carpathians. Hardly traversable forests of 2A category encounter most of all on Gorgany range. A major obstacle to the movement is crooked forests of dwarf mountain pine, which grows above the forest zone, creates dense thickets up to 3 m and creeps along the ground.

Moors as extensive obstacles occur occasionally in the Carpathians. These are high altitude moors, for example, Zarosliak at the foot of Bretskul Mountain, Vysiache at Polonynskyi range. There are raised moors in the upper Dniester basin (Great Dniester Moors) and on river terraces of Limnytsia River (Ivano-Frankivsk oblast).

Scree and moraines are typical extensive obstacles in the Ukrainian Carpathians. They took shape due to gravitational processes and Pleistocene glaciations, resulting in screes, boulder grounds, stone run sat the slopes of highest Carpathian ranges: Chornohora, Svydovets, Gorgany etc., and bottom and side moraine of the former glaciers. Lateral moraine strands 1-2 km in length and up to 60 m, consisting of large (up to 2 m) blocks of sandstone, occur at Chornohora.

Overcoming *snow areas* (1A category of difficulty) during hiking trips is possible only in the off-season when snowpack 0.5-0.6 m or more may still be stored in the mountains. Areas with shallow snow cover may preserve in Carpathians until early July. In the Carpathians, the most interesting ski routes pass over the mountain ranges. Choosing such traverse route is necessary to remember that the beginning of the route usually fall on rapid ascent on the ridge through the forest followed by the movement through partially or fully open subalpine meadows. Natural obstacles encountered in the Carpathian Mountains (deep powdery snow, avalanche danger on the slopes, strong wind, solid crust or ice, sudden weather changes on the spine) determine specific requirements for tourists-skiers, who are going to conduct sport trips there. Groups that carry out trips of II category and higher should be ready for overnight stays on the ridge (subalpine meadows) above the forest zone, and so to be able to put up a tent in strong winds, build protective walls of snow, dig caves. It must be borne in mind that despite the proximity of the settlements, tourist group at the mountain range during bad winter weatherise in conditions not much different from the situation when it is tens of kilometres from housing, as the descent into the valley may be very dangerous, and the weather conditions of the spine may be as severe as in the Arctic. In order to avoid injuries during the trip, particular attention should be paid to the study of avalanche sites in respective area. In the Carpathians avalanche activity appears annually. The intensity of avalanches may be explained by a high variability of weather conditions during the cold season and intensity of snow accumulation (up to 100 cm at altitudes 500-1400 m above sea level and 300 cm at higher altitudes). The most dangerous ranges are Chornohora, Svydovets and Gorgany due to asymmetric slopes (steep north-eastern slopes, gentle south-western slopes): at the north east macro slope avalanche period lasts longer. The greatest number of avalanches comes down in February and March, and the duration of the avalanche season increases with altitude (Ushakov et al., 2020).Water tourism is the most technically complicated type of tourism. The main means for rafting, used in water tourism, are canoes, kayaks, catamarans, rafts (wooden and inflatable) and inflatable boats (rafts). Category of difficulty for each water route depends on number of local water obstacles. *Water obstacles* are combinations of factors that may change the trajectory of the vessel in the water flow. The motion of vessel is affected, first of all, by the heterogeneity of the flow associated with the irregularities of the bottom, banks, large-scale stone and bedrock exposures in the channel. The most common water obstacles in tourist classification are thresholds and their cascades.

*Rapid*s rocky section of the river bed with a steep channel inclination and high speed of water flow. Rapids occur in places of stepped channel bed, where its material is heterogeneous and thus bedrock, rock debris, large rocks clutter the river flow. Rapids have relatively small length - up to several hundred meters. Areas above and below the rapid have smaller slope inclination and flow velocity. Every rapid has one or several culminating places of water fall. Several closely consequent rapids form a *cascade*. Here are some examples of rapids on Ukrainian rivers: Yamnianskyi Prolom and Prykarpatskyi rapid on Prut, Verkhnia Dzembronia and Nyzhnia Dzembronia, Verkhniy and Nyzhniy Huk on Chornyi Cheremosh, Dudky and Voritsia on Bilyi Cheremosh etc.

Mountain rivers of the Carpathian region are well familiar to the tourists: among them are rivers of Dniester basin (Chornyi Cheremosh, Bilyi Cheremosh, Cheremosh, Prut, Stryi) and also Tysa with tributaries (Rika, Latorica). They are recently complemented by a number of small rivers – tributaries of Cheremosh (Probiyna, Bystrets), Stryi, and upper Prut. This became possible with the development of a relatively new kayaking technique.

Carpathian mountain rivers are characterized by powerful stream, rapid flow up to 10-15 km/h, mighty rapids and extensive riffles. Average channel inclination in upper reaches is 10 m/km (Prut, Bilyi Cheremosh). Rivers feed mainly from atmospheric waters; there are typical and flooding during spring snowmelt and rainfall floods. Prolonged or heavy rains can cause flooding at any time of the year. The water level during the rafting season varies considerable and depends on the amount of snow in the mountains, temperature and intensity of rains. The best time to undergo Carpathian rivers is a period from last decade of April until the first decade of May, during the floods, when snow melting is most intense. This applies, above all, to the Prut River and small tributaries, which are generally suitable for passing only a few spring days. However, rafting on Cheremosh and Tysa is possible during throughout the whole warm season from April to October. Water tourism on the Carpathians rivers is possible using canoes, kayaks, catamarans, and rafts. Depending on the season and type of vessel routes along the rivers of the Carpathians have IV category with the elements of V category. Considering the nature of obstacles, their categories are somewhat underestimated, but this issue requires further research and evaluation. Carpathian rivers can be a great offseason training ground for the routes of the highest complexity in other regions of the world. Routes along the rivers of Prut and Cheremosh may be recommended only for groups having experience of trips along rivers with many rapids not less than III category. These groups must have the skills in rowing, pulling off and mooring to the riverside, mutual interacting in rough water, and rescuing. Rafting through the Yamnianskyi Prolom and Prykarpatskyi rapid on Prut and similar rapids may be recommended only for groups having experience of participation in water trips of IV category, and passing waterfall Probiy (water drop over 8 m) is desirable to carry out only in case of accessible insurance from rescue services. Bicycle and motorcycle tourism has high potential for development in the Carpathian mountain region. Nowadays it is possible to conduct in Carpathians bicycle and motorcycle tourist trips of up to and including V category. High category bicycle trips are carried out predominantly in the mountainous regions of the Carpathians and require from cyclist appropriate physical training, skills in orientation and overcoming natural obstacles. Carpathians cycling and motorcycling routes of III, IV and V category usually include hardly passable stages represented by field and forest natural soil roads, steep mountain trails, passes, long climbs and descents, fords and other natural obstacles, and also roads with topping uncomfortable for bicycle (paving, large gravel, etc.). At the same time, this region has a dense net of motor roads and settlements.

CONCLUSION

Thus, we believe that *active sport tourism* is a type of active recreation and tourism activities, carried out in natural environment and consists in passing sports tourist routes overcoming various natural obstacles (passes, peaks, rapids, canyons, caves, wetlands, etc.) using different means of transport as well as special techniques and equipment.

The authors in the study of the geospatial organization of active sports tourism, as the main methodological approach to the study proposes a spatial resource approach. Its essence is to apply the principles of geospatial approach to the study of tourism, which complements the resource approach, as resources are a property of the territory. The resource in sports tourism is the geotoria of sports tourism. Geotoria unites the territory, part of the water area, part of the aero area and the accessible part of the littotoria, their individual objects (primarily natural), as well as the existing infrastructure.

Regionalization of Ukraine in terms of certain taxonomic levels (zone - region (region-destination) - hub - object) is an important result of human-geographical study of active sport tourism in Ukraine. Seven active sport tourism zones have been identified in Ukraine based on the defined criteria. Each zone contains from 2 to 4 active sport tourism regions. In Ukraine, Crimean mountainous forest region and Carpathian mountainous region should be considered as active sport tourism regions-destinations. More detailed taxonomic classification at the level of active sport tourism hubs and objects has been conducted on the example of Carpathian mountainous region-destination, containing 4 active sport tourism hubs with active sport tourism objects suitable for different types of active sport tourism.

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Article history: Received: 10.11.2021 Revised: 23.02.2022 Accepted: 29.03.2022 Available online: 21.04.2022

GeoJournal of Tourism and Geosites
ISSN 2065-1198, E-ISSN 2065-0817

Year XV, vol. 41, no. 2, 2022, p.440-447
DOI 10.30892/gtg.41214-848

STUDY ON TRAVEL HABITS AND LEISURE ACTIVITIES IN THE LIGHT OF COVID-19 TRIGGERED CHANGES IN ROMANIA AND HUNGARY

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Citation: Kinczel, A., & Müller, A. (2022). STUDY ON TRAVEL HABITS AND LEISURE ACTIVITIES IN THE LIGHT OF COVID-19 TRIGGERED CHANGES IN ROMANIA AND HUNGARY. *GeoJournal of Tourism and Geosites*, 41(2), 440–447. https://doi.org/10.30892/gtg.41214-848

Abstract: Tourism is a widely known concept as it is part of our modern lifestyle that we opt for useful and quality free time that provides us with the opportunity to relax and boost our energy. Our research focused on travel habits and the leisure activities people undertake during their trips, relying on answers provided by respondents aged 18-55. Most of the respondents said that they quite like to go on recreational journeys /tourism trips, with the most popular activities being nature walks, hiking, visiting places of historic interest, and viewing architecture and buildings. A quintessential role during these trips is played by relaxation and recharge, as well as restoring capacity for work. The most popular destinations in descending order were domestic attractions, neighboring countries, and other countries in Europe. Covid-19 had a major impact on destination choice; the number of outbound trips decreased, and beside the lowering frequency of inbound trips their length also shortened. As traveling is a popular holiday activity, it is particularly important to pay due attention to tourists' travel motivations, assess their needs and habits so that they can be provided with the best possible experiences during their trips, and can return well rested and with renewed vigor to face their everyday challenges.

Key words: travel, leisure, recreation activities, Covid-19

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INTRODUCTION

Free time is a crucial and valuable factor in everyone's life, and people want to spend it doing various activities. Leisure time has been widely researched starting from the 1950's (Pieper, 1952; Dumazedier, 1959; Murphy, 1981) through our era (Tibori, 2002). Several Hungarian (Lengyel, 2016; Lenténé et al., 2018a; Lenténé et al., 2018b; Bocsi, 2019; Szépné et al., 2019; Laoues et al., 2019;) and international (Verghese et al., 2003; Fletcher et al., 2003; Law et al., 2006; Agahi and Parker, 2008) theme-specific studies were conducted about various ways of spending free time. People perform a variety of active (Lengyel, 2015; Bíró et al., 2015; Váczi et al., 2015) and passive (Bácsné et al., 2019; Balogh et al., 2019; Herpainé et al., 2019) recreational activities in their free time that play a proven role both in relaxation and skills development. Since we live an accelerated, performance-based, and work-centered modern life characterized by lack of time, we feel compelled to recharge rapidly, and be able to meet the expectations as soon as possible. Thus, we prefer recreational activities focusing on recreation, relaxation, leisure, prevention and health preservation, activities that facilitate stress relief, and physical and mental well-being (Müller et al., 2009; Molnár, 2012; Müller et al., 2013; Sőrés and Pető, 2015; Szántó and Boda, 2016; Bíró and Müller, 2017; Lengyel, 2019, 2020). Ensuring relaxation and leisure, recreation has become one of the most attractive factors in tourism, as it can provide useful and meaningful ways to spend our free time, and it also highly affects our quality of life (Sőrés, 2013; Tütünkov et al., 2021). In addition, tourism and recreation play a major part in skills development (Dávid et al., 2007; Bujdosó and Remenyik, 2008; Bujdosó, 2016). Recreational sports were also closely investigated in several studies due to their leading role in prevention and health preservation (Bendíková et al., 2018; Lubkowska et al., 2018; Váradi et al., 2019; Kinczel, 2021).

The Covid-19 pandemic has brought changes whose various effects and consequences have already been dealed with by several researchers (Lesser and Nienhuis, 2020; Schuchat, 2020; Chen et al., 2020; Poór et al., 2021; Hossain, 2021; Spence et al., 2021), but we still need to deal with this topic. Both Hungarian and international research was carried out during the pandemic into how people spend their free time (Gősi and Magyar, 2020; Murtaza et al., 2021), as well as into tourism in general, a number of which present Covid-19 as a global crisis (Brouder, 2020; Kock et al., 2020; Rogerson and Baum, 2020; Zenker and Kock, 2020; Assaf et al., 2021; Mattei et al., 2021; Persson-Fischer and Liu, 2021; Rogerson and Rogerson, 2021). Ilies et al. (2018) recommend nature sports like walking, running, cycling and Nordic walking in Natura 2000 protected areas, which have health benefits and environmentally friendly recreational activities, which are excellent sports activities for Romanian people during Covid. Several studies conducted in a number of countries confirmed that the corona virus pandemic made most international tourists avoid outbound trips; therefore, the tourism sector concentrated on domestic demands (Falk et al., 2021; Pramana et al., 2021; Sukaatmadja et al., 2022). This proved to be a reasonable step as

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a number of countries saw a rise in local tourism demand. A study into 250 frequently traveling Nigerians demonstrated that due to the fear of Covid-19 infection most tourists preferred to choose a domestic destination, and visit local culture spots including theaters, cinemas, or do sports in a local facility (Umokora et al., 2020). A study undertaken to examine Hungarian travel habits also showed that there was a shift in the tourism model with more holiday-takers choosing to travel in small groups, going on longer trips, preferring domestic destinations and nature-based activities (Kupi and Szemerédy, 2021; Ernszt and Marton, 2021), just like in sport (Ke and Wagner, 2020; Raiola and Di Domenico, 2021). During the pandemic, when the Norwegian city Oslo was closed, outdoor recreational activity increased by 291% during lockdown relative to a 3-year average for the same days, especially walking, running and cycling (Venter et al., 2020).

MATERIALS AND METHODS

Our research aimed to examine travel habits and recreational activities undertaken as part of trips; besides, we also considered it important to map the changes caused by Covid-19. Our research objective was to examine the travel habits of Hungarians living in two neighboring regions of Hungary and Romania, respectively, based on their destination choice and recreational activities. We also tried to explore how their trips had been influenced by the Covid-19 pandemic, and what similarities and differences the answers of the respondents from the two different countries exhibit. We formulated two hypotheses related to the research questions. H1: Recreational activities aiding relaxation, recreation and recharge are a top priority for tourists. H2: Covid-19 has had a significant impact on travel; tourists traveled less, and preferred shorter distances and domestic destinations in the examined period. To achieve our objective, we employed both primary and secondary research methodologies. Our primary research method consisted of an online questionnaire survey filled in by Hungarian citizens and ethnic Hungarians aged 18 to 55. The questionnaire had three parts, with the first asking about travel patterns, the second about recreational activities, and the third concentrating on socio-demographic data. The survey responses came from the Northern Great Plain region of Hungary and the North-West region of Romania (N=271).

The survey questions sent to different leisure time groups were answered on online platforms by respondents. Our results were obtained using basic statistical methods to calculate frequency, and chi-square test and paired t test were also used to analyze the correlations. The objective of the secondary research was to confirm our results with as many domestic and international data as possible, and provide support for the importance and relevance of our research.

Presentation of the test sample

Our research processed and analyzed the responses of 271 study participants, who were aged 18-55. The responses were provided by Hungarian citizens and ethnic Hungarians living in Hungary and Romania, respectively.

Table 1. The Respondents' Characteristics (Source: Own editing)

Criteria		Hungary		Romania		Total	
		Frequency	Percentage	Frequency	Percentage	Frequency	Percentage
Education	8th grade	3	1.9%	2	1.7%	5	1.8%
	Vocational school	0	0.0%	6	5.1%	6	2.2%
	High school/ Grammar school (school leaving exam)	98	63.6%	51	43.6%	149	55.0%
	Higher professional qualifications	5	3.2%	2	1.7%	7	2.6%
	College/University	48	31.2%	56	47.9	104	38.4%
Occupation	Student	106	68.8%	45	38.5%	151	55.7%
	Blue-collar worker	1	0.6%	11	9.4%	12	4.4%
	White-collar worker	30	19.5%	27	23.1%	57	21.0%
	Manual and intellectual worker	7	4.5%	17	14.5%	24	8.9%
	Housewives	0	0.0%	4	3.4%	4	1.5%
	Manager	3	1.9%	3	2.6%	6	2.2%
	Self-employed	6	3.9%	5	4.3%	11	4.1%
	Unemployed	1	0.6%	4	3.4%	5	1.8%
	Pensioner	0	0.0%	1	0.9%	1	0.4%
Age-bassed Group	18-24 year	108	70.1%	62	53.0%	170	62.7%
	25-39 year	34	22.1%	30	25.6%	64	23.6%
	40-54 year	10	6.5%	24	20.5%	34	12.5%
	55+	2	1.3%	1	0.9%	3	1.1%
Sex	Male	52	33.8%	30	25.6%	82	30.3%
	Female	102	66.2%	87	74.4%	189	69.7%

As regards the gender ratio of the participants, 69.7% (189 persons) were female, and 30.3% (82 persons) were male. In terms of age groups, respondents were divided into the following categories: 62.7% (170 persons) were aged 18-24, 23.6% (64 persons) were aged 25-39, and 13.6% (37 respondents) were aged 40-55. Analyzing our respondents' domicile, we saw that nearly half of the participants lived in towns, as according to the figures 26.2% (71 persons) had their domicile in a village or municipality, 45.8% (124 persons) lived in a town, 22.1% (60 persons) were residents of a county seat, and 5.9% (16 persons) lived in the capital. The data on the highest educational attainment of participants show that 1.8% (5 persons) completed only grade 8 of primary education, 2.2% (6 persons) completed a vocational school, 55.0% (149 persons) passed the secondary school leaving exam, 2.6% (7 persons) completed non-tertiary post-secondary education, and 38.4% (104 persons) obtained a tertiary (college/university) degree. Of all the respondents, 4.4% (12 persons) preferred not to answer my question on their financial situation, 22.5% (61 persons) had no income, 1.1% (3 persons) regularly faced financial problems, 15.5% (42 persons) could hardly make a living, and 15.1% (41 persons) could make a good living from their income and could also put some of it aside. Analyzing our participants' core activities, we found they could be grouped into the following categories: 55.7% (151 persons) were students, 4.4% (12 persons) had a blue-collar job, 21.0% (57 persons) had a white-collar job, 8.9% (24 persons) had a both manual and intellectual job, 4.1% (11 persons) were self-employed, 2.2% (6 persons) were managers, 1.5% (4 persons) were housewives, 1.8% (5 persons) were unemployed, and 0.4% (1 persons) were pensioners receiving incapacity benefit.

The ethnic Hungarians who filled in our survey represented 43.2% of our sample (117 persons), with most of them living in the North-West region of Romania. The rest of the participants, i.e. 56.8% (154 persons) were Hungarian citizens, with the majority of them living in the Northern Great Plain region of Hungary. This means that the majority of our respondents live in two neighboring regions, as the North-West region of Romania is adjacent to the Northern Great Plain region of Hungary. Since we received a number of responses from each country separately, and there is not a big difference between these numbers (56.8% of the participants were from Hungary, and 43.2% were from Romania), we considered it worth investigating the results of certain questions from this aspect as well. Among the respondents from Hungary 33.8% (52 persons) were male, and 66.2% (102 persons) were female. Among those from Romania the gender ratio was as follows: 25.6% (30 persons) were male, while 74.4% (87 persons) were female. In terms of age we can see that we had more respondents in the 18-24 age group among those from Hungary, and aged 40-55 among those from Romania. Village or municipality residents accounted for 8.4% (13 persons) of the sample from Hungary, compared to 49.6% (58 persons) of the one from Romania. Town dwellers were represented almost in the same ratio: 48.1% (74 persons) from Hungary and 42.7% (50 persons) from Romania live in towns. More of our Hungarian citizen respondents (33.1%, 51 persons) live in a county seat, compared to participants from Romania (7.7%, 9 persons). Some of our respondents from Hungary live in the capital; they accounted for 10.4% (16 persons) of the sample. Roughly 63.6% of our respondents had a secondary school leaving exam, and 68.8% of them still study.

RESULTS AND DISCUSSION

The exploration of travel patterns focused on what tourist destinations were the most popular among respondents. We used a 5-point Likert scale (1=not typical at all, 5=absolutely typical) to assess how frequently the participants tended to choose the following tourist destinations: domestic attractions, neighboring countries, non-neighboring European Union countries, non-EU countries, other continents. Nearly half of our respondents (40.2%, 109 persons) proved to prefer domestic destinations, as this is the category that got most 5's. Figure 1 clearly shows that domestic destinations were dominant among the 4's as well, with 31.4% of the answers in this category (85 persons). Other continents were the least frequently chosen destination among most respondents: 68.6% chose option 1 for this category (186 persons). Non-EU countries were also less popular spots: a high rate of participants, i.e. 55.4% (150 persons) chose option 1 for this category.

Table 2. Choice of tourist destinations Based on a 5-point Likert scale (Source: Own editing)

Tourist destination	Options/Person					Total average / standard deviation	Hungarian average/ standard deviation	Romanian average/ standard deviation	
	1	2	3	4	5				
Inland	12	19	46	85	109	3.96 (sd=1.120)	4.10 (sd=1.053)	3.78 (sd=1.183)	p>0.05
Neighboring countries	23	52	93	71	32	3.14 (sd=1.119)	3.06 (sd=1.153)	3.23 (sd=1.070)	p>0.05
Non - neighboring countries of the European Union	65	65	57	45	39	2.73 (sd=1.370)	3.07 (sd=1.424)	2.29 (sd=1.160)	chi^2=28.652, df=4, p<0.001
Non-EU countries	150	63	30	15	13	1.81 (sd=1.134)	2.01 (sd=1.207)	1.56 (sd=0.978)	chi^2=15.654, df=4, p=0.004
Other continents	186	43	19	15	8	1.58 (sd=1.036)	1.69 (sd=1.106)	1.44 (sd=0.923)	p>0.05

Based on the above results, domestic destinations are the most preferred category as this had the highest mean value (mean=3.96, deviation=1.120). Mean values show neighboring countries to be the second most popular choice (mean=3.14, deviation=1.119), followed by non-neighboring EU countries (mean=2.73, deviation=1.370). Respondents tended to less frequently choose non-EU countries (mean=1.81, deviation=1.134) and other continents (mean=1.8, deviation=1.036).

There is a significant difference in the 5-point ratings provided by the respondents from the two different countries regarding destinations in non-neighboring EU countries. Compared to our ethnic Hungarian participants, a higher number of respondents from Hungary tend to choose such destinations. For this question 19.5% of our respondents from Hungary (30 persons) chose option 1; 18.2% of them (28 persons) opted for 2; 18.8% of them (29 persons) marked option 3; 22.7% (35 persons) chose option 4; and 20.8% of them (32 persons) marked option 5. At the same time, 29.9% of our respondents from Romania (35 persons) selected option 1; 31.6% (37 persons) chose option 2; 23.9% (28 persons) marked option 3; 8.5% (10 persons) chose option 4; and 6.0% (7 persons) marked option 5 (chi^2=28.652; df=4; p<0.001). A further difference could be shown regarding the preference of countries outside of the European Union; our respondents from Romania were less likely to visit such destinations as 67.5% (79 persons) chose option 1 for this category, compared to 46.1% of our participants from Hungary (71 persons) (chi^2=15.642; df=4; p=0.004).

Table 3 presents the ratio of day visits and overnight trips with at least one night's stay. Out of all the respondents, 15.5% (42 persons) never go on a day trip for leisure/tourism, 34.7% (94 persons) go on such trips more than 3 times a year, 21.0% (57 persons) do so 1-2 times a year, 7.0% (19 persons) take a trip like that once a year, 18.5% (50 persons) once a month, and 3.3% (9 persons) take such trips every week. At the same time, overnight trips with one to three overnight stays are taken by 12.2% of all the respondents (33 persons) never at all; 17.0% of them (46 persons) take such trips more than 3 times a year, 38.7% (105 persons) do so 1-2 times a year, 28.4% (77 persons) go on a trip like that once a year, 2.2% (6 persons) once a month, and 1.5% (4 persons) take such trips every week.

Leisure / tourism trips with at least four overnight stays are taken by 23.2% of all the respondents (63 persons) never at all; 5.9% (16 persons) take such trips more than 3 times a year, 20.7% (56 persons) do so 1-2 times a year, 47.2% (128 persons) go on a trip like that once a year, and 3.0% (8 persons) take such trips every month.

Table 3. Duration of leisure / tourist trips (Source: Own editing)

Duration of leisure / tourist trips	Options/Person						Total average / standard deviation	Hungarian average/ standard deviation	Romanian average/ standard deviation	By t-test
	Never	Weekly	Monthly	Once a year	1-2 times a year	More than 3 times a year				
Day trips	42	9	50	19	57	94	4.19 (sd=1.813)	4.21 (sd=1.760)	4.15 (sd=1.887)	p>0.05
Trips for 1-3 nights	33	4	6	77	105	46	4.31 (sd=1.468)	4.29 (sd=1.587)	4.34 (sd=1.301)	p>0.05
Trips of 4 nights or more	63	0	8	128	56	16	3.59 (sd=1.558)	3.79 (sd=1.563)	3.33 (sd=1.520)	chi^2=18.883, df=5, p=0.002

If we split out the results by countries, we can conclude that 20.1% of the respondents from Hungary (31 persons) never go on overnight trips of at least four overnight stays, 40.9% of them (63 persons) take such a trip once a year, and 27.9% of them (43 persons) will do so 1-2 times a year. In comparison, 27.4% of the respondents from Romania (32 persons) never take such a trip, 55.6% of them (65 persons) take such a trip once a year, and 11.1% of them (13 persons) will do so 1-2 times a year (chi^2=18.883; df=5; p=0.002). Our survey also included research into the recreational activiti es tourists undertake as part of their trips. In this part we again used a 5-point Likert scale (1=not typical at all, 5=absolutely typical) to assess what leisure activities are the most frequently undertaken during our respondents' trips. The most popular activities done at the destination were nature walks and hiking (mean=4.11, deviation=1.034), and exploring sites of historic interest and architectural spots (mean=3.49, deviation=1.188). Recreational activities designed to provide relaxation and recharge also proved to be in demand, with the use of wellness services (mean=3.38, deviation=1.369), and leisure, relaxation, meditation, and yoga being the most popular (mean=3.37, deviation=1.280). In the studied sample the activities that got neglected or failed to receive attention during trips were surfing the Internet, and playing telephone/ online games (mean=2.26, deviation=1.239), or trying extreme sports (mean=2.35, deviation=1.387).

Table 4. Percentage distribution of recreational activities used during the trip (Source: Own editing)

Recreational activity:	Options	Percentage	Person	Total average/ standard deviation	Hungarian average/ standard deviation	Romanian average/ standard deviation	By t-test
Nature walks and hiking at the destination	1	1.9%	5	4.11 (sd=1.034)	4.08 (sd=1.067)	4.16 (sd=0.991)	p>0.05
	2	6.3%	17				
	3	18.1%	49				
	4	25.9%	70				
	5	47.8%	129				
Exploring sites of historic interest and architectural spots	1	7.0%	19	3.49 (sd=1.118)	3.54 (sd=1.225)	3.42 (sd=1.139)	p>0.05
	2	13.0%	35				
	3	28.1%	76				
	4	28.1%	76				
	5	23.7%	64				
Use of wellness services	1	12.9%	35	3.38 (sd=1.369)	3.42 (sd=1.361)	3.34 (sd=1.384)	p>0.05
	2	14.0%	38				
	3	23.6%	64				
	4	20.7%	56				
	5	28.8%	78				
Resting, relaxation, meditation, yoga	1	8.5%	23	3.37 (sd=1.280)	3.33 (sd=1.250)	3.42 (sd=1.321)	p>0.05
	2	19.3%	52				
	3	24.4%	66				
	4	22.6%	61				
	5	25.2%	68				
Surfing the Internet, and playing telephone/ online games	1	35.4%	96	2.26 (sd=1.239)	2.44 (sd=1.303)	2.03 (sd=1.114)	t=2.726, p=0.007
	2	27.3%	74				
	3	19.9%	54				
	4	10.3%	28				
	5	7.0%	19				
Trying extreme sports	1	40.2%	102	2.35 (sd=1.387)	2.47 (sd=1.401)	2.19 (sd=1.358)	p>0.05
	2	19.2%	52				
	3	16.2%	44				
	4	14.4%	39				
	5	10.0%	27				

These results let us conclude that our first hypothesis assuming that during trips activities that aid relaxation, recreation and recharge are a top priority for tourists is only partially right. These types of free time activities are a clearly important part of holiday-takers' trips; however, tourists also have a strong liking for nature walks and visiting historic sites. Leisure activities done in nature, including hiking, have become a stronger tourist motivation during the pandemic (Campisi, 2020; Kupi and Szemerédy, 2021; Ernszt and Marton, 2021); these have been markedly important before the occurrence of the virus, though (Nagy, 2016; Csapó and Gonda, 2019). At the same time, there has been a rise in the demand for tourist products and services that make it possible for tourists to keep physical distance without physical distancing being at the expense of the experience itself. Such products are the ones used in active tourism, as well as in destinations with a low population density in the countryside (Raffay, 2020). The amount of time spent surfing the Internet or playing telephone/online games was higher among respondents from Hungary (t=2.726, p=0.007).

Covid-19 has had an impact nearly on everything, including travel habits. Out of all the respondents, 29.5% (80 persons) were partly, and 53.1% (144 persons) were absolutely influenced by the pandemic when making their travel plans. To study the effects of Covid-19 on respondents' travel-related activities, we provided various statements regarding which respondents could choose from three options: false, partially true, and wholly true. Our hypothesis assuming that people were more cautious due to the pandemic and preferred domestic trips instead of outbound travel, was wholly true for 41.3% of our respondents (11 persons), partially true for 32.8% (89 persons), and false for 25.8% (70 persons). We found it to be wholly true for 49.8% of the respondents (135 persons) that they got vaccinated to be able to travel, partially true for 18.8% (51 persons), and false for 31.4% (85 persons). In the present pandemic situation not so crowded tourist destinations were absolutely preferred by 33.9% of our respondents (92 persons), and partially preferred by 34.7% (94 persons). Due to Covid-19, it was wholly true for 21.4% of the participants (58 persons) that they chose nearby destinations and traveled there for a shorter stay but more times, and the same statement was partially true for 35.8% (97 persons).

Table 5. Effects of Covid-19 on travel (Source: Own editing)

Statement	Options/Person			Total average/ standard deviation	Hungarian average/ standard deviation	Romanian average/ standard deviation
	False	Partially true	Wholly true			
More cautious due to the pandemic and preferred domestic trips instead of outbound travel	70	89	11	2.45 (sd=0.733)	2.41 (sd=0.764)	2.50 (sd=0.690)
Got vaccinated to be able to travel	85	51	135	2.18 (sd=0.884)	2.26 (sd=0.877)	2.09 (sd=0.886)
Preferred non-crowded tourist destinations.	85	94	92	2.03 (sd=0.809)	1.96 (sd=0.808)	2.11 (sd=0.807)
Travelled nearby destinations for shorter stay but more times	116	97	58	1.79 (sd=0.774)	1.79 (sd=0.800)	1.79 (sd=0.741)

In the two years preceding Covid-19 (2018, 2019) 5.9% of the respondents (16 persons) did not take a domestic trip, 19.9% (54 persons) had such a trip once a year, 39.9% (108 persons) did so 2-3 times a year, and 34.3% (93 persons) took an inbound trip more than 3 times a year. During the pandemic (2020, 2021) these rates changed, and as many as 21.4% of the respondents (58 persons) failed to take a domestic trip, 32.1% (87 persons) had such a trip once a year, 28.8% (78 persons) traveled 2-3 times a year, and 17.7% (48 persons) went on an inbound trip more than 3 times (t=11.235, p<0001). In the two years preceding the pandemic, 18.5% of the respondents (50 persons) did not go on an outbound trip, 50.9% (138 persons) had such a trip once a year, 22.9% (62 persons) traveled abroad 2-3 times a year, and 7.7% (21 persons) went on an outbound trip more than 3 times a year for touristic purposes. The number of people who did not go on an outbound trip in 2020 and 2021 increased greatly to give a percentage of 60.1% (163 persons). In these years, (2018, 2019) 25.1% of the respondents (68 persons) went on an outbound trip once a year, 12.5% (34 persons) had such a trip 2-3 times a year, and 2.2% (6 persons) chose an outbound destination for touristic purposes more than 3 times a year (t=12.826, p<0.001).

Table 6. Travelling before and after Covid-19 (Source: Own editing)

<table>
<tr><th colspan="2">Statement</th><th>Options</th><th>Frequency</th><th>Percentage</th><th>Total average/ standard deviation</th><th>Hungarian average/ standard deviation</th><th>Romanian average/ standard deviation</th><th>By t-test</th></tr>
<tr><td rowspan="4">Before Covid-19</td><td rowspan="4">Inland</td><td>Not once</td><td>16</td><td>5.9%</td><td rowspan="4">3.03 (sd=0.884)</td><td rowspan="4">2.99 (sd=0.897)</td><td rowspan="4">3.07 (sd=0.868)</td><td rowspan="8">t=11.235 p<0.001</td></tr>
<tr><td>Once a year</td><td>54</td><td>19.9%</td></tr>
<tr><td>2-3 times a year</td><td>108</td><td>39.9%</td></tr>
<tr><td>More than 3 times a year</td><td>93</td><td>34.3%</td></tr>
<tr><td rowspan="4">During the pandemic</td><td rowspan="4">Inland</td><td>Not once</td><td>58</td><td>21.4%</td><td rowspan="4">2.43 (sd=1.015)</td><td rowspan="4">2.40 (sd=1.032)</td><td rowspan="4">2.46 (sd=0.996)</td></tr>
<tr><td>Once a year</td><td>87</td><td>32.1%</td></tr>
<tr><td>2-3 times a year</td><td>78</td><td>28.8%</td></tr>
<tr><td>More than 3 times a year</td><td>48</td><td>17.7%</td></tr>
<tr><td rowspan="4">Before Covid-19</td><td rowspan="4">Abroad</td><td>Not once</td><td>50</td><td>18.5%</td><td rowspan="4">2.20 (sd=0.828)</td><td rowspan="4">2.16 (sd=0.820)</td><td rowspan="4">2.25 (sd=0.840)</td><td rowspan="8">t=12.826 p<0.001</td></tr>
<tr><td>Once a year</td><td>138</td><td>50.9%</td></tr>
<tr><td>2-3 times a year</td><td>62</td><td>22.9%</td></tr>
<tr><td>More than 3 times a year</td><td>21</td><td>7.7%</td></tr>
<tr><td rowspan="4">During the pandemic</td><td rowspan="4">Abroad</td><td>Not once</td><td>163</td><td>60.1%</td><td rowspan="4">1.57 (sd=0.795)</td><td rowspan="4">1.49 (sd=0.786)</td><td rowspan="4">1.68 (sd=0.797)</td></tr>
<tr><td>Once a year</td><td>68</td><td>25.1%</td></tr>
<tr><td>2-3 times a year</td><td>34</td><td>12.5%</td></tr>
<tr><td>More than 3 times a year</td><td>6</td><td>2.2%</td></tr>
</table>

A questionnaire survey conducted in 500 Hungarians who frequently travel aimed to find out whether this change in travel motivations would persist after the pandemic is over, or motivations would again be the same as previously. Research results revealed that merely 46% of the 500 Hungarian respondents are anxious about traveling abroad, and it was mainly true for female travelers that they consider inbound destinations to be safer (Ernszt and Marton, 2021).

The pandemic seems not to have had an impact on our respondents' preferences regarding outbound destinations, as the neighboring Austria, Croatia, and Italy have proved to be popular destinations again after the pandemic. This also implies that after the pandemic domestic tourism will not result in such an exponential increase as during the travel restrictions or the pandemic itself, but may return to the level before the pandemic.

CONCLUSION

The main objective of our research was to explore travel habits among holiday-takers aged 18-55. Our results demonstrate that the most preferred destination in this age group is the country of residence. Neighboring countries and other European Union member states are also in focus, but non-EU countries and overseas destinations are less favored.

It can be concluded that the majority of respondents, more precisely, 73.8% (200 respondents) usually take an overnight trip of at least four overnight stays at least once a year. In addition, 84.1% of respondents (228 persons) will also take a tourism trip of 1-3 overnight stays at least once a year. Our respondents like to undertake day visit free time activities as well; only 15.5% of them (42 persons) take no such trips.

The most popular recreational activities done during these trips are nature walks, hiking, visiting sites of historic interest and architectural spots at the destination; also, they show a liking towards activities aimed at resting, relaxation, and recharge. Our results are consistent with the research results of Hungarian and international studies alike (Kupi and Szemerédy, 2021; Ernszt and Marton, 2021; Umukroro et al., 2020; Githii, 2021). Randler et al. (2020) said that the corona virus also changed the recreational habits of people who did outdoor activities. For example, those who watched birds in their free time, they did this activity in or near their court for safety reasons. Research in 2020 has shown that people, who live in a city, during the pandemic they travelled for recreational activities for a shorter period of time (Rice et al., 2020).

Our results clearly demonstrate that Covid-19 has had an impact on travel plans: people's intention to travel either within their country of residence or abroad has decreased significantly during the years of the pandemic (2020, 2021); also, countryside destinations and active tourism have become more sought after. It can also be considered worth mentioning that travel has influenced people a lot in their vaccination decisions as being vaccinated greatly facilitates travel and tourism.

Unfortunately, modern life is loaded with stress, work and performance pressure, and tiredness accompanied by its various symptoms. Therefore, it is essential that we make time for ourselves, and spend our leisure time doing activities that facilitate resting, relaxation, and recreation (De Valck et al., 2016; Scholte et al., 2018). Leisure/tourism trips make it possible to get away from everyday life, and help focus on relaxation and rest. It is important that people consider travel and trips as a means facilitating relaxation, recreation, resting, and learning new things or skills. Covid-19 has had a considerable impact on travel habits, which are extremely important to study and analyze. The changes in recreational motivations should be carefully considered as relying on the popular recreational activities may be extremely helpful in making decisions on what opportunities to offer. A questionnaire survey conducted in 500 Hungarians who frequently travel aimed to find out whether this change in travel motivations would persist after the pandemic is over, or motivations would again be the same as previously. Research results revealed that merely 46% of the 500 Hungarian respondents are anxious about traveling abroad and it was mainly true for female travelers that they consider inbound destinations to be safer (Ernszt and Marton, 2021). The pandemic seems not to have had an impact on our respondents' preferences regarding outbound destinations, as the neighboring Austria, Croatia, and Italy have proved to be popular destinations again after the pandemic. This also implies that after the pandemic domestic tourism will not result in such an exponential increase as during the travel restrictions or the pandemic itself, but may return to the level before the pandemic.

Acknowledgement

„Suported by the ÚNKP-21-1 New National Excellence Program of the Ministry for Innovation and Technology from the source of the National Research, Development and Innovation Fund."

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Article history: Received: 25.11.2021 Revised: 25.02.2022 Accepted: 30.03.2022 Available online: 21.04.2022

GeoJournal of Tourism and Geosites
ISSN 2065-1198, E-ISSN 2065-0817

Year XV, vol. 41, no. 2, 2022, p.448-455
DOI 10.30892/gtg.41215-849

RECENT CHANGES AND THEIR IMPACT ON DIRECTING SCHOOL STUDENTS TO ENROLL IN HOSPITALITY EDUCATION: JORDAN SCHOOLS AS A CASE STUDY

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Citation: Al-Makhadmeh, A.A., Alananzeh, A.O., Masa'deh, R., & Shatnawi, H.S. (2022). RECENT CHANGES AND THEIR IMPACT ON DIRECTING SCHOOL STUDENTS TO ENROLL IN HOSPITALITY EDUCATION: JORDAN SCHOOLS AS A CASE STUDY. *GeoJournal of Tourism and Geosites*, 41(2), 448–455. https://doi.org/10.30892/gtg.41215-849

Abstract: Hospitality is described as a highly labour-intensive industry where skilled and qualified human resources play a major role in its success. Thus, this paper is conducted to investigate the impact of recent changes on the attitude of school students to enrol in hotel education and to identify the factors influencing this trend. The quantitative approach has been adopted and a structured questionnaire was designed and distributed electronically to the study sample. Results showed that social media, promotion tools, and family environment and society have a significant impact on their knowledge and attitude to join hotel education, while the curricula and extracurricular activities showed a deficient effect on the students' orientation towards hotel education. The significance of this study lies in its uniqueness in addressing an important future issue related to hotel education and its impact on the hotel sector and in providing suggestions for hotel institutions, planners, and researchers to encourage students to enrol in hotel education.

Key words: social media, promotion tools, family environment and society, curricula

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INTRODUCTION

The tourism and hospitality industry, which is related to the movement of individuals from one place to another for religious, educational, or recreational purposes and the establishment of a facility to provide food and drink service to them, is an economic pillar for any country (Mahmoud et al., 2021). It is an activity for travel with the aim of entertainment and the provision of services related to this activity (United Nation World Tourism Organization (UNWTO), 2014). It is a very important psychological activity for humans, as tourism of all kinds relieves the psychological pressures experienced by humans. Its importance has increased in the past two centuries due to scientific and technological development and due to the increase in tourism awareness (Rodríguez-Pose and Zhang, 2020). Its importance and the humans' desire to learn about other's historical and civilization heritage increased the desire for discovery and interaction between peoples. Wars and disasters have affected the decline of tourism in countries that suffer from their scourge, which led to a decline in their economic level and the announcement of a large deficit in their trade budget (Gorochnaya et al., 2021). The year 2020 was a blow to all industries in the whole world, including the tourism sector. The Corona pandemic appeared that made countries work to impose complete closures for a long time, which harmed external and internal tourism and affected all related sectors with it. But soon the tourism and hospitality industry began to recover, and there was an urgent need for manpower (Huynh et al., 2021). Developing countries are witnessing a noticeable increase in the birth rate and a shortage of industrial facilities and investment projects. This leads to a lack of available job opportunities and pressures on governments to create strategies and plans to reduce the unemployment rate. Therefore, the tourism and hospitality industry is one of the most important sources of national income and the best way out of this predicament.

Also, given the need for distinguished tourism services, the rapid growth in hospitality facilities such as hotels and restaurants, and the availability of job opportunities in this sector, it was necessary to have employees with experience and technical and administrative skills to provide optimal service to the clients of these institutions (Deeb et al., 2020; Zawherh, 2012). Therefore, it is necessary to encourage and determine the future orientation of students to enroll in tourism and hotel education. Hospitality institutions suffer from a lack of students to enroll in them, especially females, due to the unwillingness of parents to educate their children in this sector for religious, social, and cultural reasons (Jawabreh et al., 2017).

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The study aimed to know the impact of the curriculum in educating students about the importance of joining tourism and hotel education, to clarify the role of electronic promotional means in creating awareness of the importance of hotel education, the impact of the family environment and society in increasing tourism awareness, and knowing the impact of social media on students' changing attitudes towards hotel education. The study also aimed to know the role of extracurricular activities in the school in increasing the students' experiences and knowledge of tourism and hotel education and to determine their behaviour and future orientations towards tourism and hotel education. It also aims to present recommendations and suggestions to decision-makers to focus on increasing the culture of vocational education for students (tourism and hospitality). The importance of this study stems from determining the reasons for the low demand of students to enrol in hotel education and its impact on the tourist establishment, where the success of the hospitality sector depends on the level of service provided to tourists and the availability of qualified trained staff.

LITERATURE REVIEW

With the rapid development in the era of automation and due to the changes that have occurred in countries, reliance on a single source of national income is no longer a safe pattern for all countries of the world. Consequently, countries have strengthened their vital sectors and searched for ways to develop and exploit them, the most important of which is the tourism and hospitality industry, where they worked to strengthen this sector through the implementation of plans and projects to enhance it (Gebbels et al., 2020). Tourism awareness is the knowledge, interest, and awareness of a set of values, trends, and principles prevailing in the field of tourism. Increasing tourism awareness among school students will improve their ability to deal with the nature of tourists who constitute a diversity and mingling of a number of cultures that will meet in one place through knowledge and preservation of tourism components (van Niekerk and Saayman, 2013). They also stated that developing tourism awareness through school helps in achieving tourism development and increasing students' awareness of the importance of tourism. Tourism has become a source of income and enables customers to search, book, and pay for flights and hotels electronically, and e-tourism is no longer an option only but has become an imperative necessity imposed by the nature of tourism services.

The school curriculum is all the visible and invisible information that the student receives from the school, whether from the book or from the teacher. Offorma (2016) indicated that the curriculum is the method of educators in providing the children of society with certain specifications determined by the purpose, goals, and objectives of education in the light of integrating the culture of the society in the curriculum planning and how to transfer it to the young generation. Therefore, it is necessary to include in the school curriculum comprehensive topics that talk about tourism and the job opportunities provided by this sector. The school curriculum was also defined as all the activities the student does under the supervision and organization of the school (Shao-Wen, 2012). Tomasi et al. (2020) claimed that the teacher is the most capable person who can contribute to tourism awareness through the availability of motivation, which imparts a kind of enthusiasm that is transmitted from him to the students. Raising the community awareness of tourism is sound through introducing the issues of tourism in schools and universities, and the exploitation of audio-visual media has a significant impact on raising awareness (McGladdery and Lubbe, 2017). Extracurricular activities are any physical or mental effort that the learner makes of his own volition in order to reach a specific goal. It is any cultural, social, intellectual, or sports activity that aims to prepare students and build their balanced personality, enrich knowledge and motivate their talents (Morrissey, 2005). All programs that students practice with their choices without being restricted to the curriculum have a clear impact on their psychological and mental development. It is believed that Activities (games, school trips, plays, celebrations...etc) also contribute to the trips in spreading tourism awareness and acquiring science and practical experiences. Business and activities are sponsored and organized by the school to entertain students. Integrating activities into curricula should have a significant positive impact and increase students' experiences (Rezapouraghdam et al., 2018; Mannaa and Abou-Shouk, 2020; Mahmoud et al., 2021).

The best way to help know the tourist characteristics of the place is through school trips in which the students visit the place in the field and establish behaviours and practices from the reality in their minds (Chellen and Nunkoo, 2010), providing freedom and fun during the activity. Extracurricular activities of all kinds constitute a fertile field for increasing tourism awareness among students (Darling et al., 2005). From the above, we conclude that extracurricular activities are all programs, activities, and events that are supervised and organized by the school inside or outside its walls and are linked in one way or another to the curriculum to achieve the studied goals. School activities include morning activities, exhibitions, competitions, seminars, excursions, and scouts. Meanwhile, the tools of promotion are the services provided by ICT for the purpose of achieving and promoting tourism and hotel services through various open and closed networks (Amina and Fadloun, 2020). E-tourism has also been defined as a type of tourism whose transactions are implemented in the form of services provided by the producer to the consumer to achieve different goals. According to the Jordanian Ministry of Tourism, 95% of tourists use digital technology in their trips (Amina and Fadloun, 2020). The Ministry of Tourism has created its own website that provides all information related to tourism and tourism services available in Jordan. It also provides a set of electronic services aimed at raising the level of services.

In addition, the family environment and society are the prevailing culture in the family and society, which has a significant impact on the attitudes of individuals (Morrissey, 2005). The family is the basic building block in an individual's upbringing, in which his personal traits are formed by influencing behaviour and character formation (Al Zubaibi, 2012), and in which the trends of individuals are developed by encouraging him to deal well with the tourist and reflect the good image of society with the need not to assimilate into their culture and install the values of preserving the tourism gains of the homeland. Although some families try to stay away from tourist facilities such as hotels because they think that they bring negative change (Al-Zou'by and Alkharouf, 2015). Hospitality investments lead to the development of society as a result of direct contact between the tourist and the members of society. Tourism has become an important source of change and class transformation among members of society, especially those who work in the tourism and hospitality sector, where they move from a social class to a better class because of the financial return (Hodur and Leistritz, 2006).

Moreover, social media is a term given to a group of websites on the Internet that allows communication between individuals in a virtual community that brings them together according to interests and affiliation. It is a very effective network of sites in facilitating social life among a group of old acquaintances and friends by communicating with each other through audio and video (Lehmann, 2015). The Internet is a means of searching for information, students rely on the Internet to search for information (Alalmai, 2016), and then it became a means of communication after the emergence of social networking sites, in which the tourist became a promoter of what he saw by documenting everything he saw during the visit, especially with the presence of reactions, comments, and pictures.

Social media is a means of promoting any tourist place by providing a huge amount of information whether written, photographed, or in the form of videos (Karima and Wafia, 2020). A study conducted by Al-Refai (2019) showed that the majority of tourists use social networks for one to two hours per day. Social media is the real and serious gateway to reach the largest number of segments of society in the country and the world (Amina and Fadloun, 2020).

Al-Rifai's study (2019) showed that most tourists use social networks for 1-2 hours such as Imo, WhatsApp, and Facebook, and showed the importance of social networks in accessing tourism advertisements for them. Jawabreh et al., (2017) defined social networks as services that allow individuals to express themselves and allow them to choose the individuals involved in them. As for Boyd and Ellison (2007), they defined them as programs used to build a society in which communication and interaction between individuals take place for many social, cultural, and economic reasons.

The advantages of social networks are that they are interactive, allowing the participation of smartphone users to comment on content and the wide range of content in interactive media, including text, video, image, and audio (Karima and Wafia, 2020). They are quick to exchange information, enhanced by its wide dissemination, and the media in communication networks is a good marketing tool for products, goods, and ideas. The means of communication that enhance the relationship between customers and customers via the Internet. Low cost compared to other media.

Also, Karima and Wafia (2020) indicated that social networks have a great role in promoting tourist areas by presenting them in detail and providing them with a large amount of information. Hotels use social networking sites in order to promote services and facilitate information access to the target group. Travel agents are also connected to the Internet and have their own website and electronic expansion via the Internet is driving local and global geographic expansion (Kim et al., 2015). Social networks are the new media style because they allow all interactive activities to be used freely, through which millions of people who share interests are connected (Jawabreh et al., 2017).

The attitude is people's constant evaluation of different issues. An attitude consists of effect, behaviour, and cognition. Affect refers to the evaluation of objects. Behaviour refers to a person's aims to do something related to the object, whereas cognition refers to a person's belief towards an object (Solomon et al., 2010). Consumers' reactions to a product and things are influenced by social factors, direct education, personal experience, media, educational and religious organizations, economic status, occupations, word of mouth, family and community, peers in work or study areas, and activities in their micro-environment or society as a whole (Bettinghaus et al., 1996). The influence of friends is powerful in persuading others to believe in things (Cohen, 2003). According to Cochran and Begley (1991, p. 46), those who have experienced something in the past will influence their current or future behaviour. In addition, people who have missed the opportunity to actually belong or participate with their community and peers influence their attitudes.

RESEARCH METHODOLOGY

This section provides the methodology applied in the current study. It consists of the research model of the study's independent and dependent variables, research hypotheses, besides data collection tool and research population and sample.

1. Research Model

Figure (1) represents a model for the study that shows the independent variables, the dependent variable, and the proposed relationship between them.

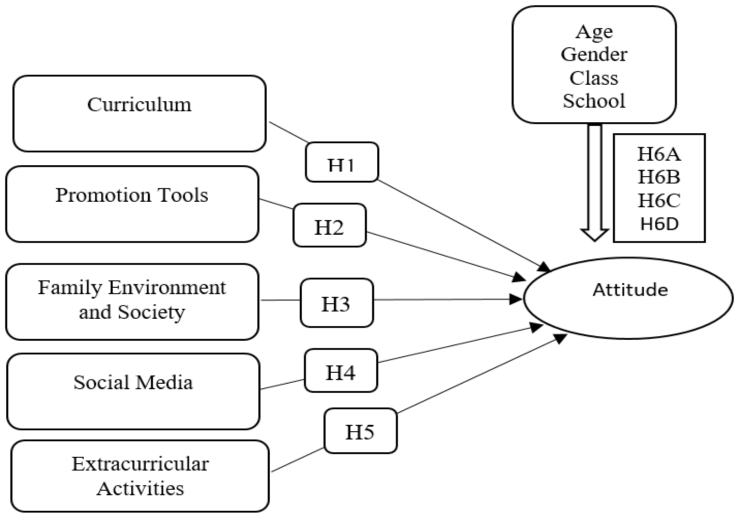

Figure 1. Conceptual framework of the study

2. Research Design

This study has adopted the quantitative approach in order to meet the objectives of the study. For this study, the target population is the schools of Ajloun Governorate. The number of students in the governorate is 46,885 distributed among 124 schools, including 93 public schools and 43 private schools. Cluster random sampling technique was used, where three public schools and two private schools were selected. The administration of the selected schools was contacted and the questionnaire was sent to them to distribute electronically to their student groups. 403 responses were obtained from the participants. The study instrument consisted of five independent variables (Curriculum, Promotion Tools, Family Environment and Community, Social Media, and Extracurricular Activities) taken from studies (Alananzeh, 2014; Alalmai, 2016; Alsawafi, 2016; Jawabreh et al., 2017; Tran, 2019; Ulvi et al., 2019; Anthony et al., 2021a, Anthony et al., 2021b) and a dependent variable (Attitude) taken from studies (Aksu and Koksal, 2005; Mannaa and Abou-Shouk, 2020; Anthony et al., 2021).

3. Demographic profile of the participants

Table (1) presents the frequency distributions and percentage of the demographic information of the study respondents. The demographic variables were gender, age, school, class, father's job, and mother's job. The study sample consists of 403 participants, of which 101 (25.1%) were females, and 302 (74.9%) were males. In terms of age, the results indicated that 128 (31.8%) were 14 years old, 106 (26.3%) were 13 years old, 58 (14.4%) 15 years old, 48 (11.9%) 16 years old, 40 (9.9%) 18 years old, and 23 (5.7%) 17 years old. Whereas 231 (57.3%) were from public schools and 272 (42.7%) were from private schools. The majority were from the eighth class, 128 (31.8%). Regarding father's job, the majority were working in the private sector 172 (25.3%), and the majority of mother's job were 209 (51.9%) in the private sector.

Table 1. Description of the respondents' demographic profiles

Category	Category	Frequency	Percentage%
Gender	Male	302	74.9
	Female	101	25.1
	Total	403	100.0
Age	13 years	106	26.3
	14 years	128	31.8
	15 years	58	14.4
	16 years	48	11.9
	17years	23	5.7
	18 years	40	9.9
	Total	403	100.0
School	Public school	231	57.3
	Private school	172	42.7
	Total	403	100.0
Class	Seventh	106	26.3
	Eighth	128	31.8
	Ninth	58	14.4
	Eleventh	48	11.9
	Twelfth	23	5.7
	Total	40	9.9
Father's Job	Public Sector	88	21.8
	Private sector	102	25.3
	Technical	118	29.3
	Military sector	71	17.6
	Other	24	6.0
	Total	403	100.0
Mother's Job	Public Sector	92	22.8
	Private sector	209	51.9
	Technical	50	12.4
	Other	52	12.9
	Total	403	100.0

DATA ANALYSIS AND RESULTS

In order to explore the associations among the research variables, in which these variables have been measured using 5-points Likert scale that varies between strongly disagree =1 and strongly agree =5; reliability and validity analyses were conducted, descriptive analysis was used to describe the characteristics of the sample and the respondent to the questionnaires besides the independent and dependent variables. Also, multiple regression was employed to test the research hypotheses. Table (2) shows the measured variables and the items measuring each variable.

1. Descriptive Analysis

In order to describe the responses and thus the attitude of the respondents toward each question, they were asked in the survey, the mean and the standard deviation were estimated.

Table 2. Variables and measurement items

Variable	Measurement Items
Curriculum (C)	C1: The curriculum contains valuable hotel topics A2: The curriculum directs students to vocational education. C3: The curriculum discusses the career prospects of students C4: The curriculum provides me with valuable information about the importance of working in hotels and restaurants
Promotion Tools (PR)	PR1: The school provides means to enable students to visit hospitality institutions in Jordan PR2: The Ministry of Education is working through its strategy to increase students' awareness of working in the hotel sector PR3: Jordanian TV and Jordanian satellite stations provide information about the hospitality sector in Jordan PR4: The Ministry of Tourism and Antiquities is working to increase students' awareness of the importance of working in the hotel sector PR5:Government departments are working on activities focused on the hotel sector
Family Envi-ronment and Community (FE)	FE1: Parents give me useful information about working in hotels FE2: The nature of the parents' work affects my educational orientations FE3: Parents' information about hotels affects my future direction FE4: Weekend family vacations influence my approach to hotel education FE5: Family members encourage me to choose hotel education FE6: The family's economic income influences my choice of hotel education FE7: Prevailing social customs and traditions influence my trend towards hotel education
Social Media (SM)	SM1: Social networks provide information about working in hotels SM2: Pictures and videos of hotels on social media increase my approach to working in hotels SM3: Social media provides important information about hotels SM4: I follow a lot of famous personalities who provide videos about culinary arts on social networking sites (Facebook, WhatsApp, Twitter, etc.)
Extra-curricular Activities (EX)	EX1: The morning school activities provide valuable information about hotels EX2: School plays provide valuable information about hotels EX3: School trips increase my orientation towards hotel education EX4: The students' guide at my school provides information on hotel education EX5: Participation in community activities increases awareness towards the hospitality sector
Attitude (AT)	AT1: I am going to study hotel management AT2: In the future, I will work in the hospitality sector AT3: I will advise my colleagues to go to study hotel management AT4:I would very much like to work in a five-star hotel or restaurant

While the mean shows the central tendency of the data, the standard deviation measures the dispersion which offers an index of the spread or variability in the data (Pallant, 2005; Sekaran and Bougie, 2013). In other words, a small standard deviation for a set of values reveals that these values are clustered closely about the mean or located close to it; a large standard deviation indicates the opposite. The level of each item was determined by the following formula: (highest point in Likert scale – the lowest point in Likert scale) / the number of the levels used = (5-1) / 5 = 0.80, where 1-1.80 reflected by "very low", 1.81-2.60 reflected by "low", 2.61-3.40 reflected by "moderate", 3.41-4.20 reflected by "high", and 4.21-5 reflected by "very high". Then the items were being ordered based on their means. Tables (3) and (4) show the results.

Table 3. Mean and standard deviation of the study's variables

Variables	Mean	Standard Deviation	Level	Order
Curriculum (CC)				
C1	1.31	0.725	Very low	4
C2	1.74	0.674	Very low	1
C3	1.63	0.595	Very low	3
C4	1.65	0.607	Very low	2
Promotion Tools (PR)				
PR1	4.63	0.568	Very high	1
PR2	4.47	0.695	Very high	5
PR3	4.58	0.619	Very high	2
PR4	4.50	0.663	Very high	3
PR5	4.48	0.692	Very high	4
Family Environment and Community (FE)				
FE1	4.47	0.688	Very high	6
FE2	4.43	0.710	Very high	7
FE3	4.55	0.618	Very high	3
FE4	4.65	0.522	Very high	2
FE5	4.51	0.624	Very high	5
FE6	4.52	0.583	Very high	4
FE7	4.84	0.390	Very high	1
Social Media (SM)				
SM1	4.60	0.742	Very high	3
SM2	4.77	0.496	Very high	2
SM3	4.81	0.452	Very high	1
SM4	4.81	0.440	Very high	1
Extracurricular Activities (EX)				
EX1	2.03	1.401	Low	4
EX2	1.99	1.186	Low	5
EX3	2.59	1.684	Low	3
EX4	2.67	1.784	Moderate	2
EX5	3.62	1.575	High	1
Attitude (AT)				
AT 1	3.49	1.352	High	4
AT 2	3.64	1.365	High	3
AT 3	3.70	1.403	High	2
AT4	3.76	1.371	High	1

Table 4. Overall mean and standard deviation of the study's variables

Type of Variable	Variables	Mean	Standard Deviation	Level	Order
Independent Variables	Curriculum (CC)	1.5775	0.45030	Very low	5
	Promotion Tools (PR)	4.5325	0.48234	Very high	3
	Family Environment and Community (FE)	4.5668	0.41720	Very high	2
	Social Media (SM)	4.7469	0.41858	Very high	1
	Extracurricular Activities (EX)	2.5806	0.89638	Low	4
Dependent Variable	Attitude (AT)	3.6470	1.30033	High	-

2. Reliability and Validity

Sekaran and Bougie (2013) stated that it is important to make sure that the instrument developed to measure a particular concept is accurately measuring the variable and is actually measuring the concept that it is supposed to measure in the research. While reliability analysis is related to the assessment of the degree of consistency between multiple measurements of a variable, validity analysis refers to the degree to which a scale or set of measures accurately represents the construct (Hair et al., 2010). The reliability of the instrument was measured by Cronbach's alpha coefficient. Further, some scholars (e.g. Bagozzi and Yi, 1988) suggested that the values of all indicators or dimensional scales should be above the recommended value of 0.60. However, the Cronbach's alpha for the independent variables (i.e. Curriculum, Promotion Tools, Family Environment and Community, Social Media, and Extracurricular Activities) were 0.63, 0.797, 0.823, 0.765, and 0.612 respectively; while the dependent variable, Attitude has a Cronbach's alpha coefficient of 0.96.

Table 5. Study model summary **b**

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	0.187 a	0.035	0.023	1.28544

a. Predictors: (Constant), CC, PR, FE, SM, EX; b. AT

3. Hypothesis Testing Results

H1: There is a statistically significant impact of Curriculum on Attitude.
H2: There is a statistically significant impact of Promotion Tools on Attitude.
H3: There is a statistically significant impact of Family Environment and Community on Attitude.
H4: There is a statistically significant impact of Social Media on Attitude.
H5: There is a statistically significant impact of Extracurricular Activities on Attitude.

The results of testing the main hypothesis are demonstrated in Table 5, Table 6, and Table 7.

Table 6. Analysis of variance for the study model (a)

Model	Sum of Squares	df	Mean Square	F	Sig.	Result
Regression	23.742	5	4.748	2.874	.015b	Accept the hypothesis
Residual	655.984	397	1.652			
Total	679.726	402				

a. Predictors: (Constant), CC, PR, FE, SM, EX
b. AT

Table 7. Coefficient of predictors (a - Dependent Variable: AT)

Model	Unstandardized Coefficients		t	Sig.	Result of hypothesis testing
	B	Std. Error			
Constant	2.288	1.096	2.088	0.037	
CC	-0.099-	0.149	-0.664-	0.507	Reject the hypothesis
PR	-0.492-	0.214	-2.306-	0.022	Accept the hypothesis
FE	0.826	0.247	3.339	0.001	Accept the hypothesis
SM	-0.052-	0.156	-0.332-	0.740	Reject the hypothesis
EX	0.085	0.073	1.165	0.245	Reject the hypothesis

As shown in tables (5, 6, and 7), the simple regression analysis test was applied to detect the effect of the independent variables on the dependent variable. The value of F was 2.874 with a statistically significant 0.015 and the value of T = 2.088 with statistically a significant 0.037. At the same time, the value of R was 0.187, representing the correlation factor between the independent variable and the dependent variable. Meanwhile, the value of R2 = 0.035 represents the ratio of interpretation of differences in the dependent variable resulting from the change in the factor of the dependent variable.

4. Moderation Effects

Hypotheses H6A, H6B, H6C, and H6D argued that there is a significant difference in the respondents' Attitude due to age, gender, class, and school type. Independent Samples T-test was employed in order to investigate if there are any significant differences in the respondents' Attitude that can be attributed to gender and school type. Also, an ANOVA test was employed to examine if there are any significant differences in the respondents' Attitude that can be attributed to age and class. Results of the T-test, shown in Table 8, indicated that there is a significant difference in the Attitude that can be attributed to gender, that goes for females than males. However, as indicated in Table 9, there is no significant difference in the Attitude that can be attributed to school type. Results of ANOVA test, shown in Tables 10 and 11, indicated that there are significant differences in the Attitude in favour of age and class. However, Table 12 provided the statistical significance of the differences between each pair of groups for age. As noticed in Table 12, the six groups (i.e. 13, 14, 15, 16, 17 and 18) were statistically different from one another. Also, Table 13 provided the statistical significance of the differences between each pair of groups for class. As noticed in Table 13, the six groups (i.e. Seventh, Eighth, Ninth, Tenth, Eleventh, and Twelfth) were statistically different from one another.

Table 8. T-test of the respondents Attitude attributed to gender

Variable	Male			Female			T	df	Sig.
	N	Mean	Std. Dev.	N	Mean	Std. Dev.			
Attitude	302	3.5530	1.30203	101	3.9282	1.26013	2.569	176.675	0.011

Table 9. T-test of the respondents Attitude attributed to school type

Variable	Public school			Private school			T	df	Sig.
	N	Mean	Std. Dev.	N	Mean	Std. Dev.			
Attitude	231	3.6807	1.27925	172	3.6017	1.33052	0.599	360.452	0.549

Table 10. ANOVA Analysis of respondents Attitude attributed to age

Variable		Sum of Squares	Df	Mean Square	F	Sig.
Attitude	Between Groups	222.138	5	44.428	38.545	0.000
	Within Groups	457.588	397	1.153		
	Total	679.726	402			

Table 11. ANOVA Analysis of respondents Attitude attributed to class

Variable		Sum of Squares	Df	Mean Square	F	Sig.
Attitude	Between Groups	222.138	5	44.428	38.545	0.000
	Within Groups	457.588	397	1.153		
	Total	679.726	402			

Table 12. Multiple comparisons analysis of the Attitude attributed to age

Multiple Comparisons (Dependent Variable: Attitude; Tukey HSD)

*The mean difference is significant at the 0.05 level

(I) AGE	(J) AGE	Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval Lower Bound	95% Confidence Interval Upper Bound
13	14	-.06574-	.14099	.997	-.4695-	.3380
	15	-1.50594-*	.17535	.000	-2.0081-	-1.0038-
	16	-1.50324-*	.18678	.000	-2.0381-	-.9684-
	17	-1.52974-*	.24696	.000	-2.2369-	-.8225-
	18	-1.63137-*	.19922	.000	-2.2019-	-1.0609-
14	13	.06574	.14099	.997	-.3380-	.4695
	15	-1.44019-*	.16993	.000	-1.9268-	-.9536-
	16	-1.43750-*	.18171	.000	-1.9579-	-.9171-
	17	-1.46399-*	.24314	.000	-2.1603-	-.7677-
	18	-1.56562-*	.19447	.000	-2.1225-	-1.0087-
15	13	1.50594*	.17535	.000	1.0038	2.0081
	14	1.44019*	.16993	.000	.9536	1.9268
	16	.00269	.20949	1.000	-.5972-	.6026
	17	-.02380-	.26455	1.000	-.7814-	.7338
	18	-.12543-	.22065	.993	-.7573-	.5065
16	13	1.50324*	.18678	.000	.9684	2.0381
	14	1.43750*	.18171	.000	.9171	1.9579
	15	-.00269-	.20949	1.000	-.6026-	.5972
	17	-.02649-	.27226	1.000	-.8062-	.7532
	18	-.12812-	.22984	.994	-.7863-	.5301
17	13	1.52974*	.24696	.000	.8225	2.2369
	14	1.46399*	.24314	.000	.7677	2.1603
	15	.02380	.26455	1.000	-.7338-	.7814
	16	.02649	.27226	1.000	-.7532-	.8062
	18	-.10163-	.28094	.999	-.9062-	.7029
18	13	1.63137*	.19922	.000	1.0609	2.2019
	14	1.56562*	.19447	.000	1.0087	2.1225
	15	.12543	.22065	.993	-.5065-	.7573
	16	.12812	.22984	.994	-.5301-	.7863
	17	.10163	.28094	.999	-.7029-	.9062

DISCUSSION AND CONCLUSION

The study was conducted to investigate the effect of curricula, promotion tools, extracurricular activities, family environment, community, and social media on school students' attitudes towards attending hotel education. With regard to the importance of the study variables from the point of view of the study sample, the results refer to social media ranked first in terms of importance, then followed by the family and community environment.

The importance of promotional means came in third place, followed by extracurricular activities, and finally, the curriculum ranked last, which indicates conclusively that there is a clear failure in the curriculum in providing students with tourist and hotel information and in directing students towards professional and hotel work. As for social media, the participants confirmed that social media provides important information about hotels and they are very interested infamous personalities who provide cooking videos on social media (Facebook, WhatsApp, and Twitter). With regard to the family and society, the results showed that the prevailing social customs and traditions influenced the orientation of students towards hotel education.

Also, family vacations at the weekend had an impact on their orientation towards hotel education, while the nature of the parents' work had no effect on their orientation towards hotel work. Results also indicated the importance of the school providing means to enable students to visit hospitality institutions in Jordan and the importance of the programs presented by Jordanian TV and Jordanian satellite stations to provide students with information about the hospitality sector in Jordan. But once, the results showed the failure of the Ministry of Education in its strategy to increase students' awareness of working in the hotel sector. The results also indicated the importance and role of participation in community activities, which raise awareness of the hospitality sector. But the findings underestimate the role schools played in providing valuable information about hotels. The results showed a deficit and interpretation in the school curriculum towards directing students to vocational education and providing them with information about the importance of working in hotels. However, the student's attitude towards hotel education was somewhat positive, where many of them showed their inclination to work in a five-star hotel or restaurant and that they would advise their colleagues to work in hotels.

Table 13. Multiple comparisons analysis of the Attitude attributed to class

Multiple Comparisons (Dependent Variable: Attitude; Tukey HSD;)						
*The mean difference is significant at the 0.05 level						
(I) Class	(J) Class	Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval	
					Lower Bound	Upper Bound
Seventh	Eighth	-.06574-	.14099	.997	-.4695-	.3380
	Ninth	-1.50594-*	.17535	.000	-2.0081-	-1.0038-
	Tenth	-1.50324-*	.18678	.000	-2.0381-	-.9684-
	Eleventh	-1.52974-*	.24696	.000	-2.2369-	-.8225-
	Twelfth	-1.63137-*	.19922	.000	-2.2019-	-1.0609-
Eighth	Seventh	.06574	.14099	.997	-.3380-	.4695
	Ninth	-1.44019-*	.16993	.000	-1.9268-	-.9536-
	Tenth	-1.43750-*	.18171	.000	-1.9579-	-.9171-
	Eleventh	-1.46399-*	.24314	.000	-2.1603-	-.7677-
	Twelfth	-1.56562-*	.19447	.000	-2.1225-	-1.0087-
Ninth	Seventh	1.50594*	.17535	.000	1.0038	2.0081
	Eighth	1.44019*	.16993	.000	.9536	1.9268
	Tenth	.00269	.20949	1.000	-.5972-	.6026
	Eleventh	-.02380-	.26455	1.000	-.7814-	.7338
	Twelfth	-.12543-	.22065	.993	-.7573-	.5065
Tenth	Seventh	1.50324*	.18678	.000	.9684	2.0381
	Eighth	1.43750*	.18171	.000	.9171	1.9579
	Ninth	-.00269-	.20949	1.000	-.6026-	.5972
	Eleventh	-.02649-	.27226	1.000	-.8062-	.7532
	Twelfth	-.12812-	.22984	.994	-.7863-	.5301
Eleventh	Seventh	1.52974*	.24696	.000	.8225	2.2369
	Eighth	1.46399*	.24314	.000	.7677	2.1603
	Ninth	.02380	.26455	1.000	-.7338-	.7814
	Tenth	.02649	.27226	1.000	-.7532-	.8062
	Twelfth	-.10163-	.28094	.999	-.9062-	.7029
Twelfth	Seventh	1.63137*	.19922	.000	1.0609	2.2019
	Eighth	1.56562*	.19447	.000	1.0087	2.1225
	Ninth	.12543	.22065	.993	-.5065-	.7573
	Tenth	.12812	.22984	.994	-.5301-	.7863
	Eleventh	.10163	.28094	.999	-.7029-	.9062

1. Recommendations

Based on the study's results, some recommendations will be offered in order to enhance students' tendency towards vocational and hotel work. The recommendations are directed towards the Ministry of Education, Ministry of Tourism and Antiquities, governmental organizations specialized in the hospitality industry. It is recommended to focus on the curriculum and reinforce it with topics on hotels in Jordan and the benefits of working in the hospitality industry. Moreover, understanding the importance of extracurricular activities in refining the student's information and motivating him to work in the hotel, all of this helps in reviving the national economy, providing the hospitality facility with manpower, and reducing the unemployment rate among young people.

The concerned authorities and decision-makers should also pay attention to the use of social media to enhance the awareness of students, as they are an important source for students to obtain information. Decision-makers should also pay attention to creating community activities in which students participate, and there should also be communication with the local community and the family and holding training workshops for them and multiple meetings that show the importance of hotel work.

2. Contributions of the study

This study has theoretical and practical contributions, as this study is one of the few studies that dealt with the subject of hotel education and the first study that touched upon the attitude of school students towards hotel education and the factors that affect their tendencies towards working in hotels. Therefore, the current study may contribute to similar research and practice elsewhere. The study focuses on the importance of universities in supplying the hospitality industry with trained manpower, which has not been a topic of focus before. Therefore, the study may contribute to the existing literature on students' orientation towards education and hotel work. Moreover, the study developed a tool that can be used for future studies related to vocational education in general. As for the practical contributions of the study, this study can guide decision-makers to the mechanism of increasing students' awareness of education or hotel work. Also, based on the results of the study, they can know the strengths and weaknesses that affect the students' tendencies towards professional work in general. The study variables can also help decision-makers to develop their future educational strategies.

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Article history: Received: 09.11.2021 Revised: 25.02.2022 Accepted: 31.03.2022 Available online: 21.04.2022

GeoJournal of Tourism and Geosites
ISSN 2065-1198, E-ISSN 2065-0817

Year XV, vol. 41, no. 2, 2022, p.456-463
DOI 10.30892/gtg.41216-850

DEVELOPMENT OF MOBILE VIRTUAL FIELD TRIPS IN IJEN CRATER GEOSITES BASED ON 360^0 AUTO STEREOSCOPIC AND GEOSPATIAL TECHNOLOGY AS GEOGRAPHY LEARNING MEDIA

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Citation: Putra, A.K., Purwanto, Islam, M.N., Hidayat, W.N., & Fahmi, M.R. (2022). DEVELOPMENT OF MOBILE VIRTUAL FIELD TRIPS IN IJEN CRATER GEOSITES BASED ON 360^0 AUTO STEREOSCOPIC AND GEOSPATIAL TECHNOLOGY AS GEOGRAPHY LEARNING MEDIA. *GeoJournal of Tourism and Geosites*, 41(2), 456–463. https://doi.org/10.30892/gtg.41216-850

Abstract: The Covid-19 pandemic limits the space for teachers and students in the Geography learning process, thus affecting the achievement of the competencies and capabilities of geography students. The purpose of this research is to develop Ijen Geosites Mobile virtual field trip (M-VFTs) media to help facilitate Geography learning. This study aims to develop Ijen Crater Geosites based on Mobile Virtual Field Trips media based on 360^0 Auto Stereoscopic and Geospatial Technology. This research is included in research and development by adopting the PLOMP model. The results obtained consist of making M-VFTs related to the Ijen Geosites study with interactive informative access that can be easily accessed by users. The results of this study can relate the risk of limitations in obtaining information during actual visits, especially in learning geography, so that it can help students learn to be active, independent and meaningful through observation and exploration activities.

Key words: mobile virtual field trips, Ijen crater geosites, 360^0 autostereoscopic, geospatial technology

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INTRODUCTION

The temporal review shows that the earth's dynamics as a living space has a long record in its development. The record is shown through the dynamics of geosphere phenomena in the variation of landscape spatial (O'Sullivan et al., 2019). The energy that is processed as a causal relationship of endogenous and exogenous energy forms unique geographical features (Sallam et al., 2018). Indirectly, nature provides information to help humans understand the dynamics of processes, interrelations, and areas of geosphere phenomena (Gosal et al., 2021). Therefore, the Geological Heritage (Geosite) deals with the unique form of geographical features by emphasizing the information process about complex geological phenomena (Geosite) (Ibanez et al., 2021). Geological Heritage (Geosite) is closely related to Geodiversity, as a complex diversity process of physical and non-physical processes. Geological heritage has the value of a place to help provide information about processes on the earth's surface (Bruno et al., 2020) The Geosite concept is formed from the relationship of phenomena in the historical aspects of complex geological phenomena (Parkes et al., 2021). Therefore, Geosite has an important part in human life, not only in the view and culture but also in scientific studies (Kubalíková et al., 2021).

Geosite as a scientific study is one of the interesting topics in Geography studies. Geosite with a complex scope was formed from power and force as a result of the geological activity (Chicote, 2021), geomorphologic form and landscape (Reynard et al., 2021), weather and climate dynamics, and environmental (socio-humanities) track record (Cayla and Megerle, 2021; Coratza et al., 2018; Pralong, 2005). Geosite is an essential topic in Geography study (Rutherford et al., 2015), mainly as a tool in the spatial analysis unit of various geosphere phenomena above the earth's surface (Filocamo et

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al., 2019). Geography's complexity in Geosite can be packaged into a comprehensive learning resource, concepts, principles, and approaches in Geography learning materials have been integrated and merged into Geosite (Lansigu et al., 2014). Besides, Geosite can be a natural laboratory that helps students understand geosphere phenomena and supports media for exploration and actual learning in Geography learning (Guilbaud et al., 2021). However, learning activities with actual learning encountered many obstacles, especially during the Covid-19 pandemic. Field trip learning during the Covid-19 pandemic was a big challenge for Geography teachers. The demand to maintain the competence and capabilities of students' learning outcomes was limited by pandemic conditions (Barton, 2020). The massive increase of pandemic cases in Indonesia has forced teachers to do virtual learning (Chatziralli et al., 2020). It limits the learning between teachers and students and limits interaction with the surrounding environment (Chaturvedi et al., 2021). Therefore, teachers must provide practical solutions for the actual learning process in Geography during the Covid-19 pandemic by developing learning media for Mobile Virtual Field Trips (M-VFTs) based on 360^o autostereoscopic and geospatial technology.

The development of M-VFTs can be a solution for actual learning in Geography, especially during the Covid-19 pandemic. Immersive experiences in M-VFTs development can help facilitate student interaction with their environment (Hamilton et al, 2021). The implementation of M-VFTs can be used as a substitute for contextual media in Geography without reducing student knowledge in learning material content (Bursztyn, 2020). M-VFTs with learning activities in actual learning provide various benefits to students in learning Geography (Kingston et al., 2012a), such as spatial abilities, spatial thinking, and geographical skills. Therefore, developing M-VFTs is necessary based on 360^o autostereoscopic and geospatial technology with integrated and comprehensive content in the Geosite concept to support the optimal Geography learning process. The limitation of the M-VFTs product lies in the specific scope of the material (Ijen Geosites Geographical Characteristics). Thus, the use of this media is limited to studying the interaction of geographical characteristics phenomena, not using other approaches.

MATERIALS AND METHODS

Object of Research

The research is located at Ijen Crater (2,386 masl), located in Banyuwangi and Bondowoso Regencies, East Java Province, Indonesia. It has 20 km wide and was formed more than 50,000 years ago due to the collapse of the Ijen stratovolcano (van Hinsberg et al., 2010). The Ijen Crater volcano is the only volcanic mountain that is still active, formed during the Pleistocene era as a stratovolcano with a hydrothermal system consisting of the largest hyper-acid lake in the world (Caudron et al., 2015). The magmatic-hydrothermal system of Ijen Crater is very active and appears on the surface as actively degassing fumaroles, large hyper acidic volcanic lakes, and acid rivers flowing to the west side (Caudron et al., 2015; van Hinsberg et al., 2010). The summit has two craters that form a depression extending by a crater lake bordering a cliff 250 m above the lake (except gap on the west side).

Research Methods

This study uses the Research and Development method with the PLOMP development model by (Plomp and Nienke, 2013). The PLOMP model has several developments as follows; (1) Preliminary Research, (2) Prototype Design and Development, and (3) Evaluation. Research procedures can be described in the following flow chart.

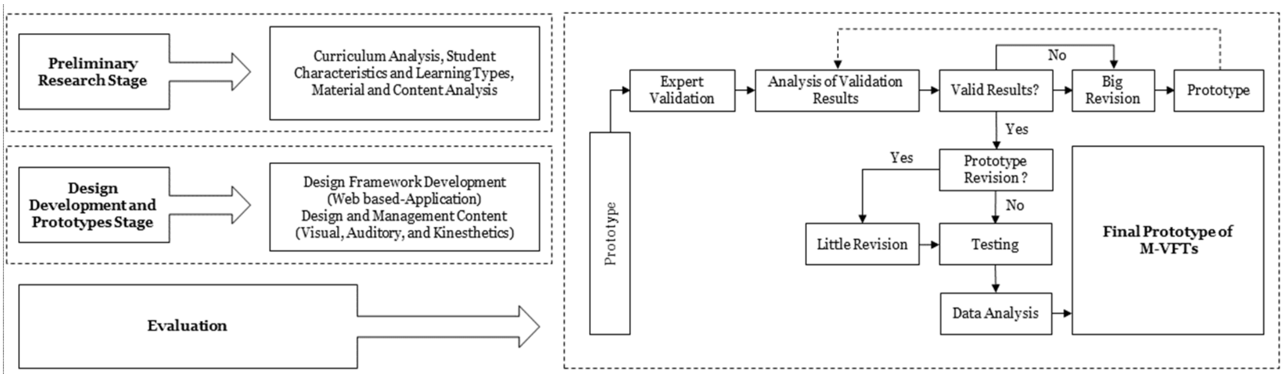

Figure 1. Research Methods Flow Charts of M-VFTs Development System based on Geospatial Technology (Source: Research Data, 2021)

The data analysis technique uses quantitative descriptive with expert validation and product development testing. Media expert validator (Professor of Learning Media) and Material expert validator (Professor of Physical Geography) at Universitas Negeri Malang.Then the results of expert validation were revised and tested at SMA Laboratorium UM.

Prototype Design

Mobile Virtual Field Trips (M-VFTs) aimed to construct a real-world environment regarding a visual representation of geosphere phenomena (atmosphere, lithosphere, hydrosphere, biosphere, and anthroposphere) on the earth's surface. The integration of various media such as images, 360^0 Autostereoscopic, videos, to articles with exploratory learning activities is an important component in the input system. The development of M-VFTs referred to three main components, namely (1) 360^0 Autostereoscopic rendering, (2) Development framework (content and layout of M-VFTs), (3) Scene customization in M-VFTs (hotspots positioning, object information based geographical characteristics, scientific infographics for students' information literacy).

Framework Development

The framework design for M-VFTs is developed using a web-based application. This condition is based on the performance, openness, responsibility, and accessibility of the devices used by the user. Also, web-based applications have great opportunities for accessibility by users with internet access is the domain in digital technology. User convenience has made M-VFTs to be integrated with web-based applications as an important issue in this research. Technology-based learning can help students in learning activities (Fu and Hwang, 2018). The development of integrated M-VFTs was a web-based application with programming assistance in JavaScript, XML, and HTML5. Map, 360^0 Autostereoscopic, Photo, Video features are integrated into the coding system. HTML5 is based on a simple and non-monotonous interface for users to access of M-VFTs easily. JavaScript is the basic coding system used in developing M-VFTs. Then, XML is used as a link representation by HTML5 and JavaScript functions. System development and packaging using mobile devices in M-VFTs have high efficiency and high effectiveness in the learning process (Markowitz et al., 2018).

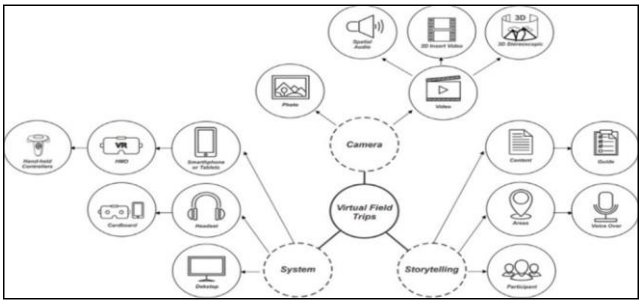

Figure 2. Design of M-VFTs Development System based on Geospatial Technology (Source: Source: Research Data, 2021)

Figure 3. Codification of the M-VFTs Architecture System based on Geospatial Technology (Source: Research Data, 2021)

RESULTS AND DISCUSSION

Results

The strengths and limitations of M-VFTs development can be identified through the product trial process. The trial was tested on teachers and second-year high school students in Social Class at UM Laboratory High School. The process includes: (1) the projection area as an exploration unit, and a menu icon with a multi-linked information system helps students to reconstruct conceptual knowledge and understanding, (2) provide introductory information provides a general description of the material (showed in Figure 4), (3) Menu bar that contains menu options for displaying M-VFTs access (desktop and cardboard views), introductory information, and other menus (full screen, hotspots, sound, and share). In the early access of M-VFTs, teachers and students could access the link on both desktop/PC and mobile devices. The Geographical Characteristics content of Ijen Geosites was selected based on curriculum analysis, material analysis, and student needs. The icons on M-VFTs help students to access information presented in various media (photos, infographics, and videos on the YouTube platform). Based on Figures 4a and 4b, the video demonstrated the Geographical Characteristics of Ijen Geosites. The Geographical Characteristics study at Ijen Geosites contains Physical studies including Geology, Geomorphology, Soil, Weather and Climate, and non-physical studies including Socio-Economic and Cultural studies. These studies are presented in 'hotspots viewpoints' on M-VFTs to learn through interaction, information literacy, and exploration activities. Then, the cardboard display helps students to reconstruct spatial knowledge and skills through an immersive experience in M-VFTs via mobile devices.

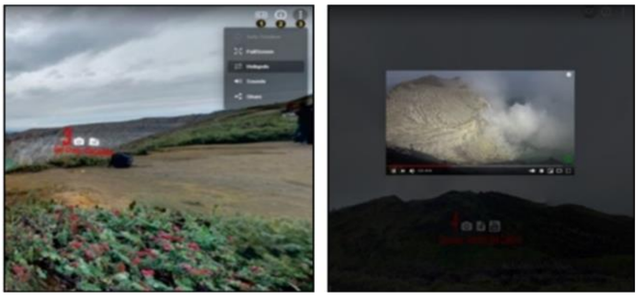

Figure 4. (a) M-VFTs Main Menu (b) Access to M-VFTs Multimedia Information of Ijen Geosites M-VFTs Main Page and Multimedia Information of Ijen Geosites (Source: Research Data, 2021)

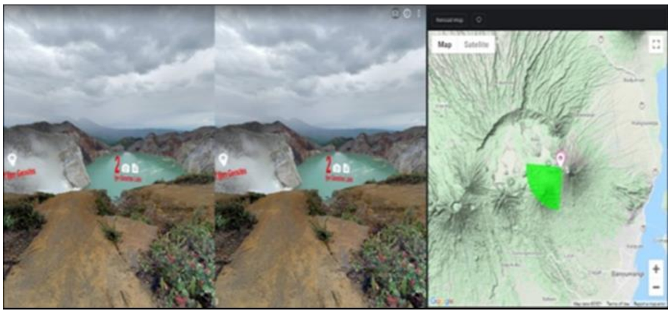

Figure 5. M-VFTs based on Geospatial Technology (Source: Source: Research Data, 2021)

Geospatial Technology in M-VFTs is oriented towards giving students immersive experiences. Geospatial Technology is used, such as 3D topographic visualization, GIS overlays, satellite imagery, aerial photos, and digital maps. The development of M-VFTs emphasized Geospatial Technology, 3D topographic visualization, and digital maps. The Geospatial Technology concept in M-VFTs that emphasize 3D visualization helped students think contextually through visualizing 3D topographic geographical characteristics. Then, digital maps are used as a virtual exploration media for students, thus helping students in spatial orientation and analysis (Figure 5). The M-VFT product as a product in research and development activities has several limitations. In general, these limitations refer to (1) Acquisition of new personal knowledge and experience, thereby limiting some of the development of competencies and skills for users, (2) Limitations of developing textual material content, (3) User usability is a top priority in accessing M-VFT, (4) M-VFT cannot accommodate the attention, motivation and interest of individual users. Based on some of the limitations of the research above, the researcher suggests several considerations in the development of M-VFT, namely: (1) In-depth identification of needs as an early stage of M-VFT development is highly recommended, (2) M-VFT as a medium with a complex technology base needs to get attention, specializing in content management, (3) It is recommended to create a user guide in accessing M-VFT.

Table 1. Scope of Ijen Geosites Geographical Characteristics
(Source: National Geography Standards (1994)

Characteristics	Sub-Characteristics	Topics
Physics	Physical Features	Geology and Geomorphology
	Weather	Air Temperature, Air Pressure, Air Moisture
	Climate	Precipitation, Wind and Cloud
	Soil	Physical, Chemical and Biological
	Water	Physical
	Vegetation	Flora Type and Distribution
	Animal life	Fauna Type and Distribution
Human	Social	Language, Religion, Political System and Population Distribution
	Economy	Economic Activities
	Culture	Norm and Value

Case Study

The M-VFTs trial was carried out for a limited time at the UM Laboratory High School, Malang, Indonesia. The research participants and development activities were used in small groups (5-10 participants) of Geography students in Social class at UM Laboratory High School. The participant was selected based on topics taken in the previous class, namely Chapter 4. Dynamics of the Lithosphere and the Impact for life (taken in the first year or Class X and) Chapter 3, Management of Indonesian Natural Resources (taken in the second year or Class XI). During testing, the M-VFTs features helped facilitate the Geography learning process effectively and efficiently. M-VFTs 360^0 Autostereoscopic design is presented in a panoramic collection. It is used as a virtual student learning environment, as shown in the following Table 2.

Table 2. M-VFTs Panoramas Ijen Geosites Content (Source: Research Data, 2021)

Spot Site (Altitude Range)	Number of Panoramas	Location	Main Features of Geographical Characteristics
Mountain Ijen Geosites (2,377 masl)	4	Banyuwangi $8^0$03’28” S - $114^0$14’ 52” E	Structure (including lithic types), Geological Scale, Lithic Formation, Landscape, Landform, Stratigraphy, Morphogenesis, Morfo-arrangement, and Vegetation
Mining and Socio-Cultural Life of Ijen Geosites (2,146 masl)	1	Banyuwangi $8^0$03’35” S -$114^0$14’38” E	Occupation, Social-Cultural Life
Tourism of Ijen Geosites (2,305 masl)	1	Banyuwangi $8^0$03’47” S -$114^0$14’45” E	Economic Activity
Volcano Complex of Merapi-Ranti-Wurung (1,627 masl)	1	Bondowoso $8^0$03’47” S -$114^0$10’06” E	Complex volcanic formation
Hydrological Kalipahit: River Under Ijen Geosites (1,723 masl)	1	Bondowoso $8^0$03’44” S -$114^0$12’58” E	Hydrological Characteristics
Lava Flow of Plalangan Geosites (1,110 masl)	1	Bondowoso $8^0$00’33” S -$114^0$09’09” E	Structure (including lithic types), Geological Scale, Lithic Formation, Landscape, Landform, Stratigraphy, Morphogenesis, Morfo-arrangement

Table 3. M-VFTs *Framework Development* and Student Learning Activity (Source: Research Data, 2021)

Main System	Accessibility Feature	Learning Activity	Learning Outcomes
Storytelling	Content	Interactive and Engagement Information Literacy Ijen Geosites	Curiosity
	Area	Searching Content Ijen Geosites	
System	Desktop	Verification and Explore Ijen Geosites Process	Exploring (Immersive and Non-Immersive)
	Cardboard		
	HMD		
Camera	Photo	Explaining the Evidence of the Ijen Geosites Phenomenon	Discovery
	Video		

The complex content in Ijen Geosites is packaged in 3600 Autostereoscopic in M-VFTs Ijen Geosites panorama. The panorama available in M-VFTs Ijen Geosites is packaged in the geological formation of Ijen Geosites. Thus, the panoramic spots for M-VFTs are Mountain Ijen Geosites (Crater Wall of Mount Ijen, Ancient Caldera of Ijen Geosites, Solfatara Permanent of Ijen Geosites, 'Blue Fire' from East Java, Mining and Socio-Cultural Life of Ijen Geosites, Tourism of Ijen Geosites), Volcano Complex Merapi-Ranti-Wurung, Lava Flow Plalangan Geosite. The features are based on the architectural system design of the M-VFTs, consisting of three main systems, namely (1) Storytelling (Visualization of M-VFTs Content), (2) System (Presentation and Access to M-VFTs Tools), (3) Camera (M-VFTs Media Input). Then, these features are built for easy access for students to the material content using Audio (Content and Area), Visual (Desktop, Cardboard, HMD), and Audio-Visual (Photo-Video). The system design and accessibility have a main function in supporting learning activities and outcomes. In general, the features in M-VFTs are presented about the overall system design, feature accessibility, learning activities, and learning outcomes in using Ijen Geosites M-VFTs, as shown in Table 3.

The M-VFTs features supported Geography learning activities effectively and efficiently. Each feature was facilitated learning activities and oriented to predetermined learning outcomes. The features are designed to give students cognitive guidance with deductive-inductive thinking patterns. The main storytelling system with accessibility features in content and areas were emphasized learning activities of information literacy and content searches about Ijen Geosites. M-VFTs provided an overview of the geographical characteristics of Ijen Geosites through the feature guide content and voice-over on the feature area. Relevant scientific articles are packaged in multi-linked information and scientific infographics to increase students' knowledge about Ijen Geosites, so student curiosity as the learning outcomes will be increased. Students could access all features in desktop, cardboard, and HMD at the M-VFTs system. Information literacy that has been supported by the storytelling feature is applied to system features by emphasizing learning activities about verification and exploration of the Ijen Geosites Process. Learning outcomes were emphasized exploration activities regarding the non-immersive and immersive transfer of knowledge. The system features are integrated with the camera feature as supporting media input in photos and videos. Then, the features were emphasized learning activity by explaining and showing evidence of the Ijen Geosites Phenomenon. Finding discoveries could help students to reconstruct the concepts of Ijen Geosites.

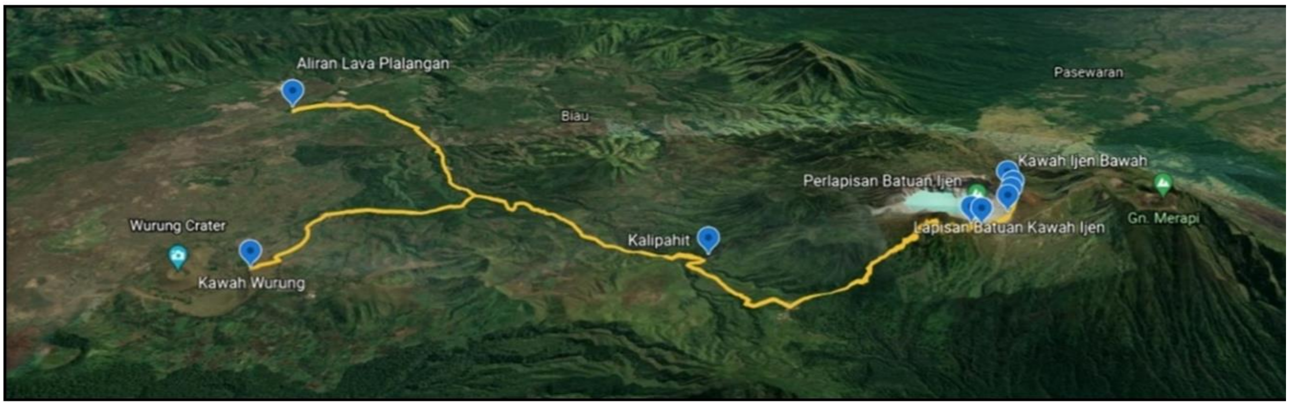

Figure 6. Spot Site Plotting of M-VFTs Ijen Geosites Panorama (Source: Research Data, 2021)

Discussion

The M-VFTs development contributed to learning Geography, mainly related to facilitating learning activities about exploration. Exploration in learning activities is limited by the Covid-19 pandemic (Marek et al., 2021) so that M-VFTs media could be an effective solution in the virtual environment for student exploration activities (Mead et al., 2019). The virtual environment in M-VFTs is based on the 360^0Autostereoscopic panoramas and Geospatial Technology. The integration helped provide an immersive experience (Cummings and Bailenson, 2016), by achieving learning outcomes. Students could access various media of information, including the geographical characteristics of Ijen Geosites. The M-VFTs Ijen Geosites has facilitated students' interactive learning process. In addition, the immersive experience gained by interacting virtually with 360^0Autostereoscopic and Geospatial Technology helped students be active and independent. Exploration of the M-VFTs panorama encouraged learning outcomes in curiosity, exploration, and discoveries related to Ijen Geosites. The Ijen Geosite content is packed in 6 main spot sites, as shown in Table 2.

Figure 7. The Complexity of Mount Ijen Geosites (Source: Research Data, 2021)

Spot Site 1: Mountain Ijen Geosites (coordinate: 8003'28 "S-114014 '52" E)

There are 4 panoramas of Ijen Geosites with medium exploration, namely Dynamics Process of Ijen Geosite (Physics and Non-Physics), Ancient Ijen Crater, Ijen 'Blue Fire' Mountain, Solfatara Permanent of Mount Ijen. Ijen Geosites is a composite volcano with a stratovolcano (Spica et al., 2015). The physical appearance is caused by the complex activity of geological processes (Berlo et al., 2020). A geological review shows that young Mount Ijen is included in the geological unit (Qhvi) as subduction of the Indo-Australian plate with the Eurasian plate (Daud et al., 2018), and is included in the quarter volcanic mountain range with the Solo-Randublatung depression zone (Caudron et al., 2015).

Ijen Geosites is an active volcano in Indonesia. Massive volcanic processes have been recorded since 1770 with phreatic-magmatic eruptions (Caudron et al., 2015).In a morphological review, Ijen Geosites have morphogenetic diversity due to the process complexity. The morphogenesis of Ijen Geosites is dominated by eruptive material with exhalation in sulfur oxidation (permanent solfatara and fumaroles) (Mora Amador et al., 2019) located in the Southeast of Ijen Geosites Caldera and the Blawan Fault. The process complexity can be seen in the emergence of unique phenomena in Ijen Geosites, namely Ijen 'Blue Fire' Mountain and Acid Lake (Amador et al., 2019). This condition can be used as a natural laboratory for Geography learning media to provide meaningful learning for students.

Spot Site 2 dan 3: Mining, Social Cultural, and Tourism of Ijen Geosites (coordinate: 8003’47” S-$114^0$14’45” E)

The socio-economic and tourism aspects of Ijen Geosites are an interesting topic study. The economic activities contained in Ijen Geosites are dominated by sulfur mining activities (Aliya Fatimah, 2021) . Mining activities in Ijen

Geosites use traditional methods (Rouwet, 2021). The traditional method is considered the most effective way due to difficult terrain along the Ijen Geosites climbing route. Sulfur mining at the Ijen Geosite is uniquely formed. Mining materials in Ijen Geosites do not form by themselves but are the result of condensation of fumarole emissions in Ijen Crater (Van Hinsberg et al., 2017). In addition, based on the socio-cultural of mining at the Ijen Geosite, it is hereditary (Setiadji and D. Artaria, 2018). Such uniqueness makes Ijen Geosites not only based on physical, but also tourism is an important aspect of Ijen Geosites to be studied. Ijen Geosites has tourism attractions with access to the landscape's beauty (Widowati et al., 2019). Besides, based on the community's socio-economic point of view, sulfur mining workers attract local and foreign tourists (Purnomo et al., 2019). Socio-economic as geographical characteristics at Ijen Geosites shows a causal relationship between physical and non-physical aspects of geosphere phenomena on the earth's surface. The integration of social aspect studies in M-VFTs media helps facilitate students to master the topic concept.

Figure 8. Sulfur Mining Activities and Products as a Tourism Attraction (Source: Research Data, 2021)

Figure 9. 360^0 Projection Area of Complex of Merapi-Ranti-Wurung (Source: Research Data, 2021)

Figure 10. 360^0 Projection Area of Kalipahit (Source: Research Data, 2021)

Figure 11. 360^0 Projection Area of Lava Flow Plalangan Geosites (Source: Research Data, 2021)

Spot Site 4: Volcano Complex of Merapi-Ranti-Wurung (coordinate: $8^0$03’47” S-$114^0$10’06” E)

The volcano complex of Merapi-Ranti-Wurung is formed in a series of volcanoes. The volcano complex is included in the Ijen volcano (Maryanto, 2018). The intra-Ijen volcano forms the Merapi-Ranti-Wurung complex volcanic route through a magma breakthrough (Arafat et al., 2020). A further process is seen in young Mount Ijen with a shallower magma chamber (Daud et al., 2018). Wurung Crater is one of the unique volcanic studies in Ijen Geosites.

Wurung Crater is located in Bondowoso, Indonesia. The volcanic view shows that the Wurung crater is included in 17 mountains as a volcanic process of Ancient Mount Ijen (Afandi et al., 2021). The unique study of the Wurung crater lies in the volcanic landform and the eruption process in vitric tuff, lithic tuff, basalt scoria, andesite scoria, andesite lava, andesite lava scattering, and andesite bombs (Afandi et al., 2021). Showing facts through various M-VFTs media helped students in contextual learning about the geosphere phenomena.

Spot Site 5: Hydrological Kalipahit: River Under Ijen Geosites (coordinate: $8^0$03’44” S-$114^0$12’58” E)

Kalipahit is a river that originates from the Ijen Geosites crater. Kalipahit flow to the west from two inputs: springs and overflow of the Ijen Geosites Caldera and springs in Ijen Ancient Crater (Blawan Fault) (Daud et al., 2018). The unique appearance lies in the river's complex hydrological characteristics (Sugiyarto et al., 2018). There are two hydrological characteristics of the river that flows into the village of Watu Capil, Bondowoso. The riverbed of the Blawan fault system has an orange-brown colour from a hydrothermal process containing chloride sulfate bicarbonate (Spica et al., 2015). Meanwhile, the riverbed in the Kalipahit system is white from solfatara sedimentation (Spica et al., 2015). Such conditions can provide opportunities to be developed into local community tourism potential (Maryanto et al., 2017). The material content on spot site 5 is mostly presented through visual media (3D modelling) assisted by Geospatial Technology in M-VFTs. It helped students understand content clearly so that cognitive outcomes can be achieved optimally.

Spot Site 6: Lava Flow of Plalangan Geosites (coordinate: $8^0$00’33” S-$114^0$09’09” E)

The panorama presented in spot site 6 is the Plalangan Geosites lava flow. The lava flow has a geological structure representing the Ancient Ijen lava flow system (van Hinsberg et al., 2010). This condition can be seen in the lava flow associated with the Ancient Ijen caldera wall in the North. The characteristic colour of the lava flow is dominated by black, indicating the eruption output is basaltic. Also, other eruptive materials can be identified in breccias, tuff sand, lava block, andesitic, and alluvium deposits (Maryanto, 2018). The basaltic eruption was spread over 10.51 km^2 from Mount Anyar to Blawan. The Plalangan Geosites have type AA lava flow based on lava flow classification. The AA lava flow at Plalangan Geosites appeared from the eruption of Ancient Ijen Mountain. AA lava flow has a rough surface with the bottom flow angled less than 350. The lava type comprises tapered fragments with a diameter of <50 cm. The fast cooling process causes shrinkage and rupture of the lava flow. 360^0Autostereoscopic landscape features assisted students in active and independent exploration activities. Also, being prepared hotspots containing various information with multimedia concepts can improve students' information literacy.

CONCLUSION

Geosites are one of the complex geological heritages and have a high scientific value. Geosites can be an effective and efficient medium for students to learn the content. The effectiveness and efficiency of Geosites as learning media can be seen in the Ijen Geosites M-VFTs media. Ijen Geosites with a complex formation process can become an effective learning medium in Geography. Ijen Geosites M-VFTs can facilitate students' active and independent learning through exploration activities in a mobile-virtual environment. The exploration based on a contextual approach is needed by students, especially during the Covid-19 pandemic. This study aimed to research and develop mobile virtual field trips (M-VFTs) media innovation in Ijen Geosites based on 3600Autostereoscopic and Geospatial Technology. 360^0 Autostereoscopic combined with Geospatial Technology in M-VFTs media aimed as an interactive environment media for students to connect actual field trips in learning activities. The Ijen Geosites M-VFTs prototype development is based on a framework that contains the main system, feature accessibility, learning activities, and learning outcomes to facilitate student learning in understanding the Ijen Geosites geographical characteristics. The study results indicate that M-VFTs can facilitate the actual learning process in Geography during the Covid-19 pandemic through exploration activities with Ijen Geosites.

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Article history: Received: 22.10.2021 Revised: 02.03.2022 Accepted: 05.04.2022 Available online: 03.05.2022

GeoJournal of Tourism and Geosites
ISSN 2065-1198, E-ISSN 2065-0817

Year XV, vol. 41, no. 2, 2022, p.464-471
DOI 10.30892/gtg.41217-851

ENGAGING VIRTUAL REALITY TECHNOLOGY TO DETERMINE PRO-ENVIRONMENTAL BEHAVIOUR: THE INDIAN CONTEXT

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Citation: Dey, S.K., Hoang, D.S, Thai, H.H., & Pham, Q.G.N. (2022). ENGAGING VIRTUAL REALITY TECHNOLOGY TO DETERMINE PRO-ENVIRONMENTAL BEHAVIOUR: THE INDIAN CONTEXT X. *GeoJournal of Tourism and Geosites*, 41(2), 464–471. https://doi.org/10.30892/gtg.41217-851

Abstract: The main purpose of this study is to capture key pro-environmental behaviours that are triggered when individuals are subjected to a virtual environment simulation of a pristine tourism destination. The study made use of virtual reality headsets to gauge potential predictors of pro-environmental behaviour. Pre and post intervention response differentials were recorded through a structured questionnaire on 100 individuals. The study was divided into two stages. The first stage comprised of the PLS-SEM algorithm which empirically tested postulations anchored on the Pro-Environmental Behaviour framework. The second phase of the study deployed the PLS-MGA algorithm to observe changes in propensities. Findings reveal that, virtual reality interventions partially effect how individuals perceive pro-environmental behaviour. The study advices policy makers and practitioners to cultivate industry 4.0 technologies like virtual reality to raise awareness about climate action among tourists. For academicians, the study expands the utility sprectrum of the Pro-Environmental Behaviour (PEB) framework and it is suggested that future studies inculcate virtual/augmented/extended reality competencies in experiment based investigations. The study maybe repeated in the context of other developing economies where sustainable tourism development remain a challenge.

Key words: Tourism management, virtual reality, sustainability, tourist behavior

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INTRODUCTION

A critical aspect of technological advancement assumed to significantly impact the tourism industry is virtual reality (VR). Contemporary developments in VR platforms, devices, and content production tools have proved to be conducive for VR technologies to progress from a niche technology consumed mostly by the gaming industry into the paradigm of everyday experiences. The access to affordable VR gadgets such as googles cardboard and the profusion of tourism-related VR content makes it easier for anyone to experience virtual tours of cities and tourist attractions from anywhere in the world. In the present-day scenario, VR has the potential to make virtually accessible a range of destinations, from the most visited to the least visited. The discourse on VR and its role in tourism emerge in the scientific literature in the last 3 decades (Cheong, 1995; Dewailly, 1999; Guttentag, 2010; Huang et al., 2016; Williams and Hobson, 1995).

Virtual realities can simulate complex and real-life situations and contexts (Diemer et al., 2015), authors like (Sussmann and Vanhegan, 2000) and (Cheong, 1995) observe that simulation can substitute for actual travel and that it is considered to be a positive contribution to environmental sustainability (Dewailly, 1999) as it is capable of virtually transmitted, captivating imagery and mimicking environments and contexts. Natural wonders, buildings, structures, artifacts, and habitats are all disappearing, which is a major issue for tourism destinations worldwide. Several human and natural factors, including tourism activity, climate change, and inadequate control, planning, and management, as well as political uncertainty, contribute to the deterioration (Bauer, 2015; De'Ath et al., 2012). According to (Little et al., 2018) the conservation of man-made and natural sites, works of arts, attractions, and destinations have gained academic interest in the last decade. A paradigm shift has been observed when considering the important role of sustainability, over the years, the focal point of research has turned from the realm of conservation to sustainability, which is now deep-rooted within contemporary tourism research and practice (Hall et al., 2015; Mowforth and Munt, 2015). Review of literature has identified several approaches towards sustainability as a discipline (Hall et al., 2021; Mowforth and Munt, 2015) have purported demarketing as

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an approach to sustainability, which implies systematically discouraging visitations; similarly authors like (Jamal and Higham, 2021) have appraised the efficacy of responsible tourism as an approach to understand sustainable development in the context of uplifting native communities at the destination level. Similarly, (Wallace and Russell, 2004) have proposed the eco-cultural framework to evaluate ways for the sustainable expansion of eco-cultural products in the most sensitive regions. Another important dimension of tourism sustainability is eco-tourism (Fennell, 2001), which are enlaid ethos to be adopted for a better understanding between the tourists and the environment. In an attempt to evaluate the psycho-social atmosphere conducive for the sustainable development of the tourism industry, several behavioural theories have been deployed to investigate the supply and demand side of the tourism industry (tourists, service providers and local communities), these include Theory of Planned Behaviour (Ajzen, 2002). Theory of Reasoned Action (Heller et al., 2013), Stimulus-Response-Action (Jacoby, 2002) and Norm Activation Model (De Groot and Steg, 2009). Contemporary studies in the sustainability domain have seeen a surge in scholastic interest towards understanding how tourists interact with the ethos of sustainability. In order to capture, assess and predict sustainable behaviour among the various tourism stakeholders, academicians have proposed robust psychometric frameworks. Prime examples being the New Environment Paradigm (Dunlap, 2008), Environmental Sustainability Index (Schmiedeknecht, 2013) and Ecological Footprint Analysis (Gössling et al., 2002).

In this study, the authors seek to extend the predicting capacity of a similar psychometric instrument known as the Pro-Environmental Behaviour (PEB). (Kurisu and Kurisu, 2015) defines PEB as set of compatible behaviours to cultivate environmental consciousness or in the words of authors (Kollmuss and Agyeman, 2010; Li et al., 2019; Stern, 2000) "….pro-environmental behavior is purposeful action that can reduce a negative impact on the environment". PEB has been deployed as a preferred research framework by the following highly cited studies (Table1).

Table 1. Few highly cited studies in PEB domain (Source: Authors' Own)

Study	Context	Gap Identified
(Gatersleben et al., 2014)	Implication of values and identity in PEB	Research beyond norms and narratives is required
(Coelho et al., 2017)	Negative and Positive Affects in PEB	Calls to action the interaction among other factors other than demographics
(Vicente-Molina et al., 2013)	Environemntal knowledge in PEB	Changes in Attitude due to VR exposure need to be investigated
(Blok et al., 2015)	PEB at the workplace	Contextual research is required to investigate the subjective impact
(Wang et al., 2021)	Biospheric Values and Environmental Identity concerning PEB	Call to action on the subjective impact on individuals

Through this paper, the authors attempt to extend the epistemological spectrum of the Pro-Environmental Behaviour through a Virtual Reality Intervention to derive the subjective transformation of eco-consciousness and predict pro-ecological behavior among potential tourists. Our study is in conjunction with literature like (Guttentag, 2015) who outlined the significant role played by virtual reality in determining tourist choice, (Lo and Cheng, 2020) who studied consumer response in tourism marketing through virtual reality media observed a positive mediating role of the VR intervention, an empirical investigation by (Muñoz-Saavedra et al., 2020) studied about the future direction of VR in tourism management emphasised the efficacy of virtual reality capabilities in predicting behavioural dynamics among tourist groups and an empirical design by (Scurati et al., 2021) on using virtual reality technology to support sustainable behaviour. On the basis of the above premises the author's have deviced the following hypothetical frameworks given via Figure 1 and Figure 2. On the basis of model given on Figure 1 and 2, this study endevours to respond to the following issues being faced by academia and industry: a. What is the efficacy of a virtual reality intervention in cultivating pro-eco behaviours?

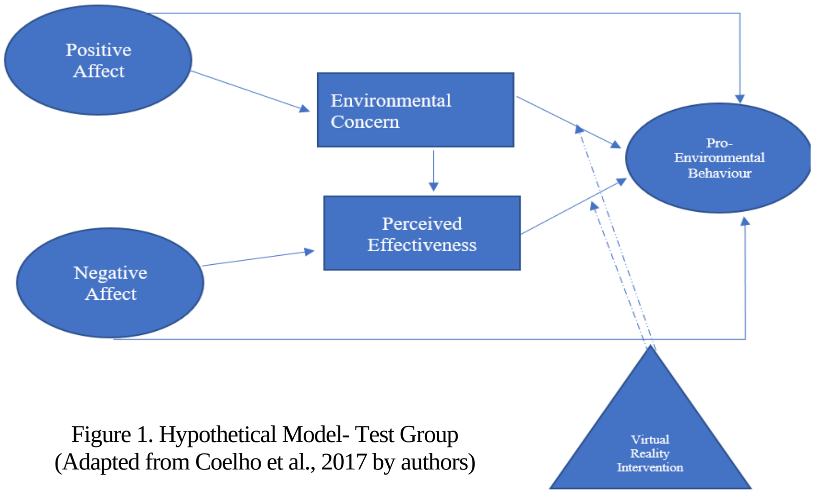

Figure 1. Hypothetical Model- Test Group
(Adapted from Coelho et al., 2017 by authors)

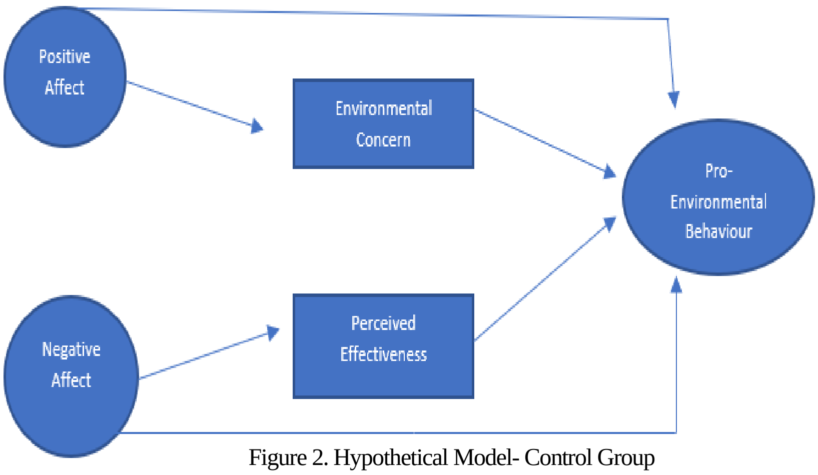

Figure 2. Hypothetical Model- Control Group
(Adapted from Coelho et al., 2017 by authors)

LITTERATURE REVIEW

Positive Affect

Positive affectivity (PA) is an aspect of human behaviour that explains how many positive effects individuals have (sensations, feelings and feelings), and how they connect with other people and the environment (Ashby et al., 1999). Persons with strong positiveness are usually passionate, vigorous, confident, active and alarming (Schenk et al., 2018). Furthermore, (Clayton et al., 2017) who studied public support for bio-diversity explicated the catalysing role of positive affect on environmental concern among a large American consumer base.

Positive affectivity was connected with increased lifespan, improved sleep and reduction in stress hormones. Individuals with a very positive affinity are more healthy, positive self-quality and motivated towards the objective. Positive affectivity encourages openness, friendliness and assistance (Lee and Syah, 2018; Paterson et al., 2016).

Negative Affect

A variable of personnalities including unpleasant feelings and bad self-conceptions is a negative affection (NA). A wide array of negative emotions, including rage, dislike, guiltiness, anxiety, and anxiousness, comprise negative affectivity (Mustafa and Abdul, 2019; Watson and Clark, 1984). Low negative affectivity, together with trust, activities and excitement are characterized by frequent feelings of peace and peace. People differ in negative emotional responsiveness. Trait negativity connects in large part to the main personality element of anxiety and neuroticism that may be seen as emotional stability in the Big Five personality features (Koch et al., 2013). In this research NA has a negative connotation with PEB.

Environmental Concern

Environmental concern has been treated as an evaluation of, or an attitude towards facts, one'sown behaviour, or others' behaviour with conse-quences for the environment (Aries et al., 1983; Drottz-Sjöberg and Sjöberg, 1991; Lee and Kwag, 2013; Takala, 1991). It is related to egoistic, social-altruistic, and biospheric value orientations and also to beliefs about the consequences of environmental changes for valued objects (Stern and Dietz, 1994). In other words, one’s attitudes toward specific environmental topics are distinct in some ways, but are ultimately reflections of a single, broad environmental attitude - what is sometimes referred to as environmental concern (Dunlap and Jones, 2002).

Perceived Effectiveness

PCE is an established predictor of pro-environmental behavior. Despite earlier studies demonstrating PCE's predictive value for knowledge, intentions, and aggregated action (Allen, 1982). Perceived effectiveness can be defined as the subjective likelihood that a message will have a persuasive impact. Reading a message is the first step of the persuasion process. If recipients find difficulty in reading and understanding the message, it is unlikely to have a persuasive impact (Suka et al., 2017).

Pro-Environmental Behaviour

Understanding what influences an individual's proclivity to engage in pro-environmental behavior (PEB) is a difficult problem that is still not fully understood (Coelho et al., 2017). PEBs include responsibly engaging with nature or recycling household garbage, but they may also be adaptive reactions to the effects of climate change, such as purchasing sustainable items (e.g., local food, green cleaning products), saving water or energy, or changing transport modes (e.g., from driving to walking or cycling) to purchasing an electric car or creating an off-grid home (van Valkengoed and Steg, 2019).

According to the above premises, we conclude the following hypothesis

H_1 : there exists a significant response differential among the test and control group in terms of the effect of Virtual Reality on Pro-Environmental Behaviour.

H_2: Environmental Concern significantly predicts pro-environmental behaviour

H_3: Negative affect has a negative relationship with perceived effectiveness

H_4: Perceived effectiveness has a significant relationship with pro-environmental behaviour

H_5: Positive Affect has a significant relationship with pro-environmental behaviour

RESEARCH METHODOLOGY

This is an experiment based research wherein the participants were treated with a bite- sized virtual reality rendition of a pristine tourist area being subjected to tourism activities over a particular time lapse. The study would like to investigate the efficacy of the theory of pro-environmental behaviour (Han and Hyun, 2018) when there is a simulated environment intervention. This was a phase wise study that will be done in two phases. Firstly, the participants were asked to fill up a questionnaire containing items from the pro-environmental behaviour theory (pre-testing) afterwhich the participant underwent the VR intervention through a HMD (Head Mounted Device) and were subjected to the same questionnaire to capture the behavioural differential. The study was conducted on college going students between the ages of 17-25 in India.

The investigation consists of two groups and two phases. In the first phase, the test group and the control group were formed from the available list of students who agreed to participate in the study through an online recruitment form, that contained basic questions pertaining to the inclusion criteria, the responses who adhered to the inclusion policy were selected. The test group consist of those respondents who were subjected to a 2 minute 15 second 3D audio/vedio on a VR enabled headset powered by a 6.5” mobile screen and the control group were shown the same audio/video clip on a normal 6.5” mobile screen. The second phase saw respondents interacting with the PEB measuring scale (Table1) through an online questionnaire from the comfort of their personal devices. This exercise was in conjunction with extant investigations like (Flavián et al., 2019) and (Huang et al., 2016) who litmus tested the prowess of virtual reality in capturing behavioural tendencies by conducting such intervention-based experiments. (Yung et al., 2020) curated a literature review of augmented and virtual reality usage in tourism research, it is observed that a significant 17% of the articles in the last 5 years (2016-current) have successfully deployed VR based devices in attempt to gauge actual behaviour among tourists.

During the second phase, in order to capture, gauge and evaluate the psychometric propensities of the responses obtained from both the test and control group, the data was treated with a partial least square regression technique using the structural equation model approach provided by the GUI based SMART -PLS application, The primary reason as to why PLS-SEM was used is that the assumption of normality of data doesn't exist and it has been vehemently used in studies involving smaller sample sizes. PLS-SEM has a robust capacity in handling categorical data.

In order to determine the sample size, the study extrapolated key parameters and their ideal values (α =0.05; *dF*=25 and targeted RMSEA=0.80) from the critical literature review and imputed a sample size of 120 on a calculator known as quantpsy (Preacher and Coffman, 2006) which uses a lean client interface of the statistical program R to execute various apriori analysis. The output of the computer program returns a power of 0.8584197 which is robust for 120 samples. Out of 120 questionnaires, 100 were found to be usable. According to the RMSEA projection a sample size > 90 is acceptable. The plot of the power and sample size estimation is given in Figure 2. This process of determining the sample size by estimating the RMSEA is in cojunction with (MacCallum et al., 1996) and (Steiger, 1998).

As for the sampling design is concerned, the study adopts non-random selection approach as there is an inclusion policy that qualifies an individual's likelihood to be a participant in the study (Acharya et al., 2013). The statistical interventions were applied in 2- stages. Firstly, the data was treated with a PLS algorithm to gauge the robustness of vital components of the structural equation model (AVE, Chronbach's α, Composite Reliability, Fornell-Larcker Criterion). The second stage involved the implementation of the MGA algorithm (Multigroup Analysis) to investigate the existence of any variance among the test and control groups reponses.

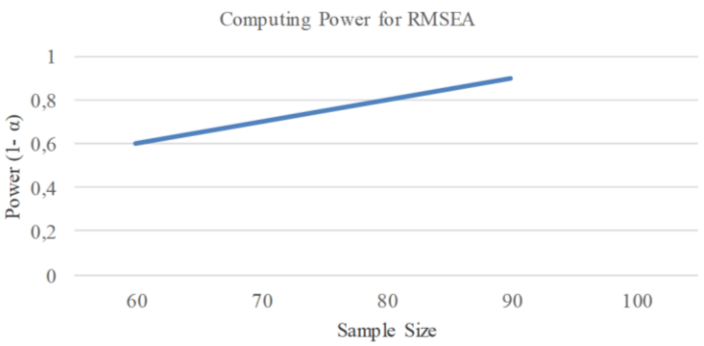

Figure 3. Power-Sample Size analysis (Source: Preacher and Coffman, 2006)

Table 2. Model Validity (SMARTPLS Software v. 3.3.3)

	Cronbach's α	rho_A	Composite Reliability	Average Variance Extracted (AVE)
Environment Concern	0.616	0.613	0.79	0.557
Negative Affect	0.858	0.878	0.902	0.697
PEB	0.67	0.689	0.768	0.526
Perceived Effectiveness	0.725	0.742	0.844	0.643
Positive Affect	0.863	0.871	0.907	0.711

As per Figure 4, all loading values of the indicators to their respective constructs are observed to be in satisfactory conditions, that is <0.5 (Hair et al., 2017). In Table 4, it can be observed that for both the groups the interaction among the constructs remains significant at p<0.01 The robust observations from above Table 4 encourage the researchers in conducting the Multi-Group Analysis for the test group against the control group in the second stage of the study.

FINDINGS AND ANALYSIS

First stage: model robustness and assessment

In order to evaluate the robustness of the hypothetical dimensions so formed, it is an imperative that the study investigates the various vital parameters to gauge the effectiveness of the operational model (Hair et al., 2019) in predicting pro-environmental behaviour. Table 2 describes the vital parameters of the outer and measurement model(s). The Cronbach's alpha values are in the stable range as all values are < 0.6 (Bagozzi and Yi, 1988), followed by the rho_A which has reported values to be at <0.6 (Dijkstra and Henseler, 2015). The composite reliability values have also been observed to be in the admissible range (<0.7) as recommended by (Jr. et al., 2017). And the Average Variance Extracted values (<0.5) are also observed to be in the normal range for acceptance into the study. Table 3 depicts the Fornell-larcker criterion, which is the capacity of the latent variable in loading its corresponding observed values. The

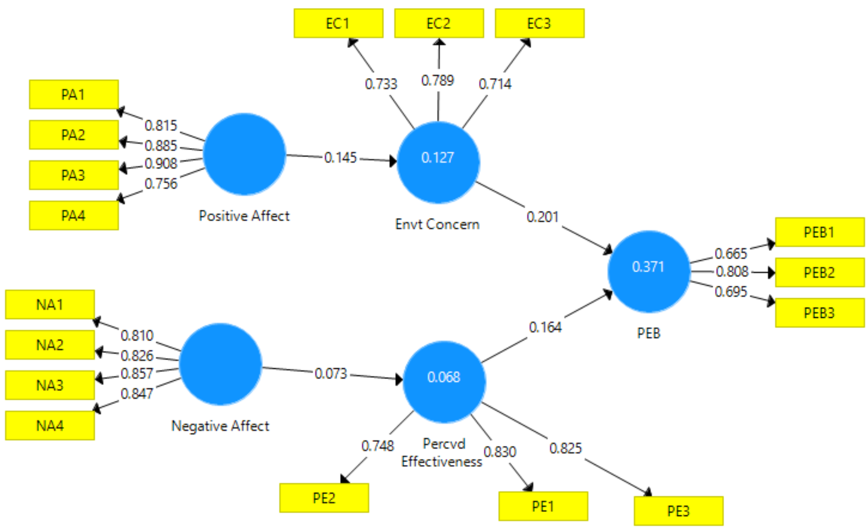

Figure 4. PLS Algorithm Output (SMART PLS v. 3.3.3)

values in Table 3 which are in bold and are represented in the diagonal are the readings of the F-L criterion and are observed to be robust in nature due to the fact they are larger than the other values in the same row (Henseler et al., 2014).

Second stage: a multi-group analysis

From the below table 5, it may be deciphered that there exists a substantial difference between positive affect and environmental concern with the p-value being significant at $p<0.05$. This observation may only partially permit the researchers to accept the presumption that there exists a difference between the two groups.

Table 3. Fornell-Larcker Criterion (SMARTPLS Software v. 3.3.3)

	Environment Concern	Negative Affect	PEB	Perceived Effectiveness	Positive Affect
Environment Concern	**0.746**				
Negative Affect	0.492	**0.835**			
PEB	0.517	0.501	**0.725**		
Percvd Effectiveness	0.382	0.261	0.495	**0.802**	
Positive Affect	0.356	0.455	0.445	0.205	**0.843**

Table 4. PLS-SEM Execution Report (SMART PLS v. 3.3.3)

	Original Sample (β)	**Sample Mean (M)**	**Standard Deviation (STDEV)**	**T Statistics (|O/STDEV|)**	**P Values**
Envt Concern -> PEB	0.384	0.390	0.051	7.504	**0.000****
Negative Affect -> Percvd Effectiveness	0.261	0.270	0.045	5.742	**0.000****
Percvd Effectiveness -> PEB	0.348	0.349	0.056	6.240	**0.000****
Positive Affect -> Envt Concern	0.356	0.364	0.054	6.544	**0.000****

**significant at p-value <0.01

Table 5. PLS-MGA Analysis (SMART PLS v 3.3.3)

	Path Coefficients-diff (GROUP_Test(1.0) - GROUP_Control(2.0))	**p-Value original 1-tailed (GROUP_Test(1.0) vs GROUP_Control(2.0))**	**p-Value new (GROUP_Test(1.0) vs GROUP_Control(2.0))**
Envt Concern -> PEB	-0.145	0.948	**0.104**
Negative Affect -> Percvd Effectiveness	0.029	0.375	**0.749**
Percvd Effectiveness -> PEB	-0.118	0.863	**0.273**
Positive Affect -> Envt Concern	0.218	0.992	**0.016****

**significant at p-value <0.05

DISCUSSION

The PLS-MGA and PLS-SEM analyses both suggest that positive affect (PA) has a significant and positive impact on environmental concern among the test and control groups. This implies that the virtual reality intervention has been partially successful in cultivating a significant behavioural change among the people who were subjected to the VR video vis-à-vis the respondents who were subjected to the video on a non-VR gadget. Observations from this study reflect extant literature like (Ashby et al., 1999); (Schenk et al., 2018) (Lee and Syah, 2018). The findings are in tandem with (Subawa et al., 2021) and (Bec et al., 2021) who have demonstrated a significant role of Virtual Reality Immersion (VRI) in capturing pro-environmental behaviour. (Chang et al., 2015), in their study of message framing in green advertising context reveal that positive affect at the construal level impacts the environmental concern of individuals in the long run. Similarly, (Thananusak et al., 2017) studied the factors affecting the intention to buy electric vehicles, a robust interaction has been recorded among positive affect and environmental concern. Furthermore, (Kim and Koo, 2020) have highlighted a positive causal relationship among the two constructs of positive affect and environmental concern. Lastly, this study answers a pertinent call to action by (Harris et al., 2020) who has expressed the importance of subjective immersion to extract pro-environmental consciousness.

Through the PLS-SEM analysis given in Table 4, it is understood that the hypothetical dimensions formulated through this study are accepted under significant and robust conditions. The first hypothetical assumption which tests the relationship between environment concern and pro-environment behaviour has been expedited to be true with a $\beta=0.384$ and corresponding $t=7.504$. The finding resonates with studies (Huddart Kennedy et al., 2014) who have identified the symmetry between environmental attitude and pro-environmental behaviour. Furthermore, in their review of previous literature authors, (Gifford and Nilsson, 2014) observed the positive correlation among environmental concern and eco-friendly behaviour across a broad spectrum of studies in the field of tourism, sociology and psychology. The second hypothetical element of the study aims to examine the association between Negative affect and perceived effictiveness. This negative relationship is significant at $p<0.01$ with a $\beta=0.261$ and a $t=5.742$. Review of recent literature reveal that studies conducted in fields like consumer behaviour, food preferences and environmental psychology indicate that Negative affect is negatively associated with making pro-environmental choices (Staub et al., 2022), (Kraus et al., 2022) and (Osborne and Atkinson, 2022). The third hypothetical pathway that assumed a positive relationship between Perceived effectiveness and Pro-environmental behaviour was observed to be significant ($\beta=0.348$, $t=6.240$). The findings of this study concur with extant literature like (Vicente-Molina et al., 2013), (Coelho et al., 2017) and (Alshurideh et al., 2020) who have detected a positive association between these variables.

The study extends the theory of pro-environmental behaviour by imbibing the essence of environment simulation. It also sheds the light on the need for advanced interventions like augmented and virtual reality in the investigation of human behaviour towards a sustainable future. This study is a response to the call for action stated in extant literature in the field of virtual reality to make the technology as an instrument to foster behavioural corrections. The study beacons managers and executives of DMOs, tourism authorities to take note of the growing importance of virtual reality in tourism. This study is a step towards understanding the prowess of virtual reality interventions in determining pro-environmental consciousness which simoultenously serves as the study's novelty.

CONCLUSIONS

The emergence of immersive technologies have paved way for further deliberations in the field of sustainable tourism. The study aimed to provide empirical basis to support the usage of virtual reality technology in the cultivation of pro-environmental behaviour, which has been partially accepted to due to the respondent differential observed through the MGA analysis in terms of the positive effect dimension triggering the environmental concern. The study has a two-fold contribution. Firstly, the study aims to widen the epistemological spectrum of the theory of pro-envrionmental behaviour by introducing the virtual reality intervention through a wearable device which captured a significant behavioural differential among the test and control groups. Secondly, the study advises marketers of eco-delicate destinations to employ virtual reality in corrective behaviour among potential tourists. Through the study the authors would like to recommend VR devices for travel agents and tour operators to better market eco-tourism regions which are vulnerable to the ill effects of mass tourism. Such excercises can take place at travel industry fairs like ITB Berlin, Arab Travel Mart and SATTE where there is both B2B and B2C oppurtunities available. While the study is partially successful in addressing the issue of simulated and immersive environments towards the evaluation of pro-environmental behaviour (significant virtual reality immersion impact on Positive Affect on environmental Envt Concern), future studies are encouraged to experiment with larger sample sizes and advanced virtual reality gear.

Acknowledgments: This project has been financed within OP RDE project Junior grants of TBU in Zlin, reg. No. CZ.02.2.69/0.0/19_073/0016941

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Article history: Received: 20.11.2021 Revised: 03.03.2022 Accepted: 06.04.2022 Available online: 03.05.2022

GeoJournal of Tourism and Geosites
ISSN 2065-1198, E-ISSN 2065-0817

Year XV, vol. 41, no. 2, 2022, p.472-476
DOI 10.30892/gtg.41218-852

EFFECTS OF TEAMWORK ON EMPLOYEE PERFORMANCE: A CASE STUDY OF THE HOTEL SECTOR IN CAN THO CITY, VIETNAM

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Citation: Phuong, H.V., & Huy, T.H. (2022). EFFECTS OF TEAMWORK ON EMPLOYEE PERFORMANCE: A CASE STUDY OF THE HOTEL SECTOR IN CAN THO CITY, VIETNAM. *GeoJournal of Tourism and Geosites*, 41(2), 472–476. https://doi.org/10.30892/gtg.41218-852

Abstract: Potential effects of the teamwork and employee performance have been identified in the literature and viewed as as one of the most concerns in a branch of the human resource management (HRM). The study aims to examine effects of the teamwork on employee performance basing upon a survey from 120 employees working for 2 to 5 star-ranked hotels in Can Tho city. The widely-used methods for the qualitative data analysis including the Exploratory Factor Analysis (EFA) and regression analysis were applied. The empirical results show that the employee performance is positively and directly related with four elements, relevant to the postulated theory. It is also worth noting that two out of these four factors - Recognition and reward and Team trust – are enough of the statistical significance which may explain in the relation with the employee performance at hotels. In conclusion, some main findings and limitations of the study are pointed out.

Key words: Teamwork, Employee performance, Hotel sector, Can Tho city

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INTRODUCTION

"Teamwork is considered workgroup with a common purpose for achieving a given organization's goals/tasks" (Harris and Harris, 1996). This may imply that individuals who work in a collaborative environment can share their knowledge, skills and experiences with other colleagues in pursing of the planned targets for the whole team. Few of empirical studies found that working in a team does not help team members raise their performance, but also boost to gain a higher level of productivity to the organization; no exception to hospitality sector (Karatepe, 2013). With benefits from the teamwork tool, managers have often assigned more team projects to their employees that aims to enable their knowledge, personal skills and to achieve the organization's performance (Hartenian, 2003). It was noting worth that one of the latest research done by Černevičiūtė and Strazdas (2018) had proved that teamwork could be more productive as compared to other colleagues. For those reasons, teamwork has been widely concerned and become an efficient tool for work assignment to organizations.

In the discipline of human resource management, many studies have empirically proved found positive impacts of the teamwork on the performance of employees, among those were done by Adbulle and Aydıntan (2019); Jawabreh et al. (2020), Adil and Hamid (2020). However, concerns of this topic seems to be rarely in empirical analysis, especially for the hotel sector in a particular place. Tourism industry is considered as one of the fastest growing industries in Can Tho city that contributed to nearly 10 percent of the city's Gross Regional Domestic Product (GRDP) during the period of 2016 and 2020 (Can Tho Department of Culture, Sport and Tourism, 2020). Due to globally serious impacts from the Covid-19 pandemic at the beginning of 2020, Can Tho only welcomed about 6 million of tourists, almost domestic tourists, rearching at 60.9 percent of the total tourists for the year 2019, and this figure is likely worser in 2021. In particularly to the hospitality sector in Can Tho city, there have a number of 123 hotels ranked with 1 to 5 star-standard and more than 100 unranked guest houses and mini-hotels. According to the survey in 2020 done by Huy et al. (2020), those hotels had created a large number of about 4,500 employments, accouting for 72,6 percent of the total direct employments for the whole tourism industry in Can Tho city. It is deduced to a fact that an assignment for employees in this sector is really required towards the application of systematic and efficient tools by managers. This study is organized as folows: The section 2 starts with literature review and hypotheses. The methods of data collection and analysis are described in the section 3. The findings from the analysed results are revealed in the section 4. Finally, concluding remarks are presented.

Literature review and hypotheses

Larson et al. (1989) provided the description in their book entitled "*Teamwork: what must go right/what can go wrong*" that teamwork involves a team of two or more individuals who work together toward achieving a desired goal of the organization. For modern organizations, most tasks are commonly assigned teams than individuals; because a person can have creative ideas but may lack the brainpower to capitalize on those ideas (Woodcock, 2017). Teamwork is an integral aspect of

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an organizational environment as well as a prominent feature in which individuals can work together in achieving the organization's target (Mijakoski et al., 2018). The most recent work specialized into the hospitality sector by Mahmoud et al. (2021) proved that innovation and practices on human resource management within the organization would enable a creativity to employees and also establish professional teams of experts or staffs, and it thus leads to a more competitive and creative organization. In practically, managers usually build teams as groups of members and assign specific tasks or plans with the purpose of enabling employee's knowledge and professional skills (Hartenian, 2003). Because all team members can exchange and share their basic knowledge and professional experiences during the project, teamwork is indeed as a significant strategy for achieving the desired goal in convenience and time efficiency. In the recent study on teamwork, organizational commitment and effectiveness in education sector in Indonesia, Martono et al. (2020) emphasized that teamwork is seen as a key component in the orgranization and it depends importantly on the leadership style. Therefore, managers can arrange individuals into relevant teams that aims to take advantages of their skills and experiences in assignment.

Al-Jammal et al. (2015) reported that employee performance as the levels of efforts and achievements that employees in an organization exert. In the most recent study done in the tourism industry in Indonesia by Idris et al. (2022) indicating that important implications for managers were suggested including encouraging high employee performance by strengthening organizational culture, particularly collaborative, flexible, and team oriented working.

According to the survey of selected private banks in Mogadishu of Somalia, Adbulle and Aydıntan (2019 found that organizational culture-related factors such as team members' trust, cohensiveness, spirit and knowledge sharing are truly potential to improve the whole team's performance. The such finding implies that the teamwork environment creates employees more opportunities to mutually share their professional experiences and also learn from others and as resulting to increase their productivity and the whole team performance. Another paper focusing on the sample of small and medium enterprises in Anambra, Phina et al. (2018) found similar evidences and suggested that managers should endeavour to ensure each member in the team possibly to use necessary skills to perform tasks effectively.

In some recent studies for the tourism industry, for instance Yulianeu et al. (2021) emphasized that the transformational leadership plays an important role in boosting the employee performance in the case of the eco-tourism community.

The basic causal pathway of the HRM performance linkage model is as stated below: Teamwork → Skills → Attitudes → Behavior → Employee Performance. The general framework of this model is indirect linkage through skills, attitudes, and behavior between teamwork and employee performance (Manzoor et al., 2011). Follow up this approach, this study is applied is the HRM-performance linkage model to explain the relationship between two core variables - teamwork and employee performance. In the light of the existent evidences reviewed above, four hypotheses are proposed in this study regarding the context of the hotel sector in Can Tho city, as follows:

H1: Team members' abilities has a positive effect on employee performance.

H2: Team spirit has a positive effect on employee performance.

H3: Team trust has a positive effect on employee performance.

H4: Recognition and reward has a positive effect on employee performance.

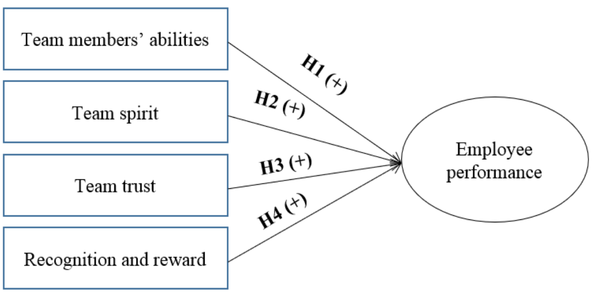

Figure 1. The proposed research framework

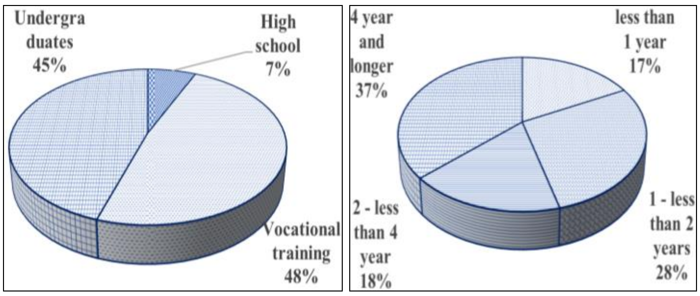

Figure 2. Frequency of the respondent's education and experience

METHODOLOGY AND DATA DESCRIPTION

According the main goal of this study, the target population is comprised of the employees working for 2-5 star-ranked (standard) hotels on Can Tho city. Quantitative methodology is viewed as the most widely accepted approach for capturing the causal effects, particularly variables are almost measured in ordinal scale as Likert scale. According to Loc and Tho (2015), the sample size in the case of using the Exploratory Factor Analysis (EFA) method must be at least 100 observations ($n \geq 100$). In addition, a formula on sample size proposed by Hair et al. (2014) that it requires at minimum of 5 times of variables in the analysis, for example of the EFA tool. With the total 24 variables being incorporated in the analytical framework, thus the sample size for this study is targeted at 120 respondents. Because the total population of employees served at hotels in Can Tho city is not known, all targeted respondents in this study are thus contacted and interviewed with undertaking non-probability sampling method. Measurement of the survey data for this study is followed up a number of previous studies, all factors attributing the teamwork and the employee performance was estimated using a five-scaled Likert adapted from the recent work of Adbulle and Aydintan (2019). In detail, the emplyee performance as a dependent variable was measured in terms of four items consisting of the capacity for completing assigned tasks, career skills learnt, collaborated and supported got from colleagues. Four groups of the teamwork variables are a total of 20 items regarding the team member's ability, the team spirit, the team trust and the Recognition and reward. Each factor comprises of 5 items itself. The survey results from 120 respondents served at hotels in Can Tho city are reported in terms of indicators of the descriptive statistics as follows: there are 57.5 percent of them are female (or 69 employees) and 42.5 percent are male (or 51 employees). The respondent's age was categorized into three brackets, 41.7 percent fall in the aged between 16 and less than 25, 51.3 percent of the total respondents age of 25 to less than 40 and only 5 percent of the remaining respondents was in age of 40 and older. In regarding with the respondent's human capital – educational attainment and professional experience, the result reveals that employees serving at hotels in Can Tho city were recorded at highly qualified. 45 percent of the total respondents had at least one university diploma, 48.3 percent graduated from vocational schools or colleges, only 6.7 percent being completed the high school program had no certificate or diploma. According to the work experience, the majority of the respondents had 4 years of work experience and longer, accounting for 37 percent of the total respondents, 18 percent worked from 2 to 4 years, 28 percent worked from 1 to 2 years, and ony 17 percent served at hotel less than 12 months.

RESULT AND DISCUSSION

In regard with the measurement to quantitative data, for instance an ordinal scale. First of all, the Cronbach's alpha analysis was used to examine the reliability of the proposed items in the framework. The analytical result reported in Table 1 shows that all the values of Cronbach's alpha for the constructed items are acceptable as they vary from 0.384 to 0.839, and firmly exceed to 0.3 as a minimum of cut-off point for the further analysis. Thus, it can be concluded that the reliability assumptions are satisfied and all items selected would be continuously used for the EFA procedure.

Table 1. Analyzing the reliability of scale (Source: The result from the survey of 120 hotel employees, 2020)

Variables	Item	Corrected Item - Total Correlation	Cronbach 's alpha
Independent variables			
Factor 1 - Team members' abilities			
TMA1	Part of team's performance depends on knowledge, skills, and abilities of each member.	0.219	0.545
TMA2	The abilities of each team member set parameters for what members can do and how effectively they can perform on it.	0.274	0.512
TMA3	A team must involve members with technical expertise to be able to perform effectively.	0.254	0.533
TMA4	A team must involve members with problem-solving and quick decision-making skills to be effective.	0.485	0.384
TMA5	A team must involve members with good listening, feedback, conflict resolution, and other interpersonal skills.	0.347	0.471
Factor 2 - Team spirit			
TS1	Team spirit in an organization is a situation in which a group of people jointly depend on one another to achieve team's goals.	0.403	0.685
TS2	Team spirit of sharing problems among team members in an organization enhances the performance.	0.572	0.609
TS3	Team spirit is a valuable asset for team members as well as an organization as two good heads are better than one.	0.385	0.677
TS4	Team spirit has a positive effect on job satisfaction of employees.	0.461	0.648
TS5	Team spirit and the desire to success bring the best things for employees to improve the performance.	0.498	0.632
Factor 3 - Team trust			
TT1	Team trust allows team members entirely accept other's strengths and weaknesses.	0.380	0.764
TT2	Team trust facilitates the harmony by avoiding conflicts.	0.572	0.691
TT3	Team trust among team members develops the unique skills and coordination of individuals.	0.601	0.686
TT4	Team trust creates the behavioral basis of teamwork which results in organizational synergy and better performance.	0.503	0.717
TT5	Trust provides atmosphere for team members to discuss their mistakes, accept criticisms, freely expressing their feelings which enhances synergy.	0.572	0.691
Factor 4 - Recognition and reward			
RR1	Team members expect the recognition or reward for job well done.	0.677	0.776
RR2	A manager should plan a appropriate system of rewards for team members and incentivize effective participation in the team.	0.568	0.807
RR3	A manager should set team's goals and make them connected to rewards to achieve the best performance from the team.	0.668	0.784
RR4	Recognition and reward can provide both intrinsic and extrinsic motivation.	0.710	0.766
RR5	Reward of team should be focused on cooperative efforts rather than competitive ones.	0.512	0.823
Dependent variable - Employee performance			
EP1	I've finished the assigned workload.	0.580	0.839
EP2	I am capable of finishing off-duty tasks.	0.633	0.818
EP3	I've been cultivated to enhance my personal skills.	0.724	0.775
EP4	I've supported and collaborated with my colleagues.	0.780	0.757

Following the result obtained from the reliability measurement in using Cronbach's alpha, the EFA was adapted in this study in order to confirm the four constructed factors of the proposed items. In the meaning of the estimation, the EFA is a necessary tool to ensure that all items are assumed to estimated underlying a construct as hypothesized and without a mixture of items among the constructed factors of items. The EFA result revealed in Table 2 expresses that the assumptions are fulfilled because the testing the appropriateness of the EFA model was the value of KMO equal to 0.805 ($0.5 < KMO < 1.0$) and additionally the Bartlett's test of correlation of selected items in each constructed factor with its significant value of less than 0.05 as suggested by Watkins (2018). This clearly confirms all items belonged each the constructed factors in the framework are closely related. The results from Table 2 reveal that the factor loading of the constructed factors of items exceeded 0.5. In addition, four new groups of factors are formed by mixing 20 proposed items in the framework.

Specifically, the new first factor (F1) consists of 5 items signed RR1, RR2, RR3, RR4 and RR5 and it may be re-called as the Recognition and reward factor; the second factor (F2) includes 3 items such as TT3, TT4 and TT5 and they are re-called as the Team trust; the third one comprised 3 items of TT1, TT2 and TS1 and re-named as the Team's goal; the final one (F4) was formed with 3 items (i.e. TS3, TS4 and TS5) are re-called as the Team spirit. With 14 selected items belonged four factors in the EFA measurement, the Eigenvalue being 1.054 higher than one and the Average Variance Extracted being 63.59% higher than 50%. These values indicate the EFA model obtained fits the data well and the cumulative variance value may be used to explain the variation of the survey data at 63.59%.

Table 2. EFA results for a scale of factors affecting employee performance (Source: The result from the survey of 120 hotel employees, 2020)

Groups of factor	Variable	Factor loading			
		F1	F2	F3	F4
F1: ecognition and reward	RR4	0.851			
	RR3	0.785			
	RR1	0.776			
	RR5	0.626			
	RR2	0.565			
F2: Team trust	TT4		0.846		
	TT3		0.690		
	TT5		0.683		
F3: Team's goals	TT2			0.719	
	TT1			0.713	
	TS1			0.619	
F4: Team spirit	TS5				0.723
	TS3				0.691
	TS4				0.628
Eigenvalue		4.929	1.701	1.219	1.054
Average Variance Extracted (%)		35.209	47.360	56.068	63.594
KMO = 0.805					
Sig. = 0.000					
Total Variance Extracted = 63.59%					

Table 3. The EFA results for the scale of employee performance (Source: The result from the survey of 120 hotel employees, 2020)

Varia-bles	Item	Factor loading
EP1	I've finished the assigned workload.	0.897
EP2	I am capable of finishing off-duty tasks.	0.868
EP3	I've been cultivated to enhance my personal skills.	0.790
EP4	I've supported and collaborated with my colleagues.	0.747
KMO = 0.762		
Sig. = 0.000		
Average Variance Extracted (%) = 68.50%		

Table 4. OLS result of the effects of teamwork on the employee performance (Source: Author's results from 120 observations, 2020)

Factors	Estimated coefficient	Sig.	Hypothesis supported
F1: Recognition and reward	0.441	0.000	Yes
F2: Team trust	0.290	0.000	Yes
F3: Team's goals	0.127	0.106	No
F4: Team spirit	0.072	0.359	No
Sig.F = 0.000 R^2 = 0.276; Estimated error = 0.851 Durbin – Watson coefficient = 1.764			

According the independent variable - the employee performance – reported in Table 3. It can be shown that the testing the appropriateness of the model was 0.762 (0.5 < KMO < 0.1) and the Bartlett's test of correlation was less than 0.05. It can be confirmed that the items of the dependent variable were closely related as recommended by Watkins (2018).

To test the hypotheses proposed above, an analysis of the multivariate regression was implemented using the simple Ordinary Least Square measurement that aims to examine effect coeffients of four constructed factors formed from the EFA measurement on the employee performance. The estimated result is presented in Table 4 as follows.

It can be seen in Table 4, adjusted R^2 equals to 0.276 which means that the variation of independent variables explains 27.6% of the variation of employee performance; the remaining 72.4% is for the out-of-model variables and random errors. Simultaneously, Durbin - Watson coefficient equals to 1.764 (approximately equals to 2) meaning that there is no autocorrelation. Finally, the statistical value of the estimation model being less than 0.05 indicates that the employee performance was significantly associated with the explanatory factors in the frame work.

Concerning to the hypotheses introduced in the study, the multivariate estimation shows that there is enough evidence of confirming the hypothesis H3 and H4 in the framework in which the Recognition and reward and the Team trust have positive contributed to the employee performance at the statistically significant level at 0.01. Meanwhile, two remaining factors in the hypothesis H1 and H2 are also expressed to have positive effects on the employee performance, but their value of the acceptable significant level exceeding 5%. In general, the effect direction of the factors attributing the teamwork into the employee performance is fairly consistent with previous studies done by Adbulle and Aydıntan (2019); Manzoor et al. (2011); Phina et al. (2018). From the estimation results displayed above, some discussions are made as following:

First, the *Team members' abilities* was expressed to have no impact on the employee performance in an organization. However, during the survey of 120 respondents it was recorded that *Team members' abilities* was still paid much attention by the asked employees. Therefore, managers should give an endeavor to assign appropriate tasks in accordance with their specialized capacities and the strengths. Additionally, the regularly training is needed to enhance their professional skills moreover. Next, the *Team spirit* means that members in a team are interdependent. This should be consolidated when like-minded people are gathered in a group so that the organization can enjoy and utilize the full potential of the team. Furthermore, like-minded individuals working in a group can shorten the time to solve problems.

Besides, the *Team trust* influences positively on employee performance. Completing all the tasks punctually can show a sense of responsibility and establish trust for the whole group. Honestly sharing difficulties, actively accepting mistakes, being self-corrected, and changing to adapt to other team members are ways to create a comfortable atmosphere and enhance the performance of staff. Last but not least, the *Recognition and reward* is the most influential factor in the analysis. Therefore, managers should pay more attention on policies toward rewards in order to motivate employees. Setting goals for the whole team with "attractive" rewards is necessary in practise. However, managers must be careful to ensure that those are collaborative activities instead of individual competition. Also, from the information of the survey, the interviewers suppose that there are many difficulties when working in a group, for instance, lacking interconnection, refusing to listen to or share with others, being conservative. Therefore, managers working in hotels should take care and encourage the employees by team building activities to enhance the efficiency of teamwork. In brief, teamwork activities for an organization bring numerous benefits and directly impact the performance of employees. When an employee gets an appropriate opportunity to work in a group, their performance may be automatically improved and accompanied by job satisfaction. Besides, teamwork is considered a tool to take advantage of employees' skills as a result of an available mechanism for learning from other members. The results imply that a tendency to quit a job will be extremely decreased. Importantly, teamwork makes sure that individual productivity is much greater with group arrangements.

CONCLUSION

The study aims to estimate the effect of the teamwork on the employee performance in the hotel sector in Can Tho city. The research is implemented by directly interviewing 120 employees serving at the hotel sector in Can Tho city. The research results have confirmed that the vital role of teamwork impacts employee performance. In detail, this theoretical model consisting of four factors of the teamwork, including *Team members' abilities, Team spirit, Team trust,* and *Recognition and reward*. Of which, two factors - *Recognition and reward* and *Team trust* – had positive and significant effects on the employee performance. This study is expected to provide more evidences of the effects of the teamwork on the employee performance for the hotel sector. However, there are still some caveats for this study such as the representativeness of the survey sample in the population of hotel employees because such data was being lacked. Second, a proportion of the hotel employees can work part-time or event-related work which may results to a fact that they had enough or much time to work together with many colleagues in order to accumulate or share professional knowledge and skills during the work. Finally, simple technique of the estimation for the correlation between the teamwork and the employee performance certainly remains itself limitations regarding assumptions of the normal distribution, constant error heterogeneity and so on.

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Article history: Received: 18.12.2021 Revised: 04.03.2022 Accepted: 07.04.2022 Available online: 03.05.2022

GeoJournal of Tourism and Geosites
ISSN 2065-1198, E-ISSN 2065-0817

Year XV, vol. 41, no. 2, 2022, p.477-484
DOI 10.30892/gtg.41219-853

THE ROLE OF SEA TURTLE CONSERVATION EDUCATION FOR SUSTAINABLE MARINE TOURISM BASED ON BIO-ECOREGION (CASE STUDY IN BALI, INDONESIA)

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Citation: Nurhayati, A., Putra, P.K.D.N., & Supriatna, A.K. (2022). THE ROLE OF SEA TURTLE CONSERVATION EDUCATION FOR SUSTAINABLE MARINE TOURISM BASED ON BIO-ECOREGION (CASE STUDY IN BALI, INDONESIA). *GeoJournal of Tourism and Geosites*, 41(2), 477–484. https://doi.org/10.30892/gtg.41219-853

Abstract: Sea turtle conservation management is part of natural tourism activities which are often referred to as ecotourism based on bio-ecoregion. Conservation activities by taking into account environmental, socio-cultural and economic aspects receive special attention by the community, especially sea turtle conservation. In Indonesia, one of the areas that conducts sea turtle conservation in Bali. This research aim to analysis the role of sea turtle conservation education for sustainable marine tourism based on bio-ecoregion (Case Study in Bali, Indonesia). The method used in this research is quantitative descriptive. The data used in this research primary and secondary data. The data collection technique used purposive sampling with 60 respondents consisting of tourists. Based on the research results of sea turtle conservation management in Bali tourism area from the ecological, social and institutional aspects it has a low value while from the economic aspect it has a high value. Lessons learned from the management of sea turtle conservation in Bali by emphasizing the socio-cultural aspects are able to produce modern sea turtle conservation management with the concept of ecotourism based on bio-ecoregion and able to improve the economy of the local community. The results of the activity showed that tourists who visit the sea turtle conservation area are provided with information about the sea turtle population that has decreased and is included in the protected animals. Conservation education aims to introduce tourists to raising awareness of the sustainability of sea turtle resources.

Key words: bio-ecoregion, conservation, education, sea turtle, marine tourism

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INTRODUCTION

Marine Tourism is one of the Indonesia largest industries. The marine tourism sector in various regions in Indonesia is increasingly growing in importance with regard to its contribution to national economies as well as to the wellbeing of local communities in the coastal area. The development of marine tourism activities in coastal areas is based on bio-ecoregion where any planning decision is taken mainly on the basis of conservation criteria, while the environment is taken into account only in a sense that can be described as trying to minimize effects human activities marine tourism. Marine tourism is based on bio-ecoregion is landscape a unique resource combination at the interface of land and sea offering amenities such as water, beaches, terrestrial and marine biodiversity (Nurhayati et al., 2019). Indonesia has a lot of biodiversity based on bio-ecoregion, one of which is a sea turtle. Marine waters in Indonesia, support for sea turtle habitat. There are seven species of sea turtles in the world, i.e: green turtle *(Chelonia mydas*), olive ridley (*Lepidochelys olivacea*), loggerhead (*Caretta caretta*), hawksbill (*Eretmochelys imbricata*), *leatherback* (*Dermochely coriacea*) and *flatback* (*Natator depressus*) (Nuitja, 1992; Darmawan, 2009). The sea turtle is a powerful and mysterious creature in many cultures in the world. Sea turtles have historically contributed to economic activity through consumptive harvest for food, tools, and decorative objects. (Groombridge and Luxmoore, 1989; Van Dijk and Shepherd, 2004; Kinch and Burgess, 2009; Lam et al., 2012; Nurhayati et al., 2020). Hunting of sea turtles to supply trade and consumption demands of both a domestic and international market, is demand a serious and persistent threat to the long term survival of sea turtles (Groombridge and Luxmoore, 1989; Meylan and Donnelly, 1999; Pilcher, 2000; Kemf et al., 2000; Van Dijk and Shepherd, 2004; Stiles, 2009). Sea turtle meat, mostly involving green turtles but also the hawksbill turtle, consumed for religious and cultural reasons in Bali (Barr, 2001; Van Dijk and Shepherd, 2004; Jansen, 2009; Nurhayati et al., 2020).

The management of sea turtles is very complicated for various reasons, including slow growth, later maturity, high mortality rate in young turtles, sea turtles distribution, long migration between foraging and nesting sites, habit of laying eggs in the same location, and breeding dependence on certain temperatures (Limpus, 1997). All types of sea turtles in

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Indonesia are protected under Government Regulation No. 7 of 1999 concerning Preservation of Plants and Animals and Government Regulation No. 8 of 1999 concerning Utilization of Wild Plants and Animals, which means that all trade in a state of life or death is prohibited. This is because almost all species of sea turtles in Indonesia have experienced population declines that are categorized as endangered (Casale and Tucker, 2017; Seminoff, 2004; Mortimer and Donnelly, 2008; Wallace et al., 2013). Sea turtle management areas in Bali, through the management of conservation areas. Based on World Conservation Union (IUCN), the basic understanding of conservation areas is land area and / or sea, especially those intended for the protection and maintenance of biodiversity, and natural resources that are connected to the culture involved, and managed through the application of the law or in other effective ways (Broquere, 2005; Pomeroy, 2012). The prospect of collaborative management in the management of water conservation areas is very wide open and clearly regulated in Government Regulation number 60 of 2007 concerning Conservation of Fish Resources, which states that the central government and regional governments in accordance with their authority in managing water conservation areas can involve the community through partnerships between the management organizational units and community groups and / or indigenous communities, non-governmental organizations, corporations, research institutions, and universities.

Collaborative management is currently highly developed as the main approach in the management of small-scale fisheries resources in several developing countries, including ecotourism-based on sea turtle habitat management (Evans et al., 2011; Nurhayati et al., 2020). Ecotourism is a form of responsible travel to areas that are still natural for the purpose of conservation or preserving the environment and providing livelihoods for the local population and involving elements of education. Sustainable management of marine ecotourism must consider the ecological aspects that are the object of an activity, involving social elements as tourism actors in management, so that it can provide economic benefits (Lindberg and Hawkins, 1993; Nurhayati et al., 2020). Only recently have they begun to benefit humans economically through non-consumptive roles, primarily as a focal point of educational ecotourism. Sea turtle ecotourism is an option in promoting a unique environment and preserved authenticity, as well as a tourist visit. The existing potential is an environmental development concept based on the approach, maintenance and conservation of nature. Ecotourism has sustainable management principles such as based on nature tourism which emphasizes conservation activities and refers to sustainable tourism development and is related to educational development activities, accommodating local culture and benefiting the local economy (Nurhayati et al., 2019). Ecotourism is a form of travel to natural areas that is carried out with the aim of conserving the environment and preserving the lives and well-being of the local population, is expected to be a solution to the decline in turtle populations that occur in Indonesia, especially in Bali. According to the Regulation of the Minister of Home Affairs of Republic Indonesia Number 33 of 2009 concerning Guidelines for the Development of Ecotourism in the Regions in the first article of ecotourism is a natural tourism activity in the area responsible for paying attention to the elements of education, understanding and support for efforts to conserve natural resources, as well as increasing community local income. Condition Sea Turtle Conservation, can be seen in the Table 1.

Table 1. Condition Sea Turtle Conservation

No	Indicators	Category	Ranting to Scale
1.	Beach monitoring	Not monitoring at all	1
		There is monitoring but not periodic;	2
		There is periodic monitoring but off site	3
		Periodic monitoring around the conservation center	4
2.	Successful hatching	None	1
		Exist, but the condition is broken	2
		Eexist	3
3.	Enlargement Facilities	None	1
		Exist, but the condition is broken	2
		Exsits and Adequate	3
		Exsits and Good Facilities	
4.	Hatchling release locations	Away from the center of conservation	1
		Radius of 50 km from the location of the conservation	2
		Radius of 20 km from the location of the center;	3
		around the central conservation conservatory location	4
5.	When the hatchling is released When the hatchling is released	10-12 AM	1
		1-2 o'clock in the afternoon;	2
		3-4 in the afternoon	3
		5-6 in the afternoon / 5-6 in the morning	4
6.	Turtle enlargement	Available, for display	1
		For display and defective conditions;	2
		Efective conditions	3
		None	4
7.	Holding / taking pictures with hatchlings	Available, free to hold and without observation	1
		Freely held in observation	2
		Only held by the manager	3
		May not hold	4
8.	Sales of souvenirs from turtles	There are hangers, jewelry, displays, preserved sea turtles	1
		Preserved sea turtles, ornaments, jewelry	2
		There is jewelry	3
		Nothing	4

The function of ecotourism is emphasized into three main functions namely the education function, tourism function and conservation function. Tourism activities at the site is to maximize the natural potential still natural in an area. Marine Tourism is one of many activities in a coastal area that require planning and coordination conservation area for marine ecosystem-based on bio-ecoregion condition. Based on the background, the following problems can be identified how to the role of sea turtle conservation education for sustainable marine tourism based on bio-ecoregion (Case Study in Bali, Indonesia).

MATERIALS AND METHODOLOGY

The reserach was conducted in September 2019 – March 2021. To find out the history and management of sea turtle conservation in Bali, it was conducted through a literature study using secondary data. Interviews were conducted with respondents. Respondens in this research was purposive proportional random sampling. Purposive sampling according to Sugiyono is a sampling technique with certain considerations (Sugiyono, 2012). According Arikunto (2010) the meaning is: the technique of taking samples not based on random, regional or stratum, but based on the existence of considerations that focus on specific objectives. Analysis of the effectiveness of sea turtle conservation can be seen from the management activities and indicators of the effectiveness is seven activities i.e beach monitoring, egg origin, successful hatching, rearing facilities, hatchling release (location and time), turtle enlargement, visitor activity, and souvenirs from sea turtle raw materials. Likert scale is a scale used to measure the attitudes, opinions, and perceptions of a person or a certain group about social phenomena. Contingent valuation uses surveys to ask participants questions about sea turtle conservation for marine tourism based on bio-ecoregion. Reliability test using *Cronbach's Alpha.*

The first group of questions was designed to gather the respondent's socio-economic demographics (age, education level, gender, location of residency), previous knowledge level about sea turtles, and marketing method used to attract the guest to the walk. The structure used for respondents assesments is variabel Attitudes (X_1) : Pre-disposition or tendency to respond positively or negatively to the activities of conderving green turtle; Awareness (X_2) Growth and development of awareness and understanding of bio ecoregion and its problem, including human interactions effect; Action (X_3) take action and responsibility for conservation activities by integrating culture as well social economic value in decision making and does not damage the enviroment; Enviromental Education Conservation Sea turtle (Y): A procecc of recognizing value and classifying concepts to develop the attitude needed to understand and appreciate the interrelationships between humas, culture and enviroment of bio ecoregion in conservation activities.This section included multiple-choice questions with fixed answers from which to choose, and one open-ended answer for the participant's primary reason for visiting the sea turtle conservation based on bio-ecoregion. The assessment element contained in the statement of personal views of each respondent who assessed the subject contained in the questionnaire, the assessment was outlined in the form of determining the gradation between disagree and strongly agree so that the rating scale was used, can be seen in Table 2. A rating scale is a data collection tool used in observation to explain, classify, assess individuals or situations. A rating scale is a data collection tool used in observation to explain, classify, assess individuals or situations, can be seen in Table 3. According to Sugiono 2010, to rank in each research variable, it can be seen from the comparison between the actual and ideal scores:

$$r_{11} = \frac{k}{(k-1)}\left[1 - \frac{\sum \sigma_b{}^2}{\sigma_1{}^2}\right]$$

$$\%\, skor\ actual = \frac{skor\ actual}{skor\ ideal} \times 100\ \%$$

Table 2. Criteria Percentage of Respondents

No	% Total score	Criteria
1	20.00% – 36.00%	Disagree
2	36.01% – 52.00%	Less Agree
3	52.01% – 68.00%	Undecided
4	68.01% – 84.00%	Agree
5	84.01% – 100%	Strongly agree

Table 3. Interpretation of Value r_s

r_s	Interpretation
0.00 – 0.199	Very low
0.20 – 0.399	Low
0.40 – 0.599	Moderate
0.60 – 0.799	Strong
0.80 – 1.00	Very Strong

Validity test is a data that can be trusted in accordance with reality. According to Sugiyono 2013, valid means that the instrument can be used to measure what should be measured. Validity showed the degree of accuracy between the data that actually occurs on the object with data collected by researchers. Test criteria if the correlation between items with a total score of more than 0.35 then the instrument is declared valid, or vice versa if the correlation between items with a total score of less than 0.35 then the instrument is declared invalid, if r count> r table with α = 0.05, the correlation coefficient was significant. Items that have a positive correlation with criteria (total score) as well as high correlations, indicate that the item has a high validity as well. Usually the minimum requirement to be considered eligible is if r = 0.35 (Sugiyono., 2009). Reliability test is used to find out whether the data collection tool shows the level of accuracy, level of accuracy, stability or consistency in expressing certain symptoms. (Sugiyono 2010). The reliability test uses the Cronbach Alpha coefficient method, which is as follows:

$$\frac{k}{(k-1)}\left[1 - \frac{\sum \sigma_b{}^2}{\sigma_1{}^2}\right]$$

Information: r_{11} = Reliabilitas Instrumen
k = Number of Questions
$\sum \sigma_b{}^2$ = Total Variance Item

The reliability test decision criteria are as follows:
If r_{11} > 0,60, If r_{11} > 0.60, then the instrument is reliable
If r_{11} < 0,60, If r11 < 0.60, then the instrument is not reliable

Spearman Rank Correlation Test

The nonparametric statistical data analysis method in this reserach Spearman Rank correlation method. According Sarwono and Suhayati, 2010, that the Spearman Rank correlation is used to determine the relationship or influence between two or more variables with an ordinal scale. Spearman's Rank formula as follows :

$$\rho = 1 - \frac{6\sum b_i^2}{n(n^2-1)}$$

Information:
ρ= *Spearman Rank Correlation Coefficient*
b_i= Variable Data Ranking
n= Total Respondents

After going through the calculation of spearman rank correlation analysis equation, then testing using defined criteria, by comparing the value of ρ is calculated by ρ table were formulated as follows:

If , ρ count $\leq$ 0, it's mean H_0 *accepted and* H_a *rejected*.

If, ρ couunt $\geq$ 0, it's mean H_0 *rejected and* H_a *accepted*.

Coefficient of Determination

The term coefficient of determination (CD) is used to assess how much influence the variable X has on Y which is the correlation coefficient which is usually expressed as a percentage%. Here is the coefficient of determination formula:

$CD = r_s^2$ x 100% Information:

CD = Coefficient Determination

r_s = Coefficient *Rank Spearman*

The results of the calculation of the coefficient can be interpreted based on the table below to see how strong the level of relationship held between variables. To provide an impression of the correlation coefficient, the authors use guidelines that refer to Sugiyono (2010) as follows:

RESULTS AND DISCUSSION

The education level of the respondents has a relationship with the level of environmental awareness of sea turtle conservation based on bi-ecoregion is obtained from learning biology, but it can also be obtained from economic and social aspects. Environmental education is needed in the development of marine tourism. Environmental education, especially marine tourism in order to be effective, must be carried out as an integrated education system that is carried out formally and informally. The age of the respondent, the level of education of the respondent, the level of income of the respondent will affect knowledge about conservation of fisheries resources, especially marine tourism regarding sea turtle.

Characteristic Respondens

Based on the results of research in the field obtained information about the characteristics of respondents as follows*:* In Figure 1 showed respondents' visits to the sea turtle conservation area based on age as much 32% are at the age 35 - 45 years, this condition proves the level of community concern for the conservation environment is in the productive age range. Respondents' visits to the sea turtle conservation area by age is 26% were at the age of 15-25 years, this condition proves the level of concern of students and students towards the conservation environment is in the range of young people who are active in the world of education. Figure 1 showed based on the research results of respondents age 26 – 35 years old is 20 %, respondents age 46 – 55 years old is 14 % and respondents age 56- 65 years old is 8 %. Characteristic responden based on age classified as productive age and provide information regarding the attraction of turtles as endangered species encourages visitors to get new experiences, add insight and as a campaign to protect turtles.

Figure 2 showed based on the results of research in the field 36% tourism of high school education respondents and 42% tourism respondents have a junior high school education. The integrated environmental education system is one of the new breakthroughs in educating the conservation of fisheries resources, especially sea turtles.

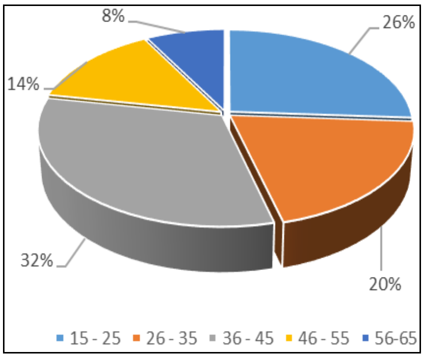

Figure 1. Characteristic responden based on age

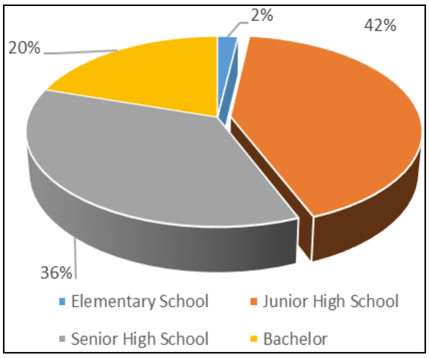

Figure 2. Characteristic responden based on education

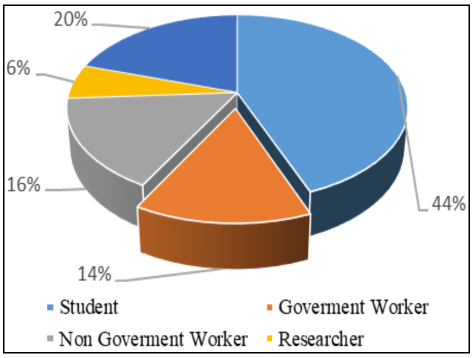

Figure 3. Characteristic responden based on occupation

In junior high school has been given the material on water conservation, air and soil and some facts about the life of plants and animals. The students are made aware of the diversity of plants and animals and its adaptation to the environment. The educational process is placed on the relationship between living things, inanimate objects and the dynamics of balance in nature, students are expected to be able to understand the need for conservation of nature as a whole and foster a sense of responsibility for the preservation of natural resources. Figure 3 showed characteristict respondent based on occupation 44 % is students, 20 % is fisherman, 16 % is non goverment worker, 14 % is goverment worker and 6 % is resercher. Based on the background of occupation can distinguish the level of knowledge about turtle conservation in terms of biology, ecology and economic value. In Figure 4 showed conservation of fisheries resources in collaboration with marine tourism is strengthening the order of the local institutional values of the community. Fisheries resource conservation education have a better chance of success, if we are can collaborate between stakeholders. Based on the results of research in the field, sea turtle species in Indonesia. The condition of sea turtle species in Indonesia has experienced decreases in production, is green turtle (*Chelonia mydas*), olive ridley *(Lepidochelys olivacea)*, loggerhead *(Caretta caretta)*, hawksbill

(Eretmochelys imbricata), leatherback *(Dermochely coriacea) and* flatback *(Natator depressus)*. Results from the community questionnaires also indicated that sea turtles (juveniles, sub-adults and adults) critical conditions. Exploitation of sea turtles, primarily for subsistence, is a long-standing practice by Bali, sea turtle conservation center in Bali Province can bee seen in Table 4. Sea turtles have long been a source of protein for the locals community.

Table 4. Sea Turtle Conservation Center in Bali Province
(Source: Natural Resources Conservation Center, Bali, 2020)

No	Name of Center Conservatiions	Location
1.	Turtle Conservation and Education Center	Serangan
2.	Conservation of Turtles	Serangan
3.	Saba Asri Turtle Conservation	Gianyar
4.	Sindhu Dwarawati Turtle Conservation	Sanur
5.	Yeh Gangga Turtle Conservation	Tabanan
6.	Kurma Asih Turtle Conservation	Jembrana
7.	Pemuteran Turtle Conservation	Buleleng
8.	Turtle breeding in Tegal Besar	Klungkung
9.	Bali Sea Turtle Society	Kuta
10.	Turtle breeding in Deluang Sari	Tanjung Benoa
11.	Turtle breeding in MoonCot Sari	Tanjung Benoa
12.	Turtle breeding in Bulih Bali	Tanjung Benoa
13.	Turtle Farm	Tanjung Benoa

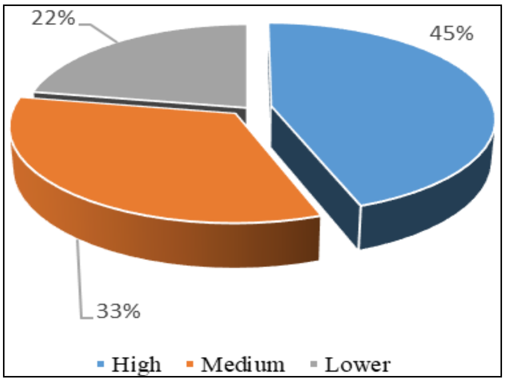

Figure 4. The level fisheries resource conservation education

Sea turtle conservation education for sustainable marine tourism based on bio-ecoregion

Bali is one of the areas that still uses sea turtles for socio-cultural and economic needs since the 1970s (Karnan, 2008; Jensen, 2009). In Bali, sea turtles are used in ceremonies as offerings to the Gods to balance evil and goodness. Before government regulations were implemented, the Balinese used turtles for consumption, souvenirs, trade, medicine and religious activities. In fact, it is known that one of the causes of the decline in the turtle population is unsustainable use, especially for consumption (Nuitja, 1992). Green turtle is one of the important and valuable offerings that are used in community ceremonies in Bali, including when children reach the age of 3 months, cutting teeth, marriage and cremation (Bäckström, 2004). Considering the use of sea turtles in religious ceremonies is difficult to eliminate, the use of turtles is limited by the use of qouta. After the issuance of the Decree Governor of Bali No. 243/2000, about sea turtle protection, the use of turtles for ceremonies in Bali, should be used the recommendations issued by the local government (Sudiana, 2010). Before government regulations were implemented, the Balinese used sea turtles for consumption, souvenirs, trade, medicine and religious activities. In fact, it is known that one of the causes of the decline in the turtle population is unsustainable use, especially for consumption (Nuitja, 1992). Bali has several turtle conservation sites namely: Turtle Conservation and Education Center (TCEC) in Serangan, Kurma Asih Turtle Conservation in Perancak, Deluang Sari Turtle Breeding in Tanjung Benoa, Saba Asri Turtle Conservation in Gianyar and Bali Sea Turtle Conservation in Kuta. Here is the distribution of sea turtles conservation sites in Bali, there are 13 turtle conservation locations.

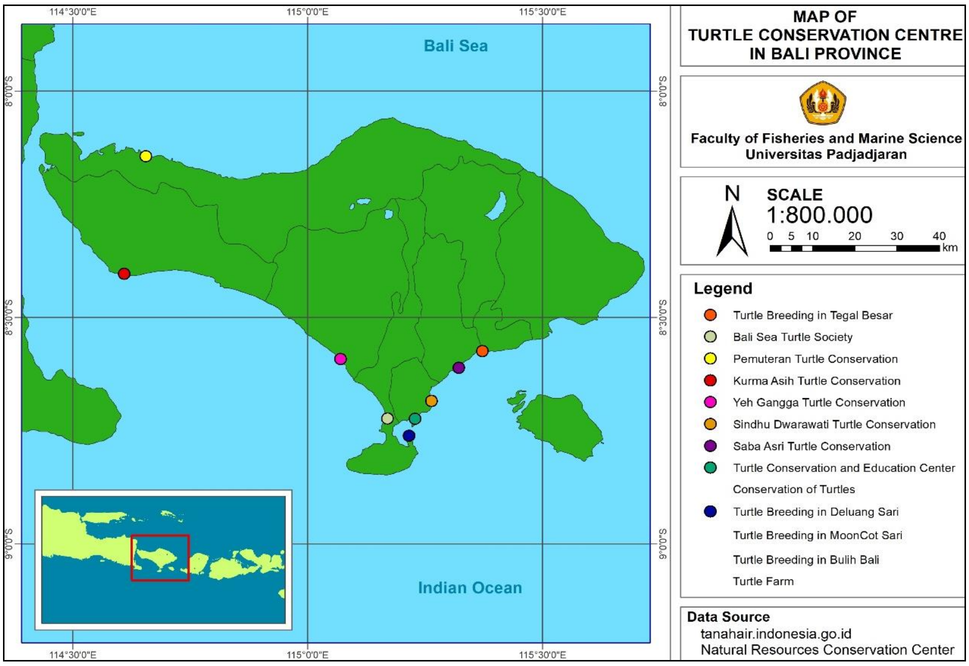

Figure 5. Distribution of sea turtles conservation sites in Bali
(Source: Natural Resources Conservation Center, Bali, 2020)

Turtle Conservation and Education Center (TCEC) or turtle conservation and education center located on Serangan Island, Bali and has been opened since 2006. TCEC was built as part from a comprehensive strategy to eliminate illegal sea turtle trade on Serangan Island, Bali. The TCEC exploits the potential of education, tourism, conservation and research with a business touch to provide new opportunities for threatened sea turtles extinct on Serangan Island (Subadra, 2015).

Licensing for the use of sea turtles must use a recommendation letter made by the applicant (Indigenous Chair) containing the intended use and the amount needed, then given to the Parisada Hindu Dharma Indonesia (PHDI), then attached to the Natural Resources Conservation Center which will set a utilization quota. However, there are allegations that these recommendations were misused by traders to smuggle sea turtles to escape inspection by officers (Sudiana, 2010).

Validity and Reliability Test

This reserach used questionnaire data given to tourists by random sampling, to analyze ecoturism based coservative management scheme for sea turtle. Validity showed the degree of accuracy between the data that actually occurs on the object with data collected by researchers. The structure used for respondents assesments is variabel Attitudes (X_1) : Pre-disposition or tendency to respond positively or negatively to the activities of conderving sea turtle; Awareness (X_2) Growth and development of awareness and understanding of bio ecoregion and its problem, including human interactions effect; Action (X_3) take action and responsibility for conservation activities by integrating culture as well as social economic value decision making and does not damage the enviroment; Enviromental education conservation sea turtle (Y): A procecc of recognizing value and classifying concepts to develop the attitude needed to understand and appreciate the interrelationships between humas, culture and enviroment of bio ecoregion in conservation activities, can be seen in Table 5. Based on the research results obtained data validity test results of 0.48, which is greater than 0.35 means that the data used by interviews with respondents have a high level of validity. Reliability test is used to find out whether the data collection tool showed the level of accuracy, level of accuracy, stability or consistency when the respondent answers the questionnaire by using the Cronbach's Alpha coefficient method a value of 0.75 is greater than 0.60 which means that it is reliable. Based on research results using non-parametric statistical data and analyzed using the Spearman Rank. The results of testing the data by using the Spearman Rank statistical test to see the factors the level of community-based environmental education in coastal areas and their role in conservation sea turtle the correlation coefficient for each variable is the variable attitudes (X_1), awareness (X_2), action (X_3). Relationship of the Role of Education in Conservation of Fisheries Resources (Y).

Table 5. Interpretation Coefficient Rank Spearman (r_s)

No	Variabel	r_s	Category
1.	Attitude (X_1)	0.546	Moderate
2.	Awaerness (X_2)	0.752	Strong
3.	Actions (X_3)	0.569	Moderate
	Averange	0.622	Strong

Based on this reserach with Spearman Rank statistical test to see the factors the level of community-based environmental education in coastal areas and their role in conservation sea turtle the correlation coefficient for each variable is the variable aattitudes (X_1) 0.546 category is moderate, awareness (X_2) 0.752 category is strong, action (X_3) 0.569 category is moderate and averange value X variabel is 0.622 category is moderate to relationship of the role of education in conservation of fisheries resources (Y). The structure used for respondents assesments is variabel Attitudes (X_1): Pre-disposition or tendency to respond positively or negatively to the activities of conderving sea turtle; Awareness (X_2) growth and development of awareness and understanding of bio-ecoregion and its problem, including human interactions effect; Action (X_3) take action and responsibility for conservation activities by integrating culture as well social economic value in decision making and does not damage thr enviroment. Enviromental Education Conservation Sea turtle (Y): A procecc of recognizing value and classifying concepts to develop the attitude needed to understand and appreciate the interrelationships between humas, culture and enviroment of bio-ecoregion in conservation activities. Existing condition sea turtle conservation in Bali based on bio-ecoregion, can be seen in Table 6.

Table 6. Existing Condition Sea Turtle Conservation In Bali Based on Bio-ecoregion (Source: data collection, 2020)

No	Indicators	Category	Ranting to Scale Sea Turtle Conservation	
			Value Ranting to Scale	In Bali Province
1.	Beach monitoring	Not monitoring at all	1	x
		There is monitoring but not periodic;	2	x
		there is periodic monitoring but off site	3	x
		Periodic monitoring around the conservation center	4	√
2.	Successful hatching	None	1	x
		Exist, but the condition is broken	2	x
		Exist	3	√
3.	Enlargement Facilities	None	1	x
		Exist, but the condition is broken	2	x
		Exsits and Adequate	3	x
		Exsits and Good Facilities	4	√
4.	Hatchling release locations	Away from the center of conservation	1	x
		Radius of 50 km from the location of the conservation	2	x
		Radius of 20 km from the location of the center;	3	x
		Around the central conservation conservatory location	4	√
5.	When the hatchling is released When the hatchling is released	10-12 AM	1	x
		1-2 o'clock in the afternoon;	2	x
		3-4 in the afternoon	3	x
		5-6 in the afternoon / 5-6 in the morning	4	√
6.	Turtle enlargement	Available, for display	1	x
		There is, for display and defective conditions;	2	x
		defective conditions	3	√
		None	4	x
7.	Holding/ taking pictures with hatchlings	Available, free to hold and without observation	1	x
		There are, freely held in observation	2	√
		Only held by the manager	3	x
		May not hold	4	x
8.	Sales of souvenirs from turtles	There are hangers, jewelry, displays, preserved sea turtles	1	x
		There are preserved sea turtles, ornaments, jewelry	2	√
		There is jewelry	3	
		Nothing	4	

Conservation is one of the activities expected to prevent the extinction of sea turtle habitat, prevent the use of turtles for commercial purposes such as the sale of eggs, meat, and shells and can be a means of sharing knowledge or education to the wider community about the importance of turtle conservation in order to protect turtle habitat in Indonesia so as not to become extinct. Before conservation, sea turtles are used as ingredients raw jewelry, meat and eggs as food so in worry about will cause decline in turtle populations and leads to extinction. Besides this, the extinction of sea turtles will quickly occur if the spawning habitat is damaged and his food was exploited on a large scale and tourism development and the beach is experiencing abrasion. Sea turtle consevation becomes one choice in promoting typical and awake environment authenticity, as well as being a place vacation. Potential is there is a development concept environment based on approach, maintenance and bio ecoregion-based nature conservation. Sea turtle conservation in Bali is one of the strategies carried out comprehensively to reduce and eliminate illegal sea turtle trade. Sea turtle conservation supports the community to find alternative livelihood solutions by collaborating ecotourism through formal and non formal education education and nature tourism. Turtle conservation in Bali has several things in common, which are built with the main purpose of protection, education, tourism, eradicating the issue of illegal trade and as a livelihood of the community, both for the management of the conservation center and fishermen. Sea turtle conservation centers in Bali conduct beach monitoring, egg collection, semi-natural hatchery, hatchling rearing, and conservation education. Monitoring this beach in the form of patrols. Coastal monitoring is one of the conservation strategies that ensures turtle nests and eggs are safe from predators. If disturbance is felt, eggs are usually transferred to semi-natural hatcheries to protect against natural or human predators.

Based on the results of research on the attractiveness of sea turtles as endangered animals encourage visitors to gain new experiences, add insight and as a campaign to protect sea turtles. Based on observations, the activities carried out by visitors are almost the same, including getting education, taking pictures, releasing hatchlings. From a cultural perspective, there have been changes in the use of turtle parts, which have been offset by conservation efforts undertaken. Central and local government policies are expected to be able to regulate the use of sea turtles that are developed in the form of quotas and a system of size restrictions. Quotas will limit the number of sea turtles used in religious and cultural events in certain areas, especially in Bali. Sea turtle conservation does not only emphasize "turtle breeding" but also management of sea turtle habitat and monitoring programs for turtles in nature. Based on this research the education component in ecotourism is desirable to develop positive attitudes towards tourists towards wildlife conservation and to ensure actions that support conservation. Sea turtle ecoturism able to collaborate: nature resources based; educational; tradisional cultur and is careful of the environment and conservation oriented. Based on the results of research communities around the turtle conservation area considers tourism development as one of the benefits of conservation areas. However, according to the community, turtle tourism activities in Bali and West Java are not new activities. The difference is that tourism activities used to be done in a limited way because the purpose of the area management is harvesting sea turtle eggs, while at present the tourism activity is one of the objectives of area management so that tourism activities are prioritized, can be seen in Table 7.

The Turtle Conservation and Education Center (TCEC) was built as part of a comprehensive strategy to reduce and eliminate illegal sea turtle trade in Indonesia, particularly on the islands of Bali. The TCEC also supports the community to find alternative livelihood solutions outside the sea turtle trade. The TCEC utilizes the potential of education, tourism, conservation and research with a business touch to provide new opportunities for threatened sea turtles extinct in Bali.This educational function aims to provide information to tourists who come about the importance of maintaining the survival of sea turtles and how to maintain and conserve the sea turtle's living habitat.

Table 7. Marine Tourism Sea Turtle Conservations Based on Bio-ecoregion

No	Location	Venue	Description
1.	Bali	Turtle nesting beaches, hatcheries and tourist turtle attractions	1. Turtle Conservation and Education Center in Serangan 2. Turtle Conservation in Gianyar 3. Turtle Conservation Saba Asri in Sanur 4. Turtle Conservation Yeh Gangga in Tabanan 5. Turtle Conservation Kurma Asih in Jembaran 6. Turtle Conservation Pemuteran in Buleleng 7. Turtle Conservation Tegal Besar in Klungkung 8. Bali Sea Turtle Society in Kuta 9. Turtle Conservation Penyu Delung Sari in Tanjung Benoa 10. Turtle Conservation Penyu MoonCot Sari in Tanjung Benoa 11. Turtle Conservation Bulih Bali in Tanjung Benoa 12. Turtle Farm in Tanjung Benoa
2.	Bali	Souvenir shops	1. Bali Sea Turtle Society in Kuta 2. Turtle Conservation Saba Asri in Sanur

In addition, the education function also functions to facilitate research activities related to sea turtles. Activities undertaken in the education function are research on the type and classification of sea turtles; research on the types and causes of sea turtle diseases. monitoring sea turtle nesting activities; releasing hatchlings into the sea, and observing sea turtles. The role of education in sea turtle conservation is to learn about the importance of sea turtles for the environment, culture, heritage, and economy of the people in sea turtle conservation areas. Conservation function is a function in which there are activities that can maintain the survival and breeding of sea turtles in order to increase the number of turtle populations. Activities undertaken in the conservation function are to see, touch and feed the turtle; releasing hatchlings into the sea; monitoring turtle nesting activities; and move turtle eggs to safe areas.

CONCLUSION

Based on the results of the reserach can be concluded as follows:

1. Marine tourism based on bio-ecoregion for sea turtle conservation determined by the suitability of the beach location. The socio-cultural aspect in Bali, sea turtles are used in religious ceremonies (Panca Bali Krama, *etc*.), which have experienced a shift towards conservation of responsible management of sea turtles.
2. The level of community-based environmental education in coastal areas and their role conservation sea turtle, the correlation coefficient for each variable is the variable attitudes (X_1) 0.546 category is moderate, awareness (X_2) 0.752

category is strong, action (X_3) 0.569 category is moderate and averange value X variabel is 0.622 category is moderate to relationship of the role of education in conservation of fisheries resources (Y).

3. Eco-tourism based conservative management scheme for sea turtle, lessons learned the economic aspect in Bali have been economic value, sea turtle eggs and meat can be consumed by humans, but now it has experienced a shift towards protecting sea turtle habitats that are protected and banned for consumption. The economic value obtained from sea turtles is the education of sea turtle tourism.

Acknowledgments

We are grateful for Faculty of Fisheries and Marine Science, Padjdajaran University for providing facilities and support. This research was funded through Unpad internal resources. Nomor: 1960/UN6.3.1/PM.00/2021

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Article history: Received: 06.11.2021 Revised: 07.03.2022 Accepted: 11.04.2022 Available online: 09.05.2022

GeoJournal of Tourism and Geosites
ISSN 2065-1198, E-ISSN 2065-0817

Year XV, vol. 41, no. 2, 2022, p.485-492
DOI 10.30892/gtg.41220-854

REGIONAL ASPECTS OF CREATION COMPLEX ROUTES ECOLOGICAL TOURISM ON THE TERRITORY OF NORTH KAZAKHSTAN REGION

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Citation: Dmitriyev, P.S., Fomin, I.A., Wendt, J.A., Ismagulova, S.M., & Shmyreva, O.S. (2022). REGIONAL ASPECTS OF CREATION COMPLEX ROUTES ECOLOGICAL TOURISM ON THE TERRITORY OF NORTH KAZAKHSTAN REGION. *GeoJournal of Tourism and Geosites*, 41(2), 485–492. https://doi.org/10.30892/gtg.41220-854

Abstract: To consider the possibility of developing ecological tourism in the districts of the North Kazakhstan region of the Republic of Kazakhstan, based on the conducted sociological research and the available natural and recreational potential. The analysis of the conducted sociological survey is given, using methods of statistical and mathematical processing. Visualization of the presented materials was carried out by means of mapping. The study and analysis of the data obtained allowed us to reveal the natural and recreational potential of the studied areas and determine the degree of their demand as objects for tourism development. The results of the sociological survey determined the possibility and necessity of the development of regional ecological tourism, the uniqueness of local natural and recreational facilities by respondents. A cartographic material has been prepared that clearly reflects the opportunities, problems and prospects for the development of the tourism industry in the region. The natural and recreational potential of the territory of the North Kazakhstan region is certainly of interest. Natural and recreational facilities that are potential for the development of the tourism industry in the North Kazakhstan region have been identified on the territory of the studied areas. The border position of the North Kazakhstan region makes it possible for tourists from Russia to visit it. The results of the sociological survey allow us to conclude that the study of the native land has a positive effect on the patriotic education of the younger generation, and is also one of the factors in the development of eco-tourism.

Key words: recreational facilities, natural objects, natural and recreational potential, ecological tourism, tourism industry, local history, sociological survey

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Introduction

The study of the state and development of ecological tourism and local history in the North Kazakhstan region of the Republic of Kazakhstan is one of a number of regional priorities (Dmitriyev et al., 2021b). The basis for the development of the tourism industry is the natural and recreational potential, the presence of cultural and historical objects of the studied region (Smykova, 2015; Abubakirova et al., 2016; Tiberghien, 2019; Wendt, 2020). The results of the sociological survey, analytical and statistical analyses revealed a number of indicators: the presence of potentially possible tourist sites in the studied areas, the interest of the younger generation in the development of eco-tourism, and others (Ignatov, 2011). The study of potential factors and conditions of the administrative districts of the region is necessary for the formation of ecological and agricultural tourism (Wendt et al., 2021). The analysis of the natural and recreational potential made it possible to identify objects already used or recommended for use in the tourism industry. Cartographic material that visually reflects the opportunities, problems and prospects for the development of recreational potential (Zhakupov et al., 2015; Dunets et al., 2019; Mikhaylova et al., 2022). The uniqueness of the natural resources of Kazakhstan and its historical and cultural heritage suggests great opportunities for the study and use of natural, historical and cultural sites,

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recreational potential, for the development of ecological tourism in the Republic of Kazakhstan, including in the North Kazakhstan region. Kazakhstan has the opportunity to actively develop eco-tourism. This is due to the fact that the wild beauty of the nature of Kazakhstan is very diverse and has not yet been too damaged by civilization. Therefore, there are many who want to appreciate the natural resources, breathe the clean air of the steppes, take a walk in the forest, look at the flora and fauna from the Red Book (Zhidkoblinova, 2013; Chlachula, 2019; Dmitriyev et al., 2021a).

In recent years, Kazakhstan has formed a legislative framework aimed at ensuring state regulation of the protection, balanced use and restoration of forests, wildlife, specially protected natural areas. The laws "On specially protected use of natural territories", "On the protection of the world cultural and natural heritage", will contribute to the development of ecological tourism, conservation of biological diversity, expansion of the network of specially protected natural territories (Nazarova et al., 2019; Chlachula, 2020). It is also necessary to take into account that eco-tourism is an eco-logical education, additional jobs for the population and income to the economy of the state (Syzdykbayeva et al., 2015; Aimagambetov et al., 2017; Batyrova et al., 2018). The North Kazakhstan region is one of the fourteen regions of Kazakhstan. There are 13 administrative districts on the territory of the studied region: Akkayynsky, Ayyrtausky, Akzharsky, Yesilsky, Zhambylsky, Kyzylzharsky, Mamlyutsky, M.Zhumabayev district, Musrepov district, Tayynshinsky, Timiryazevsky, Ualikhanov district, Shal Akyn district. The administrative center of the region is the city of Petropavlovsk. The physical-geographical and political-administrative situation of the region represent a number of features. The region lies in the north of the Republic within the southern outskirts of the West Siberian Plain, partially occupying the Kazakh small-scale forest known as Saryarka, the territory of a number of districts borders with Russia (Dmitriyev et al., 2021a).

Due to the peculiarities of the physical and geographical location and the geological past, the territory of the region is represented by a combination of forests, forest-steppe, steppe, has unique landscapes, relict natural objects, a number of paleoreks, a complex of bitter-salty lakes combined with fresh lakes, etc. (Vodopyanova, 1985; Beletskaya, 1987; Nazarova et al., 2020). Based on the study of the modified complex indicator of natural and recreational potential, an assessment of the administrative districts of the region was carried out. This made it possible to identify the most attractive areas for the development of eco-tourism. The proximity of the regional center with developed infrastructure and transport routes were one of the main additional criteria for choosing districts (Wendt and Bógdał-Brzezińska, 2018; Cerić and Więckowski, 2020). This makes it possible to consider the city of Petropavlovsk as a starting point for tourist routes, which is important for tourists arriving from Russia. The development of domestic and inbound tourism is one of the promising tasks of the development of the tourism sector of the economy of the North Kazakhstan region (Tulbayeva et al., 2017; Bancerova and Kasimova, 2018; Ismagulova et al., 2020).

MATERIALS AND METHODS

The paper uses: a sociological survey, the results of field research, methods of statistical processing and mathematical analysis, mapping. To assess the level of recreational potential of each district, a complex quality indicator calculated by the weighted average calculation method was used. To assess the level of recreational potential of each district, a comprehensive quality indicator was used, calculated by the weighted average calculation method.

$$k = \sum k_i \sum a_i \qquad (1) \qquad \text{Fomin et al., 2020}$$

where k_i- is an indicator of the i-th property of the object, points; a_i- significance coefficient of indicator sk_i, a fraction of one ($\sum a_i$=l).

On the basis of this methodology and available scientific materials and the results of a sociological survey, significance coefficients were calculated, which made it possible to assess the properties of a recreational facility in order to calculate its potential. By means of the research methods used, the obtained data characterizing the natural and recreational objects of the studied administrative districts of the region were studied, the most promising territories for the development of the tourism industry were identified. The mapping method made it possible to graphically depict natural objects, proposed routes (Semochkina, 2012; Baryshnikov et al., 2019; Dmitriyev et al., 2021b).

RESULTS AND DISCUSSION

As part of the study, a sociological survey of students from the districts of the region was conducted. 724 respondents took part in the survey. The formed questionnaire contains 22 questions that allowed to identify the presence of potentially possible tourist objects on the territory of the districts, the interest of the younger generation in the development of ecological tourism and others. The analysis of the survey results made it possible to draw a number of main conclusions.

1) Nature has a positive effect on the emotional state of students, which is confirmed by 79% of respondents.

2) 57.8% of all respondents prefer recreational tourism (both active and passive recreation, with the study of the surroundings).

3) 52.8% of respondents prefer tourism in natural areas.

4) Thanks to the study of the native land, the younger generation learns not only the natural resource potential, but also its environmental problems, which is confirmed by 71.6% of respondents.

5) 81% of students show interest in the development of ecological tourism in their native area, which indicates the need for further study of natural, historical and cultural sites, the formation of ecological trails and routes.

6) The territory of the districts of the North Kazakhstan region has unique natural and recreational facilities, which is confirmed by the responses of 78% of respondents.

In addition, according to the results of the survey, the score estimates of the natural resource potential of the districts were determined. Thus, the results of the sociological survey of students revealed a number of main aspects. Firstly, the interest of students in studying the natural and recreational potential of the region. Secondly, the importance and necessity of the development of ecological tourism, as part of active recreation, recreational, balneological and educational tourism, based on a comprehensive assessment of the territories of the region. Thirdly, the uniqueness of the natural resource potential of the studied areas has been confirmed, as well as the possibility of its use for the tourism industry of the studied region. Fourth, the respondents proposed ballroom assessments of the recreational potential of the territories of the administrative districts of the North Kazakhstan region. An assessment of the level of recreational potential of each district was given, based on a modified complex quality indicator obtained by weighted average calculation, according to 10 criteria, according to a 5-point system. This made it possible to present the studied material in the form of a table (Table 1).

The properties of recreational facilities are determined by a number of criteria. To which numbers are assigned. I - The development of the transport network. II - Geomorphological objects. III - Relic objects of nature. IV - Natural and recreational hydrological objects. V - Floral objects. VI - Attractiveness of landscapes. VII - Anthropogenic load of the recreational area, people/km^2. VIII - Biological diversity of fauna. IX - Historical objects. X – Landscaping of the territory.

Based on a sociological survey, a significance coefficient was obtained for each criterion (Table 1). Thus, the highest coefficient of 0.15 belongs to two criteria, the development of the transport network and unique natural objects. In second place, the criterion is the aesthetics of landscapes, it corresponds to a coefficient of 0.12. The third place is divided by criteria characterizing geomorphological objects, natural and recreational hydrological objects, faunal diversity and botanical objects, by 0.1. The coefficient characterizing the presence of historical and cultural objects is slightly lower. The assessment of anthropogenic load and the improvement of the territory accounts for a coefficient of 0.05.

Table 1. Assessment of the properties of a recreational facility (Source: the authors' own calculations)

Recreational facility property	Quantitative characteristic of the parameter of the object property indicator (ki), point					Significance coefficient of indicators (a_i)
	1	2	3	4	5	
I	Lack of roads with good coverage	Insufficient development of the transport network	Availability of roads of regional significance	Availability of roads of national significance	Good development of the transport network	0.15
II	Absence of geomorphological objects	Insignificant geomorphological objects	More significant Geomorphological objects	Unique geomorphological objects	Protected geomorphological objects	0.1
III	Absence of relicattractions	Ordinary relict Natural objects	More significant natural monuments	Unique relict monuments of nature	Relic objects protected by law	0.15
IV	The presence of visible contamination	Odour content	Compliance with the norm	Compliance with the standard for drinking water	Uniquely clean reservoirs with springs	0.1
V	Swampy, with sparse shrubs	Small woodlands and coniferous forests	Meadow vegetation	Mixed forest	Coniferous forests	0.1
VI	The lack of expressiveness of the landscape	Monotonous landscape	Expressive landscape	Picturesqueviews of thelandscape	Uniquescenic views of thelandscape	0.12
VII	Availabilityofindustrial objects	The presence of a network of rural settlements, the presence of landfills	Large area of agricultural land	The predominance of protected natural areas	A large number of unique protected areas	0.05
VIII	Insignificant species composition of fauna	The presence of species diversity of fauna	Significant species diversity of fauna	The presence of rare and endangered species of fauna	The presence of species from the Red Book	0.1
IX	Lack of attractions	Minor attractions	More significant attractions	Sights of artistic value	Attractions protected by law	0.08
X	Minor landscaping	Beach improvement	Availability of food outlets	Availability of overnight accommodation	Capital facilities	0.05

Analyzing Table 1, it can be concluded that among the main properties characterizing recreational facilities of the region, much attention is paid to natural resource potential, visual and aesthetic enjoyment of the natural environment, infrastructure development. This underlines the direct interest in the development of regional eco-tourism.

To identify the attractiveness of the territories of the administrative districts of the North Kazakhstan region, for the development of ecological tourism, a comprehensive assessment of the recreational potential was carried out according to 10 criteria, on a 5-point scale. The result is presented as (k), taking into account the weighting factor of the indicator (ai). The results of the evaluation calculations are shown in Table 2. This table shows the criteria used for Table 1.

The maximum score is 5 points. The ranking was carried out according to the sum of points, where 4-5 points are high, 2.5-4 average recreational potential. 1-2.5 points are insignificant, and less than 1 point is low recreational potential. When analyzing Table 2, it can be highlighted that there are no areas with insignificant and low recreational potential in the territory of the North Kazakhstan region. Areas with medium and high recreational potential prevail. The districts of Ayyrtausky, Kyzylzharsky, Mamlyutsky and Akkayinsky have one of the highest recreational potentials. Ayyrtausky district is characterized by the highest rating, good study and is already popular among tourists and residents of the region. However, due to the remoteness from the regional center, the Ayyrtausky district is not attractive for creating a tourist route for educational and cognitive purposes. In our study, we will not consider it, but will focus on three districts: Kyzylzharsky, Mamlyutsky and Akkayinsky, which have an additional criterion, proximity to the regional center. A slightly reduced criterion of attractiveness of landscapes is common for the three selected areas. At the same time, according to the degree of anthropogenic load, the Kyzylzharsky and Mamlyutsky districts are more attractive in comparison with Akkayinsky.

Table 2. Comprehensive score assessment of the recreational potential of the territories of the administrative districts of the North Kazakhstan region (Source: the authors' own calculations)

Criteria / District	I	II	III	IV	V	VI	VII	VIII	IX	X	Result k,taking into account(a_i)
Ayyrtausky	5	5	5	5	5	5	5	5	5	5	5
Kyzylzharsky	5	5	5	5	5	4	5	5	5	5	4.9
Mamlyutsky	5	5	5	5	5	4	5	5	5	5	4.9
Akkayinsky	5	5	5	5	5	4	4	5	5	5	4.85
Yesilsky	5	5	4	5	5	5	4	5	4	4	4.67
Shal akyna	3	5	4	5	4	4	4	5	4	5	4.22
Zhambylsky	2	5	5	5	3	4	3	5	4	4	4.02
Akzharsky	4	4	4	3	4	4	3	3	4	3	3.68
G. Musrepova	3	3	3	4	3	4	3	4	4	3	3.4
Tayynshinsky	3	3	3	4	3	3	3	4	4	3	3.3
M. Zhumabayeva	2	3	3	3	3	4	3	5	4	4	3.28
Timiryazevsky	2	3	3	3	3	3	3	4	4	3	3.03
Ualikhanovsky	2	3	2	3	2	3	3	3	3	3	2.6

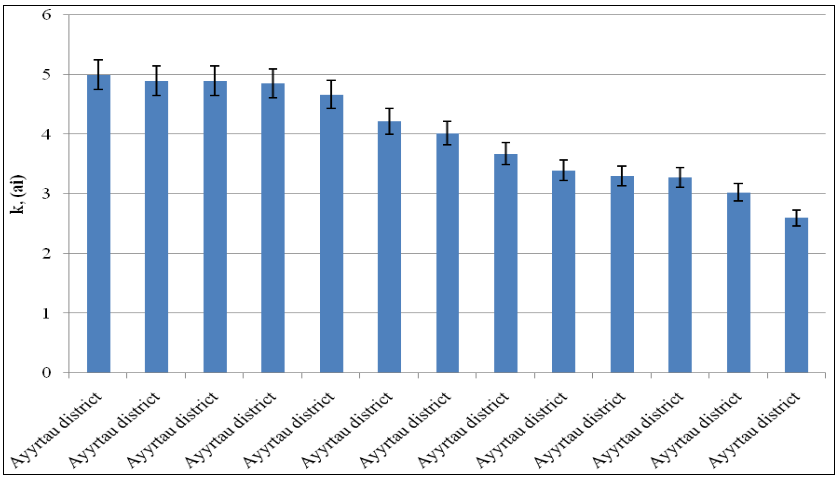

Figure 1. The level of recreational potential of the territories of administrative districts (k), taking into account the margin of error with relative errors. (Source: based on the authors' calculations)

The comprehensive assessment made it possible to graphically reflect the results of the level of recreational potential of the territories of the administrative districts of the North Kazakhstan region, taking into account the margin of error with relative errors (Figure 1). Thus, the North Kazakhstan region has a fairly high natural and recreational potential, a rich cultural heritage. It is necessary to study, preserve and use it for the development of domestic and inbound tourism (Werner, 2003; Kantarci, 2007a; Kantarci, 2007b; Kantarci, 2007c; Saparov et al., 2017; Tiberghien et al., 2017). Of no small importance is the study of the region within the framework of local history. The creation and development of ecological trails and tourist routes has not only recreational, but also educational significance, aimed at the formation of ecological and patriotic education (Teslenok et al., 2021). Within the framework of the conducted research, we identified the most significant and unique objects of the three identified areas, and attempted to form regional tourist routes (Ziyadin and Takhtaeva, 2014; Kuralbayev et al., 2016; Aliaskarov et al., 2017; Chernova and Sukhova, 2017; Aliyeva et al., 2019). Kyzylzharsky district is the northernmost district of the region and, accordingly, the northernmost point of Kazakhstan. The area of the district is 6.15 thousand km^2. The length of the highway network of republican significance is 212 km, 33 km - of regional significance. The district is located along the Ishim River. The relief of the district is dotted with numerous lakes. Most of the area is covered with forests. On the territory of the district there is a "Sogrovsky State Reserve", created in 1986 in order to preserve valuable species of animals and birds. It is a unique natural ecosystem and contains truly rare peculiar components of nature, which should become the object of in-depth scientific research in order to study the evolution of natural and anthropogenic landscapes. The territory is represented by birch and aspen spikes, swamps and broom, where about 160 species of mammals live. The fauna of birds, including migratory and wintering birds, exceeds 250 species, 106 species nest, including those from the Red Book (Dmitriyev et al., 2021a; Nazarova et al., 2020).

As relics of the cold climate, old pine forests have been preserved on the territory of the district: "Serebryany Bor" near the village of Bolshaya Malyshka and "Maly Bor" near the village of Sokolovka. On the territory you can find taiga landscapes, vegetation of broad-leaved forests, steppe landscapes, flood forests along the Ishim River with elements of tropical flora. Having analyzed the natural and ecological conditions of the region, the presence of specially protected natural territories, as well as historical and cultural objects, objects were proposed for the creation of tourist routes, a number of which pass through the territory of the Sogrov Nature Reserve (Figure 2). Route: the city of Petropavlovsk - the village of Bolshaya Malyshka ("Serebryany Bor") - the village of Dolmatovo. The total length is 165 km. The duration of the trip by road is 5 days with a possible extension. The main route is by bus to the destination, as well as horse, boat and hiking on the terrain.

Object of route No. 1 "Serebryany Bor", located near the village of Bolshaya Malyshka. Coniferous relict forest, is a State monument of nature of republican significance. Bor is surrounded by a birch forest forming a solid white ring, hence its name. In Bor there is a recreation center with the same name with the possibility of living in hotel houses. It offers a walk through the sights of the camp, an excursion to the "Serebryany Bor" and familiarization with the phytocenosis and zoocenosis, as well as the history of the forest as one of the relic phenomena of the past era. In summer, outdoor enthusiasts can play badminton, table tennis, football, volleyball or basketball.

Object of route No. 2 Camp of archaeologists, the settlement of the early Iron Age "Ak-Iriy". It is located near the village of Dolmatovo, 60 km north of Petropavlovsk, on the border with the Tyumen region of the Russian Federation. Tourists are offered: an excursion to the excavation of an ancient settlement, an entertaining competitive and game program, immersion in the ancient environment, the use of ancient household tools, handicraft classes, staged performances of the role-playing games club and accommodation in tents. The main base of the tourist village is located here - a tent city. Tourists are offered several main directions of tourist activity: historical and archaeological, ecological and cultural and educational.

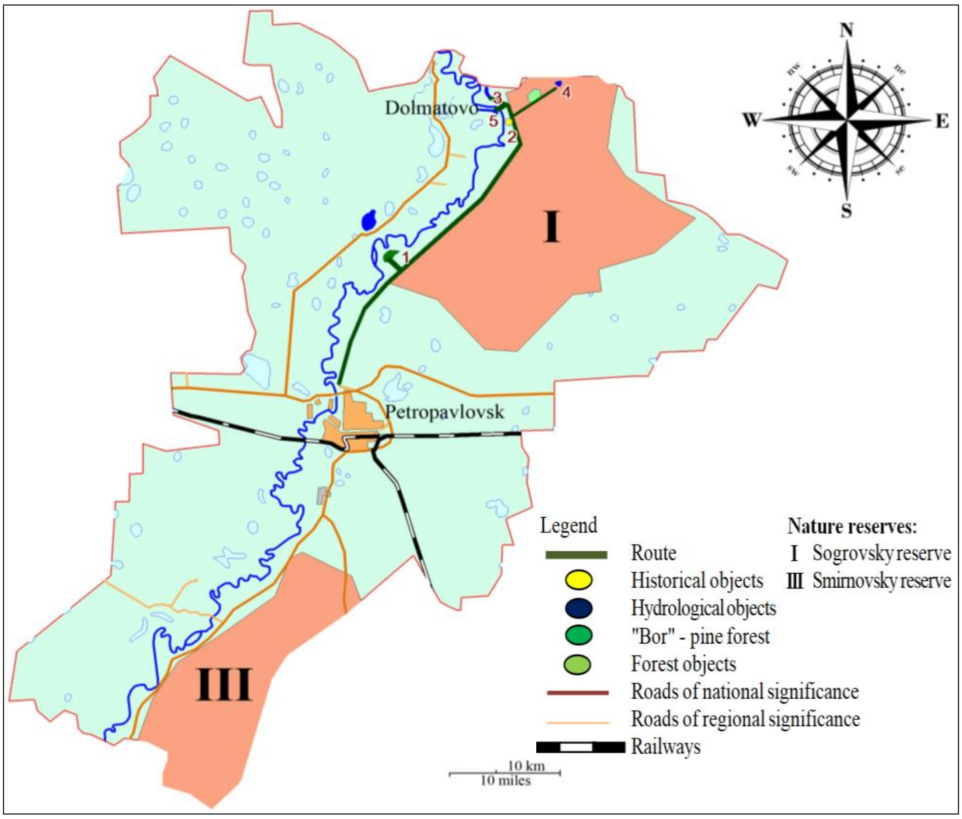

Figure 2. Route map "Petropavlovsk - Dolmatovo". Kyzylzharsky district (Source: own elaboration)

Object of route No. 3 Lake "Luzhansky Dolmat". The lake is located at a distance of 1.5 km from the village of Dolmatovo and about 4 km from the camp of archaeologists. The lake is very popular as a holiday destination among urban and local residents due to the amazing combination of water, forest and meadow systems. Local sunsets have a magical power that does not allow you to look away. Hikes of the local school for the study of floral diversity are held quite often. Local residents also use the lake for commercial purposes for fishing. The basis of the object of tourism is a lake, a birch-aspen small forest and a spacious grass meadow. There is supposed to be a second tent city at the request of tourists. There are specially equipped places for a campfire and tents. On a mandatory basis - competitive and gaming leisure activities. A horse-drawn route is offered to travel to this object.

Object of route No. 4. Lake "Gornyi Dolmat". The lake is located at the foot of the "Dolmatovsky Kruchi", strewn with caves and thickets of blackberries, hawthorn, rose hips and wild raspberries.

The hike is supposed to be on foot, through the forest "Chasha", with an exit from the camp of archaeologists (500 m). The route runs through a meadow, bypassing pine plantations "Sosenki". Then along the cliff to the gentle slope, on the field road to the border with the Russian Federation. The total length of the route is 3 km. At this stage, it is based on the study of the patterns of landscape change. It is noteworthy to get acquainted with the "Dolmatovsky Kruchi", which are a paleontological monument of nature near the village of Dolmatovo, with a slope height of 25-50 m. This is an outcrop of indigenous continental rocks of Paleogene-Neogene age, composing the Ishim-Irtysh interfluve.

Object of route no. 5. The lake "Kamennoye" occupies a space with an interweaving of birch small forest and grass meadows. On the shore of the lake there are thickets of berry bushes: wild raspberries, blackberries, currants, boneberries, hawthorn and cherries are found. There is a beach on the lake. Boat crossing across the Ishim River from the camp, then hiking is planned (1.5 km from the camp). The Kamennoye Lake is located on the left bank of the Ishim River from the village of Dolmatovo. There is a platform for a tent city. On the other side of the lake there is a recreation area "Maloe Abakshino".

The presented recreational facilities and rich history make it possible to develop recreational, ecological, cultural-historical, cognitive and educational tourism. The proximity of the regional center makes the Kyzylzharsky district even more attractive for the tourism industry. Thus, statistics and research materials distinguish the Kyzylzharsky district as the most studied and the most promising for the development of the tourism industry, among the three designated areas.

Mamlyutsky district borders with the Russian Federation. The length of the network of public roads in the district is 403.4 km, including 93 km of roads of republican significance, 105 km of regional significance, 205.4 km of district significance. 50% of the roads are paved with asphalt, 32% are paved with gravel and 18% are unpaved roads. The area of the district is 4.10 thousand km^2. The Mamlyutsky State Reserve is located on the territory of the district, its area is 524 km^2. Pine and birch trees grow from woody vegetation; from shrubs - bagulnik and cranberry. This site, rare for the forest-steppe zone, is a relict, characterizes the taiga and tundra zone. Many species of wild animals live on the territory of the reserve. A large number of birds nest in the forests and lakes of the reserve. A number of plants are listed in the "Red Book"(Dmitriyev et al., 2021a; Nazarova et al., 2020). The studied unique and significant natural and ecological conditions of the Mamlyutsky district allow you to create a route (Figure 3).

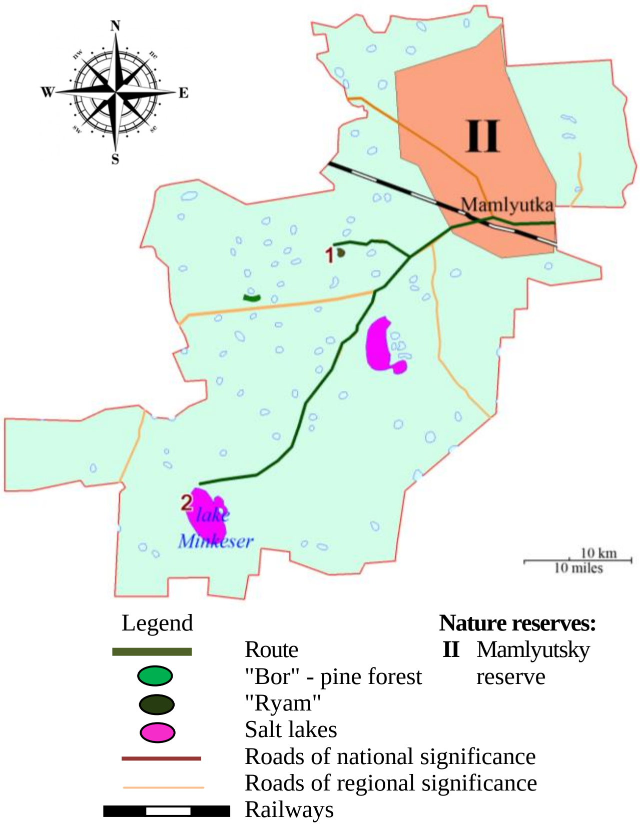

Figure 3. Route map "Petropavlovsk - Lake Minkeser". Mamlyutsky district (Source: own elaboration)

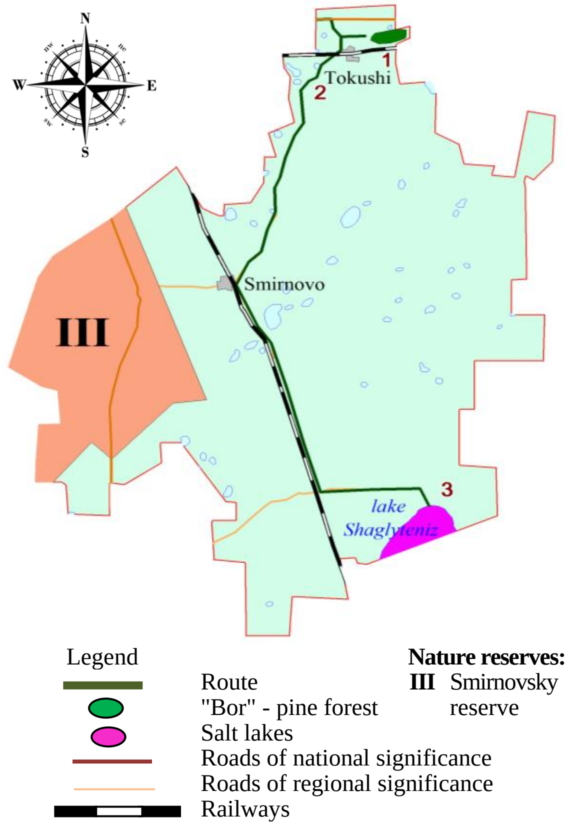

Figure 4. Route map "Petropavlovsk – lake "Shaglyteniz" Akkayynsky district (Source: own elaboration)

Route: Petropavlovsk - sphagnum swamp "Ryam" - "Black birches" near the village of Mikhaylovka - lake "Minkeser". The total length of the route is 217 km. The duration of the trip by road is 5 days with a possible extension. The main route is by bus to the destination, as well as cycling and hiking in the area.

Object of route No. 1 is the Sphagnum swamp "Ryam", located near the village of Afonkino, 66 km from the city of Petropavlovsk. Ryam is a unique place of the region, the remnants of the tundra that remained after the movement of the glacier testifying to the ice age in Kazakhstan. This is a relic of the Ice Age with one of the southernmost places of moss growth-sphagnum. This will serve for the realization of cognitive and educational goals.

Object of route No. 2 - Lake "Minkeser" is a unique bitter-salty lake, known for its healing sulfide mud. It is located 85 km southwest of Petropavlovsk. Salt water treats many skin diseases, facilitates the course of psoriasis, improves metabolism, and the therapeutic mud of the lake helps with diseases of the musculoskeletal system, which attracts the local population and tourists (Kalugin et al., 2019). The identified and studied unique objects of the district make it possible to develop ecological, educational and balneological tourism.

Akkayyn district borders on Kyzylzhar district in the north. The length of the highway network of republican significance is 51.8 km, 104.1 km - of regional significance. The area of the district is 4.71 thousand km^2. The territory of the district is a plain, which is disturbed by the westerns of lakes and the bed of the Kamyshlovka River, which has dried up at present. There are no rivers in the area, the natural reservoirs of the area are both fresh and salty lakes. Most of the territory is represented by the steppe zone. Accordingly, the forest fund is represented by a smaller share, in contrast to the Kyzylzhar and Mamlyut districts. The Smirnovsky State Nature Reserve is located on the territory of the district. This is one of the most interesting objects of the district, the largest nature reserve in the region, with an area of 240 thousand hectares. The predominant landscapes are flat plains of the West Siberian lowland, occupied by massifs of pine and birch-aspen forests. Lakes serve as nesting grounds for waterfowl. The natural and ecological conditions of the region suggest the creation of a route based on the selected objects (Figure 4).

Route: Petropavlovsk - Tokushi village ("Lake paradise" – "Sosnovyi Bor" - Shaglyteniz lake. The total length is 153 km. The duration of the trip is 5 days. The main route is by bus to the destination, as well as cycling and hiking in the area.

Object of route No. 1 Pine Forest (area 260 km^2) is a natural monument of republican significance with well-preserved artificial pine plantations in the North Kazakhstan region, created in 1905. It is supposed to stay in tents, hiking in the forest on foot.

Object of route No. 2 “Lake Paradise” (Tokushi village) is located 46 km from the regional center – the city of Petropavlovsk. This is a series of lakes near the village of Tokushi: Pridvornoe, Domashnee, Pestroe, Gorkoe, Chisten’koe, Severnoe, Tavrichanka, Kazach’e, Bashkirskoye, Krabtsovo, Bol’shie Tokushi, Malye Tokushi, Bol’shoe Dolgoye, Maloe Dolgoye, Bol’shoi Kokterek, Malyi Kokterek and others. Due to its natural scenic beauty, the object is attractive to tourists. Hiking between the lakes - cycling, accommodation in a tent camp.

Object of route No. 3 Lake "Shaglyteniz" is the largest lake in the area, surrounded by swampy terrain. There are many waterfowl on the lake. The lake is used as a fishing lake. Due to the beauty of the picturesque area, it is attractive for tourists.

The description of the unique objects allows us to state that the Akkayynsky district is of interest from the point of view of ecological, cognitive and educational tourism.Summing up, we can conclude about the attractiveness of the natural and recreational potential of the North Kazakhstan region as a whole for the development of the tourism industry. The allocated three administrative districts of the region have a greater degree of attractiveness. These are natural aesthetics, cultural and historical attractiveness, the availability of biological resources (flora and fauna), mineral resources (mud of bitter-salty lakes), balneological resources, the development of the transport network. The main addition is the unique attractiveness of the landscapes of the territories. The role of the Sogrovsky, Smirnovsky and Mamlyutsky nature reserves is great for the conservation of biological diversity, the development of tourism and for the formation of environmental education and education. (Dmitriyev et al., 2021a; Dmitriyev et al., 2021b; Nazarova et al., 2020; Nazarova, et al., 2021).

CONCLUSION

The natural resource potential of the territory of the North Kazakhstan region is certainly of interest. The results of a sociological survey of students and their comprehensive assessment of the recreational potential of the districts of the region allowed us to identify the most promising objects and territories of the region. This will contribute to the development of the tourism industry in the region, as well as environmental education and patriotic education of the younger generation. The diversity of landscapes and reservoirs, unique natural and historical and cultural objects, the presence of protected areas, developed transport routes of the districts indicate the possibility of developing both domestic and international ecological tourism. In addition, the border position of the region with the Russian Federation makes it possible for tourists from Russia to visit it (Tleubayeva, 2018; Dmitriyev et al., 2021b). According to the results of the study, it was revealed that the Ayyrtausky district is characterized by good study and popularity among tourists and residents of the region. This is due to the development of tourist infrastructure, due to the large number of resort areas. Kyzylzhar district is the most promising for the development of recreational, ecological, cultural, historical, educational tourism, thanks to a developed network of unique natural objects. Mamlyutsky district is of interest for the development of ecological, educational and balneological tourism. Akkayynsky, despite the lack of developed recreation areas and the presence of a smaller number of respectable tourism facilities, is interesting as an ecological and educational tourism, which is facilitated by the uniqueness of the landscapes, fauna and flora of the area. The proposed tourist routes will contribute to the study and preservation of the natural environment, as well as the education of the ecological outlook of the students, their environmental literacy and a sense of patriotism. The formation of the tourism industry will create new jobs, attract additional investments, which is an important economic factor in the development of the region.

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Article history: Received: 09.12.2021 Revised: 08.03.2022 Accepted: 12.04.2022 Available online: 09.05.2022

GeoJournal of Tourism and Geosites
ISSN 2065-1198, E-ISSN 2065-0817

Year XV, vol. 41, no. 2, 2022, p.493-501
DOI 10.30892/gtg.41221-855

ANALYSIS OF THE REALITY OF THE TOURIST MOVEMENT IN ALGERIAN COASTAL CITIES. CASE STUDY OF THE CITY OF ALGIERS

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Citation: Lamine, D., Rezzaz, M.A., & Kherrour, L. (2022). ANALYSIS OF THE REALITY OF THE TOURIST MOVEMENT IN ALGERIAN COASTAL CITIES. CASE STUDY OF THE CITY OF ALGIERS. *GeoJournal of Tourism and Geosites*, 41(2), 493–501. https://doi.org/10.30892/gtg.41221-855

Abstract: Geographical research has been concerned with tourism studies in terms of studying the characteristics of tourist groups: their satisfaction, attitudes and level of awareness. The use of the behavioral approach became preferred by planners to know the desires of tourists to reach a realistic tourism strategy based on the opinions of the tourists themselves. This research aims to study the characteristics of the tourism movement in the city of Algiers, in order to identify the impressions of tourists about the visit and the most prominent problems they face in the development of tourism in the study area. The topic of the research deals with tourism movements by following the descriptive and analytical approach. Accordingly, the study concluded that the most promising type of tourism in the region is ecological, cultural and recreational tourism, and the summer and spring seasons represent the preferred seasons at the level of tourist movement, while tourists are from the northern states. - The central region constitutes the largest proportion of the number of tourists coming to the region, as the group predominates over young women between (26 - 39) years old, the majority of the number of tourists, and cars are the most widely used means of transportation.

Key words: Algiers; the tourist movement; the satisfaction of tourists; the tourist offer; Tourism development

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INTRODUCTION

Tourism is a leading industry to boost growth and active construction of a dynamic structure economically, culturally and socially (Bouadam, 2011). With the global increase in tourist flows, cities are becoming more attractive, but also face a double challenge (Roxana, 2013). Theoretical debates on the rebirth of cities placed a unique emphasis on creativity as a catalyst for urban innovation, regeneration and renewal, thus highlighting it as a key element in contemporary network or knowledge societies (Greg, 2014). Furthermore, the contribution of the tourism sector to both the world GDP and the provision of employment is increasingly high (Abdul, 2018). Urban tourism has emerged as one of the most important types of tourism in the last two decades (Cecilia, 2017). In support of the increase in competitiveness between the world's cities, particularly in terms of tourism, the image of the city as a brand has become a strategy through which the city is created as an urban product (Cheniki and Baziz, 2020). The rehabilitation of urban spaces is a promising operation that contributes socially, economically, physically and aesthetically to the regeneration of local urban environment and leisure activities (Diafat et al., 2002). The city and tourism are historically interconnected (Boualem, 2007). However, tourism impacts the city, particularly historic centers. The phenomenon is the origin of a well-established research axis, to which significant contributions have been made since the 1980s. It also emerges recurrently in the work of major educational institutions for heritage and urban development (María García - et al., 2017).

Algeria is a rich country with a diversified tourism potential, which unfortunately is not properly exploited. Meanwhile, the country aims to become a coastal tourist destination with 1,200 km of coastline that enjoys sunshine all year round (Louardi et al., 2020), this country is one of many countries with an abundant, rich and diversified urban heritage, stemming from the multiple civilizations that succeeded each other and its varied natural environment. This heritage can be exploited through sustainable tourism activities while taking into account the various global requirements of tourism management (Foued and Sawsan, 2019). The coastal area in Algeria is one of the richest geographical entities in terms of resources (economic, landscape, infrastructure, population) (Eleanor, 2020). An important factor contributing to the economic growth and development of cities and societies around the world is the tourism sector (Mohamed, 2015). Indeed, this sector became a major axis of architectural and urban projects in developing countries and is increasingly

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becoming crucial for the economic developments of North African countries. In fact, a huge global demand for tourist areas has emerged (Khettou and Razin, 2020). The urban tourism is a healthy environment (Mohamed, 2012). In the context of urban tourism, leisure and entertainment zones are presented as a tangible and integrated natural, historical, urban and human attraction, in addition to the existing facilities, services and constructions that could influence the targeted destination of visitors and the duration of their visit (Foued and Sawsan, 2020). This research aims to study the characteristics of the tourism movement in the city of Algiers, in order to identify the impressions of tourists about the visit and the most prominent problems they face for the development of tourism in the study area.

MATERIALS AND METHODS

In this section, we will describe the elements studied in the field in a precise manner and in a logical order. This description is limited to those elements that allow for an understanding of the study presented in this research, as follows:

SITE OF THE STUDY

Algiers capital of Algeria is expected to modify its image and scope on an increasingly extended and versatile territory. Indeed, the city governed by metropolization process and marked by spatial, socio-economic and political changes, changes its initial functioning (Keltoum, 2018), this city is a territory with a natural site and an urban history. It is located in the northern region of the country with an area of 809.22 km², administratively structured in 13 districts including 57 municipalities. It is limited by the Mediterranean Sea on the one hand and by the Atlas Tellien on the other hand, its layout is also sloping, with the lowest altitudes located on the sea side. This confers Algiers a form of amphitheater, with its coastal part as a stage, and the terraces which are the extensions of the city center, and on the heights certain secondary centers (Linda, 2021). There are many interesting things to see and do in Algiers, and visitors can learn a lot about Algeria’s history and culture the many museums dotted around the city. Algiers’ museums are certainly worth visiting. In addition to the museums, Algiers has many public buildings of interest, including the whole Kasbah quarter, the Roman Catholic Cathedral, and the Grand and New Mosques. Algiers is built on the slopes of the Sahel Hills, which parallel the Mediterranean Sea coast, and it extends for some 10 miles (16 km) along the Bay of Algiers. The city faces east and north and forms a large amphitheatre of dazzling white buildings that dominate the harbour and the bay.

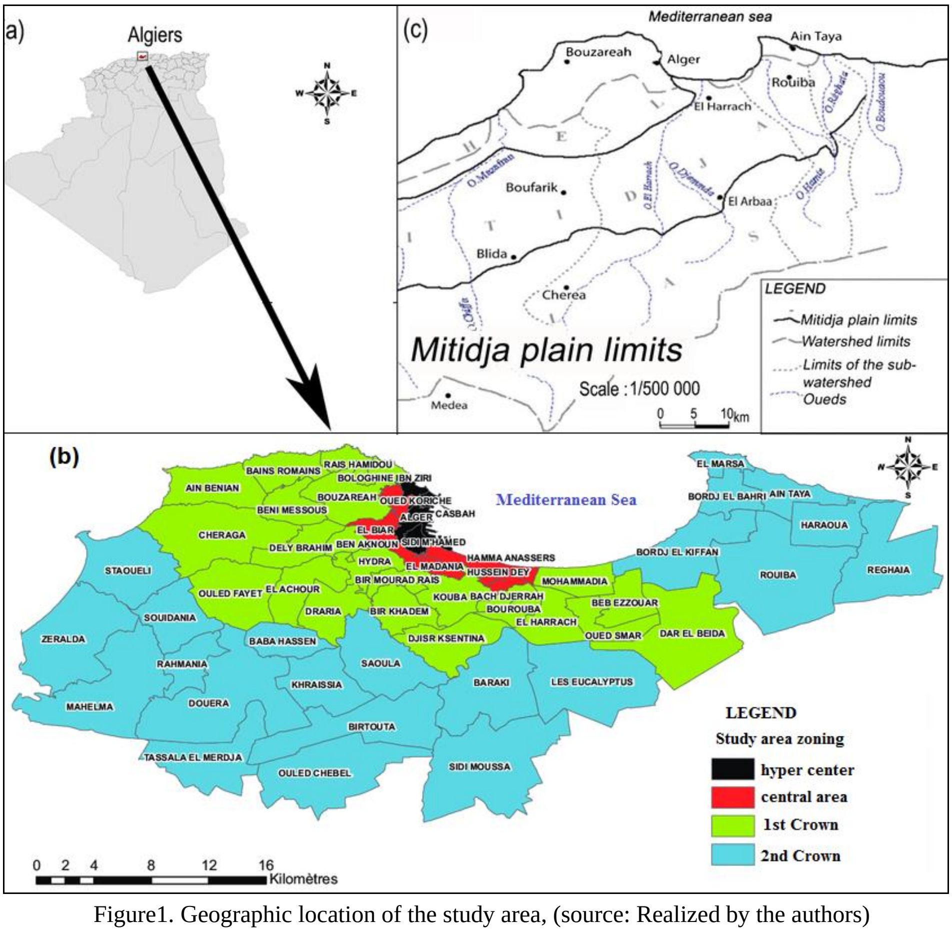

Figure1. Geographic location of the study area, (source: Realized by the authors)

RESEARCH METHODOLOGY

To investigate the reality and characteristics of the tourist movement in Algiers, a field survey was conducted using a questionnaire from 23/05/2021 to 11/06/2021. The studied sample is composed of 150 tourists randomly selected, gathered in four tourist areas of Algiers (Figure 2): Sablat Park, Trial Garden of El Hamma, Martyr's Memorial and the Kasbah old. The reason why we have chosen the tourist sites in figure 01, because they combine history and nature and are also important attractive sites for local tourists, the sites of the Kasbah and the Martyrs Memorial express the role of man, his great abilities and the level of civilization attained

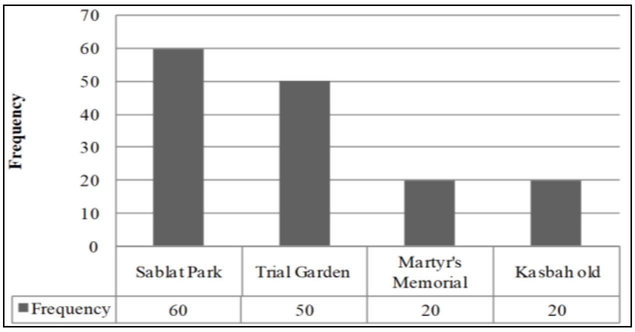

Figure 2. Distribution of tourists in the studied sites (Source: Achievement of authors according to field investigation 2021)

by the peoples, while the Experimental Garden plays a natural role that affects man, his activities and interactions with the environment, while the authorities have realized the Sablat site for entertainment and leisure. According to figure 1, it is clear that the tourist attraction on the experimental garden was in first place compared to the rest of the sites, because of the environmental role played by the natural gardens and preferred by Algerian families to discover biodiversity and nature. The park of Sablat comes in the second class because of its entertainment role especially since it is located at the shore of the sea.

SITES AFFECTED BY TOURIST MOVEMENT

The eminent tourist sites targeted by the visitors (Figures 1, 2, 3 and 4) are those which combine cultural, ecological and recreational tourism. These sites which form with the city of Algiers a coherent whole can be classified or are likely to contribute to its preservation or its improvement in the same way. The following are the most prominent and famous places that stimulate tourism in Algiers, which they studied:

a) **Sablat Park** (Figure 3): Is part of the development project of Oued El-Harrach, which is a public facility and a park for the benefit of visitors, as it includes green areas and recreational facilities, in order to provide relaxation and recreation to citizens who go to public places to spend their free time. It includes many tourist facilities, such as green areas dedicated to rest and recreation.

b) **Trial Garden of El Hamma** (Figure 4): Is one of the most important tourist places in Algiers, where the garden is a natural museum, as the garden includes more than 2,500 species of plants and perennial trees for hundreds of years, as well as more than 25 types of palm trees, as well as a French-style garden and another in the style The British park, and includes the Hama Zoo, while the park is characterized by its wonderful climate and is one of the best tourist attractions in Algeria.

c) Kasbah old (Figure 5): Is a unique kind of medina (figure 4), or Islamic city. It stands in one of the finest coastal sites on the Mediterranean, overlooking the islands where a Carthaginian trading-post was established in the 4th century BC. There are the remains of the citadel, old mosques and Ottoman-style palaces as well as the remains of a traditional urban structure associated with a deep-rooted sense of community. It is the archaeological old part of the capital Algiers, called the old city, and is considered a UNESCO World Heritage site, and expresses the authenticity of Algerian culture. It is characterized by its narrow alleys, adjacent houses, simple shops, the spread of small craft workshops and a number of museums and symbolic places associated with the Algerian revolution

d) **Martyr's Memorial** (Figure 6): Emblem of the city of Algiers, erected in 1982 in memory of the martyrs of the war of independence overhangs the city of Algiers and more particularly the commune of Belouizdad (ex. Belcourt) with the Garden of test and the national library. Memorial of the Martyr is composed of 3 stylized palms 92 meters high from the ground, topped by a turret of Islamic style with a diameter of 10 meters, a height of 25 m would be topped by a dome of 6 meters. It rests on an esplanade where an eternal flame burns and where we find the museum of combat.

Figure 3. Sablat Park

Figure 4. Trial Garden of El Hamma

Figure 5. Kasbah old

Figure 6. Martyr's Memorial

STUDY INSTRUMENT

Given that the study sample size is unknown, three variables (gender, age, monthly income) were used as key factors to extract the sample size. This was accomplished based on the 0.95 confidence level using the following equation (Martin Terre et al., 2007): **N= (ZS) ²/ D²**

N: Sample Size
S: Standard deviation
Z: Confidence level probability 0.95
D: Margin of error at confidence level 0.95×

The equation has been applied as follows: The sample size using sex variable: **N= (1.96×0.485)2 / (0.04)2=565**

Sample size using age variable: **N= (1.96 × 0.79)2 / (0.06)2 = 614**

Sample size using monthly income variable: **N= (1.96×2.77)2/ (0.22)2 = 609**.

Once the questionnaires were collected, the data, from 150 questionnaires, were uploaded into the SPSS statistical analysis program, and processed to extract means, ratios, and tables for the results analysis. The questionnaire was designed according to the scope of the study to identify the reality and characteristics of the tourism movement in Algiers and its most important trends. It included 22 questions.

Part 1: consists of general information on the social and economic characteristics of tourists visiting Algiers including variables such as: gender, age, marital status, number of family members, nationality, level of education, occupation, total monthly income of the Algerian family and place of residence.

Part 2: It includes a set of questions about the trip and its characteristics. These include: What is the nature of your visit? How often do you visit Algiers? At what time of day do you prefer to visit Algiers? In what season of the year? What are the resources involved in the visit? What is the duration of your stay in the city? The length of your stay/number of nights and what are the reasons that prompted you to visit and the transportation means used to visit Algiers?

Part 3: It consists of a series of questions about the places visited in Algiers and the willingness to return, impressions of the various services provided during the visit and the degree of satisfaction and evaluation of these services, as well as problems and obstacles encountered during the visit to Algiers.

STUDY FINDINGS AND ANALYSIS

This part deals with the basic elements of fieldwork, presenting the data that form the basis of its investigation, and is shaped as we have thought.

TOURIST INFORMATION

Figure 7 shows that the economic characteristics and their difference according to the frequency zones of the city of Algiers are as follows:

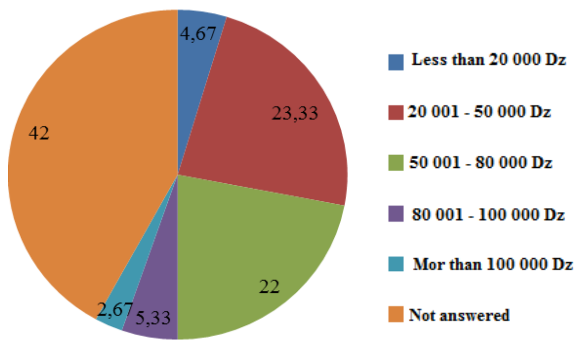

Figure 7. Monthly income of the study community
Source: field investigation by the authors 2021

- Monthly income (D.dz): Tourist movements increase during periods of economic growth and decrease during periods of economic decline. The study revealed that the higher the income, the higher the rates of tourist movement and spending on tourist services. According to the results presented in (figure 3.) 42% of the respondents did not answer the question on monthly income. The sample is composed of students and housewives with no specific monthly income, followed by 23.33% of the respondents with monthly income between (20,000 DZD to 50,000 DZD), and followed by 22% of the respondents with income between (50,001 DZD to 80,000 DZD), the majority of who are employees. Followed by 5.3% of respondents whose monthly income is between (80,001 DZD to 100,000 DZD) and 7% of respondents whose monthly income does not exceed the amount of 20000, and 4% of respondents represent whose monthly income is between 1000 000. Tab.1: General information about the tourist movement in the city of Algiers.

The social characteristics of the study community are shown in Table No. 1, as follows:

- Gender: After analyzing the data on the gender variable, the percentage of women is higher than that of men, i.e. 62.7% for women and 37.3% for men. This is due to economic and social liberalization providing women with a greater opportunity to visit tourist areas. In addition, the percentage of female workers is higher and the questionnaire distributed to families resulted in a much higher response rate from wives than from husbands.

- Age variable: Based on the data collected, the most involved age group in tourism is 26-39 years old, with 50%. This is due to their employment stability and high income and also to their desire to enjoy their youth by organizing tourist tours with family and children and thereby educate their children to the concept of taste, contemplation and develop a sense of aesthetics. The following age group is the category of < 25 years with 28%. This group includes young people attending universities, colleges and scientific centers, coming from different cities and villages to study in the capital. Therefore, whenever they have free time, they seek to enjoy their stay with friends to relax and escape from academic pressure. However, this age group tends to engage in tourist activities that are less expensive either in transportation or leisure services. Meanwhile, 18% of participants are in the 40-59 age group, considered a small percentage compared to the younger age group. However, most of the senior group's motivations for tourism include enjoying the company of family and children and are characterized by career stability. Furthermore, the last group to participate in tourism is the > 60 years old, estimated at 4% of the total study sample.

- Marital status: From the marital status variable data presented, it can be noted that there is a discrepancy in the percentage of tourists coming to Algiers. A majority of tourists are married, i.e. 57.3%, due to the availability of family-friendly places with various leisure facilities. These places are designed for children and, therefore, family tourism is prevalent in these areas. Single people account for 40%, most of them are students coming from different provinces for academic and scientific reasons, and also for tourism purposes. Divorced people represent 2%, while the percentage of widows is only 0.7%.

- Family members: Upon analysis of the family members, the variable shows that: 53.3% of the sample indicates family members between 4 to 8 members, while 27.3% of the sample indicated less than 3 family members, representing the modern families, i.e. the newly married couples and 9.3% of the respondents reported more than 9 family members representing large Algerian families.

- Nationality: Based on the collected data, the capital is visited by a few foreign nationalities; we have found that 93.3% of the tourists are Algerian from the interior of the country. Therefore, the dominant type of tourism is domestic tourism. 0.7% and 1.3% of the respondents with dual nationality are Algerian-Canadian and Algerian-Tunisian respectively. In addition, foreign nationalities include Syrian with 3.3% of respondents, and Egyptian and Sahrawi, with 0.7% of respondents each. The main reason for their presence is study and work purposes, whereas the Syrians' motives are the search for stability, security and escape from the war.

The decline and absence of tourists of foreign nationality is due to the outbreak of Corona disease, which led to the suspension of air transport and hinder the influx of foreign tourists in the country, especially in the city of Algiers, and therefore the tourism movement stopped during this period.

- Academic level School: The study indicates that people with higher education levels present more activity and willingness to explore, visit places and enjoy tourism, 66% of the study sample consisted of tourists with university degrees such as PhDs and Master's degree graduates. This indicates an increase in tourism awareness among this category of tourists. 21.3% of the study sample attended high school, 8% attended middle school and 2.7% attended elementary school.

- Occupation: When employment opportunities are available, tourism movement increases and tourism spending rises, and conversely. When a person is unemployed and has no income, tourism movement remains stagnant or even non-existent, and as shown in Table 1, it is clear that there is a correlation between employment and tourism since the profession plays a clear role in the incentive and encouragement of travel and tourism. Employees' category represents the highest percentage with 42.7% of the respondents, while the unemployed percentage reaches 28% of the respondents mainly housewives and some groups of unemployed. Students traveling to tourist places amount to 14% of respondents and 12.7% of respondents working in the private sector, while the percentage of retired people is estimated at 2.7% of respondents.

- Place of residence: Understanding tourist travel patterns is critical to planning transport development in Algiers and between the provinces.

Table1. The social characteristics of the study community (Source: Achievement of researchers according to field investigation 2021)

Variables	Frequency	%
- Gender		
- Female	94	62.7
- Male	56	37.3
- **Age Group**		
- Younger than 25 years old	42	28
- From 26 to 39 years old	75	50
- From 50 to 59 years old	27	18
- Older than 60 years old	06	04
- Marital status		
- Unmarried	60	40
- Married	86	57.3
- Widow	1	0.7
- Divorced	3	02
- Family members		
- Less than 3 persons	41	27.3
- From 4 – 8 persons	80	53.3
- More than 9 persons	14	09.3
- With no children	15	10
- Nationality		
Algerian	140	93.3
Algerian – Canadian	1	0.7
Algerian – Tunisian	2	1.3
Syrian	5	3.3
Egyptian	1	0.7
Republic Saharan	1	0.7
- Academic level School		
Primary	4	2.7
Middle School	12	8
High School	32	21.3
University	99	66
Other Colleges	3	2
- Occupation		
Students	21	14
Employees	64	42.7
Private Sector	19	12.7
Retired People	04	02.7

According to the study in the field, most of the tourists visiting the capital are Algerian, and therefore live in different provinces of the country (Table 2). This implies an active domestic tourism. However, during the study, few foreign tourists were encountered travelling to Algiers for tourism purposes, due to the current circumstances and the epidemic of Covid-19, This resulted in an almost total absence of the international tourist movement in this period, with the exception of a few foreigners residing in Algiers, including Syrians, Egyptians, and Sahrawis who visit to work and seek stability and security.

Table 2 reveals that tourists from the provinces of the North Central region ranked first in terms of tourist movements and visits to the study area by 57.3% of respondents. This is due to the short distance between these provinces and Algiers, unlike the provinces of other regions of the country. The provinces of the Highlands region come in second place with 12% of respondents, with the largest influx coming from the province of Setif. In third position, with 9.3% of respondents, are tourists from the provinces of the North-West region, while the fourth position is for tourists from the North-East region with 8.7% of respondents. In fifth place came the tourists from the provinces of the Central Highlands and the provinces of the Southeast region with 4% of respondents, and tourists from the provinces of the Southwest region flowed to the capital with 3.3% of the study sample, and finally the last ratio reached 0.7% of respondents were recorded for each of the tourists from the provinces of the Western Highlands and the Deep South regions.

The survey data analysis enables to conclude that the movement of tourists in the southern provinces is very low compared to the central plateau and eastern provinces, due to the distance between the southern regions and the study area on the one hand and the high cost of travel on the other hand. Despite these difficulties, there is an influx from most of the country's provinces to Algiers, due to the province's rich natural and historical features that attract the tourist movement.

Table 2. Distribution of the study sample by place of residence (Source: Achievement of researchers according to field investigation 2021)

Provinces	Region	Frequency	%
(Guelma - Souk Ahras - El Tarf - Constantine - Mila - Annaba – Skikda)	Northeast Region	13	8.7
(Tipaza-Algérie-Blida- Bouira - Boumerdès - Ain Defla - Tizi Ouzou - Chlef - Bejaia – Medea)	North Central	86	57.3
(Mostaghanem - Tlemcen - Guélizan - Ain Temouchent – Oran)	Northwest Region	14	9.3
(Sétif - Tébessa - Batna - Khenchela - Bordj Bou Arreridj)	Eastern Hautes Plaines Region	18	12
(Djelfa - Al-Masila)	Central Hautes Plaines Region	6	4
(Tiaret)	Western Hautes Plaines Region	1	0.7
(OuedSouf - Biskra – Ghardaïa)	Southeast Region	6	4
(Tamanrasset)	Great South Region	1	0.7
(Tindouf - Bachar – Adrar)	Southwest Region	5	3.3
The influx of tourists from 37 Wilayas	Total	150	100

CHARACTERISTICS OF EXCURSIONS IN ALGIERS

The study aimed to provide information on the nature of tourist trips in terms of transportation, number of visits, place of residence, and length of stay. We have noticed from the results of Table 3 the following:

- Nature of visits: The study revealed different nature of visits to Algiers, with 74% of respondents visiting leisure and nature areas with their families and friends. Individual visits account for 14.7% mainly including workers and students. Group tourism is estimated at only 6%.

- Number of visits: As for the variable number of visits, tables 3 demonstrates the pattern of tourist demand and frequency of visits to Algiers. The results point to a discrepancy in the number of visits. 86. 7% of the respondents visit Algiers more than 3 times due to important natural, archaeological and historical features frequented by tourists, especially during vacations and weekends. 8.7% of the study sample visit Algiers twice a year while 4.7% of respondents visit once a year.

-The right time to visit: Tourists' visiting hours vary throughout the day: 46.7% of the respondents prefer the morning when the weather is nice and the air is clean. Then, 26% of the study sample prefer to walk in the evening to avoid the burning sun and enjoy the fresh air and the sunset. 20% of the study sample prefer to walk at night to experience the charming night atmosphere in restaurants, concerts and other activities abundant in Algiers in summer. Some tourists do not have a specific time of day to visit destination sites accounted for 7.3% of the respondents. Through previous analyses, it is noted that whether the visit is individual, in a group or with family and friends combined with leisure time and the psychological situation of tourists are the factors that determine the right time of day for the visit.

- Nature of staying: Accommodation facilities are one of the most important factors in attracting tourists. This is because they increase the frequency of tourists in the area, which stimulates the tourist movement. According to Table3: It can be seen that 30% of the tourists use other accommodations, such as university residences for students, corporate housing for citizens. 24 7% of the respondents prefer to stay with friends or relatives throughout their visit to Algiers, while 20% of the tourists prefer not to sleep in Algiers given the proximity of their place of residence and the tourist areas visited in Algiers and also because the capital does not have hotels and accommodation structures in large quantity and in terms of absorption capacity. 12. 7% of tourists prefer to spend their stay in Algiers in both hotels and apartments, and this percentage is very low, because the prices are high in hotels and also the prices of renting apartments are very high.

-Length of stay: It turns out that indicates that the duration of tourists' stay varies, 39.3% of the sample visit for more than 15 days since their stay is related to work or studies, requiring a longer period of stay. 28% of the respondents spend between one to 7 days in the study area. This short term tourism is intended for different purposes such as leisure, enjoying nature or medical visits. These tourists choose to stay in a hotel or in apartments. 21. 3% of the respondents were tourists who do not prefer to stay overnight when visiting Algiers as their home is within the vicinity of the capital. They arrive in the morning and leave in the evening using their personal cars. 10.7% of the respondents stay in Algiers for 7 to 15 days in groups of friends and families.

VISIT REASONS

It is important to understand the purpose of tourists' visit to any area to identify the main tourist attractions and develop them while sustaining the tourist movement activity. Upon examining the results of data analysis regarding the nature of the visit to the study area (Table.4), the survey revealed that local citizens and tourists visit Algiers for several important reasons including: comfort and leisure, natural sites and forests, beaches and swimming, whereas foreign tourists visit Algiers seeking safety, stability and also work. 9.33% of visitors visit the capital for leisure and relaxation, and 10.67% of tourists visit during the summer to enjoy swimming. Indeed, the city enjoys several charming beaches that attract tourists from different provinces of the country and abroad, thus encouraging leisure tourism. Also, 9.33% of the interviewees visit Algiers to enjoy the forests and nature, including parks such as the Parc de l'Expérience, Ben Aknoun Park, Baïnem forest and other natural attractions in Algiers. This suggests a growing trend of eco-tourism in the region. 30% of tourists visit to enjoy historical and archaeological sites, such as the Old Kasbah and national museums 6,67% visit Algiers for scientific and study reasons, 7.33% of visitors came for work, and 12% came in search of security and stability, most of them foreign nationals, including Syrians living in Algiers. Then, 18% of the visitors came for various reasons such as therapeutic tourism or to visit family and relatives. Finally, 4.7% of the respondents visited the study area to discover religious monuments, and 2% of the respondents chose the capital for the low prices of tourist services.

MEANS OF TRANSPORTATION USED

Transportation is one of the most important factors determining the tourist movement pattern in tourist areas. An increase in private tourist cars contributed to the growth of internal tourist movement. the analysis of Figure 8 indicates that 55.3% of the respondents use their personal cars to travel from their homes to the study area.

Table 3. Characteristics of tourist trips in the city of Algiers (Source: Achievement of researchers according to field investigation 2021)

Variables	Frequency	%
a) Nature of visits		
- Single	22	14.7
- A group of friends and family	111	74
- Group of tourists	9	6
- Others	8	5.3
b) Number of visits		
Once	7	4.7
Twice	13	8.6
Three times or more	130	86.7
c) The right time to visit		
- Morning	70	46.7
- Evening	39	26
- Night	30	20
- All the time	11	7.3
f) Nature of staying		
Hotel	19	12.7
Apartment	19	12.7
With friends and relatives	37	24.7
Sleepover	30	20
Others	45	30
g) Length of stay		
Sleepover	32	21.3
From one to 7 days	43	28.7
From 7 days to 15 days	16	10.7
More than 15 days	59	39.3

Table 4. Reasons for visiting Algiers by the respondents (Source: Achievement of researchers according to field investigation 2021)

Reasons of visit	Frequency	%
For its historical and archaeological monuments	30	20
To visit religious corners and monuments	7	4.67
Because of the low prices of tourism services	3	2
Because of stability and security	18	12
For comfort and leisure	14	9.33
For surfing and swimming	16	10.67
Scientific ans study reasons	10	6.67
For working	11	7.33
Enjoyment of forests and nature	14	9.33
For other reasons	27	18
Total	150	100

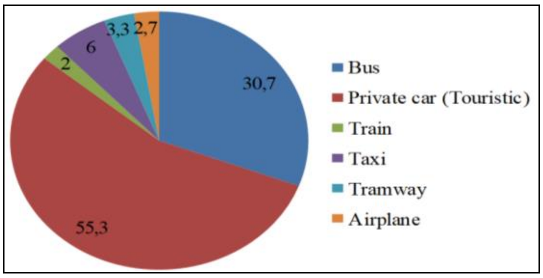

Figure 8. The means of transportation used by the respondents (Source: Achievement of researchers according to field investigation 2021)

In fact, the use of personal cars is more comfortable for family trips as it is a fast and economical mode of travel allowing tourists to enjoy their visit for a much longer time. 30.7% of the tourists prefer to travel by bus because they live in remote areas and prefer comfortable buses for long trips. 6% of the respondents use cabs, and 3.3% use trolley cars located in the urban area that facilitate the movement between the municipalities of the study area. 2.7% of tourists use air transportation (airplane) mostly from the southern provinces.

- **The areas visited by tourists in Algiers:** Algiers has several important sites that tourists want to visit and enjoy.

The analysis of the results in table.5 reveals that the tourism movement trends in Algiers are divided into four sections:

- Cultural, historical and archeological tourism: popular among visitors who want to learn about the region's history and enjoy archeological sites (the old Kasbah, the national museums, the Martyr's Square).

-Religious tourism: Based on visits to religious sites such as sanctuaries, mosques and churches.

- Ecotourism: It relies on the scenic beauty that tourists enjoy seeking peace and comfort.

- Leisure tourism: where tourists visit national parks, amusement parks, and other attractions...

The study indicates that most of the tourists (29.33%) prefer ecotourism by visiting natural sites such as the park experiences, forests and beaches. 22% tend to practice leisure tourism by visiting attraction areas such as Al-Sablat park. 35.33% of the respondents prefer historical and archeological tourism by visiting historical sites and areas such as the Kasbah, the Martyrs Memorial, and several national museums in an attempt to learn about the history of the region. Finally, religious tourism accounts for 13.33% of the respondents.

Table 5. The areas visited by tourists during the trip to Algiers Source: Achievement of researchers according to field investigation 2021

Visited Areas	Visited Places	Frequency	%
(Kasbah -Martyr's Place- National museums)	Historical and archaeological Places	53	35.33
(Ketchaoua Mosque - Great Mosque - Cathedral of the African Lady)	Religious monuments	20	13.33
Experiment Park, Ben Aknoun Park, Benam Forest -Coasts-	Natural areas	44	29.33
(Al-Sablat Park – Trade centers -Maritime Pine Park)	Leisure areas	33	22
Total		150	100

TOURISTS' OPINIONS AND IMPRESSIONS ABOUT THE TOURIST TRIP

Tourists are good evaluators of the tourism reality of the visited area. Considering their opinions and impressions helps identify the quality of tourism services. This is achieved by identifying the positive and negative points, the weaknesses and proposals for improved services and offers. In fact, the tourist's opinion can be useful to develop new plans and strategies to improve services, promote the tourism sector and increase the number of entries, which leads inevitably to the revitalization of the tourism movement in the study area. Tourists' opinions on tourist services range from {excellent, good, average and poor. Table 6 displays a degree of satisfaction between average and below average. This satisfaction is associated with food and beverage prices in restaurants by 44%, hotel and accommodation services by 42%, banking services by 35.3%, archaeological services in museums and districts by 34.7%, followed by security services, and water and sanitation facilities by 31.3%. Therefore, the public opinion rate reached 33%. While tourists' opinion is below average regarding traffic jams by 70.7% and road and transport network services by 47.3%, followed by service prices and coastal cleanliness by 39% each, and finally health services by 37.3%. Thus, the overall satisfaction of tourists was unacceptable at 31.52%, while we only recorded a good satisfaction of tourists in relations with locals at 46%.

Table 6. The degree of tourists' satisfaction about the tourist facilities in Algiers (%) (Source: Achievement of researchers according to field investigation 2021)

The opinion --- Interrogation variable	Excellent	Good	Average	Low	Don't answer
Hotels and accommodations in Algiers	4.7	15.3	42	26.7	11.3
Museums and archaeological areas	18.7	31.3	34.7	8	7.3
Security services	27.3	22.7	31.3	4	14.7
Health services	9.3	16	29.3	37.3	8
Road and communication network	6.7	11.3	30.7	47.3	4
Traffic and street congestion	1.3	4	19	70.7	4.7
Prices of services	2	16	36.7	39.3	6
Food and drink prices in restaurants	1.3	13.3	44	37.3	4
Banking services	2	21.3	35.3	31.3	10
Cleaning coasts	1.3	18.7	34	39.3	6.7
Dealing by local people	20.7	46	22.7	7.3	3.3
Water and sanitationfacilities	2	10	31.3	52	4.7
Tourist trip in Algiers In general	11.3	38.7	38	9.3	2.7

PROBLEMS FACED BY TOURISTS WHILE VISITING ALGIERS

The results of Figure 9 indicate that 124 of the respondents, or 82. 7%, stated that they did not encounter any problems or difficulties during their visit to Algiers. While 26 of them, representing 17.3% of the visitors, were exposed to some problems and obstacles during their visit to the study area, including:

- Suffocating traffic jams delaying the arrival of tourists to different tourist areas.
- Lack of transportation means rendering difficult the movement of the tourist between the tourist places of the city.
- High prices of tourist services, which may not be suitable for all tourists, especially those with medium and limited incomes.

Abuse of foreign tourists, which negatively affects the development of tourism in the region.

- Access difficulties to tourist facilities for people using public transportation and the absence of orientation signs.
- Insufficient security in tourist areas, especially at the beach.
- Weak communication and Internet network in Algiers, especially in some hotels.
- Lack of restaurants and cafes near tourist facilities, and if any, they are expensive, unwelcoming and crowded.
- The important shortage of restrooms and sanitation facilities.
- Lack of social controls and inappropriate behavior with families.
- Unprofessional relations with tourists.
- Overcrowded popular markets.
- Expensive entrance tickets to parks, zoos and amusement parks such as Al-Hama Experimental Garden, where two tickets are required, one for entering the park and the other for entering the zoo, leading to a significant financial expense for tourists in a single tourist facility.
- Absence of signs indicating the locations of the study area and lack of information about the tourist sites.
- Insufficient facilities for people with disabilities.
- Exposure to theft, especially in crowded areas.
- Lack or absence of parking in tourist areas.
- Lack of hygiene and increase of garbage and solid waste in the streets and beaches, damaging the landscape and discouraging tourists from visiting the area.
- The propagation of bullying, regionalism and disrespect for differences.
- The abuse of cab drivers for foreign tourists.
- The lack of public lighting at night in tourist areas, particularly at the beach.
- Increase in begging and child labor, which limits the tourist movement in the region.

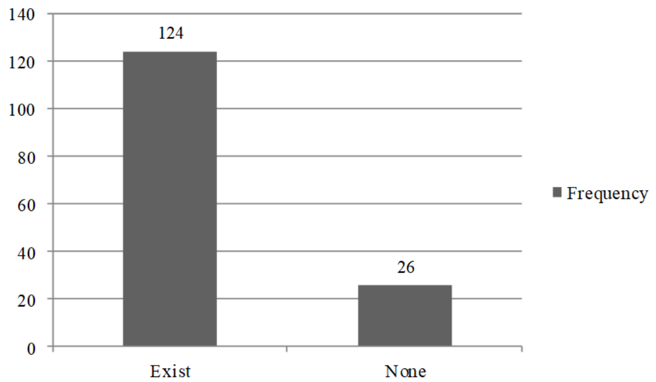

Figure 9. Problems faced by tourists while visiting Algiers (Source: Achievement of researchers according to field investigation 2021)

CONCLUSION AND RECOMMENDATIONS

This study presented a survey of the reality of tourism movements in the city of Algiers, through the analysis of field results that included 150 samples. The results indicated that, the majority of tourists visiting Algiers are women (62.7%) and 57.3% of them are married with an average of 4 to 8 family members (53.3%). Tourists of Algerian nationality constitute the majority in the local tourist movement with a 93.3% rate of respondents, their level of education varies, and most of them are employed (42.3%) in all economic sectors. Most of these tourists are from the North Central provinces due to the proximity. Tourists flock to the study area in the presence of a family in the form of a group of friends and family, they visit Algiers more than three times annually. The tourist movement increases during the summer and spring seasons, as most tourists prefer these seasons, and they like to visit in the morning. Friends are the most important means of media for visiting Algiers, and they prefer to stay with family and friends, and there are those who prefer to stay in different places such as workplaces or university residences, etc., and their stay period extends for more than 15 days. In terms of visit reasons, the majority of tourists flock to the study area for the purpose of rest and leisure in order to enjoy the forests and nature, they use private transportation (their own cars) and there are those who use buses, the percentages of their users, respectively, were **55.3%** and **30.7%** of the study sample. The study also showed that the trends of tourism movement in the region were represented in the eco-tourism movement by **82%** of the study sample, the leisure tourism movement by **79.3%,** as well as the historical and rich tourism movement by **70.7%** of the respondents. The study showed that there is a decline in the level of tourism and public services alike, as tourists expressed their impressions about tourism services with dissatisfaction and the lack of these services reaching the required and excellent level. The study also showed that **82.7%** of the study samples were exposed to problems and obstacles that limit their tourism trip in Algiers.

Through the results of the field study, the researcher recommends a number of proposals, namely:

- Developing the transportation network and working to link it with the tourist areas, with allocating places for parking lots and buses, especially in tourist places such as gardens, parks and beaches.

- Working on developing infrastructure and addressing sewage problems, and the problem of continuous water interruption, especially in the current period, as well as working to reduce pollution.

- Encouraging the religious tourism movement, by exploiting the ancient corners and mosques, and trying to promote tourism in the media.

- Improving the legal, legislative and banking system so that it responds to international tourism competition, and considering tourism as an industry.

- Encouraging investment in the tourism field, with the integration of the national and foreign operators in the promotion of the tourism industry, in order to provide job opportunities in the region and increase the entrances.

- Raising the level of tourism services, developing them, and controlling prices to suit those with limited incomes, as well as to suit the desires of tourists.

- Developing training programs to raise the efficiency of workers in the field of tourism with the establishment of institutes and educational institutions for tourism.

- Working on spreading tourism awareness among citizens and setting up radio and television media programs on the landmarks that Algiers abounds in, in order to increase tourist attractions and develop the tourism movement in the region.

- Establishment of special facilities that help the category of people with special needs to enjoy and conduct tourist tours.

- Reducing the phenomenon of beggary, this distorts the aesthetic view of the area, as well as disturbing tourists.

- Working on organizing festivals and special parties during the seasons in which the tourism movement flourishes, in order to attract a large number of tourists and benefit from them in promoting tourism through them.

- Establishment of new facilities and centers for amusement and recreation, gardens and parks that attract tourism, especially in the east and west of Algiers, given that most of the recreational centers and parks are located in the center of Algiers.

- Exploiting the natural seasons and climate of the study area, in which there is little tourism in Europe as a result of snow and storms, and attracting them to Algiers.

- Improving the communication network and increasing the flow of the Internet in Algiers, which facilitates the process of communicating tourists with their families and relatives.

- Encouraging the local and international tourist movement by providing tourist attractions such as tourist services and establishing tourist villages and resorts with price reduction.

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Article history: Received: 04.01.2022 Revised: 09.03.2022 Accepted: 14.04.2022 Available online: 12.05.2022

GeoJournal of Tourism and Geosites
ISSN 2065-1198, E-ISSN 2065-0817

Year XV, vol. 41, no. 2, 2022, p.502-508
DOI 10.30892/gtg.41222-856

THE VALUES OF CULTURAL HERITAGE IN THE RUGOVA REGION IN PROMOTING THE DEVELOPMENT OF TOURISM IN KOSOVO

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Citation: Lajçi, D., Kuqi, B., Fetahaj, A., & Osmanollaj, S. (2022). THE VALUES OF CULTURAL HERITAGE IN THE RUGOVA REGION IN PROMOTING THE DEVELOPMENT OF TOURISM IN KOSOVO. *GeoJournal of Tourism and Geosites*, 41(2), 502–508. https://doi.org/10.30892/gtg.41222-856

Abstract: Culture is conceived as a complex whole, as a conceptual system in learning. The Rugova region is geographically located in the "Albanian Alps" which is a territory that includes a special set of cultural activities developed between generations. These intangible (spiritual) identity values include: language (dialect), tradition, traditional food, traditional clothing, symbols, natural-cultural monuments, festivals, rituals, customs and traditions, religion and the folklore tradition of the Rugova region. The overall purpose of the paper is to assess the cultural heritage and how to use its potential for sustainable development in the Rugova region. The cultural dimension of heritage and the possibility of cultural perspective consists of recognizing the new reality and changing dynamics of community life. Another goal is to deepen the knowledge about the organization and functioning of the cultural heritage of the Rugova community towards tourism. Literature research by local and international authors, data collection and analysis is built from the field through questionnaire, interview. Interdisciplinary methodologies have been used such as: ethnographic method, method of direct field observations which has been used to get acquainted with socio-cultural heritage and tourism objects. The development of the cultural tradition of food preparation, the way in which the inhabitants give a worldview for the heritage in the service of the development of tourism are parts of interest in this topic.

Key words: culture, tradition, values, heritage, region, tourism

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INTRODUCTION

Rugova is a mountainous area which lies in the western part of Kosovo, above the city of Peja. It is rich with natural and cultural values. The tradition of the Rugova region is early. Social development in different periods characterizes the processes that have taken place and they are especially investigated in culture. Traditions are thought to have existed for centuries in this region and have been continuously cultivated by all walks of life, of which go to the present day as: memorization of legends, the songs, dance, rituals, lullabies, tales, traditional dress, dialect characteristics, food, tools, musical instruments; So, the whole organization and social functioning are a special presentation of the mountain community. Therefore, it can be concluded that where there has been a development of culture, traces of the same civilization have been confirmed. The definition of socio-cultural heritage was also given by the Japanese researcher Tolina Loulanski, according to whom “Cultural heritage includes aspects of material culture - sites, buildings, landscapes, monuments and objects as well as intangible (spiritual) culture whose aspects are embodied in social practices, community life, values, beliefs and expressive forms such as language, arts, crafts, music and dances” (Loulanski, 2006: 88). She emphasizes that “the concept of cultural heritage is evolving, as a result and in accordance with the attitudes, needs and demands of people towards it” (Veselaj, 2010). “The natural resources of the Rugova mountains determine their recreational and economic functioning, the ecology of natural structures can be taken as a sound basis for the qualitative and quantitative expansion of the activity that are in function of tourism and for the maintenance and advancement of this natural environment. Only through tourism and thanks to it can the necessary means of protection be realized” Veselaj, 2010, 38). Increasing investment capacities and the demand to spend holidays in Rugova are parameters for the possibility of creating and expanding business in the field of tourism which is undoubtedly bringing benefits to residents. What is more important is that in Kosovo the climate is very favourable for tourists because four seasons are adjusted in accordance with official calendar and in rare cases the climate happens to be different, for instance, the winter season is snowy each

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year (Kuqi, 2018). Every year, the Rugova region is becoming more and more a tourist destination from all over the world. Recently, especially these 2-3 years, during the field observation, tourists from different countries such as: Albania, Switzerland, Germany, England, Saudi Arabia, etc., which opens up opportunities for business development prospects even from international countries. The grandeur and beauty of these mountains is extremely attractive. Traditional bio food, water resources, warm hospitality, are characteristic of this region and the community.

METHODOLOGY

With the research work we aim to achieve the understanding and clarification of the efficient valorization of the resources of this area as well as the transformation of cultural values as a result of the development and socio-cultural change of society today. Analyzed from the sociological, ethnological, ethnographic prism, however, linking these with cultural and tourist identity values. Use of research instruments such as questionnaires, interviews.

So, the collection of data and facts (research and qualitative analysis, research based on primary data: effective communication with the respondent, method of observation and secondary data: use of literature, relevant bibliography in libraries, online, reading and editing. The survey and interviewing method is one of the basic methods of this study, used to obtain primary quantitative and qualitative data. It was conducted through the design and implementation of surveys 165 (one hundred sixty-five) questionnaires. Through the use of this method it is intended to highlight the importance of the development of cultural tourism in the socio-economic development of the local community. Method of ethnographic study it is actually done according to the case study research model. But, in this case we also have the additional dimension of the researcher (in this case I) who also participates in the social phenomenon that is being studied, in order, through participation and regular collection of data and reflection on them, to achieve a deeper understanding of the group, organization or community you are studying (Matthews and Ross, 2010).

Method of direct observations in the field was used to get acquainted with the cultural heritage sites of the Rugova region, as well as to concretely identify their current situation and problems related to their management and operation.

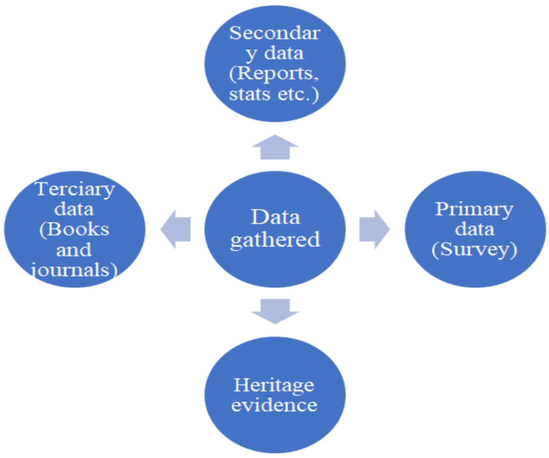

Figure 1. Data aquisition and design (Source: Patton, 2002)

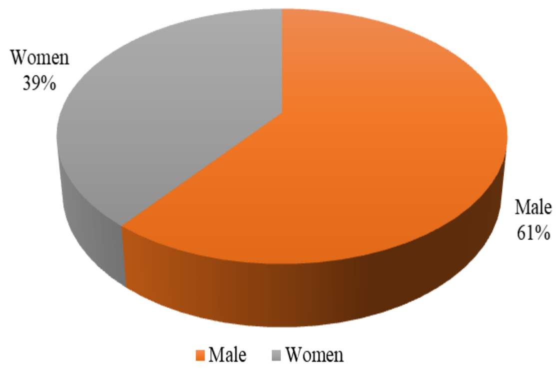

Figure 2. Participation of respondents in the research (165) 100 are mens and 65 women

CONCEPTS AND DEFINITIONS ON CULTURE, SUSTAINABLE DEVELOPMENT AND TOURISM

Development can be conceived in many ways. From its inception until 1940, development was closely linked to the evolution of technology, modernization and economic growth (Richtscheid, 2011). The term tourism is used for travel, mainly for entertainment, it is the totality of human activities carried out in function of these trips, which serves to satisfy the needs of tourists (Bakiu, 2011). In the UNESCO Convention in 2003, intangible heritage was defined as: “Practices, representations, expressions, knowledge, skills, as well as instruments, objects, cultural areas along with communities, groups and individuals as part of their cultural heritage. This intangible cultural heritage passed down from generation to generation has been created by communities responsible for their environment, as a link between nature and history, providing them with identity and continuity as well as promoting respect for cultural diversity and human creativity.…” (UNESCO, 2003: 3 https://ich.unesco.org). Forecasts show that investment in cultural heritage will increase further as it becomes "the most important product of the 21st century, determining the future of communities" (Ogino and Masahiro, 2002: 277). The most characteristic elements of heritage are resilience and dynamism. What makes heritage resilient is the fact that in its broadest sense it includes "everything inherited from the past" and in its narrowest sense it includes what has historical and cultural significance. Other definitions define culture as "contemporary goals of the past" or "that part of the past which we have selected in the present for contemporary purposes, be they economic, cultural, political or social” (Hall and McArthur, 1996: 21. Whereas, of the Parsons cultural system he perceived culture as an important force related to different elements of the social world - or in his terminology, the system of action. Culture mediates action between actors and integrates personality and social systems. Culture throughout the particular ability to be, at least, in part, a component of other systems. Thus, in the social system, culture is embodied in norms, values and in the personality system it becomes an internal part of the actor (Ritzer and Goodman, 2008). Cultural heritage is increasingly being recognized as a public good and its benefits are seen as international (Cernea, 2008). It can have economic and non-economic value.

The European Organization for Tourism and Leisure (ATLAS) defines cultural tourism as “the movement of people towards cultural attractions, away from their place of residence, in order to gather information and experiences to satisfy their cultural needs” (Richards, 1996: 22). The researcher Catherine Trautmann (1994) says: “Cultural tourism is not just cultural heritage tourism. Cultural tourism works as a network. It actually includes types of art, such as dance, music, theater …” (Trautmann, 1994: 37). Thus cultural tourism can be defined as: “visits from abroad by people fully motivated or partly by the hospitality of the community, with an interest in the historical, artistic, scientific heritage or lifestyle offered by a community, a region, a group or an institution” (Silberberg, 1995). Rugova's traditional folk games are a value of Kosovo's socio-cultural heritage. They are divided into 7 main disciplines, which are distinguished for their diversity. A special place are the games for young people and adults. The variety of games is mostly distinguished from the ages of 14-15 to those 45 years old. These games stand out, dominated by gestures and especially physical strength, as most players had physical exertion to win, such as: wrestling, pulling the rope, etc. Rugova's traditional games, with a competitive character, have a significant impact on the physical development of young people.

This event which is usually held in the first week of August brings tourists from different countries. The games and folklore presented at this cultural event is a testament to how the traditional values of this region are preserved and developed. Rugova's traditional games, being an integral part of folklore and folklore itself, are consciousness that moves in the course of time, that reflects and artistically reflects time, is modeled and circulates in time, preserves time, now as history, as social reality, as inspiration, as a sign of identity (Xhagolli, 2013). A number of popular games in the Rugova area from the inside are closely related to the environment of their creation, have a purely livestock and to some extent agricultural character (Qendra Rajonale e Trashëgimisë Kulturore Pejë, 2017).

Figure 3. Medal-Pulling the rope, in the edition of the games (Source: Authors, august 2018)

Figure 4. Throwing the sprout, in the games edition 2020, Stankaj (Source: Authors, August 2018

According to the tradition in the Traditional Games of Rugova, for each traditional game cups or medals are distributed as a sign of gratitude for the winners of the competitions. One of the characteristic and rare games almost unknown so far in other regions is Throwing the “Llastarit”. Llastari is a wood about 6 m long, about 10 cm thick which is thrown by the contestant with both hands. The importance of throwing lies in reaching as long as possible to the point where it falls to the ground. So this game in addition to the winning side for the competitor is also the use of physical skills. So, “The popular culture of a nation is an important element, which makes it possible to determine its customary, linguistic characteristics, mentality and tendency to preserve identity as a stable historical, economic and social community” (Maxhe, 2010:154). Musical instruments constitute a special craft in the general appearance of Albanian handicrafts. Tools such as “flute, kaval, çiftelia, sharkia, lahuta”, etc, have been produced and are still produced by hand. The flute is a tool used by shepherds throughout the Albanian Alps. It has found wide use throughout the mountainous area of Rugova. It is built of a wooden or metal hole with holes to create the melody. Another instrument is the “Lahuta” consisting of wood, with long tail and strings. It was quite widespread in the region of Rugova and continues today to be part of the heritage of folk music (Zheji, 1998).

TRADITIONAL FOOD OF RUGOVA

The traditional cuisine of the Albanians has been more or less similar to that of other Balkan peoples. Foods with plant, animal and dairy sources, generally prepared at home: from bread to drinks. According to tradition, the people of Rugova ate three times a day: in the morning a simple meal, at lunch more numerous and richer, at dinner it was the most basic and abundant meal of the day. The social aspect of Rugova's nutrition is not distinguished by any categorization that emerges as an expression of social affiliation, but the differences that are observed are mainly as a manifestation of the economic situation. The dishes according to their constituent origin are of the following types: Dishes of dough origin and dishes of plant origin. Dishes of dough origin – this includes those dishes that have doughy structures. Visits that the diaspora usually makes to their families in Kosovo are an important source of income for the Kosovo economy (Kuqi et al., 2021). Among them, those that are processed from corn flour occupy a prominent place.

The following dishes are made from corn flour: "boiled cheese, boiled maza, perpeqi, leqeniku, skropi, kaçamaku", etc. Boiled cheese, is considered a traditional specialty of Rugova and is one of the most popular dishes in this region. It is usually prepared for various holidays, as well as for entertaining rare guests. In addition to flour, this dish also contains a significant amount of cheese, usually lukewarm and cow products Boiled maza it is also a dish with frequent use in this area and from the boiled cheese it differs only because it lacks cheese. It is found at the table, not often, even at the ordinary table, but its presence, even at the guest table, is considered a feast. Përpeqi rarely appears in the food of the population of Rugova. Its presence on the table is rarely conditioned by the basic milk production (thick cow's milk for the first two or three days after calving), which is extracted only on the occasion of cow calving. Leqeniku as a specialty there is no frequent use. It is also found in the ordinary kitchen, but it is also welcome when it is on the holiday table. Laknori on this side it is usually associated with the spring season, when various nutritious plants can be utilized (ASHAK, 1987). The most requested and most present in restaurants in the Rugova region is boiled "Maza e zie'" which is also the most frequently used dish in this area and from "Djathi i zie'" distinguishes only why it lacks cheese. It is on the table, even at the ordinary table, but its presence, even at the guest table, is considered a feast (Lajçi et al., 2021).

TRADITIONAL POTATO OF RUGOVA

One of these agricultural crops that has an important role for human life in these mountains is the traditional Rugova potato." Rugova potato is as dry as a chestnut when ripe", the Rugova people are used to saying when talking about their traditional potatoes. Nowadays, the Rugova potato is seen as a return and is planted with this culture, of course in the narrowest spaces in the backyard gardens of the residents' houses, but also in traditional restaurants. The taste of this potato is rare as the very configuration and composition of the soil give it properties and nutritional value. Even those who plant any field, land are mostly the elderly who have become accustomed to it. One of them who proves this to us during the field research is the 80-year-old Dervish Asllan Nikçi from Shtupeq i Madh. Now this potato is usually sold in a more limited quantity in the city market, although the inhabitants mainly continue to cultivate the traditional potato for family needs and local restaurants. Nowadays, potatoes are usually sold and consumed in the form of high-fat chips or very thinly cut and baked potatoes (potato chips). Potato fibers can help digest and absorb simple sugars. Potatoes are an abundant source of B complex vitamins, especially vitamin B6 or pyridoxine, thiamine, niacin, pantothenic acid and folic acid. It is also a source of minerals such as manganese, phosphorus, copper, potassium, magnesium, and iron (Mercola, 2020).

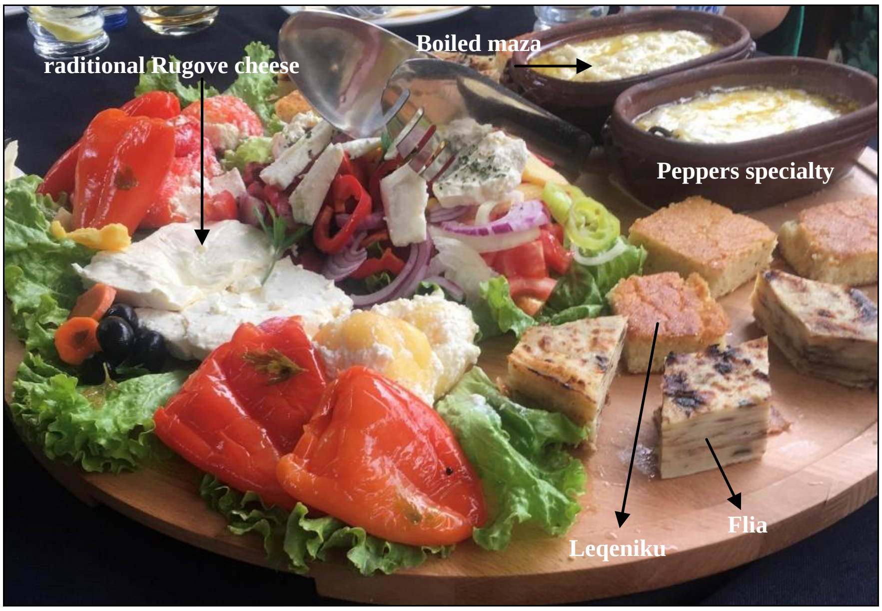

Figure 5. Traditional table in the Restaurant "Hani"-Rugova (Source: Authors, August 2021)

Figure 6. The traditional dress of the Rugovas (Source: Authors, August 2020)

This is a traditional Rugova table which is served in some restaurants in Rugova (Restaurant Hani, Bjeshka, Hotel Magra Austria). It is food sought after by visitors and represents the most traditional food value on this side. The value of this paid table is around 30 euros. This table is provided for meals for 4-5 people.

THE TRADITIONAL DRESS OF RUGOVA

Rugova man's dress At these altitudes and geographical extent, it gives it a grandeur with the features of a mighty and brave mountaineer. His body is clothed and adorned: white hood. Four-piece white woolen blouse, with long and slit sleeves, decorated with black thread, on top of it the jurdia, respectively white or black, with short sleeves up to the wrists, with a square collar (Qendra Rajonale e Trashëgimisë Kulturore Pejë, 2017). The shirt is made of fabric, up to the waist, respectively up to the knees, has long sleeves and small vest and is whiter in color. At the waist, the body is wrapped in a woolen scarf up to 72 cm long, rich in different colors, where red, yellow and green are distinguished. white trousers decorated with many threads - up to 18 threads - and glued to the feet, give the typological features of this dress. In the lower part, above the pants, on frosty days and rainy weather, Rugovasi also wore “kallçinj”, a kind of footstool, made of wool. The footwear was made of sheep wool (“çorapet dhe mestet”) and from the skin (“opingat ose opaket”). Their knitting was done with sheepskin.

Traditional white scarf Gezofi

Gezofi- is the upper part of the garment made of sheep or goat skin. So it covers the shoulders, neck, waist and protects strongly from the cold, it is used before blouses and vests. In summer it turns with wool outside while in winter with wool inside. So it's just like “postaqi”. People say: returns “gëzofi” as is the weather.

Figure 7. Clothing of Gezofit
(Source: Authors, August 2018)

Figure 8. Traditional Clothing’s Source: Authors, august 2021)

Brides Clothing It is a characteristic dress full of color and beauty. It is mainly clothing that has undergone changes. Previously in Rugova was used the “Xhubleta” of girls and brides. The girls' dress differs from the women's dress with a twist from the woolen knitted wool with the last decorative part with braid and wire embroidery. The socks are also white, while the vest is slightly smaller, but the arms are also used or the wool mittens for the upper part. The shirt is not as decorative on the front as the women so this is the difference and it is shorter. The other parts are the same as the women and brides.

Figure 9. Among the rare female “Lahutare” Ajshe Muriqi Fetaj, the scholar of the Kreshnik Epic Prof.Dr.Zymer U. Neziri and Lahutari Rrustem Bajram Nikçi

Figure 10. Family cultural memorial Rexhaj in Shkrel, Rugova (Source: Authors, august 2020)

Although a mountainous area, far from familiar with cultural and artistic developments, the spiritual and creative world of the Rugova people has been rich. Although institutions and schools were lacking to discover and treat the creative and performing talents of the song, whole generations of singers of this region are known for their characteristic voice, for the high interpretive and emotional level of the song. Song top arm and those associated with the instruments of the region as “ lahuta, çiftelia, fyelli” etc, are characteristic of every village and generation that has lived in Rugova. Not only legendary and epic songs are widespread and loved for the region, but lyrical ones have also been massive. This genre of song has been strongly preserved, enriched with a new reporter, sung with passion and desire not only by young people, but by all ages (ASHAK, 1987). Even with leaves the highlanders create brilliant melodies. The Rugova mountaineer has composed love songs full of figures, comparisons, hyperbole, making her lovable, understandable and emotionally tangible to anyone who has given her dialect and physiognomy. The dreams and desires expressed through the songs were inner calls of feelings for what he wanted or wanted to have, weaving verses and songs full of passion. In this way the societies create the mechanism of maintaining the strong position of the national culture (Berisha, 2020).

This memorial was built a decade ago in honor of the generations of national resistance of the period of the League of Prizren (1878). In this memorial are the graves of the leaders of Rugova as well: Demë Isufi, Rexhë Avdia etc., who even to this day are honored by the family Rexhaj but also from the residents of Rugova. Traditionally every June 10 citizens visit this memorial as a sign of respect and gratitude for the traditional past of this region.

Figure 11. Lake of Kuqishta in Rugova (Source: Authors, august 2020)

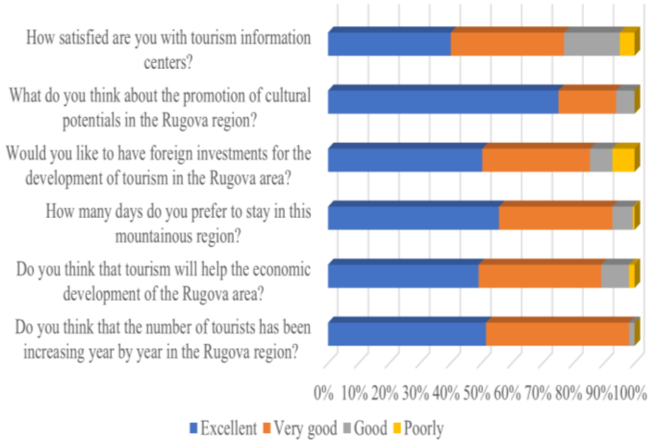

Figure 12.Chart Research conducted in the Rugova Region

Glacial lake of Kuqishta (1900 m) is filled with fresh water throughout the seasons (Shoqata për Mbrojtjën e Mjedisit, 2001). Rugova region, in addition to the intangible cultural heritage, is also known for its material heritage such as lakes, caves, waterfalls, etc. Lake Kuqishta is an extraordinary value of this mountainous region. The road that leads from the village of Kuqisht to the point where the Lake is located is an amazing hiking trail, with the possi bility of rest, with information boards and rich in mountain fruits. Therefore, we often see tourists collecting blueberries, strawberries, mushrooms or teas while visiting this part. This region is rich in caves such as: Great Gorge Cave (637 m above sea level), Black Scissors Cave (known as Karamakaz 562 m above sea level) (Bajraktari et al., 2010).

These caves represent the importance of deepening the knowledge and scientific and tourist study. So, Rugova with 15 villages (Neziri, 2017), represents the most mountainous area of the Dukagjini Plain. The experience of many countries has demonstrated that tourism development planning can bring benefits and maintain satisfactory tourism markets (Gorica and Kadriu, 2013). Increasingly, the presence of the Internet is part of the mix promotion for both tourism organizations and distinctions. Today, tourism organizations have their own websites with information and reservation skills, allowing consumers to search for validity and prices before booking online (Gorcia and Verla, 2007).

RESULTS FROM THE QUESTIONNAIRE FOR COLLECTING INFORMATION

Values of cultural heritage in the Rugova region in promoting tourism development in Kosovo, conducted with respondents, during the month of June 2021.

Respondents' answers to questions focused mainly on the development of cultural tourism. We have selected only the answers which were of most interest for the object of treatment in the paper. Respondents' answers make us understand that Cultural Tourism continues to preserve the originality of culture.

In this questionnaire were surveyed 165 respondents who gave their opinion on various issues such as: the number of tourists, employment opportunities through business development in the Rugova region, economic development of the area, cultural facilities, information centers of culture, promotion of cultural potentials.

Table 1. Research conducted in the Rugova Region (Source: Authors research, september 2021)

	Question Description	Excellent	Very good	Good	Poorly
1	Do you think that the number of tourists has been increasing year by year in the Rugova region?	85	77	3	0
2	Do you think that tourism will help the economic development of the Rugova area?	81	66	15	3
3	How many days do you prefer to stay in this mountainous region?	92	61	11	1
4	Would you like to have foreign investments for the development of tourism in the Rugova area?	83	58	12	12
5	What do you think about the promotion of cultural potentials in the Rugova region?	124	31	10	0
6	How satisfied are you with tourism information centers?	66	61	30	8

CONCLUSION

Rugova, a small mountainous province which lies in the foothills of the Albanian Alps, is one of the prominent regions in terms of nature and culture. The mountains of the Rugova region together with the mountains of Burim, Deçan, Junik in 2013 were legally declared a National Park with the name “Bjeshkët e Nemuna” by the Assembly of the Republic of Kosovo (Ligji nr. 04/L - 086 Për Parkun Kombëtar “Bjeshkët e Nemuna”, 2013). This region is rich in natural, cultural and spiritual riches. The inhabitants of Rugova are known for their hospitality. In the chain of tradition over the centuries they preserved the culture, customs and traditions, heroic songs, white scarf, traditional games, traditional dress and a variety of assets, always being faithful to the autochthonous homeland of Kelmendi. The Rugova region has a lot of wealth in its natural, cultural and spiritual treasure and as such it is thought that in the future it will be an ecological municipality with a tendency to develop tourism and economy. The Rugova region offers many opportunities throughout the seasons, becoming known for its landscape features, caves, waterfalls and lakes, flora and fauna. Undoubtedly, the cultural values of Rugova represent a typical mountain culture with rich features which are an inspiration for today's generations of Kosovo in the development of tourism. Here tradition is intertwined with the modern both in terms of material and intangible heritage. Dress, dance, games, wedding rites, engagements, holidays, etc. are special presentation of Rugova highlanders. Now, the Indigenous Folklore Ensemble "Rugova" has a role in promoting the Rugova tradition. The Rugova region is being considered a place of opportunities for attracting tourists and investors, being awarded the "Balkan Peaks" prize by the World Tourism and Travel Council.

This is a priority for Rugova as well as for the promotion of its natural resources. So, this region offers many opportunities for recreational and sports activities, which requires new investments in this field. Hiking trails, lakes, waterfalls and wells, make Rugova an attractive tourist center beyond the national.

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Article history: Received: 28.10.2021 Revised: 10.03.2022 Accepted: 15.04.2022 Available online:12.05.2022

GeoJournal of Tourism and Geosites
ISSN 2065-1198, E-ISSN 2065-0817

Year XV, vol. 41, no. 2, 2022, p.509-516
DOI 10.30892/gtg.41223-857

COASTAL TOURISM: IMPACT FOR BUILT-UP AREA GROWTH AND CORRELATION TO VEGETATION AND WATER INDICES DERIVED FROM SENTINEL-2 REMOTE SENSING IMAGERY

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Citation: Sunarta, I.N., & Saifulloh, M. (2022). COASTAL TOURISM: IMPACT FOR BUILT-UP AREA GROWTH AND CORRELATION TO VEGETATION AND WATER INDICES DERIVED FROM SENTINEL-2 REMOTE SENSING IMAGERY. *GeoJournal of Tourism and Geosites*, 41(2), 509–516. https://doi.org/10.30892/gtg.41223-857

Abstract: Indonesia is an archipelagic country that has diverse tourism potential, one of which is the island of Bali. The island of Bali is famous for its tourism potential to the World Level, especially the potential for natural and cultural tourism that is not found in other countries. Tourist visits to the island of Bali, from various countries, always increase every year. The increase in the number of tourists has triggered the tourism industry business players to build tourism facilities such as hotels, restaurants, shopping centers, and other facilities, thereby causing an increase built-up area in the coastal tourism area. This study aims to analyze the spatial pattern of built-up land through the transformation of the built-up land index (NDBI) and correlate it with the vegetation index (NDVI, SAVI) and the water index (NDWI). Data analysis using Remote Sensing method using a cloud-based computing platform, namely Google Earth Engine (GEE), on Satellite Imagery Sentinel 2, acquisition on 2016 and 2021. The results of this study indicate that there is an increase in the pattern of built-up area in the Southern coastal area, Tourism Area. The increase in built-up area causes a decrease in the level of vegetation density and increase the level of wetness of the soil surface.

Key words: Tourism Area, Bali Island, Built-up area, Google Earth Engine (GEE)

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INTRODUCTION

Indonesia is an archipelagic country that has very beautiful natural potential, one of which is the island of Bali. Bali is the best tourism destination in the world (Ginaya et al., 2019; Hansun and Kristanda, 2019; Irawan et al., 2019; Zuraidah, 2019). Currently, the southern coast of Bali is developing rapidly, one of which is the existence of the Pandawa Beach tourist attraction (Swabawa et al., 2021), as well as other tourism such as Kuta beach (Carlos et al., 2020). In addition to natural tourist attractions in coastal areas, there are cultural tours (Handaru, 2020) and other destinations.

The existence of various tourism destinations, invites many foreign and domestic tourists visiting the island of Bali. The number of tourists visiting the island of Bali from year to year always increases (Subadra et al., 2019) . The increasing number of tourists has triggered tourism players and investors to develop tourism industry businesses such as hotels, restaurants, supermarkets, souvenir centers and other tourism industries. Thus, many absorb workers who come from the island of Bali and from outside the island. This condition causes high urbanization in tourism areas which indirectly triggers an increase in built-up land for the residence of employees in the tourism sector. High building density in coastal areas can cause aesthetic pollution, reduced vegetated land cover (Sunarta et al., 2021; Widyarini and Sunarta, 2019), increased temperature (Rizvi et al., 2021), carbon emissions (Wang and Wang, 2021), water scarcity (Sunarta and Arida, 2014). So that the green area, in coastal tourism areas need to be maintained (Dinh and Pham, 2021).

To determine the development of built-up land in tourism areas, one of them is by using remote sensing data Sentinel 2. The use of Sentinel 2 Satellite Imagery to monitor built-up land has been carried out by (Gbetkom et al., 2019). An analysis of the built-up land has previously been carried out in Denpasar City using Landsat ETM+ satellite imagery (As-syakur et al., 2012). The researcher tried to do the research again but using remote sensing data with higher resolution and linking it with the vegetation index and water index. Utilization of Sentinel-2A Imagery, which is a European optical imaging satellite launched in 2015. The Sentinel-2A satellite was launched as part of the Copernicus European Space Agency (ESA) program (Phiri et al., 2020). The reason the researcher uses this image is that Sentinel 2-A Image can be accessed for free on the European Space Agency (ESA) website. In addition, its spectral resolution produces 13 channels that include visible, near-infrared, and shortwave infrared sensors as well as a fairly high spatial resolution of 10 meters in the red, blue, green, and near-infrared bands. The building index used is the NDBI (Normalized Difference Built-up Index), the water index used is the Normalized Difference Water Index (NDWI), and the vegetation index NDVI (Normalized Difference Vegetation Index) and SAVI (Soil Adjusted Vegetation Index). The reason for choosing NDVI is because the best transformation to detect buildings is NDBI, although the highest value is bare land as a comparison, the development of built-up land is carried out by analyzing other indices so that the impact

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of building development on the development of buildings is known vegetation density and the level of wetness of the soil surface. The acquisition and analysis of remote sensing data are carried out using cloud-based computing, namely Google Earth Engine (GEE). The emergence of GEE makes it easier for researchers in the field of remote sensing to carry out data acquisition, data analysis, and data visualization (Tamiminia et al., 2020), so this is the reason researchers use the GEE platform in conducting research related to monitoring the built-up area in coastal tourism. The purpose of this study was to determine the spatial pattern, the increase in the built-up area and its effect on the vegetated area, and the level of soil surface wetness represented by the water index. The results of this study later can also be used as local government policies to formulate policies related to controlling development in tourism areas and building green tourism area.

MATERIALS AND METHODS

This research was conducted in a tourism area on, south coast of Bali Island. Figure 1a shows the research location on a small scale, Figure 1b shows the regional scale of the spatial distribution of tourism areas, while Figure 1c. The research location is between 115°17’30” E to 8°37, 00” S. There are 7 tourist areas on the southern coast of Bali Island, such as the Regional Tourism Strategic Area (KSPD) Kuta, KSPD Lebih, KSPD Nusa Dua KSPD, KSPD Pulau Serangan, KSPD Sanur, KSPD Tanah Lot, and KSPD Tuban (Figure 1).

Tools and Material

This study uses a tool in the form of cloud computing, namely Google Earth Engine (GEE) which is used for data acquisition and index processing (NDVI, NDBI, SAVI, NDWI). ArcGIS 10.8 application for extracting pixel values of each image index and map layout and other applications to support the writing of this paper. The materials used are Sentinel Image 2 Level 1-C sensing date 2016 to 2021, a map of the spatial plan of the Province of Bali, and a map of administrative boundaries from the Geospatial Information Agency (BIG).

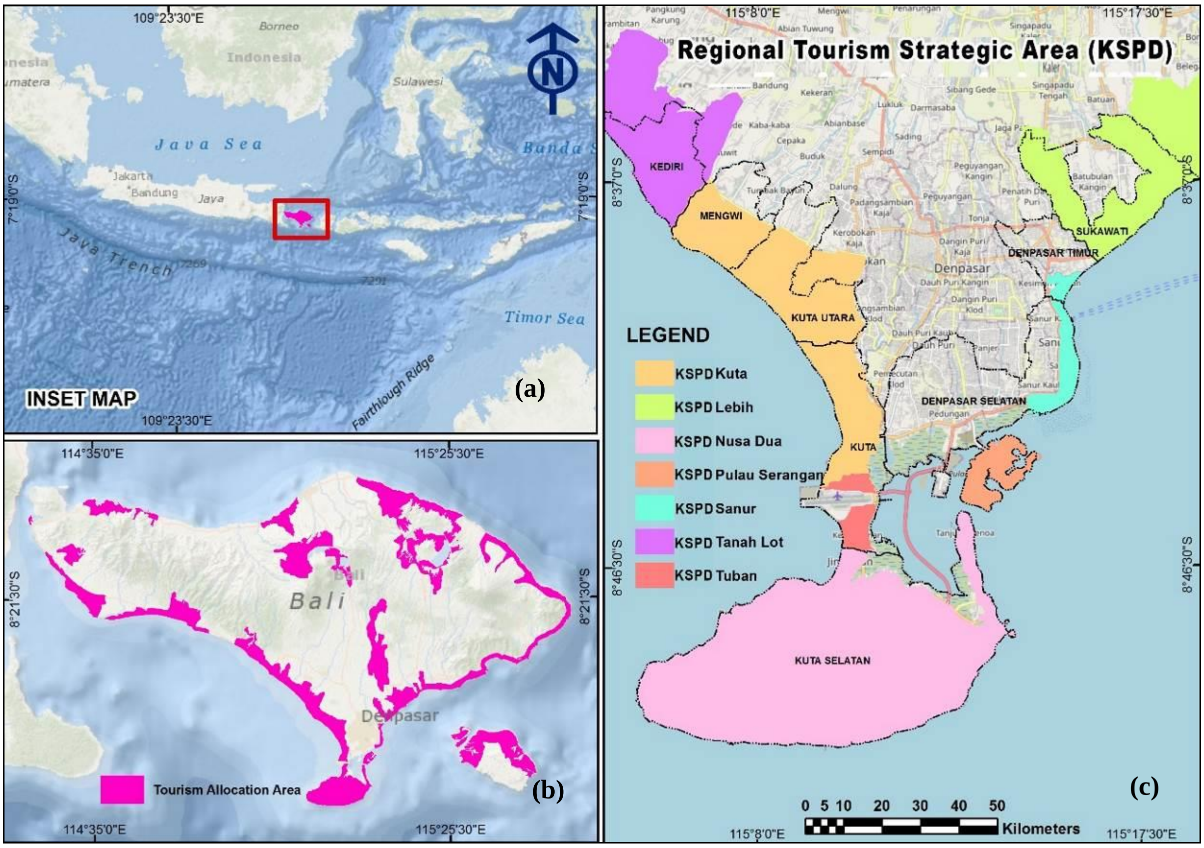

Figure 1. Bali Island Position from Small Scale (a), Tourism Allocation Area (b), Regional Tourism Srategic Area (KSPD) in South Coastal Area (c). (Source: Bali Province Spatial Plan 2009-2029 (Public Works and Spatial Planning Department, Bali Province and layout map by authors)

Method - Data Acquisition

To monitor the built-up land and its influence on other factors, it is carried out using Sentinel 2A Remote Sensing data. Sentinel-2 is a European optical imager launched in 2015. Sentinel-2 is the first satellite to be launched as part of the European Space Agency (ESA) Copernicus program. This satellite carries a variety of high-resolution multispectral imagers with 13 spectral bands (Table 1). This satellite will carry out terrestrial observations to support services such as forest monitoring, land cover change detection, and natural disaster management. The image is filtered on May 1, 2016-30 July 2016 and as a comparison for the image on May 1, 2021-30 July 2021. Data acquisition on GEE can be seen in Figure 2. Automatically the GEE application will filter based on the script that has been ordered on the dashboard. Furthermore, data processing is carried out on the same cloud computing-based application. The Earth Engine (EE) Code Editor at code.earthengine.google.com is a web-based IDE for the Earth Engine JavaScript API. Code Editor features are designed to make developing complex geospatial workflows fast and easy. The Code Editor has the following elements (Figure 2). Utilization of GEE in sentinel 2 image analysis in addition to monitoring the built area (Celik, 2018), also to conduct an classification of land use land cover (LULC) (Soe Thwal et al., 2019; Xu, 2021; Zeng et al., 2020). This research flow chart is presented in Figure 3a.

Table 1. Characteristic of Sentinel 2 Image
(Source : European of Space Agency (ESA), 2015)

Band	Wavelen-gth (μm)	Spatial Re-solution (m)
Band 1 – Coastal Aerosol	0.443	60
Band 2 – Blue	0.490	10
Band 3 – Green	0.560	10
Band 4 – Red	0.665	10
Band 5 – Vegetation Red Edge	0.705	20
Band 6 – Vegetation Red Edge	0.740	20
Band 7 – Vegetation Red Edge	0.783	20
Band 8 – NIR	0.842	10
Band 8A – Vegetation Red Edge	0.865	20
Band 9 – Water Vapour	0.945	60
Band 10 – SWIR – Cirrus	1.375	60
Band 11 – SWIR	1.610	20
Band 12 – SWIR	2.190	20

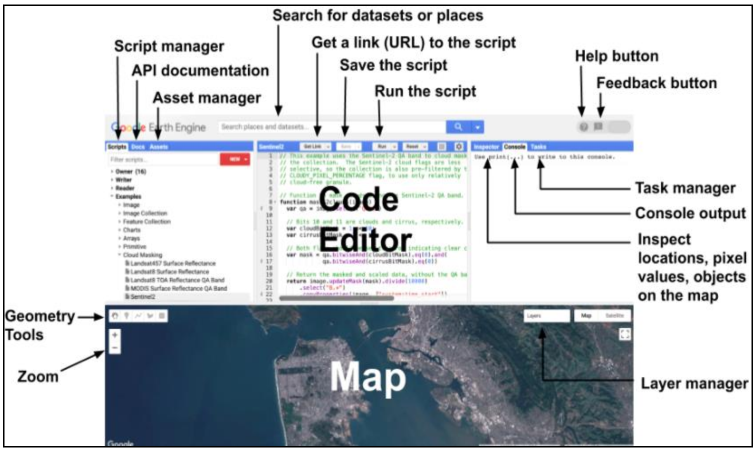

Figure 2. Diagram of components of the Earth Engine Code Editor at code.earthengine.google.com (Source : https://developers.google.com/)

Data Analysis

NDVI (Normalized Difference Vegetation Index) is an image calculation that is used to determine the very good level of greenery as the beginning of the division of vegetation areas. NDVI can show parameters related to vegetation, including green foliage biomass, green foliage area which is an estimated value for vegetation division. NDVI value calculation requires Band 8 (NIR) and Band 4 (Red). NDVI calculation formula presented in Eq. 1.

$$NDVI = \frac{NIR-Red}{NIR+Red} \qquad (1)$$

The NDVI value range is between -1 to +1. Values greater than 0.1 usually indicate an increase in the degree of greenery and intensity of vegetation. Values between 0 and 0.1 are generally characteristic of rock and bare land, and values less than 0 may indicate clouds of ice, clouds of water vapor, and snow. Surface vegetation has an NDVI value range of 0.1 for savanna (grasslands) to 0.8 for tropical rainforest areas.

The NDBI index will focus on highlighting urban areas or built-up areas where there is usually a higher bounce in the Shortwave Infrared (SWIR) area. NDBI value calculation requires Band 8 (NIR) and Band 11 (SWIR). NDBI calculation formula presented in Eq. 2.

$$NDBI = \frac{SWIR - NIR}{SWIR + NIR} \qquad (2)$$

NDWI has been used to achieve the goal of separating water and non-water features. Mcfeeters (1996) developed the NDWI formula using the green and near-infrared (NIR) bands. NDWI value calculation requires Band 3 (Green) and Band 8 (NIR). In this study, using the development of Mcfeeters with the NDWI formula as follows Eq. 3.

$$NDWI = \frac{Green - NIR}{Green + NIR} \qquad (3)$$

Table 2. Correlation coefficient (Source: Singh, 2018: 57)

Description	Value
Very Weak	0.00-0.19
Weak	0.20-0.39
Moderate	0.40-0.59
Strong	0.60-0.79
Very Strong	0.80-1.00

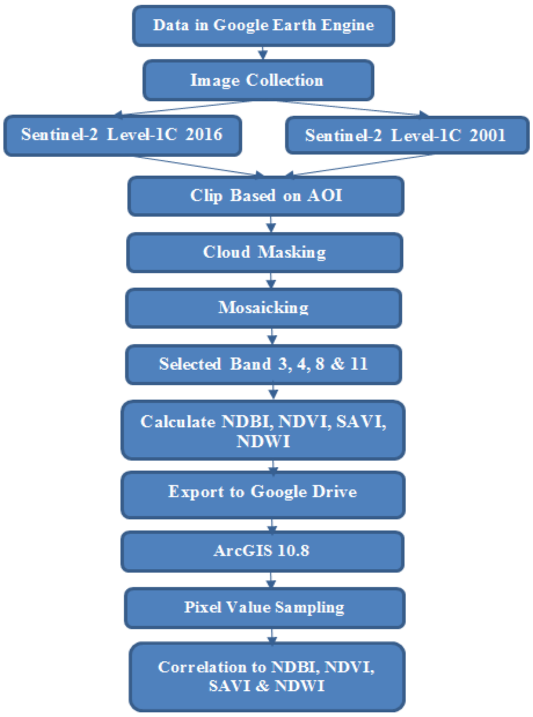

Figure 3a. Research flow chart

This soil vegetation index is adjusted and similar to NDVI , but suppresses the effect of ground pixels and uses a background canopy adjustment factor (L), which is a function of vegetation density and often requires prior knowledge of the amount of vegetation. Huete (1996) showed the optimal value of L = 0 .5 to account for first-order soil background variation. This index is best used in areas with relatively sparse vegetation where the soil is visible through the canopy. SAVI calculation formula presented in Eq. 4.

$$SAVI = \frac{1.5 * (NIR - Red)}{(NIR + Red + 0.5} \qquad (4)$$

$$r = \frac{n\Sigma xy - (\Sigma x)(\Sigma y)}{\sqrt{\{n\Sigma x^2 - (\Sigma x)^2\}\{n\Sigma y^2 - (\Sigma y)^2\}}} \qquad (5)$$

To find out the relationship between land changes built with other indices conducted correlation tests on Sentinel-2 Imagery. The regression used in this research is simple linear regression. Regression analysis is a statistical calculation used to determine whether satellite image data can be used to describe conditions that exist in the field. The relationship between the regression correlation is expressed in the correlation coefficient (r) and the coefficient of determination (R squared) to calculate the correlation coefficient value, the equation is used (Equation 5). Information on the strength of correlation is presented in Table 2.

RESULTS AND DISCUSSION

Google Earth Engine

Google Earth Engine makes it easy to perform remote sensing data acquisition, data processing, and visualization (Amani et al., 2020; Jahromi et al., 2021; Philipp et al., 2021; Tamiminia et al., 2020; Wang et al., 2020) . The results of data analysis through the GEE platform are presented in Figure 1. The script that is built simultaneously represents the NDBI, NDVI, SAVI, NDWI images, and the composite band of Sentinel 2 A images. Figure 1 shows the analysis results of one of the building indexes, namely NDVI 2016. The highest pixel value is shown in red while the lowest pixel value is shown in green. The results of image extraction that have been processed through GEE show pixel values that vary between 2016 and 2021. The 2016 NDBI has a threshold value of -0.818 to 0.531 with an average of -0.139. Meanwhile, the NDBI in 2021 has a threshold value of -0.777 to 0.549 with an average of -0.086. The differences in the minimum, mean and maximum values for the NDVI, SAVI, NDWI index are presented in Table 3. The Maximum value of each index shows an increase from 2016 to 2021. Graphs the pixel values of NDBI, NDVI, and SAVI images presented in Figure 4.

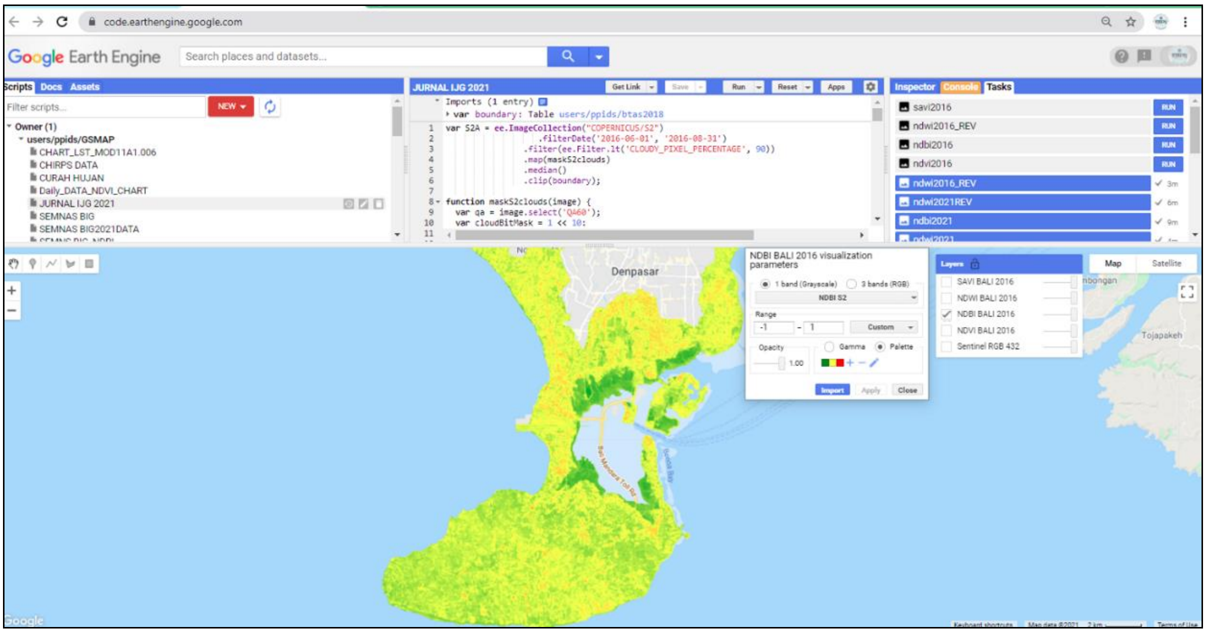

Figure 3. Dashboard Google Earth Engine. On the dashboard, displaying the results of each indices for 2016 and 2021

Tabel 3. Value of NDBI, NDVI, SAVI and NDWI values in 2016 and 2021 (Source: Primary data analyst, 2021)

No	Index	Pixel Value		
		Minimum	Mean	Maximum
1	NDBI 2016	-0.818	-0.139	0.531
2	NDBI 2021	-0.777	-0.086	0.549
3	NDVI 2016	-0.675	0.481	0.814
4	NDVI 2021	-0.528	0.389	0.815
5	SAVI 2016	-1.013	0.623	1.220
6	SAVI 2021	-0.791	0.584	1.222
7	NDWI 2016	-0.678	-0.345	0.686
8	NDWI 2021	-0.678	-0.329	0.697

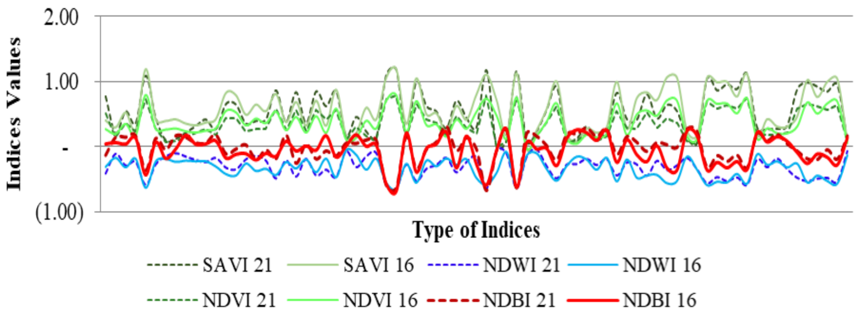

Figure 4. Graphs the Pixel Value NDBI, NDVI, SAVI, NDWI.
The graph is the result of sampling the pixel values of each vegetation index (Figure 5)

Spatial Distribution Map of NDBI, NDVI, SAVI and NDWI

The NDBI map is visualized with a yellow to red color gradation (Figure 5a). The yellow color indicates the lowest value of the NDBI image, while the red color indicates the highest value of the NDBI image. Visually, more red zones are found in the 2021 NDBI images than in 2016. Such as located in the regional tourist area (KSPD) in Kuta District, KSPD Nusa Dua in South Kuta District and KSPD Kuta in Kuta District. Areas in red indicate high levels of building density. Meanwhile, the yellow area indicates a high density of vegetation, such as the Mangrove Forest which is located in the coastal area of South Denpasar District and Kuta District. The NDVI map is visualized with gradations of green, yellow to red colors (Figure 5b). The red color indicates the lowest value of the NDVI image, while the green color indicates the highest value of the NDVI image. Visually, more green zones are found in the 2016 NDVI image than in 2021. For example, it is located in the Tanah Lot Regional Tourist Area (KSPD) in Kediri District, and the KSPD Lebih in Sukawati

District. The green area indicates a high level of vegetation density. While the yellow area indicates a high level of building density, such as those located in the KSP Tuban and Kuta, Kuta District. The red color indicates the highest pixel value, which is in the body of water in KSPD Pulau Serangan, South Denpasar District. SAVI (Soil Adjusted Vegetation Index) is an algorithm developed from NDVI by suppressing the influence of the soil background on the brightness of the canopy.

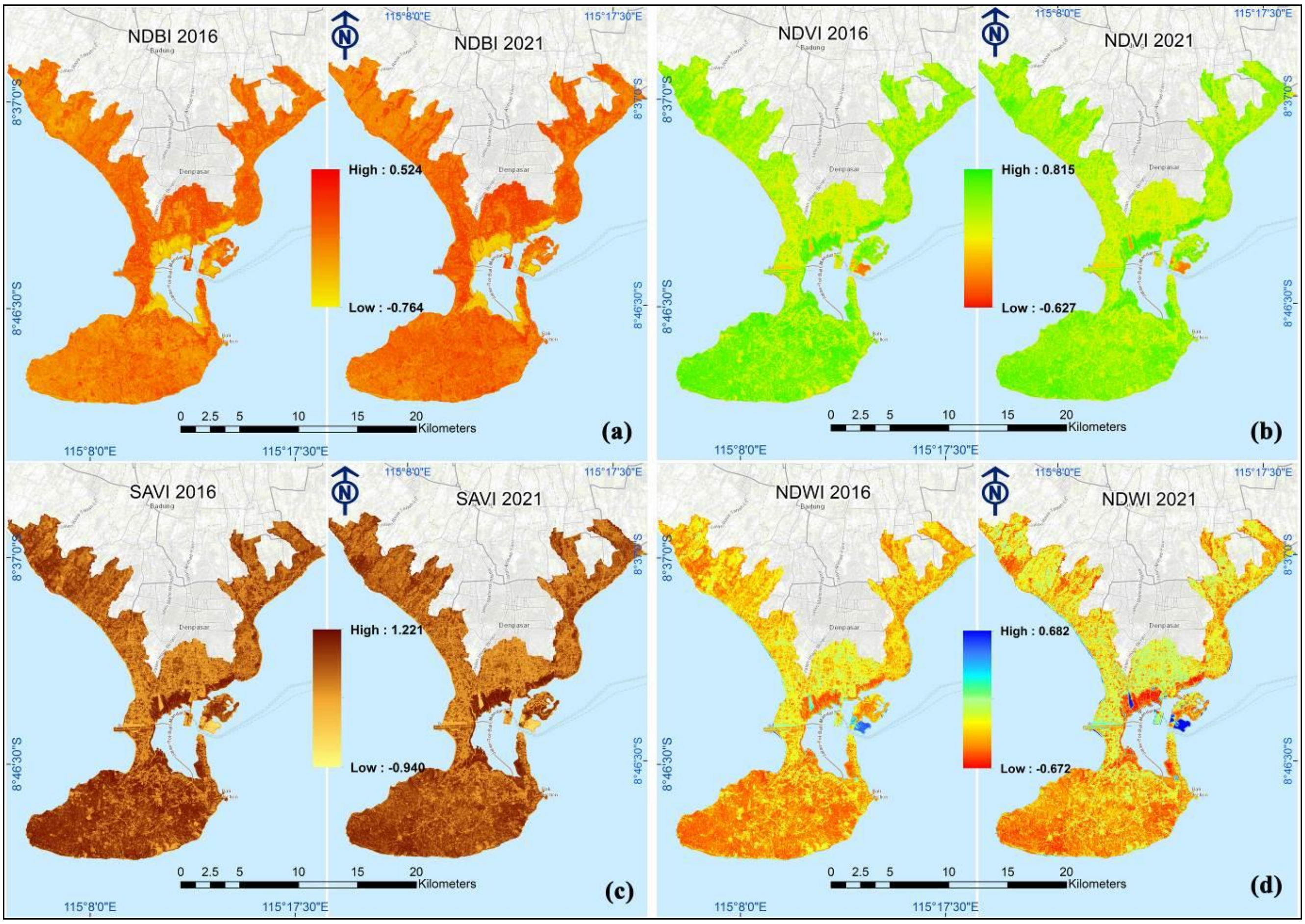

Figure 5. Spatial Pattern of NDBI (a), NDVI (b), SAVI (c), and NDWI (d). There is a change in spatial patterns. The more the awakened area (red zone) (a), and the decrease in the area of deviation (b), (c) and increase the value of the water indices (d). (Source: Authors)

The SAVI map is visualized with gradations of yellow, to brown (Figure 5c). The yellow color indicates the lowest value of the SAVI image, while the brown color indicates the highest value of the SAVI image. Visually, more brown zones are found in the 2016 NDVI image than in 2021. For example, it is located in the Nusa Dua Regional Tourist Area (KSPD) in the South Kuta District, which has a contrasting contrast of brown color sharpness between 2016 and 2021. The NDWI map is visualized with blue, yellow to red gradations (Figure 5d). The red color indicates the lowest value of the NDWI image, while the blue color indicates the highest value of the NDWI image. NDWI represents the level of wetness of the earth's surface detected from remote sensing images. A high value indicates a high level of wetness on the earth's surface, which in this study is a body of water in the KSPD Pulau Serangan, South Kuta District. The NDBI and NDWI values show a relatively similar pattern, but opposite the SAVI values with NDVI. For example, when NDVI and SAVI show a value of 1, NDBI and NDWI show a value of -0.50 (Figure 4). This condition occurs because the transformation of the highest NDVI and SAVI values (close to 1) is in high vegetation density land cover. In the Building Density Index (NDBI) a pixel value close to 1 indicates a high level of building density, while NDWI indicates a high level of wetness on the earth's surface.

Correlation between NDBI with (NDVI, SAVI, and NDWI)

The correlation line between NDBI and (NDVI, SAVI and NDWI) shown on Figure 6. The essence of this research is to monitor changes in building density in the coastal tourist area of Bali Island. Spatially, the building density in 2021 is higher than in 2016. This study does not examine the best index to detect building density, but the researcher only uses NDBI to determine the pattern of building density and correlates it with vegetation cover as indicated by NDVI and SAVI and the level of surface wetness. Earth due to massive development, especially in the tourism area. The correlation value between NDBI and NDVI in 2016 (r= 0.894), while in 2021 (r= 0.859). The correlation between NDBI and SAVI in 2016 (r=0.894), while the correlation between the two in 2021 (r=0.859). The correlation between NDBI and NDWI in 2016 (r= 0.845), while in 2021 (r= 0.811). The correlation between NDBI and other indices, indicates a very strong relationship. Image visualization with a combination of bands (B8, B4, B3) makes it easier to visually interpret the built-up area and the vegetated land (Figure 7). The combination of color infrared bands is meant to emphasize healthy and unhealthy vegetation (Al-Doski et al., 2020; Beisel et al., 2018; Bindu et al., 2020; Franke et al., 2012; Kala et al., 2018; Saheed et al., 2020; Sawaiker and Gaonkar, 2020; Shahukhal and Semke, 2016). By using the near-infrared band (B8), it is very good at reflecting chlorophyll (Ali et al., 2020; Ansper and Alikas, 2019; Bramich et al., 2021; Clevers and Gitelson, 2013; Clevers et al., 2017; Darvishzadeh et al., 2019; Delloye et al., 2018; Govindaraj and Saravanakumar, 2019). This is why in color infrared images, denser vegetation is colored red, as in Mangrove Forests. Meanwhile, the Nusa Dua Regional Tourism Area is partly white and brown which indicates the existence of built-up land. The condition of the built-up land visually experiences growth from 2016 to 2021.

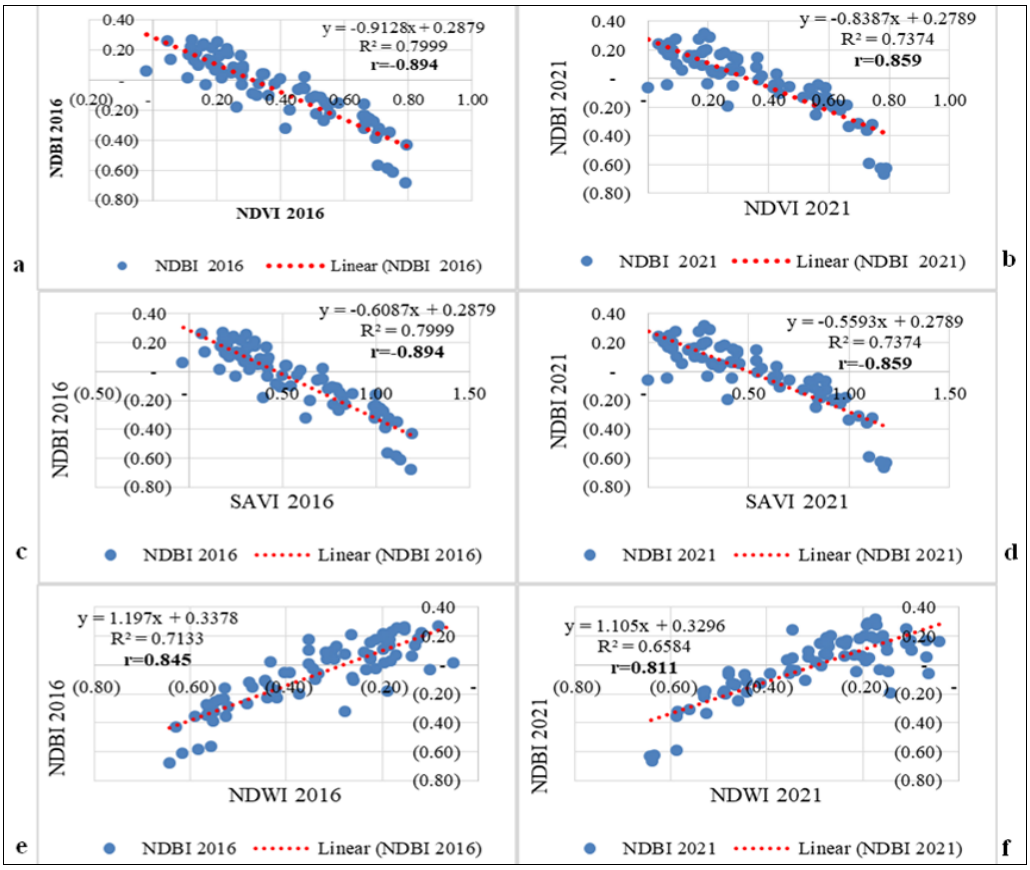

Figure 6. Correlation between NDBI and NDVI in 2016 (a), NDBI and NDVI 2021 (b), NDBI and SAVI 2016 (c), NDBI and SAVI 2021 (d), NDBI and NDWI 2016 (e) and, NDBI and NDWI 2021 (f). The correlation between NDBI and NDVI (a), SAVI (b) has a negative correlation, and is positively correlated with NDWI (c)

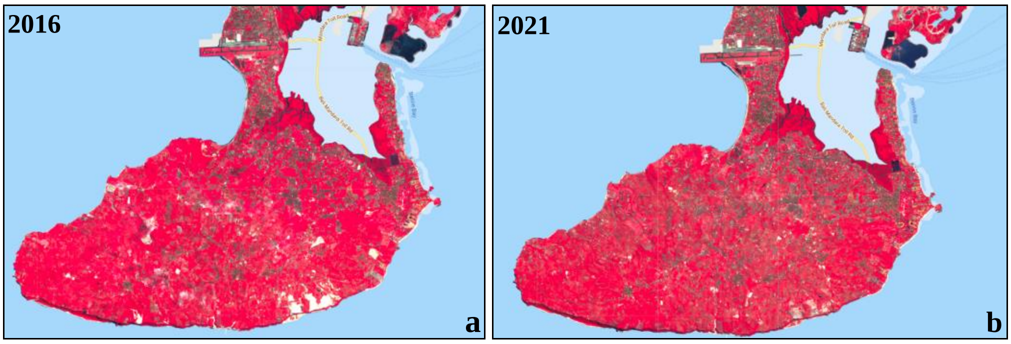

Figure 7. Map using Color Infrared Band Combination RGB (B8, B4 and B3), Conditions in 2016 (a), and 2021 (b). Using infrared color it appears more clear, that the area of land is built and the empty land is indicated by brown. The map is located in KSP Kuta Selatan (Source: Authors)

The tourist area of the coastal part of the island of Bali is experiencing the development of built-up land from 2016 to 2021. The development of built-up land causes a decrease in vegetation density (Koko et al., 2021) and causes drougt land (Vinh et al., 2020), indicated by a high level of land wetness. So that in areas with tall buildings, it is easily inundated with water during the rainy season. On the other hand, the decrease in vegetation density, also affects the increase in surface temperature (Goldblatt et al., 2021) so that the atmosphere of the tourism area becomes heat. The density of industrial and transportation activities in tourism areas has an impact on air pollution, such as nitrogen dioxide (NO_2), which can be harmful to human health and tourists (Sunarta and Saifulloh, 2022). Based on this research, it is recommended that the construction of tourism facilities in the form of hotels, restaurants, shopping places, and other tourism supporting facilities be carried out so that development is carried out in the northern part of the region which has a high vegetation density. However, development must be based on regional spatial planning (Saputra and Santosa, 2020), so as not to violate the law. In areas that have already been developed, it is recommended to carry out greening around the building in order to create an atmosphere of a green tourism area (Vdovenko et al., 2021).

CONCLUSION

There is a change in spatial patterns, the built-up area in the coastal tourism area. The built-up area having growth from 2016 to 2021, such as in the Kuta Selatan, Kuta and Nusa Dua regional tourism strategic area. The correlation between the built up area indices and the vegetation indices shows a negative correlation. This shows that the higher the value of the built-up area indices, the lower the value of the vegetated land indices.

The correlation between the built-up area indices and the water indices shows a positive correlation, this shows the high value of the built-up area indices, which is directly proportional to the high value of the water indices. The correlation is an increase in built-up areas, a decrease in vegetation density, and an increase in the level of wetness of the soil surface. Based on this research, it is recommended that the construction of tourism facilities be accompanied by the addition of vegetation through greening around the buildings in the coastal tourism area.

Acknowledgement

The authors thank the Dean of the Faculty of Geography, Gadjah Mada University and the Dean of the Faculty of Tourism, Udayana University. Because research in the field of tourism and remote sensing can be carried out well. The researcher also thanks the Head of the Center for Spatial Data Infrastructure Development at Udayana University who has facilitated the equipment to perform Image Processing, so that this scientific work can be completed in a timely manner.

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Article history: Received: 09.10.11.2021 Revised: 11.03.2022 Accepted: 18.04.2022 Available online: 12.05.2022

GeoJournal of Tourism and Geosites
ISSN 2065-1198, E-ISSN 2065-0817

Year XV, vol. 41, no. 2, 2022, p.517-522
DOI 10.30892/gtg.41224-858

LISBON'S FADO SOUNDSCAPE: BETWEEN IDENTITY AND TOURISM

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Citation: Zarrilli, L. (2022). LISBON'S FADO SOUNDSCAPE: BETWEEN IDENTITY AND TOURISM. *GeoJournal of Tourism and Geosites*, 41(2), 517–522. https://doi.org/10.30892/gtg.41224-858

Abstract: In cultural geography, several authors agree on the existence of a two-way relationship between music and place. Thus emerges the concept of "soundscape", according to which a geographical space is identified and perceived also thanks to its auditory dimension. This is certainly the case of Lisbon's fado: born in the slums of the Portuguese capital during the XIX century, it has now achieved a strong tourist value, also thanks to its inclusion in the list of Unesco Intangible World Heritage in November 2011. In this paper we try to understand if fado corresponds to a still authentic feeling, or if it is turning rather into a "scenography" and a representation aimed at an audience of tourists, which inevitably involves a process of "commodification" and trivialization.

Key words: Lisbon, fado, soundscape, identity, urban tourism

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INTRODUCTION

In cultural geography, several authors agree on the existence of a two-way relationship between music and place (Leyshon et al., 1995; Connell and Gibson, 2003; Fernandes, 2013). It is argued that places, thanks to their historical-cultural characteristics, can generate specific musical genres, which, in turn, contribute to defining and making unique the places where they were born: "The idea that a deterministic relationship between place and culture exists – as musical styles and sounds emerge from different locations, and as musicians relate to their environment – remains powerful." (Connell and Gibson, 2003: 90-91). Thus emerges the concept of "soundscape", according to which a geographical space is identified and perceived also thanks to its auditory dimension: "In this sense, the sound environment is one of the most important elements of a landscape, because it can condition the quality of life but also because it is assumed, when associated to music, as a factor of identity statement and territorial marketing" (Fernandes, 2013: 34). All this is relevant from the point of view of the tourism market, which is increasingly oriented towards a multisensorial fruition of places. In such a scenario, musical traditions can become a factor of territorial competition and a tourist resource: "Tango's Buenos Aires, folk music's Dublin, fado's Lisbon or samba's Rio de Janeiro, by bounding sound artistic experiences to very particular events and urban environments, are posters for tourist promotion of the cities that intend to state before global flows of cultural tourism." (Fernandes, 2013: 34). This is certainly the case of Lisbon's fado, the subject of this article: born in the slums of the Portuguese capital during the XIX century (Figure 1) and risen to a national symbol already at the time of the Salazar dictatorship, it has now achieved a strong tourist value, also thanks to its inclusion in the list of Unesco Intangible World Heritage in November 2011, which has certainly amplified its image and attractiveness. In this paper we try to understand if we can speak of a "soundscape" linked to this musical genre and if it corresponds to a still authentic feeling, or if it is turning rather into a "scenography" and a representation aimed at an audience of tourists, which inevitably involves a process of "commodification" and trivialization.

Figure 1. Graffiti depicting Maria Severa Onofriana, considered the first icon of fado. Escadinhas de São Cristóvão (Saint Christofer Stairway), Mouraria

MATERIALS AND METHODS

In this paper a qualitative-quantitative approach has been adopted. We have started with the review of the literature related to the relationship between music and territory and to the concept of "soundscape" (Bithell and Hill, 2014; Connell

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and Gibson, 2003; Fernandes, 2013; Gibson and Connell, 2005; Leyshon et al., 1995; Norton and Matsumoto, 2019; Quinn, 1996). Then we have focused on the literature specific to fado (Bay Frydberg, 2012; Belo and Branco, 2010; Elliott, 2010; Fonseca, 2011; Gasparotto, 2014; Menezes Bastos, 2007; Pereira, 2008; Pimentel, 1904). We have made several field missions in Lisbon between 2016 and 2022, aimed at identifying the places of fado and its ways of fruition, both from the local and the tourist points of view. By crossing the findings obtained through field missions with data from different sources (Portal do Fado; Museu do Fado; Google map), we have quantified and located the public places intended for listening to live fado. Finally, for the toponymic analysis, we have analysed the lyrics of the 7.950 songs listed in the Portal do Fado (www.portaldofado.net), which is the official website dedicated to this musical genre.

Lisbon's tourist attractiveness

Since the late nineties there has been a constant growth of international tourism in Portugal, also thanks to the creation of new infrastructures and the organization of major events, such as the 1998 EXPO and the 2004 European football championships (De Iulio, 2010). Of course, this positive trend concerns above all the city of Lisbon, for which we can speak of a tourist boom comparable to that experienced by Barcelona since the early nineties. At the base of this success there is certainly the consolidation of the tourist image of Lisbon, which is turning into a "must-see" of urban tourism: it was declared "World's Leading City Break Destination" in 2018 and 2019, to name just the most recent of the awards obtained. The covid 19 pandemic has certainly brought about a halt to this trend. However, the prompt and effective response that national and city authorities have given to the emergency has created the prospects for a recovery in the sector in the short term.

Lisbon's tourist attractiveness is certainly based on its strong character, which is made up of several elements: a heterogeneous urban landscape with historic and traditional neighborhoods, such as Alfama and Belém, and futuristic urban scenarios, such as that of the Parque das Nações (Park of the Nations), a paradigmatic case of functional conversion of a former industrial area; the hilly topography, which guarantees the city a scenic dimension, with numerous *miradouros* (view points) and sudden panoramic views; the proximity to the Tagus River, along which some of the most important tourist areas are aligned (Belém, Baixa, Alfama, Parque das Nações, to name the best known), and a tourist resource in itself, thanks to the recovery for leisure activities of the *docas* (docks) and dismissed industrial facilities such as LX Factory and Village Underground (Zarrilli et al., 2019; Zarrilli and Brito, 2021); the monuments in Manueline style, notably the Bélem Tower and the Jerónimos Monastery, which represent well known urban landmarks in the tourist imagery; the original means of transport, such as the funiculars, the *elevador* (lift) de Santa Justa, the *eléctrico* (tram); the extraordinary brightness, an effect of the geographical position, which earned it the nickname of *cidade da luz* (city of the light); the mysterious and vaguely exotic atmosphere, a historical legacy but also a symptom of cosmopolitanism and multiculturalism; its atmosphere a bit bohemian, a bit out of date, intellectual and popular at the same time, in which it is no coincidence that the figures of Fernando Pessoa and Amália Rodrigues shine with particular brilliance, now also risen to the role of "pop" icons in tourist imagery. Coming to the subject of this article, it was noted in this respect that "another good example of how fado has been used to fill the void that followed the loss of African colonies is the fact that in the souvenir shop of the Fado Museum one of the photobiographies of Amália Rodrigues is displayed next to one of Fernando Pessoa, a writer whose partial work remains indissolubly associated with fado imagery and themes. The position of the queen of fado alongside Pessoa is central to the recognition of fado's aptitude to reach non-Portuguese audiences and also imbues the genre with a strong artistic and intellectual aura." (Fonseca, 2011: 55-56. Our translation from Portuguese).

Lisbon, the city of fado

According to the most accepted interpretation, the word fado derives from the Latin *fatum*, destiny. And it was the historical, cultural and social destiny of imperial and colonial Portugal that made this musical genre essentially urban and imbued with that exquisitely Lusitanian sentiment that is the *saudade*, a kind of melancholic nostalgia that Eduardo Lourenço defined as "the most precious and the most mysterious of all sentiments" (Lourenço, 2006: 33. Our translation from Italian). Through this musical form, a symbolic universe has been built that is continually regenerated, from its origins to the present day, thanks to generations of interpreters who, although innovating (Fonseca, 2011), still refer to tradition, that is, to what can be defined as "an unfinished process of creation-recreation, production-reproduction, continuity-discontinuity; a system in constant renewal." (Marcos Arévalo, 2007: 26. Our translation from Italian).

The origin of fado is still debated (Pereira, 2008; Gasparotto, 2014), even if its passage through the Luso-Afro-Brazilian universe is now universally recognized (Machado Pais, 2002; Menezes Bastos, 2007; Bay Frydberg, 2012). On the other hand, there is no doubt that fado appeared in Lisbon in the nineteenth century, establishing its places of production and consumption in the popular districts of this city (Mouraria and Alfama) and in social contexts characterized by exclusion and deviance.Subsequently, and increasingly since the 1930s, fado has no longer been performed only spontaneously in the *ruas* (streets) and *tascas* (taverns) of Alfama and Mouraria, but also as a "codified" genre of entertainment in rather expensive and formal venues, the so-called *casas de fado* (fado houses), located above all in the Bairro Alto, the district of night entertainment, to then conquer the theatrical, radio and television spotlights, as well as the record market, and cross the national borders thanks to its most famous interpreter, Amália Rodrigues.

Nowadays, fado, in a traditional version or contaminated with other musical genres, occupies a stable place within the World Music[1], and has acquired great international visibility through a new wave of performers such as Mísia, Cristina Branco, Ana Moura and especially Mariza, considered by many to be Amália's legitimate heir.

[1] World Music, far from being a specific musical genre, is a broad category which includes many musical styles from all over the world, including Western ones (for example Irish folk or Salento pizzica), as well as musical expressions born from the contamination between

Lisbon's fado, between "topophilia" and toponymy

In the case of the relationship between fado and Lisbon, we believe that it's possible to refer to the concept of "topophilia", a neologism conceived by geographer Yi-Fu Tuan (Tuan, 1974) to describe the emotional ties, which can be of various kinds, between human beings and places, by virtue of specific natural environments or cultural contexts to which one feels connected, both individually and collectively.

In this regard, it is our opinion that in fado, as a musical expression of a given community, a form of "topophilia" towards the city of Lisbon is inherent, as is particularly evident from the titles and the lyrics of the songs, which contain an unusually large number of references to Lisbon and to its topography and heritage. As mentioned before, we analysed the 7.950 songs listed on the website "Portal do Fado", presumably all fado ever composed, looking for toponyms and historical and geographical references to the city of Lisbon, in order to give a quantitative dimension, as far as possible, to a purely qualitative aspect, that is, the aforementioned emotional approach to the city.

If we consider the titles of the songs (Figure 2), we find that the term *Lisboa* occurs 172 times[2]. Passing to the lyrics (Figure 3), the term *Lisboa* appears – at least once – in 487 songs[3]. The term *Tejo* (the Tagus River) occurs 20 times in the titles and 229 in the lyrics. Among the districts, the most mentioned, predictably, are those related to the origins of fado and its traditions, diffusion and performance: *Mouraria*[4] (46 occurrences in the titles, 223 occurrences in the lyrics) and *Alfama* (25 and 168 occurrences respectively). In total (Figures 3 and 4), we have found 353 toponyms in the titles and 2.056 toponyms in the lyrics that can be directly or indirectly associated to the city of Lisbon as a whole, to its geographical elements (e.g. the Tagus Rivers) or to parts thereof (neighbourhoods, specific streets, squares, monuments, *casas de fado*, theatres, restaurants, bars, infrastructures, transportation means), confirming what was observed by Elliott: "One of the main lyrical themes of fado is the city itself, particularly those areas most associated with the music's origins such as Mouraria, Alfama and Bairro Alto. A mythology of place is summoned up in fado songs texts that attempts to trace the remembered and imagined city of the past via a poetics of haunting" (Elliott, 2010: 1).

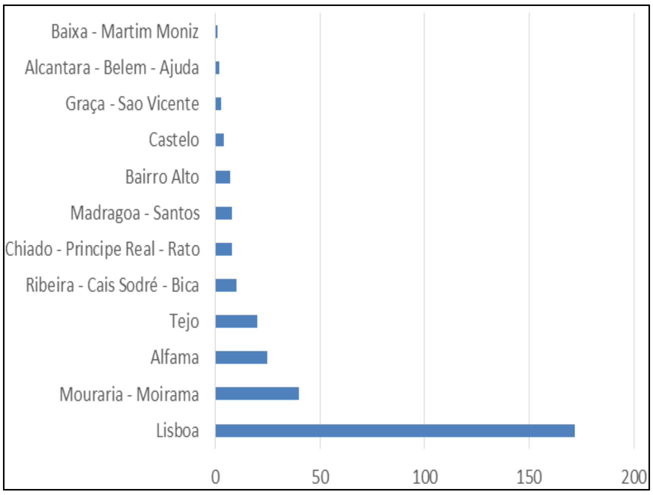

Figure 2. Titles: number of direct occurrences of toponyms by area/neighborhood (Source: elaboration on data https://www.portaldofado.net/)

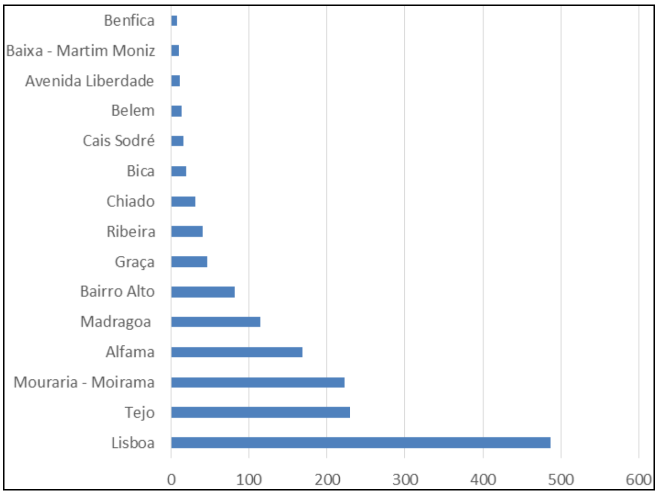

Figure 3. Lyrics: number of direct occurrences of toponyms by area/neighbourhood (Source: elaboration on data https://www.portaldofado.net/)

The tourist dimension of fado

It can be argued that there is a special bond and an inseparable link between the city of Lisbon and fado as a musical genre. Therefore, if there are no doubts about the intrinsically identitarian dimension of fado, it should be emphasized how, hand in hand with the opening and international integration of Portugal (1974 Carnation Revolution; entry into the EEC in 1986), and also on the basis of the recent inclusion of fado in the Unesco list, a tourist relevance of this musical genre enhanced, backed by a growing offer and its use as a "brand" for the city of Lisbon, and more

musical genres that we could define as "ethnic" and international pop. Since the 1980s, the English musician Peter Gabriel has carried out a fundamental activity of production and dissemination of World Music through the WOMAD (World of Music, Arts and Dance) international festival and the Real World record label.

[2] More precisely, the term *Lisboa* occurs 172 times as such, but an indirect or metaphorical idea of the city occurs 8 more times under the terms *lisboeta* (that means inhabitant of Lisbon), *alfacinha* (that comes from *alface*, lettuce, a nickname to indicate the people from Lisbon) and *Ulissipo* (that comes from *Olisipo*, the ancient Latin toponym of the city, related to the mith of Ulysses: "An old legend states that the city of Lisbon was founded by Ulysses in his journey back home after the war against the city of Troy. During this long and adventurous journey he battled sea monsters and plenty of strange ocean creatures. One day a bolt of lightning appeared and exploded into flames in an unknown land. According to the legend, Ulysses was instructed by Zeus to build a city named Olissipo on the point of impact" https://www.ulisboa.pt/info/ulisses).

[3] As in the case of the titles, also in the lyrics *Lisboa* occurs indirectly and metaphorically 10 more times under the terms *lisboeta* and *alfacinha*, for a total of 497 songs.

[4] *Mouraria* is sometimes referred to as *Moirama*, an ancient variant that literally means "group of Moors".

generally for Portugal. In this regard, the increasing number of places where it's possible to attend fado shows should be mentioned: sometimes they are simple and cheap *tascas* (taverns), in which fado is performed in a more informal way (the so-called *fado vadio*, that is, vagabond, bohemian); more often they are *casas de fado*, in which the "commercial", not to say "tourist", dimension of musical performance, is clearly evident.

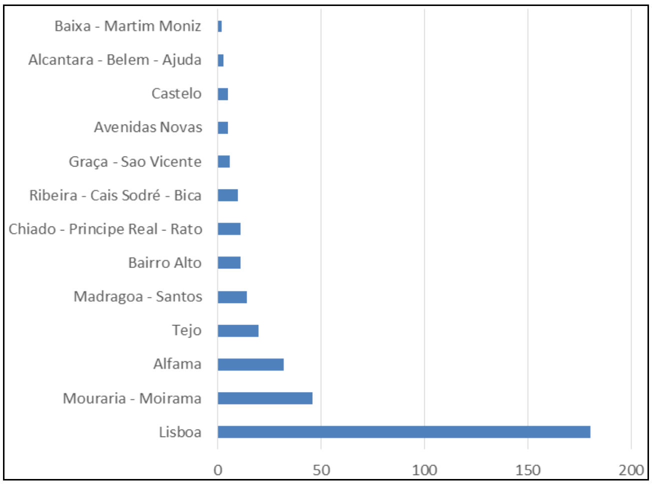

Figure 4. Titles: number of total occurrences of toponyms by area/neighbourhood (Source: elaboration on data https://www.portaldofado.net/)

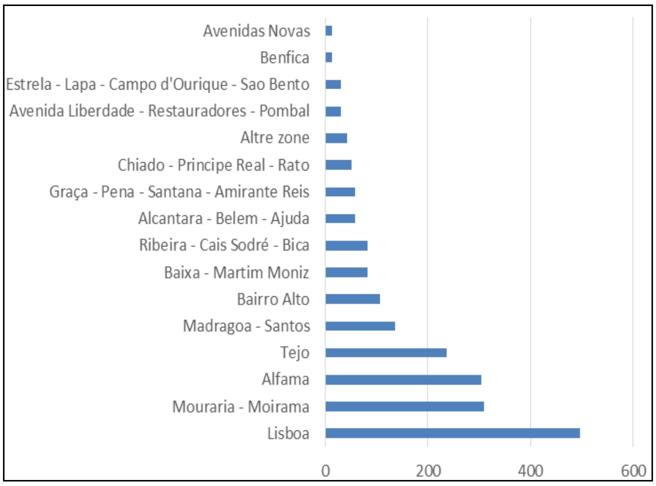

Figure 5. Lyrics: number of total occurrences of toponyms by area/neighbourhood (Source: elaboration on data https://www.portaldofado.net/)

By crossing the findings obtained through field missions with data from different sources (Portal do Fado; Museu do Fado; Google map), it turned out that as of March 2022, despite the difficulties associated with the pandemic, there are in Lisbon at least 53 places open to the public (*casas de fado*, *tascas*, theatres, clubs, bars) where it is possible to listen to fado according to a regular schedule[5]: of these, 29 are located in Alfama, 10 in Bairro Alto, 4 in Chiado and 4 in the Mouraria. The remaining 6 ones are distributed among other central and semi-central districts. A high geographical coincidence between places where fado is performed and places of tourism can be deduced: Alfama, that hosts more than half of the entire fado offer, is perhaps the district that has been most profoundly transformed by the tourism, to the point of being almost completely monopolized by it; it is therefore not surprising that almost all *casas de fado* in Alfama primarily target an audience of tourists (Figure 6).

Figure 6. Tourist advertisement for a *Casa de fado* in Alfama (Source: author)

The same can be said for Bairro Alto that, together with the neighboring Chiado, is the main area for evening and night entertainment, especially for younger tourists. It also has a historical heritage in this sense: the first *casas de fado*, born around the 1930s, were mainly located in this district. Mouraria, which is the neighbourhood most intrinsically linked to the fado of the origins and which is building its tourist image also on the "fado identity"[6], paradoxically has only 4 places offering fado performances. But the paradox is apparent: the tourist development of Mouraria is still at an early stage, while its reputation as a "difficult" neighbourhood, to be avoided at night-time – that is, in the hours typically dedicated to fado – resists. Moreover, it should be stressed that fado performances aimed at local people are often extemporaneous and escape institutional venues, official schedules and thorough advertising: this is certainly the case for Mouraria.

Still on the topic of the tourist relevance of cultural traditions, it has been rightly stated that "tourism relies on evidence of cultural activities, incidents from the past, tangible artefacts that can be photographed and attract tour buses and backpackers, a process that 'reflects the importance of such cultural forms as museums, art galleries and historic houses in tourist consumption patterns' (Quinn, 1996: 383)" (cit. in Connell and Gibson, 2003: 222).Therefore, if the living tradition of fado – whether authentic or artificial – is constantly renewed in the *casas de fado* and in the *tascas* of Lisbon, its historical memory, also for the benefit of the tourist market, is entrusted to some emblematic places. Among

[5] Not considering bars, restaurants, *tascas* and clubs where it's possible to attend fado performances episodically or as special events.
[6] In the guidelines of the public recovery project of the Mouraria, fado is defined as an "unavoidable brand identity" for the neighbourhood (https://www.renovaramouraria.pt/).

these, the Fado Museum should be mentioned, inaugurated in 1998, the year in which the Portuguese capital hosted the International Exposition and which marked a turning point for its tourism development. As stated in the presentation notes that can be found in the official website, the Fado Museum was born with the intention of celebrating "the exceptional value of Fado as an identifying symbol of the City of Lisbon, its deep roots in the country's cultural tradition and history, its role in the affirmation of cultural identity and its importance as a source of inspiration and intercultural exchange between peoples and communities" (https://www.museudofado.pt/missao, our translation from Portuguese). In addition to the Museum, there are several other "places of fado" which are not only of historical but also of tourist interest. In this regard, we can mention the Amália Rodrigues House Museum, located in the São Bento area and managed since 2001 by the homonymous foundation, and the Fernando Maurício House in Mouraria, dedicated to the memory of the famous *fadista*, open to the public in 2015 with the support of the Fado Museum.

In recent years there has also been an increase of guided tours specifically addressed to fado in its many aspects: history, traditions, legends, characters, places, methods, rituals[7]. These tours generally consist of a walking itinerary in the "places of fado", located between Alfama and Mouraria, during which the tourist is provided with the basic notions of this musical genre and its history. They end in a *casa de fado* or in a *tasca*, where the program includes live performances and a dinner based on traditional cuisine. Finally, the souvenir market should be mentioned: the "symbols" *par excellence* of fado – the Portuguese guitar and the figure of Amália Rodrigues – are now among the most typical elements of the city and its iconography: their serial reproduction helps to feed a "consumerist" vision of this musical genre. Furthermore, fado records and DVDs are widely available not only in specialized shops, but also in those commercial facilities typically intended for tourists (souvenir shops, museum shops, stalls, etc.) (Figure 7).

Figure 7. Stall in the *Feira da Ladra* market near Alfama, very popular with tourists (Source: author)

Figure 8. "O fado mora aqui! (Fado lives here!)". Interior of the *tasca* "Os amigos da Severa", Mouraria (Source: author)

CONCLUSIONS

"*O fado é canção bairrista*" (fado is a song of the neighbourhood), says the text of "Fado Antigo", written by the famous interpreter and author Manuel de Almeida (www.portaldofado.net). The fado is therefore essentially a song of the *bairro*, "of the neighborhood", and of the *bairro* – literally and metaphorically understood – it sings the stories, the people, the places, the feelings, the passions. Despite its intrinsically "local" nature, fado nevertheless has a universal inspiration and an expressive force that have allowed several generations of performers, from Amália Rodrigues to Mariza, to establish themselves worldwide. The growing international reputation of fado and the intense tourist development that Portugal and Lisbon have experienced since the eighties have paved the way for a tourist dimension of this musical genre. The establishment of the Fado Museum and other memorial sites (the Amália Rodrigues House Museum, the Fernando Maurício House), as well as the inclusion of fado on the Unesco List, represent further steps in this direction.

The use of fado as a tourist resource is, in our opinion, a clearly visible process, well evidenced by the constant increase of what we could define as "indicators" of this phenomenon: the high percentage of *casas de fado* and other fado places (like *tascas* and theatres) whose musical offer is clearly aimed at an audience of "laypersons" (which are, in fact, tourists); thematic tours, which are obviously conceived for the tourist market; souvenirs inspired by the "symbols" of fado; the selling of fado records and DVDs even in commercial spaces intended for tourists.

Coming back to the initial questions of this work, we first believe that a "fado soundscape" is not only a suggestive metaphor, but an expression capable of describing the visual and auditory impact of the elements mentioned above, which make fado and its cultural traits a specific component of everyday life in Lisbon, clearly perceptible by those who live in the city, or at least in some of its neighborhoods, such as Alfama, Mouraria and Bairro Alto, in a stable or a sporadic way.

The answer to the second question – whether fado corresponds to an authentic feeling or it is rather turning into a tourist product – is more demanding, as authenticity and artificiality are subjective categories that greatly depend on individual

[7] Through a simple search on google carried out on April 4, 2022, it turned out that at least 22 local tour operators and international platforms offer fado tours of different prices and durations.

sensitivity and perception. On the basis of the field experience, it is possible to state that both options are true in the case of fado. On the one hand, there is a simplified and stereotyped approach, based on the proposition of anecdotes, *clichés* and catchy melodies to an audience of novice and non-Portuguese-speaking tourists. On the other hand, exists – and resists – an authentic approach, based on a sense of belonging to the *bairro* and its culture, of which fado is certainly an essential element. We could find this mood above all in Mouraria, despite the ongoing transformation of the socio-economic fabric and the rapid, albeit initial, advance of tourism in what can be defined as a "frontier" district (Figure 8).

In neighbourhoods like Alfama and Bairro Alto, on the contrary, the success of tourism tends to emphasize a "commercial" vision of this musical genre. The hope therefore is that the tourist dimension of fado will not replace completely the "*bairrista*" feeling, but rather that they can trigger a virtuous circle to keep this tradition alive and vital.

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Article history: Received: 11.01.2022 Revised: 23.03.2022 Accepted: 28.04.2022 Available online: 23.05.2022

GeoJournal of Tourism and Geosites
ISSN 2065-1198, E-ISSN 2065-0817

Year XV, vol. 41, no. 2, 2022, p.523-530
DOI 10.30892/gtg.41225-859

SELF-SERVICE TECHNOLOGY (SST) IMPLICATION TOWARD INTENTION TO REVISIT IN SMALL HOTELS: A CASE STUDY OF NAKHON RATCHASIMA PROVINCE, THAILAND

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Citation: Suksutdhi, T. (2022). SELF-SERVICE TECHNOLOGY (SST) IMPLICATION TOWARD INTENTION TO REVISIT IN SMALL HOTELS: A CASE STUDY OF NAKHON RATCHASIMA PROVINCE, THAILAND. *GeoJournal of Tourism and Geosites*, 41(2), 523–530. https://doi.org/10.30892/gtg.41225-859

Abstract: Abstract.Self-service technology is an innovation that requires communication over the Internet through high-efficiency platforms. However, with the ability of each guest, it may cause problems in technology use. This study aims to investigate the effect of self-service technology, technology adoption, electronic service quality, satisfaction on repeat service use intention for small hotels in Nakhon Ratchasima province, Thailand. To develop and test a structural equation model, and to analyze the direct and indirect effects of all five components. The data was collected by using questionnaires from 412 samplings of small hotel guests in Nakhon Ratchasima province, Thailand, via an online survey by Google form during the COVID-19 pandemic. The descriptive statistic and path analysis were applied. The results found that the model is consistent with empirical material in statistical significance. It can confirm that three significant factors effects repeat service use intention which is 1) self-service technology, 2) technology adoption, and 3) satisfaction. Moreover, self-service technology has direct significantly affected technology adoption, electronic service quality, satisfaction, and repeat service use intention respectively. To investigate the positive effect of self-service technology, technology adoption, electronic service quality, satisfaction on repeat service use intention for small hotels in Nakhon Ratchasima province, Thailand. The quantitative approach was employed by using structural equation modeling for path analysis. The data was collected by using questionnaires. There were 412 samplings from small hotel guests in Nakhon Ratchasima province via an online survey by Google form during the COVID-19 pandemic. The results found that the model is consistent with empirical material in statistical significance. It can confirm that three significant factors effects repeat service use intention which is 1) self-service technology, 2) technology adoption, and 3) satisfaction. Hence, to implement the use of self-service technology for small hotels that should focus on these factors. The authors would recommend applying the self-service technology for small hotels as technology plays an increasingly important role in the hospitality industry, small hotels need to survive the increasingly intense competition. This research contributes the new model for small hotels to implement the use of self-service technology and it can create the guest experience and satisfaction. However, the potential of people in different societies should be considered for technology adoption.

Key words: Self-service Technology, Technology Adoption, Electronic Service Quality, Satisfaction, Repeat of Service Use Intention

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INTRODUCTION

Self-service technology (SST) is an innovative service that requires high-performance communication via the Internet through various platforms. The SST refines the customers seeing and hearing virtual reality. That is supplementary to the instant decisions on purchasing the products and services. The SST becomes an increasingly popular technology for communication and service transactions in the hospitality industry in Thailand (Kankaew et al., 2022; Suwannakul, 2019). It flourishes the customer experiences and comfort employees in some service transaction processes. In addition, SST facilitates responding to customer needs more quickly and comfortably. It also reduces the confrontation among people in terms of service providers, service receivers, and other customers. SST minimizes the usage of service items by using personal electronic devices. The good point is avoiding the spread of pathogens such as the current COVID-19 virus (Toubes et al., 2021). There were many studies on SST implementation in the hospitality industry, for instance, check-in/out at hotels, airports, hotel reservations, self-service payment, conducting financial transactions via smartphone, and other intermediary organizations (Hanks et al., 2015; Huang et al., 2019; Myra et al., 2020; Stojčić et al., 2019).

Likewise, SST has played a significant role in the service industry including in Thailand, (Amoako et al., 2021; Kankaew et al., 2022; Safaeimanesh et al., 2021; Stojčić et al., 2019; Suwannakul, 2019). Due to its sophisticated capabilities that allow customers and service providers to exchange information or service resources for purchasing goods and services online such as tablets, kiosks, and smartphones without direct interaction with employees or service providers (Huang et al., 2019; Muhammad et al., 2018). Service organizations in Thailand have used SST to serve the needs of customers, for instance, Marriott hotels allow their customers to book and check-in through either application or website by the customer themselves. At the same token in the airlines business, Thai Air Asia applied SST enhancing self-check-in system and reserve a restaurant table in the application QueQ at Don Mueang International Airport

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(Kankaew et al., 2022; Suwannakul, 2019). However, the adoption of self-service technology needs to consider the importance of service quality as it is the key to delivering guest satisfaction (Giousmpasoglou and Hua, 2020). Since the satisfaction and the ability to meet the needs of customers that exceed their expectations are the heart of the hotel business. Hence, good service results in a customer's positive attitude, satisfaction, and intention to return.

On the other hand, if the customer's needs are not met as desired or expected, dissatisfaction will occur and directly affect the revisit intention (Beard and Russ, 2017; Zhong et al., 2017). In addition, there are additional factors that may cause the customer's decision to use or decline the service via SST for instance, the availability and understanding of each customer and service provider, ease of use, and fast response which can also limit the customer's refusal to use the service via the operator's or agent's SST (Hanks et al., 2015; Huang et al., 2019; Myra et al., 2020; Stojčić et al., 2019). This is a challenge for the hotel industry in managing to achieve its goals while achieving profitability and reducing operating costs in terms of investment (Walker, 2017; Wang, 2022). However, the use of technology to serve hotel customers without interacting and assistance may lead to a response that does not meet the needs or expectations of the customer. Especially, if there are questions, doubts, system errors, or other needs arise during the use of the service, employees would be unable to respond to the need or solve the problem immediately and unable to recognize the true needs of customers directly (Considine and Cormican, 2016).

Nevertheless, the application of SST in hospitality is dramatically growing. According to the study of researchers found that in the future, especially new-generation hotel users will be more accepting and have less fear of technology which will be different from the current generation, especially, Gen P (Generation Plastic) aged between 18 and 24 (Huy et al, 2019). Thus, it is undeniable that technology will play an increasingly important role for service users and hoteliers, which is an important strategy for differentiating businesses that can meet the needs of the customers which is constantly changing based on the need for better services quality (Stojčić et al., 2019; Suwannakul, 2019; Hanks et al., 2015; Huang et al., 2019; Myra et al., 2020; Muhammad et al., 2018). In addition, travel distance is a crucial factor that determines tourism demand and guests' behavior. Hence, technology is considered as the factor that helps to reduce the process of service and save time, especially guests' timing consumption shapes their experiences and their satisfaction in a destination (Park and Yang, 2018). Hence, it is imperative to study hotel guests' acceptance of technology application so that operators can apply it appropriately, meet the customer's expectations, create customer's satisfaction, and affect the revisit intention (Suwannakul, 2019; Muhammad et al., 2018). In this research, the researcher selects chosen Nakhon Ratchasima province as a case, because it is the economic center of the lower northeastern region of Thailand, which has stated in the Economic Development Plan No. 5 of Thailand. Nakhon Ratchasima province has grown rapidly over the past few years. This is because of its biggest area province in Thailand. There are various popular touristic sites located its mountainous geographical where the temperature is fine all year round. Furthermore, the government has implemented development plan on the ground transport infrastructure of both road and high-speed rail connect to the province. This development is directly having a positive effect to the hotel industry in Nakhon Ratchasima province in terms of number of tourists visit. Consequently, hotel employs SST to deal with the augmenting number of tourists. In this study, therefore, the researcher stresses the adoption of SST in small hotels in Nakhon Ratchasima province examining the return intention of its customers. As well as, how well the small hotels perform in technology application to compete with chain hotels.

LITERATURE REVIEW

Self-service Technology refers to technology that allows users to transact and exchange information or service resources by themselves through various intermediaries or platforms. Customers can access information anytime, anywhere, on their own from the start to the end of the transaction process without direct interaction with service personnel. Nowadays, SST has been developed to be more convenient and accessible on other platforms and many different applications (Huang et al., 2019; Muhammad et al., 2018). Many expert (e.g.: Huy et al., 2019; Scherer et al., 2015) have summarized types of SST which include 1) technology interfaces, the technology that require customers to use intermediaries for communication and transactions, 2) direct transactions, the technology that allows customers to exchange resources with service providers themselves, and 3) self-help, refers to technology that allows customers to learn, receive, train and provide all of their services until the end of a transaction.

From the research review of many experts for instance, Safaeimanesh et al. (2021) Scherer et al. (2015) and Shiwen et al. (2021) added that the offering of goods and services through SST in the hospitality industry has the key factors affecting the usability of SST which include: 1) the interface should be efficient and run smoothly without slow response or signal interruption, 2) information should be accurate, able to find complete information, and the accessibility to the information should be uncomplicated, 3) product presentation should be clear, interesting, and attractive to search for more details, 4) the design of the self-service technology media device should be designed to support a wide variety of functions of computer systems, 5) the payment system should be stable and highly secure, support various currencies and support a variety of payments such as cash, credit cards, etc., 6) web marketing often involves dynamic digital displays with multiple product views including comprehensive product information, many applications have mechanisms that can customize individual purchasing packages to meet the needs of different customers, 7) using a website to showcase a wide range of products through hyperlinks and system capabilities may create greater customer browsing preferences than vending machines, and 8) kiosks and websites that can be linked to the Internet and support staff access at all times will be able to respond to the needs of customers in a timely manner. In addition, many scholars mentioned factors a key benefit of SST implementation from a managerial perspective.

On the other hand, efficiency, accessibility, privacy, and self-control over transactions are the main benefits of an SST, emphasized by customers (Giousmpasoglou and Hua, 2020). The SSTs have also been described as allowing the actual transaction to be performed more quickly or efficiently than does the interpersonal alternative which saves traveling time and reduces the service process clearly. This also helps to decreases tourism resources consumption (Muhammad et al., 2018; Park and Yang, 2018). Likewise, in the perspectives of service business executives think that using SST can reduce management costs, increase management efficiency, reduce investment in strategic non-value activities, and invest resources in value-added activities. In addition, Huang et al. (2019) studied on the influence of service quality on customer satisfaction and loyalty in the B2B technology service industry found that (1) service quality had a positive impact on customer satisfaction (2) Customer satisfaction positively influences customer loyalty and (3) brand awareness positively influences the relationship between service quality and customer satisfaction. Hence, it became a Hypothesis 1, 2, 3, and 4.

H1: Self-service technology has a direct positive impact on technology adoption.
H2: Self-service technology has a direct positive impact on electronic service quality.
H3: Self-service technology has a direct positive impact on satisfaction.
H4: Self-service technology has a direct positive impact on repeat of service use intention.

Technology adoption means that individuals learn and study through a process of self-realization and experimentation until assured that the technology can definitely be beneficial. It is an individual's mental process from the perception of an innovation or technology. The adoption might not happen if the users find the technology useless, difficult to understand, unaware, never used it, and unfamiliar with the technology (Infante-Moro et al., 2021). From the literature review found that technology adoption was related to several main factors, including 1) demographics and experiences influence perceptions of the benefits of information technology and perceptions of it as an easy-to-use system, 2) the perceived benefit of information technology is a factor that determines an individual's perception of how information technology can contribute to operational efficiency and is a direct factor in the intention to display behavioral use, and 3) perceiving that it is an easy-to-use system is a determining factor in terms of the quantity of success achieved whether it meets the needs or expectations. This is a factor that affects the perception of the benefits of information technology (Huy et al., 2019; Pizam et al., 2022; Xie and Kim, 2022).

Moreover, technology adoption places a high emphasis on perceived usability, ease of use, attitude, quality, achievement of system capabilities, high level of efficiency, and moderate privacy. The adoption of technology and the quality of electronic services had a statistically significant effect on user satisfaction. And the adoption of technology that delivered quality of service had a statistically significant effect on user satisfaction and (Mohamed and Ahmed, 2020). Furthermore, there are 3 factors of service innovation that affect the decision to stay in boutique hotels in the Northeast: diversifying the offering of hotel products and services and improving service. Innovative processes affecting the decision to stay in boutique hotels in the Northeast are based on two factors: workflow improvement factors; and practical factors supporting products and services (Amoako et al., 2021). Hence, it became a Hypothesis 5, 6, and 7.

H5: Technology adoption has a direct positive impact on the quality of electronic services.
H6: Technology adoption has a direct positive impact on satisfaction.
H7: Technology adoption has a direct positive impact on repeat of service use intention.

Electronic service quality, service quality is related to the expectation of the customer in terms of quality after obtaining information about the service and the desire to use it. It is including evaluating and choosing to use the service in which the user compares expectations and perceived service performance. This is a concept that holds the principle of fault-free service operation and meets the needs and know the needs of the service recipient (Oliveras-Villanueva et al., 2020; Pakurár et al., 2019). However, Parasuraman et al. (2005) have presented E-S-QUAL" and "E-RecS-Qual" and group website quality measurements into four quality measurement dimensions: efficiency, fulfillment, system availability, and privacy. Whereas the study of Suwannakul (2019) has developed the tools to studied in the context of airline business found that the seven SSTQUAL measures were appropriate to assess service quality in a manner without interaction with service workers: functionality, enjoyment, security/privacy, assurance, design, convenience, and customization. In addition, it was found that there has not been any research that has applied the SSTQUAL measure to assess service quality through self-service technology in the context of airlines in Thailand. While Huang et al. (2019) study on the influence of service quality on customer satisfaction and loyalty in the B2B technology service industry found that (1) service quality positively influences customer satisfaction (2) Customer satisfaction positively influences customer loyalty and (3) brand awareness positively influences the relationship between service quality and customer satisfaction. Hence, it became a Hypothesis 8.

H8: Electronic service quality has a positive effect on satisfaction.

Satisfaction is the positive feeling or attitude of a person. It is the subjective feeling of happiness that arises from various forms of environmental stimulation because of comparing the information with expectations during the service. And often due to getting the desired response, if the service is below expectations, it will cause dissatisfaction which consists of two components: 1) perceived quality of service products, and 2) perceived quality of service offerings (Kotler and Armstrong, 2018; Shyju et al., 2021). Furthermore, some scholars added that satisfaction with the use of self-service technology, or intent to use it, is a manifestation of the subscriber's plans for intentionally and prioritizing the use of the service at a particular time. Satisfaction arises from the user's positive attitude towards such things as the satisfaction of using the service or receiving the service. It may come from the user attitude or the direct experience with a driving force in reuse. This may be measured by satisfaction or confidence in the service, continued use and participation in the development or improvement of the system (Mohamed and Ahmed, 2020). Many scholars revealed that satisfaction is the key to customer retention and repeat service is that customer satisfaction will lead to being a regular customer, buying new products that the company has introduced, as well as being interested in specific products of the company (Kankaew et al., 2021; Kotler and Armstrong, 2018; Ranjbarian and Khazaei, 2015). Repeat of service use intention is a return to the service of the customer resulting from their previous experience of the product or service and the satisfaction they expected or exceeded. This leads to the need to reuse the service because it is useful, valuable, and reasonable, resulting in repeat service behavior and word of mouth (Majeed et al., 2022; Nilsson and Wall, 2017). From the study of the relevant literature, it was found that there are many factors affecting the return of the customer, but the main factor for using the service again is satisfaction. However, from further studies, it can be concluded that the factors affecting the service reuse are 1) quality of electronic services, 2) perceived value and benefits, 3) safety, and 4) experience. and 5) satisfaction (Huang et al., 2019; Huy et al., 2019; Muhammad et al., 2018). Hence, it became a Hypothesis 9.

H9: Satisfaction has a positive effect on repeat of service use intention.

According to the scholars (e.g.: Giousmpasoglou and Hua, 2020; Suksutdhi, 2020; Suksutdhi and Boonyanmethaporn, 2022) mentioned the characteristics and its definition of the small hotel or the budget hotel which refer to the number of rooms that is the hotel with less than 100 rooms and provide the basic facilities and services. The room type is basic with necessities such as bedding, television, telephone, and bathroom. The room rates are cheap due to limited services and activities. The business management structure consists of the management department, Front office, Housekeeping, and the Repairs and maintenance department. It is an independent management, that is, an owner-managed hotel, some of which are family-run. Most independently managed hotels can be found in main cities and communities. Nakhon Ratchasima province is the economic center of the lower northeastern region of Thailand which has been stated in the Economic Development Plan No. 5 of Thailand and is considered as one of the main cities of the country which has grown rapidly over the past few years. This is because of its biggest area province in Thailand. There are various popular touristic sites located in its mountainous geographical where the temperature is fine all year round. In addition, most of the hotel in the city area of the province is small hotels. From the change in customer behavior, guests have changed from staying in large hotels to small hotels, which offer good services similar to the large hotel. It has high privacy and gains closer care and attention is more familiar than a large hotel which resulting in increasing guests' service use decision (Giousmpasoglou and Hua, 2020; Suksutdhi, 2020; Suksutdhi and Boonyanmethaporn, 2022). Hence, this study, therefore, focuses on small hotels in the central business district of the province. From the literature review of the related studies above, it can be summarized the research conceptual model are in Figure 1 as follow:

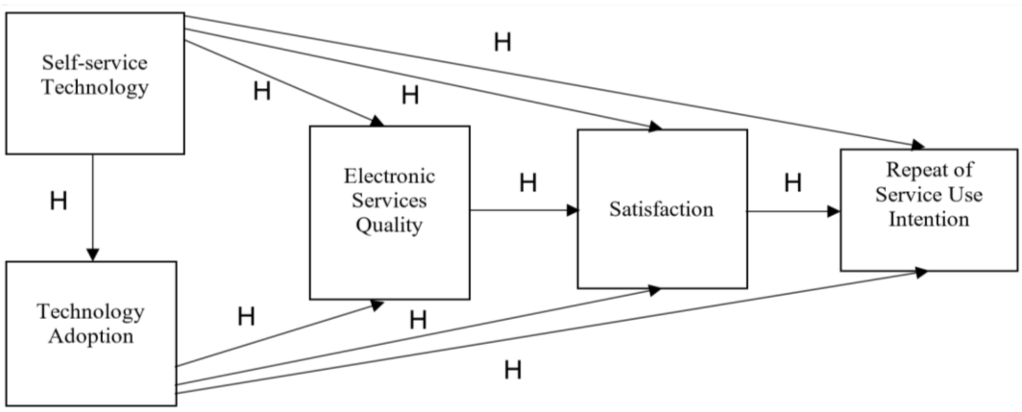

Figure 1. Research Conceptual Model

MATERIALS AND METHODS

The quantitative approach was employed by using structural equation modeling for path analysis. The researcher used a probability sampling method and using a sample random sampling. The data was collected by using questionnaires. There were 412 samplings from small hotel guests in Nakhon Ratchasima Province via an online survey by Google form during the COVID-19 pandemic. The researcher employed both descriptive statistics and inferential statistics by using structural equation modeling (SEM). 51 items were used to measure the model of Self-service Technology (SST) toward return intention in small hotels. Therefore, a further detailed examination is carried out by looking at the standardized residual covariance of each item and modification indices. After measurement, the number of paths was taken to enhance the validity of the collected data. The fit indices were tested for SEM and found that CMIN/DF = 1.058, GFI =.937, CFI = .998, NFI = .963, RFI = .949, RMSEA= .012, all of them passed the criteria (Hair et al., 2014; Schumacker and Lomax, 2010).

The final questionnaire included 38 variables which are provided as follows: 4 questions were allocated to Self-service Technology, 8 questions were allocated to Technology Adoption, 13 questions were allocated to Electronic Service Quality, while 9 questions were allocated to Satisfaction, and lastly, 4 questions were allocated to Repeat of Service Use Intention which was indeed derived from several published papers as shown in Table 1.

Table 1. The Final Questionnaire Variables

Variables	Items	References
Self-service Technology	SST1 (Efficient connection) SST3 (Product presentation is clear and attractive) SST4 (Support for a variety of system functions) SST6 (Products and services are diverse and comprehensive)	Considine and Cormican (2016), Giousmpasoglou and Hua (2020), Huang et al. (2019), Huy et al. (2019), Muhammad et al., 2018), Safaeimanesh et al. (2021) Scherer et al. (2015), Shiwen et al. (2021)
Technology Adoption	PU1 (Reduce the transaction time) PU2 (Browsing immediately) PU3 (Browsing faster) PU4 (It can be done immediately) PEU1 (Ease of searching from various sources) PEU2 (Ease of installation and loading) PEU3 (Easy-to-use structure layout) PEU6 (Convenience in payment)	Amoako et al. (2021), Considine and Cormican (2016), Huy et al. (2019), Infante-Moro et al. (2021), Mohamed and Ahmed (2020), Pizam et al. (2022), Xie and Kim (2022)
Electronic Service Quality	EFF1 (Quick access) EFF2 (Display information quickly) EFF3 (Fast) EFF4 (Transaction correctly) FFM1 (Receive orders correctly) FFM2 (offer products or services as requested) SA1 (Activate immediately) SA2 (Stable continuous work) SA3 (No crash or stop working) SA4 (Accurately calculate and display) PVC1 (Protect personal information of users) PVC2 (Security check procedure) PVC3 (Secure financial transactions)	Huang et al. (2019), Oliveras-Villanueva et al. (2020), Pakurár et al. (2019), Parasuraman et al. (2005), Suwannakul (2019)
Satisfaction	WIC3 (Display data accurately and completely) WIC4 (Interact immediately) WIC5 (Easy to find information) PQ1 (Motivated) PQ3 (Timely delivery of information) PV1 (The importance of searching for information) PV2 (Save time) PV3 (Convenient) PV4 (Easy to use)	Kankaew et al. (2021), Kotler and Armstrong (2018), Mohamed and Ahmed (2020), Pakurár et al. (2019), Ranjbarian and Khazaei (2015), Shyju et al. (2021)
Repeat of Service Use Intention	IRS2 (Safety) IRS3 (Value recognition) IRS4 (Good experience) IRS5 (Satisfaction)	Huang et al. (2019) Huy et al. (2019), Majeed et al. (2022), Muhammad et al. (2018), Nilsson and Wall (2017)

RESULTS AND DISCUSSION

The personal information of all 412 respondents revealed that most of them 262 were female accounted for 63.60% and 150 were male which accounted for 36.40%. Most of them were Generation Y (21 - 38 years old) amount of 151 people accounted for 36.70%. A large group of respondents were the single status amount of 263 people accounted for 63.80%. The respondents were 292 who graduated with a bachelor's degree or equivalent which accounted for 70.00%. They were the private company employees amount of 155 people accounted for 37.60%, and the average income per month was more than 444 - 740 USD amount of 163 people accounted for 39.60%.

The structural model comprising of self-service technology, technology adoption, electronic service quality, satisfaction, and repeat of service use intention. After measurement model of the research, construct achieved the acceptable goodness-of-fit, the remaining 38 indicators were loaded on their respective constructs and performed by CFA to estimate the fit indices for the overall measurement model. The hypotheses were related to the relationships between self-service technology, technology adoption, electronic service quality, satisfaction, and repeat service use intention. This hypothesized model was tested using SEM and the path diagram is presented in Figure 2 which can be explained as follow.

Hypothesis 1, 2, 3, and 4 predicted that self-service technology has a direct positive impact on technology adoption, electronic service quality, satisfaction, and repeat of service use intention respectively. The model presents the path estimates of self-service technology on technology adoption with factor loading value equals to 1.00, on electronic service quality with factor loading value equals to -0.49, on satisfaction with factor loading value equals to -0.54, and on repeat of service use intention with factor loading value equals to 1.04. For self-service technology (SST), SST3 and SST4 are having a high factor loading value of 0.88 and 0.80 respectively. The research results showed that self-service technology (SST) has direct significantly affected technology adoption, electronic service quality, satisfaction, and the repeat service use intention respectively which is consistent with the findings of Giousmpasoglou and Hua (2020), Huang et al. (2019), Huy et al. (2019), Muhammad et al. (2018), Scherer et al. (2015) and Shiwen et al, (2021).

Hypothesis 5, 6, and 7 predicted that technology adoption has a direct positive impact on electronic service quality, satisfaction, and repeat of service use intention respectively. The model presents the path estimates of technology adoption on electronic service quality with factor loading value equals to 1.16, on satisfaction with factor loading value equals to 1.04, and on repeat of service use intention with factor loading value equals to 1.064. Technology adoption consists of two factors, perceived usefulness (PU) and perceived ease of use (PEU). PU2 and PU4 are having a factor loading value equal to 0.85 and 0.81 respectively. Electronic service quality consists of four factors, efficiency (EFF), fulfillment (FFM), system availability (SA), and privacy (PVC). The highest factor loading value of each are EFF3, FFM2, SA2, SA4, and PVC3. The research results revealed that technology adoption has direct significantly affected electronic service quality, satisfaction, and repeats service use intention which is consistent with the findings of Amoako et al. (2021), Huy et al. (2019), Infante-Moro et al. (2021), Mohamed and Ahmed (2020), Pizam et al. (2022), and Xie and Kim (2022).

Hypothesis 8 predicted that electronic service quality has a positive effect on satisfaction. The model presents the path estimates of electronic service quality on satisfaction with a factor loading value equal to 0.41. Satisfaction has three factors, website interface correction (WIC), perceived quality (PQ), and perceived value (PV). The highest factor loading value of each are WIC5, PQ3, PV1, and PV3. While hypothesis 9 predicted that satisfaction has a positive effect on repeat of service use intention (IRS). The model presents the path estimates of satisfaction on repeat of service use intention with factor loading value equals to 0.21 which IRS2, IRS3, IRS4 are having factor loading value 0.82 equally. The research results illustrated that electronic service quality has direct significantly affected satisfaction only, and satisfaction has direct significantly affected the repeat service use intention which are consistent with the findings of Huang et al. (2019) Huy et al. (2019), Kankaew et al. (2021), Kotler and Armstrong (2018), Majeed et al. (2022), Mohamed and Ahmed (2020), Muhammad et al. (2018), Nilsson and Wall (2017), Ranjbarian and Khazaei (2015), and Shyju et al. (2021).

In this case, self-service technology, technology adoption, and satisfaction develop the repeat service use intention, and these three variables all together influence repeat service use intention for small hotels in Nakhon Ratchasima province.

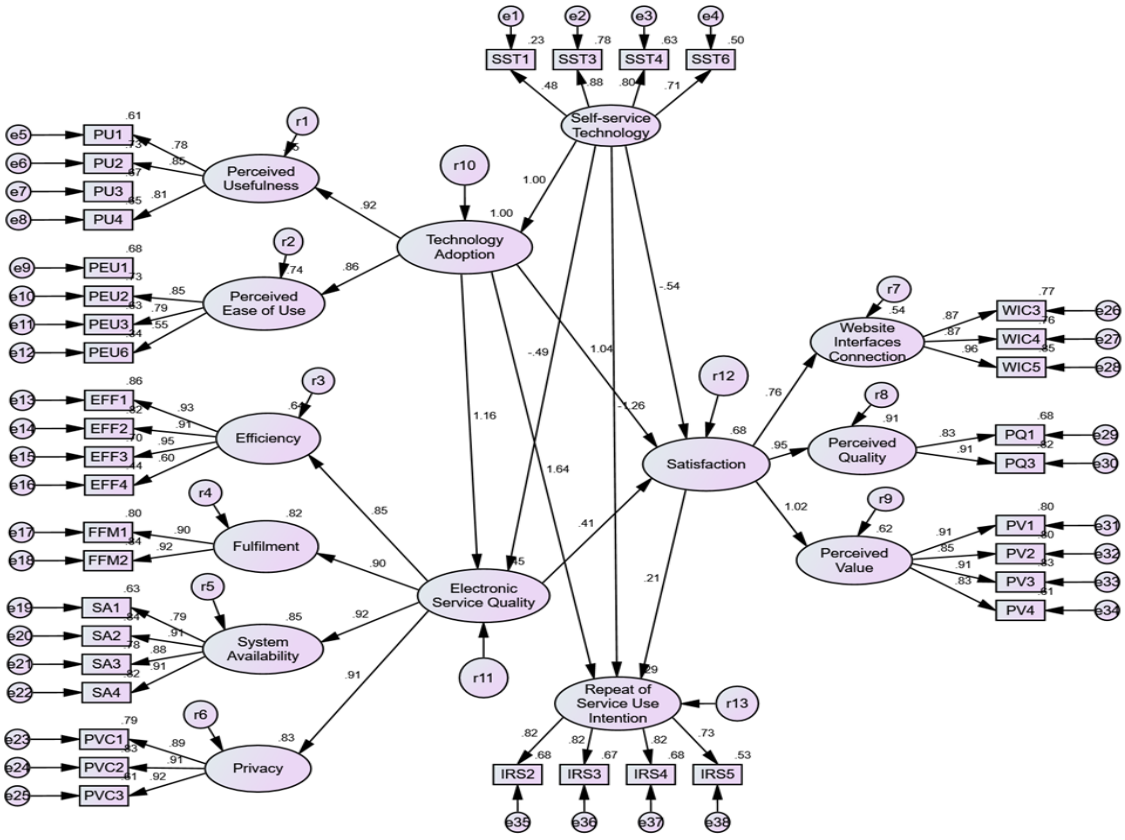

Figure 2. The Structural Model of the Study

CONCLUSION

This study was conducted to find the effect of self-service technology, technology adoption, electronic service quality, and satisfaction on repeat service use intention for small hotels in Nakhon Ratchasima province, Thailand. The confirmatory factor analysis of self-service technology (SST) index of hotel guests toward repeat service use intention found that model is consistent with empirical material in statistical significance. It can confirm that three significant factors effects on repeat service use intention which are 1) self-service technology, 2) technology adoption, and 3) satisfaction. The results show that self-service technology (SST) has direct significantly affected technology adoption, electronic service quality, satisfaction, and the repeat service use intention respectively which is consistent with the findings of Giousmpasoglou and Hua (2020), Huang et al. (2019), Huy et al. (2019), Muhammad et al. (2018), Scherer et al. (2015), and Shiwen et al. (2021). As well the technology adoption has direct significantly affected electronic service quality, satisfaction, and repeats service use intention which is consistent with the findings of Amoako et al. (2021), Huy et al. (2019), Infante-Moro et al. (2021), Mohamed and Ahmed (2020), Pizam et al. (2022), and Xie and Kim (2022). While electronic service quality has direct significantly affected satisfaction only, and satisfaction has direct significantly affected the repeat service use intention which are consistent with the findings of Huang et al. (2019), Huy et al. (2019), Kankaew et al. (2021), Kotler and Armstrong (2018), Majeed et al. (2022), Mohamed and Ahmed (2020), Muhammad et al. (2018), Nilsson and Wall (2017), Ranjbarian and Khazaei (2015), and Shyju et al. (2021).

Therefore, this research contributes the new model for small hotels to implement the use of self-service technology (SST) for small hotels which it should focus on the following.

1) For SST, small hotels should realize the efficient connection of SST, it should be stable and smooth, no slow response or signal interruption all the time, and the product and service information should be clear and attractive. SST devices should be able to support the operation of a wide variety of computer systems because the guests may access it from different platforms. Furthermore, hotel products and services in SST should be diverse and comprehensive which provide for guests to select (Giousmpasoglou and Hua, 2020; Huang et al., 2019; Huy et al., 2019; Muhammad et al., 2018; Scherer et al., 2015; Shiwen et al., 2021).

2) For technology adoption, small hotels should focus on perceived usefulness and perceived ease of use that reduce the transaction and traveling time. Browsing should be done very fast and immediately because fast service represents the hotel's service quality. Thus, the hotel should also focus on the quality of the Internet system. Furthermore, the searching of self-service technology should be supported from various sources, the installation and loading should be easy to perform, the structured layout should be easy to use and understand for some types of guests such as the elderly, as well as the ease of various forms of payment that should be convenience and support the different types of payment. Hence, the perceived usefulness and perceived ease of use are reflected the guest satisfaction which effects the return of the service use intention (Kankaew et al., 2021; Kotler and Armstrong, 2018; Mohamed and Ahmed, 2020; Muhammad et al., 2018; Park and Yang, 2018; Ranjbarian and Khazaei, 2015; Shyju et al., 2021).

3) Satisfaction is clearly affected to repeat of service use intention; thus, small hotels should focus on the guests' safety while using SST. It should encourage value recognition which the guest should perceived what they receive from using SST. In addition, all of activities of using SST should create over all good experience such electronic service quality, variety of products and services, hotel information, clear and easy to use, attractive, support of various types of payment, etc. (Huang et al., 2019; Huy et al., 2019; Majeed et al., 2022; Muhammad et al., 2018; Nilsson and Wall, 2017).

This research also contributes for theoretical implications, given the scarcity of research on self-service technology (SST) in small hotels, filling an important research gap to measure the repeat of service use intention with an in-depth understanding of small hotel guests. It provides a tool to identify the repeat of service use intention that guests prefer and to evaluate the performance of small hotels providing the SST provide.

In addition, in an era of digital economy where technology plays an increasingly important role in hospitality industry, small hotels need to adapt and survive the increasingly intense competition. The adoption of technology is necessary for small hotel businesses to create comfort and convenience for their guests as much as possible. Therefore, this research will be a guideline in applying technology to suit the size of the hotel business and its budget in order to create satisfaction in the use of technology and affect the use of the service again. Finally, for research limitations, due to COVID-19 pandemic, data was collected online using the Google platform with self-identified participants, nonetheless, to avoid the retrieval failure problem, hotel guests should be surveyed just after their stay in the hotel or not long afterward. Further, the hotel type or hotel star rating was not under consideration in this research.

Acknowledgement

This work was supported by the research fund of Suranaree University of Technology, Thailand. The writing of this article was made possible by the support received from several people. The author would therefore like to take this opportunity to express their gratitude. The author would also like to thank the support and enthusiasm of all the respondents to the surveys conducted and, the insightful information that they provided.

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Article history: Received: 28.01.2022 Revised: 24.03.2022 Accepted: 29.04.2022 Available online: 23.05.2022

GeoJournal of Tourism and Geosites
ISSN 2065-1198, E-ISSN 2065-0817

Year XV, vol. 41, no. 2, 2022, p.531-540
DOI 10.30892/gtg.41226-860

COMPARING STAKEHOLDER PARTICIPATION IN COMMUNITY-BASED TOURISM (CBT), EXAMPLES FROM THAILAND

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Citation: Witchayakawin, P., Aziz, A.Y., Mahomed, A.S.B.B., & Abdullah, N.H.B. (2022). COMPARING STAKEHOLDER PARTICIPATION IN COMMUNITY-BASED TOURISM (CBT), EXAMPLES FROM THAILAND. *GeoJournal of Tourism and Geosites*, 41(2), 531–540. https://doi.org/10.30892/gtg.41226-860

Abstract: The purpose of this qualitative research program was to study and compare stakeholder participation in community-based tourism (CBT) in communities in Phitsanulok Province and Sukhothai Province in Thailand, using case studies. Data were collected from 35 key informants from 9 villages, selected by purposive sampling, and using a structured interview form as a research tool in face-to-face, in-depth interviews. The program was undertaken during July 2021. Issues identified in an analysis of the data collected were grouped and coded. A number of different issues were identified between CBT communities. A high level of participation in CBT by leaders, homestay owners, and CBT operators was observed. Citizen control level of participation was found in both provinces, but consultation as a participation strategy was found only in Sukhothai Province. As well, differences in participation activities were identified between older participants and young participants and also between the two provinces. Volunteer work attitude and participation by visitors were also differences identified between these two provinces, indicating the different types of tourism, such as develop gastronomic tourism and creative tourism products, that should be offered by CBT communities in the two provinces.

Key words: Tourism Stakeholders, Tourism participation, Community-based tourism, Tourism volunteers

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INTRODUCTION

Tourism is an important industry in many countries, none more so than in Thailand. Not only at the national level, but also at the local village or community level, tourism is a valuable source of income. Given Thailand's long history of cultural and traditional customs, its variety of ancient architecture, extensive culinary traditions, and attractive natural environment, several types of tourism activities can be easily identified in Thailand. Ecological tourism, cultural tourism, culinary tourism and experiential tourism are all dimensions of the tourism industry that can be readily exploited. An extended list of types of tourism appropriate to Thailand have been defined in Sharafuddin (2015) that include adventure tourism, medical tourism, ecotourism, wellness tourism, cultural tourism, cruise tourism, sports tourism, educational tourism, and events. Community-based tourism (CBT) is a critical tourism concept in Thailand, playing a vital role in the economic and social well-being for rural, remote and traditional communities and which can contribute to the sustainability and maintenance of the environment, and of the traditions and cultures of those communities. CBT can also offer great tourism experiences and enjoyment to visitors interested in the historical and traditional elements of Thai traditional society. According to Witchayakawin et al. (2020), CBT is a type of tourism that encourages local development and is a counter to the negative effects of traditional tourism, often disorganized and sometimes damaging to the locales where it is popular, and is a contributor to the well-being of communities , as well as contributing to the sustainability of the environment, society, and the economy. CBT is 'owned' by the local community, it belongs to the local community, and its operation happens at the community level, sustained and managed by community participation.

The Thai government has programs intended to improve the economy at the local level and for poverty reduction, which can be achieved with CBT. Catering to the tourism trend of 2021, CBT is also of interest to tourists who are ethical travellers, cultural purists, and social capital seekers, a trend seen as developing in the long-term to 2030 and beyond (Sattel, 2015). This means that investment in CBT by local operators and business owners can be safely made with good returns in the long-term. The stakeholders of CBT include community members, the government sector, the private sector, NGOs, and visitors. These were the matters of interest that influenced us to do this study. The importance of CBT

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emphasizes the importance of our research from which good information can be derived to inform policy and practice in CBT in the future. Previous studies of strategic approaches to alternative tourism models have identified certain parameters or criteria for measuring the success of tourism activities. These include co-creation, sustainability, and community-heritage engagement values (Kangkhao, 2020). Co-creation, the most strategic level of tourism participation, refers to the aspect of cooperation and collaboration between different stakeholders in tourism projects, while sustainability refers to the balance that needs to be achieved between environmental maintenance and preservation considerations, economic benefits, and social equity. While co-creation and sustainability are desirable criteria, they do not of themselves guarantee success. Stakeholder participation, however, is seen as vital and as a corner-stone for Community-Based Tourism (CBT).

As well, community participation and government sector participation, as well as visitor participation, are primary components essential for CBT development to ensure sustainability both within participating communities and of the tourism attractions offered. The form of stakeholder participation is a crucial element for the development of tourism products and value creation, and is a dynamic factor in the development of local communities and the local economy (Zielinski et al., 2020). The socio-economic status of local residents is a factor that shapes CBT initiatives in local communities, especially those communities that continue to uphold and practice traditional customs and practices. Social and economic inequality and poverty are urgent problems that are evident in many developing countries (Giampiccoli et al., 2015). The first stage in CBT is the initiation of CBT concepts and processes in a community. The second stage is the implementation process which is the process of making a community into a tourist destination (Chatkaewnapanon and Kelly, 2019). In this stage, partners are required for successful CBT development as a vital tourist destination. It is at this stage that adequate support from both government bodies, academia and NGOs is required (Chatkaewnapanon and Kelly, 2019).

Phitsanulok and Sukhothai Province are the main provinces that are tourist destinations in the lower north of Thailand, located about 400 kilometers north of Bangkok, the country's capital. Both provinces have world heritage listed historical sites and ample cultural interest and diversity for tourism development, as well as being well endowed with natural features of interest (Witchayakawin et al., 2020). Mueang Kao Community is an ancient community in Sukhothai Province located close to the Sukhothai Historical Park and, together with the historical park, is a listed World Heritage Site. The community practices an agricultural life style, and produces outstanding uniquely Sukhothai style arts and crafts, and maintains its own language (Khlaikaew, 2015). Nearby Si Satchanalai Historical Park, another listed World Heritage Site, has an associated historical community, Tha Chai Community, that is prominent for the production of antique silver and gold wares. Nong O Community is located near Tha Chai Community and is a showplace for the unique culture of Lao people. Two other CBT communities in Si Satchanalai District, Cook Pattana Community and Natonchan Community are also agricultural villages. Cook Pattana Community is recognized as the origin of Thailand's kite, the Phra Ruang's kite, from the Phra Ruang dynasty that existed between 1238 and 1368, and was the beginning of the Sukhothai Kingdom and is considered to be the beginnings of what is now the modern Thai state. The city of Sukhothai was essentially the first capital city of Thailand. In Natonchan Community, the villagers are farmers and gardeners; thus, tourism attractions are rice fields and fruit orchards. This village also well-known for local textiles (Pha Mak Klone) and wooden toys (Tukkata Bar Hold) (Witchayakawin and Tengkuan, 2018).

These five communities in Sukhothai received CBT Excellent Standard Level by the Ministry of Tourism and Sports Thailand. In Phitsanulok province, the Wat Chan Community is a rural community located along the bank of the Nan River, close to the Wat Phra Si Rattana Mahathat temple complex, which is the most important temple in Phitsanulok where the Phra Buddha Chinnarat Statue is installed. This sacred statue is considered to be most beautiful Buddha statue in Thailand (Witchayakawin et al., 2020). The Wang Zomza community produces its own unique products by extracting the essence of citron (Zomza) which is widely planted in the village. These Zomza products include shampoos, hair conditioners, and body lotions. Zomza is also incorporated into the local food and is also of interest to tourists. Traveling about 10 kilometers north from downtown Phitsanulok city (Mueang Phitsanulok), Plak Red Community, situated in Bang Rakam District, is the origin of a dog species sanctuary (Thai Bang Kaeo dog) and the village is surrounded by nature sites such as dams, rice fields and fruit orchards. Of tourist interest also is Pha Rung Mhee, an agricultural community with spectacular natural environment that embraces beautiful mountain scenery.

Statement of the Problem

CBT development barriers found in current literature involve ensuring community involvement, community participation, and meeting community needs (Mitchell and Ashley, 2010; Spenceley and Meyer, 2012). Meanwhile, a barrier in community tourism participation is still found throughout Asia. A study in Asia found that the status of neighboring local communities in tourism development participation in Kazakhstan is still at a low level and a shallow level (Akbar et al., 2021). CBT in Thailand has been facing a lack of involvement among local people and a low level of participation in tourism by communities and other stakeholders and there has also been insufficient participation in marketing cooperation and environmental conservation by villagers (Polnyotee and Thadaniti, 2015). CBT development projects have not included the younger new generation who need to adapt, continue working, and participate in CBT in their communities (Chatkaewnapanon and Kelly, 2019). Additionally, villagers have not participated in tourism development because they have not understood the reason for CBT participation, benefits, or the positioning of their community participation in tourism (DASTA, 2018). CBT in Thailand has so lacked participation by residents and new generations that it might be unsustainable. These several studies identify the insufficient participation in CBT of stakeholders in Thailand. This has motivated and guided our study of the types of participation and related activities involvement of stakeholders in two closely located provinces, Phitsanulok and Sukhothai Province, to find hidden key developmental factors or suggestions.

Research Objective and Significances of the Study

The objective of this research was to compare the differences in stakeholder participation in CBT between the standardized CBT communities in Sukhothai Province and the non-standardized CBT communities in Phitsanulok Province. Explaining these terms, a standardized CBT community means that a community has achieved certain criteria set by the Department of Tourism Thailand, and have received recognition for their Community-based Tourism Standard Excellent Level achievement by that Department. A non-standardized CBT community refers to a community that has not achieved those accolades and recognition. The results of this study show the themes or categories of ideas which must be considered and applied to a model of CBT development, based on the comparison of the modes of participation, identified in the collected data, between the standardized and non-standardized CBT communities. An understanding of the types of participation by stakeholders can enable the development of opportunities for new tourism products created at the community level.

LITERATURE REVIEW

The section reviews the typology of the stakeholder participation and community participation derived and defined by several researchers with the types of community participation being described in seven levels – manipulation, therapy, informing, consolidation, placation, partnership, delegated power, and citizen control. Manipulation: Arnstein (2019) described 'manipulation' as nonparticipation at the first level of the ladder. Pretty (1995) argued that manipulative participation was simply a presence, such as peoples' representatives being on official boards, but they were unelected and had no power. Murphy and Murphy (2004) highlighted and provided commentary on 'manipulation' as the decide-announce-defend' approach where the public cannot change what has been predetermined. The nonparticipation level, according to Arnstein (2019) includes manipulation, and therapy, while both were involved in the coercive participation level in the study of Tosun (1999). Manipulation was mentioned in the coercive participation level which was described as the top-down level, passive participation, indirect, and formal participation (Tosun, 1999). Tosun (1999) added that coercive participation implies participation in implementation but not necessarily sharing of benefits, not allowing choice between proposed limited alternatives, paternalism, nonparticipation, high degree of tokenism and manipulation (Tosun, 1999). Tosun (2005) claimed that 'manipulation' was the level of nonparticipation which accorded to the study by Arnstein (2019). Tosun (2005) added that coercive participation was explained as the degree of community involvement which was manipulated and manufactured as a replacement for authentic and meaningful host community participation. Therapy: therapy also appeared in the level of nonparticipation of Arnstein (2019). Therapy, which was at a quite low participation level, offers a chance for the public to share concerns and frustrations, through a special meeting at local government level (Hanrahan, 2010). This level aimed to identify and manage 'problem people', but in a practical way this possibly involves presenting a resort development's supposed benefits to members (Hanrahan, 2010). Hanrahan (2010) added that this process was an opportunity to let people have a say on the issues without a formal form of feedback. Therapy co-occurred with the passive level of (Pretty, 1995) where is referred to as people participating by being told what had been decided or has already occurred, e.g., the announcements without listening to people's response (Pretty, 1995). The aim of therapy in the participation level was not to expressly engage the collaborators but it enables power holders to overcome, or teach host residents to turn away, possible and authentic threats to forthcoming tourism development (Tosun, 2001). Tosun (2005) also suggested that some decisions may be to engage with and meet the elementary desires of residents by consulting with leaders to reproduce risks of political differences within society arising from tourists and tourism development. Additionally, tourism improvement was based on matters that the community felt were significant, yet it was mainly involved with meeting the desires of decision makers, tour operators, and visitors (Tosun, 2001).

Informing: informing appears as the degree of citizen tokenism Arnstein (2019). Hanrahan (2010) debated that 'informing' was the beginning stage of the participation ladder and that the stage of 'informing', that is the 'information stage' of introducing existing tourism policy to citizens by the authority; and the 'animation stage' which is stimulation of the perception among citizens of what needed to be followed. Then, the opening of dialogue between citizens and authority was needed to be the first stage of participation (Hanrahan, 2010). Hanrahan (2010) added that 'informing' was a low participation level and the first real step to participation and distribution of consultant. The level concerned informing the citizens of a resort development concept and provided limited chances for them to advise small changes (Hanrahan, 2010). Regarding the level of the degrees of citizen tokenism, Arnstein (2019) included consultation, and placation into this level. The degrees of citizen tokenism were related to the level of induced participation by Tosun (1999). Tosun (1999) claimed that encouraged participation was top-down collaboration, passive, formal typically indirect, tokenism degree, manipulation, and pseudo-participation. Besides, the induced participation stage was involved collaboration in implementation and benefit sharing between proposed changes and feedback (Tosun, 1999). Tosun (2005) supported to Tosun (1999) that this level was 'induced community participation' which people had a voice in tourism planning process. Consultation: consultation and participation were tools and techniques for development (Mowforth and Munt, 1998); thus, consultation and participation were difficult to separate in terms of development concept. UNWTO (2005) supported that consultation with other shareholders was involved and empowered local people in decision making and planning about management and future growth of tourism in their places.

Consultation is the fourth level of participation ladder (Arnstein, 2019). Consultation involved minor degrees of participation, whereby special forums exist for the public to share its views through mechanisms such as surveys and workshops, designed to draw out public goals, ideas, and concerns in relation to pending decisions (Hanrahan, 2010). This level controlled the extent of public discussions on tourism and used these discussions as a tool of assessing community support for pending tourism decisions (Hanrahan, 2010). Hanrahan (2010) added that this was the participation in second stage; it was the initiation of tourism planning based on partnerships. Pretty (1995) debated that participation by consultation referred to people contribute by replying questions or by being consultants. The defined problems by external agent would not be conceded any share in decision-making (Pretty, 1995). Besides, this level was involvement for material incentives that people joined by contributing resources such as labor in return for food or cash, but people have no benefits in extending practices when the incentive ends (Pretty, 1995). Tosun (1999) argued that the views of communities in consultation level had not power to ensure for utilizing by the multinational tourism companies, and government. Consultation level was a certain level of tokenism in involvement to host community participation within tourism planning process that was commonly found in developing counties where a host community only endorses decisions regarding tourism development made for them rather than by them (Tosun, 1999). This stage was also in 'induced community participation' level in the model of (Tosun, 2001).

Placation: placation was at the fifth level of participation ladder (Arnstein, 2019). Placation involved a moderate level of participation (Hanrahan, 2010). Public influenced the decision in a broad-based manner, while certain individuals or groups could more closely advise the decision-making bodies (Hanrahan, 2010). Pretty (1995) argued that decision-making process was only a feature of the interactive participation and self-mobilization level. The functional participation level most major decisions have been made taking to the local villages (Pretty, 1995). This stage parallels the model of Pretty (1995) as in the functional participation level of outside agencies' collaboration to obtain project objectives, cost reduction, while people may collaborate by forming groups to meet predefined project goals (Pretty, 1995). Hanrahan (2010) debated this as a different idea; this level was participation in the third level which identify the strengths, weaknesses, opportunities, and threats. This was also the 'induced community participation' level of (Tosun, 2001). Partnership: partnership is the sixth level of the model of the participation ladder which indicates the degrees of citizen power, which also involved delegated power, and citizen control (Arnstein, 2019). Partnership is related to a high participation level; the authentic decision-making was shared with community members (Hanrahan, 2010). Authority redistribution was through negotiation between the established decision-making forms and public members through the creation of joint boards. A joint board, made up of members from established decision-making bodies and the public, reviews issues and makes suggestions that decision-makers adopt until the suggestions were reported by all committees (Hanrahan, 2010). This level was an interactive collaboration in the model of Pretty (1995); citizens collaborated in joint investigation, improvement of action plans and strengthening of local institutions. The collaboration was realized as a right to seek multiple perspectives; groups took control of local decisions and have a definite stake in this level (Pretty, 1995). This level of participation was 'spontaneous participation' level in the model of Tosun (2005). Webler (1995) argued that partnership was a way of complementing existing systems. Murphy (1988) debated that partnerships and community workshops to bring together the industry and the community. Cooper and Hall (2000) argued that partnership could endorse studying about the work, skills, and possible of the other partners, and improve the group collaboration and negotiating skills that support to make enterprises successful.

Delegated power: delegated power is the seventh level in the model of (Arnstein, 2019). Delegated power involves a very high level of participation in terms of actual decision-making being led by members of the public (Hanrahan, 2010). The balance of power is weighed in favor of member of the public through the establishment of joint committees (Hanrahan, 2010). Hanrahan (2010) debated that delegated power was the collaboration the fifth level which was joining decision-making regarding resource arrangement, general management, and improvement. Pretty (1995) argued that this level was self-mobilization. Self-mobilization referred to authority and control over all aspects of the improvement that rest directly with the local village; people participate by taking initiatives independently of external institutions to change systems. People developed contacts with external institutions for resources and advise; self-mobilization can spread if governments and NGOs provided an enabling framework of support (Pretty, 1995). Furthermore, self-mobilization might contest current distributions of wealth and power (Pretty, 1995). Hanrahan (2010) argued that local people involved in the decision-making process which was only a feature of the interactive participation and self-mobilization level.

The functional participation level most major decisions have been made before taking to the local community (Hanrahan, 2010). But communities could present the mobilization of interest groups seeking to achieve some predefined goal (Hanrahan, 2010). Citizen control: is the top level in the community participation model of Arnstein (2019). This is the highest level of public participation in the sense that the public held all decision-making power, and created cooperatives which were responsible for planning, policies, and decision affecting community members (Hanrahan, 2010). Citizen control was in the same level of operationalization stage six which was the implementation of tourism strategy by administrators (Hanrahan, 2010). Murphy and Murphy (2004) explained the idea on citizen control that certain ecotourism groups established cooperative tourism boards to plan and operate local tourism ventures, including resorts.

Stakeholder Theory and CBT Key Success

Stakeholder theory is defined as an aspect of capitalism that stresses the intertwined relationships between business and consumers, employees, investors, suppliers, communities and persons who have a stake in the organization (Freeman, 1984). Donaldson and Preston (1995) explained that stakeholder theory combines aspects of descriptive and empirical observation, and instrumental and normative aspects of data classification. First, descriptive or empirical aspects explain the multiple tourism components in a community, such as the procedures and policies that relate to the improvement and tourism arrangement in the place. The empirical aspect also describes the general impact on the economy, the types of tourist sites, the size of the tourism enterprises in the area; and the links between the diverse agencies and firms related to tourism. Second, the aspect of instrumental classification identifies and analyses the links, or lack of connections, between stakeholder arrangement and the success of the institutions or development's purposes and goals. Lastly, the normative aspect is used to interpret the performance of the organizations, including the identification of moral or esoteric guides for the operation and management of organizations (Donaldson and Preston, 1995). The six key components for CBT achievement that have been identified in the literature are (1) capacity construction and participatory plan, (2) collaboration and partnerships facilitating connects to market, (3) community management related to community member empowerment, (4) community and environment goals setting, (5) support from outside sectors [government, private sector, financial organizations], and (6) an orientation on creating alternative income to support long-term community sustainability (Ditta-Apichai et al., 2020). Phitsanulok Province and Sukhothai Province are connected together by location and history. In terms of tourism, cultural products such as the beauty of Buddha statues and natural sites are similar; but the development in stakeholder participation has been different. The types of stakeholder participation were defined in our study.

MATERIALS AND METHODS

This is an empirical research study undertaken using a qualitative approach. The study involves seven stages – [1] formulate research topic, [2] critically review literature, understand philosophy and select approach, [3] formulate research design, [4] formulate interview form and question design, [5] plan data collection, [6] analyze data, and [7] write research report and manuscript. The flow chart of this research is displayed in Figure 1. The data was collected in July 2021 from 35 key informants of 5 villages in Sukhothai Province and 4 villages in Phitsanulok Province. The villages which are the areas of the study are presented in Table 1. These villages were selected because of their already well demonstrated interest in CBT and their interesting cultural, religious, ecological environments and cuisine. Stakeholder in these villages were approached and requested to participate in the study, and 35 leading stakeholders agreed. These stakeholders included village leaders, home-stay owners, tourism operators and other interested in participating in CBT through their business interests. The subject of the study was stakeholders' participation in CBT in their villages and locations. Sample size depended on the qualitative design being used. It is recommended by grounded theory practitioners that twenty to thirty participants in four or five case studies should be utilized in the study (Creswell, 2014). In accordance with the concept of the Saturation idea, it is recommended that once sufficient information is gathered, further interviewing and information gathering is unnecessary: the categories or themes have been 'saturated' (Creswell, 2014). Structured interview forms, with open-ended questions, were used to guide in-depth face-to-face interviews with each participant. The participants were selected according to the technique of purposive sampling which is a mode of haphazard, but managed. This sampling was undertaken to ensure that the particular roles of the various participants were included in the sample of participants (Cozby and Bates, 2012). The inclusion criteria of the key informants who were selected, were (1) participants should be villagers who live in the villages being studied, and (2) participants who have a significant economic, business of other interest in the tourism products available in the village or nearby locations, who were interested including those interests in the CBT concept. Conversely, the exclusion criteria were (1) villagers who did not live in the target villages, (2) villagers who did not have relationship with community participation and tourism product. The data were collected as sound recordings of the face-to-face in-depth interviews, hand-written notes taken during the interviews, and a photographic record taken during and after the interviews. Recordings and photos were taken using an iPhone and iPad, and a digital camera. The guideline questions were used for the interview, including (1) how do you participate for CBT in your community? (2) What are the different roles of male and female participants in CBT? (3) how do the different roles of youthful participants, mature age participants and elderly participants affect participation of CBT? (This age categorization was indicative of the generations of participants, and therefore their interest in traditional and cultural activities) (4) how do governmental institutions and other private organizations participate in CBT of your village? (5) how do visitors participate in CBT? (6) What issues impact to your CBT generally, and specifically the COVID-19 pandemic?

The ATLAS.ti program was used to analyses the data which were grouped and coded, creating a meaningful mapping of the archive of documents. The 'ti' stands for 'text interpretation'; ATLAS is a Computer-Aided Qualitative Data Analysis Software (CAQDAS) program (Friese, 2014). It was selected for our study based on the authors' experience and other reasons taken from previous studies found in our literature review. The software delivers multicolored code labels and more informative explanations than other CAQDAS programs. The network creation is supported by 12 options of network maps, graphics and data view types whereas other software only provides 4 options. As well, installing new versions or updates to the ATLAS.ti system presented no problems, unlike what had been experienced in other programs. Importantly, as our study was empirical research associated with an inductive approach, Lewis (2004) contended that ATLAS.ti excels at visible representations of data codes and displays, and importing and analyses of an extensive range of qualitative data. The software was, therefore, most useful in our study for the qualitative analysis of the data, and for identifying the final themes. The analytical process consisted of five steps: (1) preparing the data from the interviews in Word, by listening to the sound recording, reading the data, and transcribing it in decoded form into Microsoft Word®; (2) grouping the data by the topic and sub-topic; (3) open coding by inserting data files into the ATLAS.ti program and creating the data codes; (4) categorizing the data by counting the frequency of codes; and (5) thematizing the data as the final step in the process by choosing the highest or the most significant frequency as the theme of each topic.

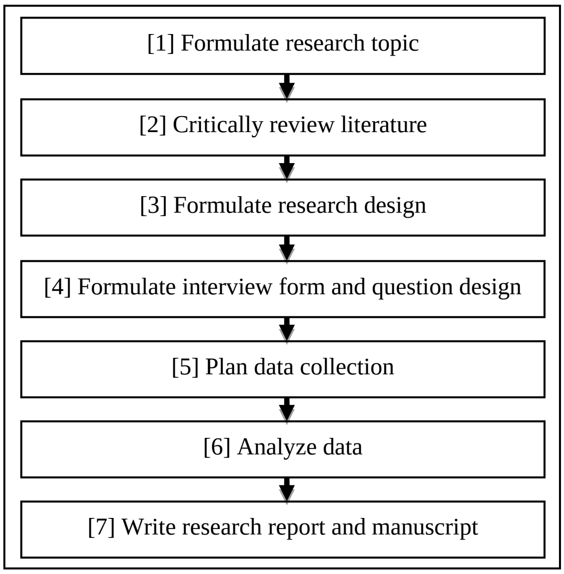

Figure 1. Flow chart (Adapted from Saunders et al., 2016)

Table 1. The target area of the study *OTOP stands for One Tambol (a sub-district) One Product

Province	Name of community	Community-based Tourism Standard Excellent Level	Award	No. of key informants
Phitsanulok	Wat Chan	Non-received	-	5
	Plak Red	Non-received	-	2
	Pha Rung Mhee	Non-received	CBT Thailand Standard 2020 by DASTA	2
	Wang Zomza	Non-received	OTOP* Inno-Life Tourism-Based Communities	2
Sukhothai	Natonchan	Received	PATA Gold Award 2012 ASEAN Level for Wisdom Conservation	12
	Cook Pattana	Received	-	3
	Nong O	Received	DASTA Award 2019	3
	Tha Chai	Received	National Sustainable Tourism Management Standard by DASTA	3
	Mueang Kao	Received	-	3

RESULTS AND DISCUSSION

The findings present the demographic profile of key informants, codes and themes related to the participation of stakeholders in the CBT of Phitsanulok and Sukhothai Province. The demographic profile of 35 key informants is displayed in Table 2 (F *means* frequency; N *means* total number). The majority were female 80% and 20% were male. The biggest group of key informants were aged 60 or above (48.6%), followed by 40 to 49 (25.7%), between 50 and 59 (17.1%), and 32 to 39 (8.6%). Most of them were not prefer to say 31.4%, followed by bachelor 25.7%, school or lower 22.9%, high school or college 14.3%, and master or higher only 5.7%. In terms of their main occupations, those in business sector and agriculture constituted 62.9%, the government sector 22.9%, and retired and unemployed 14.2%. Based on role in CBT, 45.7% were villagers, followed by CBT leader 40%, and community leader 14.3%. The key informants having experience in CBT between 2 and 5 years were only 5.7%, 6 years or more about 31.4%, and those were not preferred to say approximately 62.9%.

Table 2. Demographic Profile of Key Informants

Demographics		F	%	N
Gender	Female	28	80.0	35
	Male	7	20.0	
Age	32-39	3	8.6	35
	40-49	9	25.7	
	50-59	6	17.1	
	60 or above	17	48.6	
Educational level	School or lower	8	22.9	35
	High school or college	5	14.3	
	Bachelor	9	25.7	
	Master or higher	2	5.7	
	Not prefer to say	11	31.4	
Main Occupation	Government	8	22.9	35
	Business and agriculture	22	62.9	
	Retired and unemployed	5	14.2	
Role in CBT	Community leader	5	14.3	35
	CBT leader	14	40.0	
	Villager	16	45.7	
Years' experience in CBT	2-5	2	5.7	35
	6 or more	11	31.4	
	Not prefer to say	22	62.9	

Stakeholders' Participation of CBT

Stakeholders' participation of CBT in this study is classified as internal community (community participation) and external community participation (government and visitor). The codes are separated as groups including (1) community participation by responsibility in CBT [leader, homestay and CBT operator, and villager], (2) community participation by gender [male and female], (3) community participation by age group [ageing, mature and youth], and (4) participation by government and visitor. The codes represent the action of CBT participation and themes are represented the categorized codes which show the characteristics of CBT participation in each city. In terms of issues and impact from Covid-19, in Wang Zomza of Phitsanulok found that Covid-19 have stopped tourism and communities lacked of income. In Sukhothai, Natonchan Community was closed for tourism, terminated to accept tourists, income reduction, slow movement economy, and tourism activities, as well as insufficient vaccination or quality vaccine was main problem cause. Covid-19 pandemic affected directly to product venders and tour guides in this community. Politic problem affected to Sukhothai Mueang Kao Community which did not get continuing support from municipality when the leaders' team changing. Cook Pattana Community of Sukhothai confronted problems of lacking persons managing Facebook page of CBT; there was official record about local wisdom of folk songs, and kite legend which should be kept in permanent record as book and museum. Because of Covid-19, this community was also closed and terminated to receive familiarization tour groups during March 2021. The network view of all related codes and themes of stakeholders' participation in Phitsanulok and Sukhothai Province are presented in Figure 2 and 3 and the frequency of each code are shown in Table 3 and 4.

Table 3 illustrates the codes and frequencies of stakeholders' participation in CBT in Phitsanulok. Government support was cited 10 times, involving 'g-workshop operation', 6 times, and 'g-fund support', 4 times. Community participation by CBT management and development leader obtained a total frequency of 8, including 'p-CBT and area management' (4), 'p-planning and development' (3), and CBT leader (1). Then, the theme of female and mature being the main labor force for CBT registered a total frequency of 6, involving 'f-main labor' (3), 'mat-main labor' (2), and 'mat-planner' (1). Visitors' participation by learning food making and providing feedback scored a total frequency of 5, including 'v-learn food making' (3), and 'v-provide feedback' (2). Lastly, the theme of elderly villagers being the main participants in ceremonies and ceremonial activities, and young villagers (youth) being performers, obtained a total frequency of 4, involving 'a-ceremony member' (2), and 'y-entertain performer' (2). Table 4 shows the codes and frequencies of stakeholders' participation of CBT in Sukhothai. First, the theme of government providing fund and workshop was indicated 17 times, including 'g-fund support' (12), and 'g-workshop operation' (5). Second, volunteer work and leading empowerment totaled 15, including 'p-volunteer work and support' (10), and 'p-CBT leader and empowerment' (5). Third, the theme of elderly villagers being the main participants in ceremonies and ceremonial activities, and young villagers (youth) being performers totaled 13 references, including 'a-folk performer and plays' (7), and 'a-traditional ceremony member' (6). Fourth, visitors learning about food preparation, and craft product making, obtained a total frequency of 8, including ‘v-learn food making’ (4), and ‘v-learn craft product making’ (4). Lastly, the theme of females instigating CBT and being the main labor in tourism activities, obtained a total frequency of 7, involving ‘f-a-mat-main labor’ (6), and ‘f-start CBT’ (1).

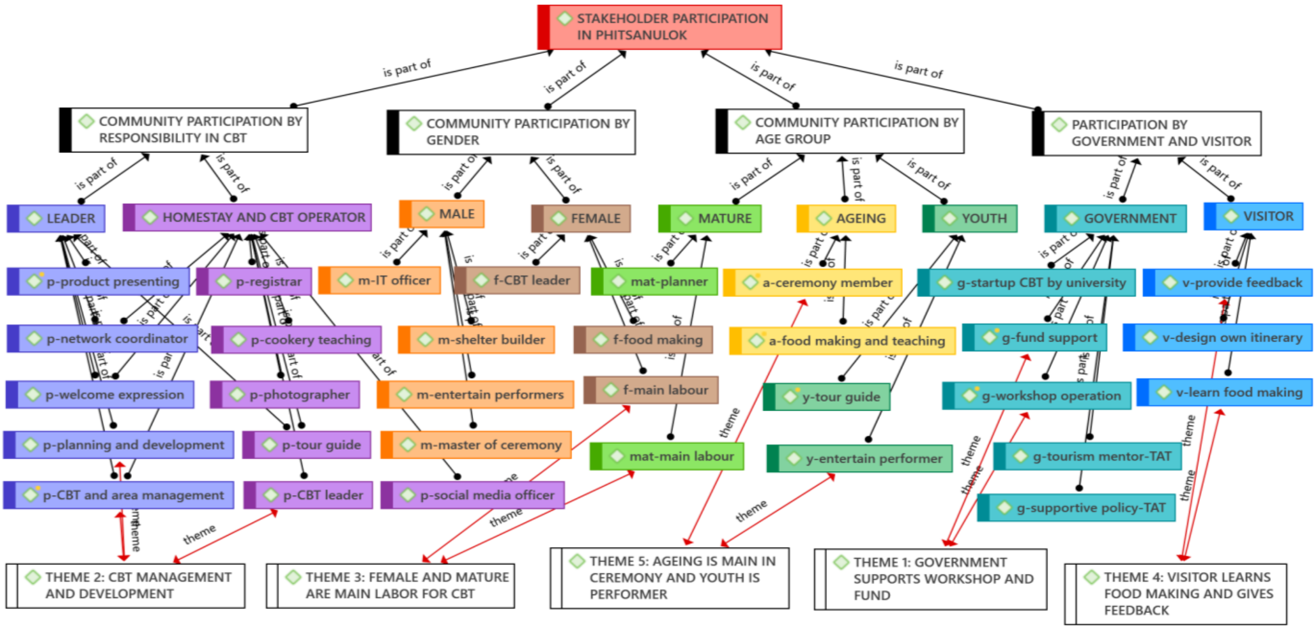

Figure 2. Network view of the codes and themes for stakeholder participation of CBT in Phitsanulok (Authors’ work)

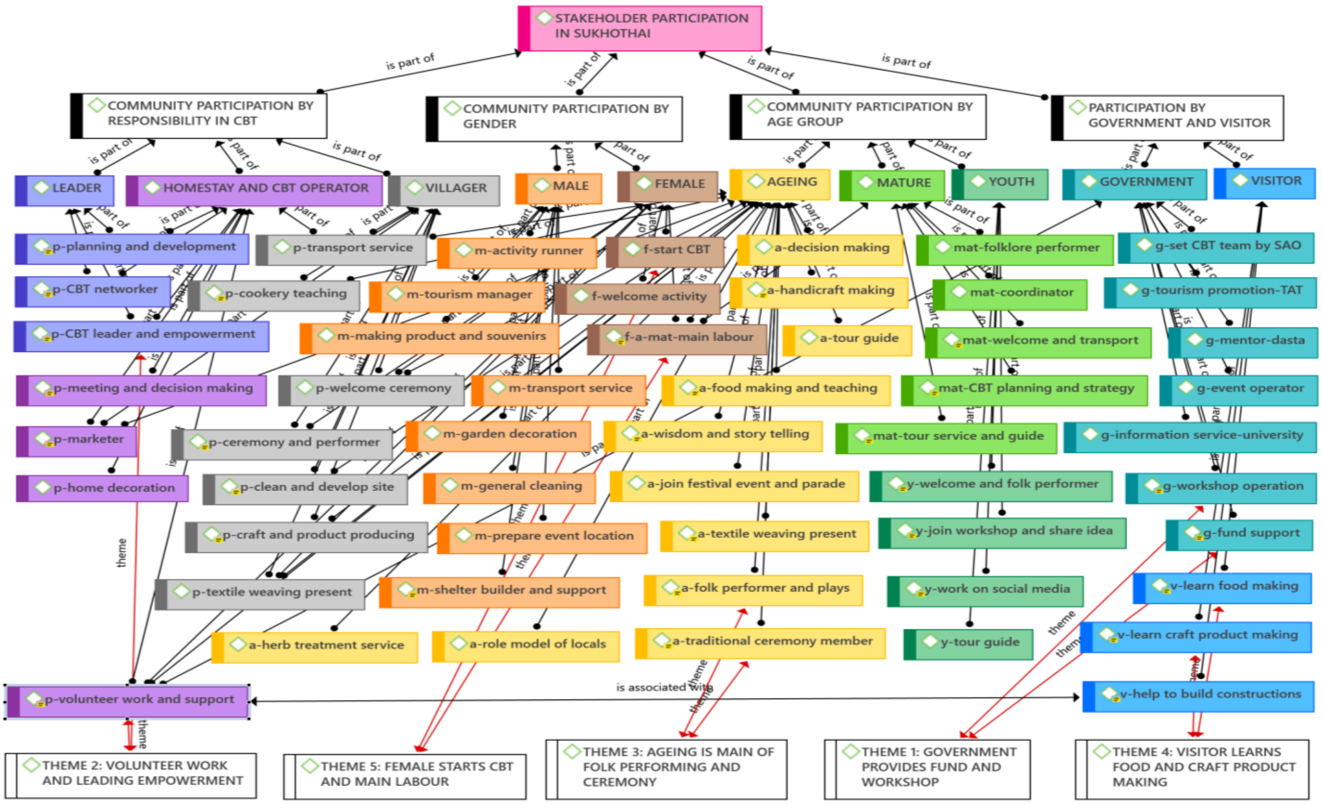

Figure 3. Network view of the codes and themes for stakeholder participation of CBT in Sukhothai (Authors’ work)

The Thai Government has played a role in, and encouraged a high level of participation in, CBT in both provinces, by providing funds to support the launching of CBT programs and activities and operating developmental workshop for community members. This was supported by Oka et al. (2021), their study found that the variable of the contribution in the form of funds to the local communities generated from the development of tourism during CBT implementation at the tourist village in Indonesia having significant at a good level with economic factor (Coefficient Correlation 0.779>0.60 = significant; average 4.02=Good). Levels and styles of community member participation in CBT has been varied, with females being the main labor component in CBT in both Phitsanulok and Sukhothai Provinces. The elderly members of the village communities played a greater role in traditional ceremonies and ceremonial observances in both provinces, and in Sukhothai they also excelled as folk performers in traditional ceremonies and folk performances for the entertainment of visitors during dinner. In Phitsanulok, the situation was different, with performances relevant to local culture and traditions being the responsibility of the young members of the communities. The roles of females, elderly people, and youth generations were highlighted by Oka et al. (2021), the perception of a CBT implementation factor (social factor) was significant with the variable of ‘increasing role’ (average 3.94=Good), and ‘improving cooperation’ (average 3.97=Good). The participation in CBT implementation sharped and promoted the role of these people to be more valuable in society.

Table 3. Codes and frequencies for stakeholder participation of CBT in Phitsanulok

Group of Participants	Participants	Code	Frequency	Total of Frequency	Theme
Community participation by responsibility in CBT	Community leader	p-network coordinator	2		
		p-planning and development	3	8	Theme 2: CBT management and development leader
		p-CBT and area management	4		
	Homestay and CBT operator	CBT leader	1		
		p-cookery teaching	2		
		p-tour guide	2		
Community participation by gender	Male	m-IT officer	1		
		m-shelter builder	1		
	Female	f-CBT leader	1		
		f-main labor	3	6	Theme 3: Female and mature are main labor for CBT
Community participation by age group	Mature	mat-main labor	2		
		mat-planner	1		
	Ageing	a-food making and teaching	1		
		a-ceremony member	2	4	Theme 5: Ageing is main in ceremony and youth is performer
	Youth	y-entertain performer	2		
		y-tour guide	1		
Participation by government and visitor	Government	g-workshop operation	6	10	Theme 1: Government supports workshop and fund
		g-fund support	4		
		g-startup CBT by university	2		
	Visitor	v-learn food making	3	5	Theme 4: Visitor learns food making and gives feedback
		v-provide feedback	2		
		v-design own itinerary	1		

* Denotes the total frequency of codes that were selected as a theme

Table 4. Codes and frequencies for stakeholder participation of CBT in Sukhothai

Group of Participants	Participants	Code	Frequency	Total of Frequency	Theme
Community participation by responsibility in CBT	Community leader	p-CBT networker	4		
		p-CBT leader and empowerment	5	15	Theme 2: Volunteer work and leading empowerment
	Homestay and CBT operator	p-volunteer work and support	10		
		p-marketer	3		
	Villager	p-welcome ceremony	3		
		p-ceremony and performer	2		
Community participation by gender	Male	m-activity runner	3		
		m-prepare event location	2		
	Female	f-start CBT	1	7	Theme 5: Female starts CBT and main labor
		f-a-mat-main labor	6		
Community participation by age group	Mature	mat-tour service and guide	3		
		mat-CBT planning and strategy	2		
	Ageing	a-folk performer and plays	7	13	Theme 3: Ageing is main of folk performing and ceremony
		a-traditional ceremony member	6		
	Youth	y-welcome and folk ceremony	4		
		y-join workshop and share idea	3		
Participation by government and visitor	Government	g-fund support	12	17	Theme 1: Government provides fund and workshop
		g-workshop operation	5		
	Visitor	v-learn food making	4	8	Theme 4: Visitor learns food and craft product making
		v-learn craft product making	4		
		v-help to build constructions	1		

* Denotes the total frequency of codes that were selected as a theme

In Phitsanulok, community leaders, homestay owners and CBT operators were the main participants in CBT management and development, but these activities were more likely to volunteers who were also leaders in participant empowerment in Sukhothai. There was an accordance point in the terms of local people empowerment in the study of Oka et al. (2021) with the current findings. The local people’s perception of the implementation of CBT at the tourist village presented a relationship between the politic factor and improving the local people’s participation (average 3.47=Good), and strengthening the local people’s power (average 3.72=Good) (Oka et al., 2021). Volunteer work or volunteering is the voluntary offering of personal talents and time availability to perform responsibilities and services with indirect economic reward expected (Thoits and Hewitt, 2001). Volunteering is variously defined as citizen collaboration in direct service delivery to others; groups of citizen action; promotion for causes, individuals, and collectives; collaboration in the governance of business and public sectors; self-support and joint help actions; and a broad range of informal serving activities (Thoits and Hewitt, 2001). As illustrated in Figure 3, in Sukhothai, CBT involvement by community members as volunteers were supported by the government sector and by visitors (v-help to build constructions). The code 'v-help for building and construction' refers to visitors helping or voluntarily supporting residents when they were building their house or public works, such as bridges. The code 'volunteer work and support' in this study included the sub-codes and definition of [1] the elderly in the CBT community of Sukhothai working in local noodle shops (Khao Perb), and also included elderly volunteers joining in welcome ceremonies and providing folk entertainment performances. Furthermore, [2] there were civil defense volunteers who were supervised by government authorities who voluntarily assisted people during night activities such as welcome ceremonies, folk dancing, singing and musical performances and serving at traditional dinners. These civil defense volunteers also provided road traffic safety and security control and supervision.

The theme of CBT management and development leader in Phitsanulok included the code of 'p-planning and development', 'p-CBT and area management' and 'CBT leader.' In addition, the theme of Volunteer work and leading empowerment in Sukhothai involved the code of 'p-CBT leader and empowerment' and 'p-volunteer work and support.' Both themes - 'CBT management and development leader' in Phitsanulok, and 'volunteer work and leading empowerment' in Sukhothai supporting to CBT by residents, government sector and visitor referred to the typology of 'citizen control' participation. Citizen control is the highest level of public participation in the sense that the public held all decision making power, and created cooperatives which were responsible for planning, policies, and decision making that affected community members (Arnstein, 2019; Hanrahan, 2010). The leading empowerment (theme 2) in Sukhothai by community leader, homestay and CBT operators also followed the concept of the typology of community participation 'consultation' (Mowforth and Munt, 1998) where consultation with other stakeholders was the manner of engagement and empowerment of local communities in the planning and decision making processes on management and future development of tourism in their area (UNWTO, 2005). Creative tourism is defined as the creative economy interfacing with tourism by developing creative activities that link creators, customers and locations together by utilizing local skills, talents, and technology to create evocative intangible cultural products, creative content and experiences' (Richards, 2020). In terms of visitor participation, visitors in both provinces participated in local food preparation, but visitors in Sukhothai also participated in craft product making more than in Phitsanulok. Craft products in CBT of Sukhothai could therefore be used as creative tourism products to encourage participation by visitors interested in local arts and crafts and the craft products. The holistic placemaking approach provided a theoretical grounding for the design elements of creative tourism (resources, meaning, and creativity), and addressing notable programs as a process which enabled things to happen (Richards, 2020). The tourists' mindset was studied in a recent CBT research that found visitors cared for the community and the environment and looked forward to seeing the natural and socio-cultural authenticity in Thailand (Jirojkul et al., 2021). Jirojkul et al. (2021) claimed the mindset of demanding in socio-cultural authenticity that visitors need to touch the real socio-culture which have done by visitors' participation and value co-creation. In the case of Natonchan Community, local people presented local wisdom through 'Pha Mak Klone' (mud fermented cloths) and visitors could participate by learning about textile weaving and dye, and by making these textiles. Visitors could also participate in making 'Wow Phra Ruang' (Phra Ruang's kite) in Cook Pattana Community of Sukhothai, and learn about traditional kite making under the supervision of senior craftsmen. In Mueang Kao Sukhothai Community, visitors could participate in painting using the colors and stylish and unique pattern (fish and floral motives) on pottery and cloths particular to Sukhothai. In Ta Chai Community, visitors could participate in making silverware by traditional methods, again applying the patterns unique to Sukhothai, and gain experience in silverware production and decoration. Food activities were popular in both provinces for participation by visitors. The unique cuisine of Sukhothai included 'Kuay Tiew Sukhothai' (Sukhothai style noodle) in Mueang Kao Community and 'Khao Perb', which is a local noodle with a particular folded shape, in Natonchan Community, while the unique cuisine of Phitsanulok was 'Khao Tom Dak' (streamed glutinous rice with banana, coconut and nut), particularly in Pha Rung Mhee Community. A study in Mexico claimed that food tourism or gastronomic tourism could go along with CBT, which found the aim of tourism indicators was to identify the weight of food tourism strategies in a community's tourism plans (Sosa et al., 2021).

CONCLUSION, LIMITATIONS AND IMPLICATIONS

Stakeholders' participation in both Phitsanulok Province and Sukhothai Province are generally the same, but a difference in modes of participation by stakeholders in each province was evident. In Sukhothai, an attitude of 'volunteer work' was prevalent in community members, government agencies and visitors. Elderly villagers in Sukhothai demonstrated more skills and abilities about traditional ceremony members and folk entertaining performances.

However, the volunteering attitude and behavior of stakeholders in Sukhothai cannot be guaranteed to be a supportive factor in CBT in that province receiving standardized certification, but it shows the different action of stakeholders between the different CBT standard communities. The interviewees in this study were selected from only community members and not directly from government officials or visitors. This means that it does not fully identify the participation of government departments or visitors. CBT practitioners need to learn the successful patterns of stakeholder participation from standard CBT communities in order to have diverse collaborations. CBT marketers can valuably develop tour packages that promote gastronomic tourism and creative tourism at the community level to encourage visitors who like to participate in these activities and policy makers should state supportive policies for gastronomy and creative tourism in rural areas in order to motivate the participation of visitors and launch new tourism products in community tourism.

Acknowledgements

The authors wish to Thank Mr. Roy I. Morien of the Naresuan University Graduate School for his editing of the grammar and syntax in this document, and his contribution to the text and the English expression in the document.

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Article history: Received: 15.11.2021 Revised: 25.03.2022 Accepted: 30.04.2022 Available online: 23.05.2022

GeoJournal of Tourism and Geosites
ISSN 2065-1198, E-ISSN 2065-0817

Year XV, vol. 41, no. 2, 2022, p.541-547
DOI 10.30892/gtg.41227-861

SUSTAINABILITY REPORTING HARMONIZATION IN THE HOTEL INDUSTRY – WHAT IS NEXT?

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Citation: Halmi, L., & Poldrugovac, K. (2022). SUSTAINABILITY REPORTING HARMONIZATION IN THE HOTEL INDUSTRY – WHAT IS NEXT? *GeoJournal of Tourism and Geosites*, 41(2), 541–547. https://doi.org/10.30892/gtg.41227-861

Abstract: The aim of this study is to examine the degree of external de facto harmonization of environmental and social information published in sustainability reports. Hotels sustainability reports are analyzed for data matching the GRI Standards indicators. C-index was used to calculate the degree of harmonization. Findings show that there is a low degree of harmonization of environmental and social information and differences in applying sustainability reporting frameworks. This is the first study examining the sustainability reporting harmonization in the hotel industry Findings also suggest a strong need for industry-specific standards and/or reporting formats.

Key words: sustainability reporting, harmonization, GRI Standards, hotel industry, sustainability reporting de facto harmonization

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INTRODUCTION

In these uncertain times of COVID -19 pandemic, stakeholders, especially shareholders, need comparable information from sustainability reports to make informed decisions, thus putting in focus the topic of harmonization. Harmonization of information disclosed in reports has been explored in the context of financial accounting and financial information (Baker and Barbu, 2007; Bowrin, 2004; Mcleay et al., 1999; Morris and Parker, 1998; Strouhal et al., 2011; Tay and Parker, 1990; Van der Tas, 1988). On the timeline of sustainability development, harmonization of sustainability reporting has only recently became the subject of research (Aureli et al., 2020; Brunelli and Di Carlo, 2020; Caputo et al., 2020). There is also very little research on the harmonization of sustainability (Jones and Comfort, 2019; Jones et al, 2014) in the hotel industry. The aim of this paper is therefore to investigate the degree of external harmonization of environmental and social information in terms of the GRI standards in the sustainability reports of the world's leading hotel groups. The research questions are: (1) what is the level of external harmonization of environmental information as defined by the GRI standards and (2) what is the level of external harmonization of social information as defined by the GRI standards? By exploring external harmonization of hotel sustainability reports, the aim is to identify any patterns present in sustainability reporting in the hotel industry. The paper is organized as follows: literature review, materials and methods, results, discussion, and conclusion.

LITERATURE REVIEW

Harmonization per se is an action or process of reducing differences and inconsistencies, which may refer to different measures (methods of measurement), methods, procedures, allocations, specifications or maintenance that are made uniform or compatible (Van der Tas, 1988:157), or rather "a state in which companies worldwide are able to use an internationally-recognized accounting method that is appropriate to their circumstances without being forced to do otherwise by local accounting rules for practices" (Mcleay et al., 1999:43). In the context of sustainability accounting, harmonization of sustainability reporting should be considered and approached from the perspective of the well-studied harmonization of financial reporting (Tschopp and Nastanski, 2013:151–152). The focus here is on identifying and clarifying the reasons for the discrepancy in accounting systems (Roberts et al., 2005: 225–284). The harmonization process is influenced by the cultural dimension, institutional structure of the country, the legal system, the tax system, the corporate finance system, the accounting profession, and other characteristics (Roberts et al., 2005:225–284), which is particularly evident in sustainability reporting. Compared to the level of harmonization of financial reporting, the harmonization of sustainability reporting is a somewhat more complicated process. It is driven by a large number of stakeholders and their multifaceted needs, and is under an even stronger influence of the cultural dimension, although it should adhere to the accounting heritage, such as standards, guidelines, frameworks, and different levels of regulatory frameworks. Therefore, sustainability reporting is even more susceptible to these corporate and accounting characteristics, because different countries have different interpretations and consequently different implementations of laws and codes as well as accounting heritage (Roberts et al., 2005:226).

There are two approaches to accounting harmonization:

- de facto harmonization – also referred to as material harmonization, referring to the harmonization of the application

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of accounting practices within the business entity, i.e. the practices that are being applied (Bowrin, 2004; Gaffikin, 2007; Tay and Parker, 1990:4). This harmonization can further be broken down to disclosure harmonization (the extent of disclosure) and measurement harmonization (harmonization of the applied accounting methods) (Van der Tas, 1988:158):

- de jure harmonization – referred to as formal harmonization, referring to the legal requirements regulation, meaning law and/or professional accounting standards (Gaffikin, 2007:6; Tay and Parker, 1990:73).

Often, harmonization (as opposed to diversification) is perceived as standardization (a movement towards uniformity, with a tendency towards universal application) or normization (a state between harmonization and standardization, marking different performance levels of standard setting) (Baker and Barbu, 2007:5; Ioannidoy, 2006:17; Mcleay et al., 1999:43). While financial reporting has already reached the level of standardization, accompanied by convenient accounting methods and generally accepted accounting practices and emphasizing their respective rigidity and uniformity, sustainability reporting is only on the verge of harmonization, making it vulnerable to multifaceted methods, accounting codes, insufficient experience and a non-existent consistent system to ensure optimal comparability of information disclosed in sustainability reports, creating an urgent need for a metric system (Daddi et al., 2011:846) needed in sustainability reporting. In creating such a system, it is important to understand and apply the knowledge and experience of the well established financial reporting and transfer it to sustainability reporting. Sustainability reporting has reached a point of numerous frameworks to report by, putting into question the purpose of the harmonization (Adams and Abhayawansa, 2021a), with each framework focusing differently on this subject, and then suggesting the GRI Standards as a mandatory framework for sustainability reporting (Adams et al., 2022). This has created a new trend in sustainability reporting present since the beginning of 2020 (Ernst and Young, 2021:5), i.e. harmonization of sustainability reporting, taking the topic of sustainability reporting to another extreme of having too many ongoing harmonization processes such as GRI and SASB's Collaboration on one hand, and then SASB and IIRC merging into Value Reporting Foundation, only to top it off with another harmonizing process titled "Shared commitment by Five Major Standard Setters", made of the boards for creating frameworks for sustainability reporting: GRI (Global Reporting Initiative), SASB (Sustainability Accounting Standard Board), IIRC (International Integrated Reporting Council), CDP (Carbon Disclosure Project), CDSB (Climate Disclosure Standards Board) (Xie and Schrader, 2021). The COVID-19 pandemic has also contributed to a possible new trend in sustainability reporting pertaining to risk reporting, focusing on several major themes: climate changes/vulnerability, natural environment, poverty, and pandemics, as a newly imposed risk caused by the pandemic itself (Abhayawansa and Adams, 2021; Adams and Abhayawansa, 2021b; Cho et al., 2021; Elmarzouky et al., 2021; Ikram et al., 2021). In such proliferative environment, we tried to make sense of and discover any kind of pattern in sustainability reporting in just one industry, i.e. hotel industry. One such attempt is this research, in which we sought to measure the level of de facto harmonization of sustainability reporting in the hotel industry by applying the methods used to measure harmonization of financial reporting.

MATERIALS AND METHODS

The aim of the research is to determine the level of the external de facto harmonization of external sustainability reports of the world's top ten hotel companies (Marriott International, AccorHotels, Wyndam Hotels and Resorts, Hilton, Hyatt Hotels Corporation, Jin Jiang International Hotel Management Company, Shangri-La Hotels and Resorts, Melia Hotels International, Intercontinental Hotel Group, NH Hotel Group) as determined by Jones and Comfort (2019:2). These hotel groups represent the global players in the hotel industry and it is expected they would be trendsetters in all things considered as significant, sustainability reporting being one of those. The applied methodology was content analysis including flowchart (Flowchart 1), codebook and coding form. Harmonization was operationalized with two variables:

- environmental dimension of sustainability reporting,
- social dimension of sustainability reporting.

The environmental dimension of sustainability reporting refers to the activities that relate to the improvement and protection of the environment. This dimension of sustainability reporting includes a hotel's impact on living and non-living systems (soil, air, water, ecosystem), impact of energy, water and other inputs, emphasizing outputs such as emissions, wastewater and all forms of waste (Črnjar and Črnjar, 2009; Global Reporting Initiative, 2016). The social dimension of sustainability reporting addresses social sustainability, providing self-monitoring and its own management policies for ensuring social justice and reduce social disorder. This dimension refers to the impact that the hotel has on the social systems in which it operates (Črnjar and Črnjar, 2009:84). Both variables were measured by the indicators (KPIs) as defined in the GRI standards. Operationalization of the environmental and social indicators is presented in Table 1.

GRI Standards' KPIs were chosen for couple of reasons. One, these are a globally recognized and applied framework in sustainability reporting, and two, GRI Standards provide multiple levels of details of information for each indicator, thus providing division of KPIs into: core indicators (three-digit number: 8 environmental KPIs, 19 social indicators), synthetic indicators (a more detailed elaboration of core indicators and are coded as decimal system by adding an ordinal number to the core indicator number), analytical indicators (the third level of core indicators and in the GRI Standards are further coded with a letter (a, b, c, etc.), depicting possible variations of synthetic indicators), and sub-analytical indicators (he lowest level or the most detailed segment of core indicators, further dissecting and coding it with lower case Roman letters (i, ii, iii, iv, etc.). Such hierarchical approach to the GRI indicators in this research was motivated by the nature of harmonization per se, for the intention was, if the circumstances allowed, even to calculate the degree of harmonization of details of the disclosed indicators. As the research took place, we dismissed this approach as will be further elaborated in the discussion. Hotel management is free to choose the relevant GRI indicators and is not required to disclose information on all indicators nor all four indicator-levels as defined in the GRI Standards. The sustainability reports were analyzed for all data consistent with the indicators of the GRI standards. Therefore, the external harmonizing assessment is based on the presence of the GRI core indicators, frequently reported in the GRI Content Index section of the sustainability reports. Indicators in sustainability reports that were not disclosed according to either GRI standards or earlier GRI guidelines, the authors recorded those resembling the GRI Standards indicators if a numeric metric was provided. The assessment approach was binary, i.e. if an indicator was disclosed, we coded it as 1 (disclosed), and if no indicator was disclosed, we coded it as 0 (zero; not disclosed). Although CATA (Computer Aided Text Analysis) is preferred in these types of analysis, due to a great diversity of sustainability information disclosed and various forms or no forms at all that the hotel companies used in reporting on sustainability, we determined that the human coding (Neuendorf, 2017:69) would be performed. Sustainability reports of the ten selected hotel groups in each of the last five available sustainability reporting periods provided a total of 50 reports and covering time span from 2014 to 2018. In this study were used sustainability reports of the ten selected hotel groups with a total of 15463 hotels from the last five available sustainability reporting periods, a total of 50 reports covering the period from 2014 to 2018. Although there are many methods to calculate the level of harmonization, we have chosen to calculate it using the C-index. The C-index is applied to measure the harmonization of compatible information by "measuring the number of pairs of statements that either apply the same accounting method or provide enough additional information to allow users to make comparisons themselves" and then "comparing them with the maximum number of possible pairs of reports (Roberts et al., 2005:240).

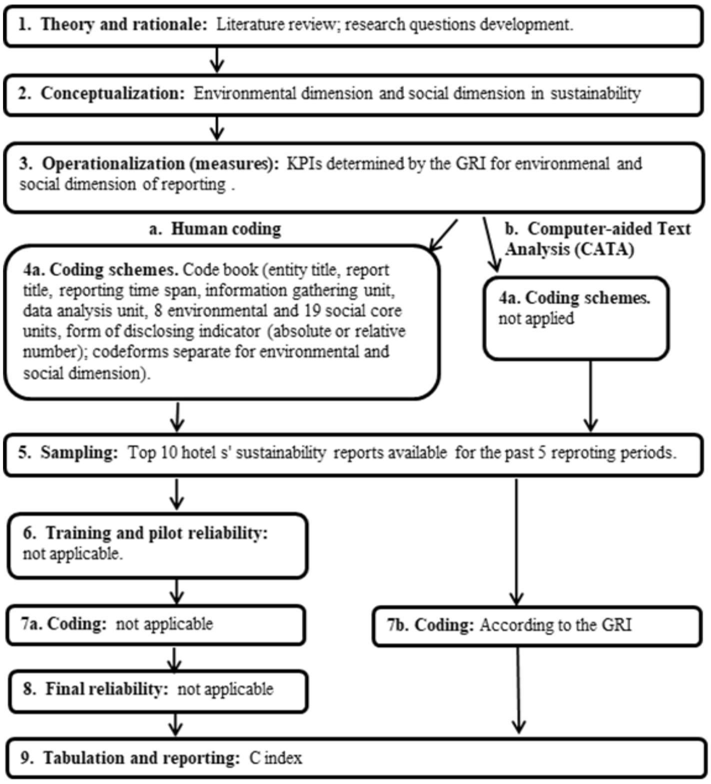

Figure 1. Content Analysis research flowchart
(according to Neuendorf, K., 2017)

Table 1 Operationalization of environmental and social indicator of sustainability reporting (Source: Global Reporting Initiative, 2016)

Variables	Core GRI Standards indicators	
Environmental dimension of sustainability reporting (environmental indicators)	301	Material 2016
	302	Energy 2016
	303	Water and Effluents 2018
	304	Biodiversity 2016
	305	Emissions 2016
	306	Effluents and Waste 2016
	307	Environmental Compliance 2016
	308	Supplier Environmental Assessment 2016
Social dimension of sustainability reporting (social indicators)	401	Employment 2016
	402	Labor / Management Relations 2016
	403	Occupational Health and Safety 2016
	404	Training and Education 2016
	405	Diversity and Equal Opportunity 2016
	406	Non-discrimination 2016
	407	Freedom of Association and Collective Bargaining 2016
	408	Child Labor 2016
	409	Forced or Compulsory Labor 2016
	410	Security Practices 2016
	411	Rights of Indigenous Peoples 2016
	412	Human Rights Assessment 2016
	413	Local Communities 2016
	414	Supplier Social Assessment 2016
	415	Public Policy 2016
	416	Customer Health and Safety 2016
	417	Marketing and Labeling 2016
	418	Customer Privacy 2016
	419	Socioeconomic Compliance 2016

RESULTS

The GRI Guidelines preceded the GRI Standards and evolved in over more than 15 years from G1 to G4, giving a total of 5 generations of guidelines. The observed hotel companies began reporting on sustainability issues quite early, although the reporting framework varied over the years (Table 2).

The majority (54%) of these hotel companies apply some form of GRI framework in their sustainability reporting, a minority (32%) of these companies do not apply any framework, while very few (14%) use UN Global Compact as a framework for their sustainability report. IHG and Jin Jiang have maintained their free form of reporting over the years, while Marriott and Accor have tried multiple available frameworks over a 5 year period (2014 - 2018).

Table 2 Applied reporting frameworks in the world's top 10 hotel companies (source: processed by researchers, 2020)

Hotel company	**Reporting framework**					
	No framework (free form)	**G3.1.**	**G4**	**GRI Standards**	**UNGC**	**Total**
Accor	1			2	2	**5**
Hilton			3	2		**5**
Hyatt	3		2			**5**
IHG	5					**5**
Jin jiang	5					**5**
Marriott	2	1		2		**5**
Meliá			2	3		**5**
NH			3	2		**5**
Shangri-la					5	**5**
Wyndham		2	2	1		**5**
Total	**16**	**3**	**12**	**12**	**7**	**50**
	32%	**6%**	**24%**	**24%**	**14%**	**100%**

The majority of hotel companies stayed true to the trend of GRI reporting. We also calculated the number of both environmental and social indicators disclosed in the sustainability reports of each hotel company (Table 3). The hotel chains Melia (38 environmental, 89 social) and Hilton (29 environmental, 50 social) disclose quantitatively the most sustainability indicators, while the hotel chain Jin Jiang (10 environmental, 16 social) discloses the least number of sustainability indicators. Other hotel chains disclose between 23 and 26 environmental indicators and 30 to 40 social indicators. Although the total number of indicators disclosed varies in certain reporting periods, hotel companies that disclose more environmental indicators also seem to disclose more social indicators and vice versa.

Table 3. Application of environmental and social GRI indicators in the hotel chains

Hotel chain // GRI indicator	Marriott	Accor	Wyndham	Hilton	Hyatt	Jin jiang	Shangri-la	Meliá	IHG	NH	**Total**
301	0	1	0	1	0	0	0	4	0	0	**6**
302	5	5	5	5	5	3	3	5	3	5	**44**
303	5	5	5	5	5	2	5	5	5	3	**45**
304	3	2	2	3	1	0	5	5	0	0	**21**
305	5	5	5	5	5	3	5	5	5	5	**48**
306	3	4	5	4	5	2	5	5	5	2	**40**
307	1	2	0	2	0	0	0	5	1	0	**11**
308	3	2	3	4	2	0	0	4	5	4	**27**
Total	**25**	**26**	**25**	**29**	**23**	**10**	**23**	**38**	**24**	**19**	**242**
401	3	4	5	5	2	0	0	5	0	4	**28**
402	0	0	0	1	0	0	0	5	0	0	**6**
403	2	4	2	2	1	0	5	5	0	0	**21**
404	4	4	5	5	3	3	4	4	5	5	**42**
405	4	5	5	3	4	2	0	5	5	5	**38**
406	0	2	0	1	0	0	5	5	0	0	**13**
407	0	1	0	3	0	0	5	4	0	0	**13**
408	1	1	2	3	1	2	5	5	0	0	**20**
409	1	1	2	3	0	0	5	5	0	0	**17**
410	1	0	0	3	1	0	0	4	0	0	**9**
411	0	0	0	1	0	0	0	5	0	0	**6**
412	3	1	1	2	1	0	5	4	2	1	**20**
413	3	5	3	4	5	3	0	5	4	3	**35**
414	2	3	4	4	0	2	0	4	2	4	**25**
415	3	0	3	2	0	2	0	5	0	0	**15**
416	2	4	2	1	4	2	5	5	0	0	**25**
417	2	0	3	3	0	0	0	4	0	1	**13**
418	0	2	3	3	0	0	0	5	0	0	**13**
419	0	2	0	1	0	0	0	5	0	0	**8**
Total	**31**	**39**	**40**	**50**	**22**	**16**	**39**	**89**	**18**	**23**	**367**

Table 4. Harmonization calculation based on the application of environmental and social GRI indicators

Topic standards	**301**	**302**	**303**	**304**	**305**	**306**	**307**	**308**	**Total**
Marriott	0	5	5	3	5	3	1	3	**25**
Accor	1	5	5	2	5	4	2	2	**26**
Wyndham	0	5	5	2	5	5	0	3	**25**
Hilton	1	5	5	3	5	4	2	4	**29**
Hyatt	0	5	5	1	5	5	0	2	**23**
Jin jiang	0	3	2	0	3	2	0	0	**10**
Shangri-la	0	3	5	5	5	5	0	0	**23**
Meliá	4	5	5	5	5	5	5	4	**38**
IHG	0	3	5	0	5	5	1	5	**24**
NH	0	5	3	0	5	2	0	4	**19**
Total	**6**	**44**	**45**	**21**	**48**	**40**	**11**	**27**	**242**
C index	**0.15**								

Topic standards	**401**	**402**	**403**	**404**	**405**	**406**	**407**	**408**	**409**	**410**	**411**	**412**	**413**	**414**	**415**	**416**	**417**	**418**	**419**	**Total**
Marriott	3	0	2	4	4	0	0	1	1	1	0	3	3	2	3	2	2	0	0	**31**
Accor	4	0	4	4	5	2	1	1	1	0	0	1	5	3	0	4	0	2	2	**39**
Wyndham	5	0	2	5	5	0	0	2	2	0	0	1	3	4	3	2	3	3	0	**40**
Hilton	5	1	2	5	3	1	3	3	3	3	1	2	4	4	2	1	3	3	1	**50**
Hyatt	2	0	1	3	4	0	0	1	0	1	0	1	5	0	0	4	0	0	0	**22**
Jin jiang	0	0	0	3	2	0	0	2	0	0	0	0	3	2	2	2	0	0	0	**16**
Shangri-la	0	0	5	4	0	5	5	5	5	0	0	5	0	0	0	5	0	0	0	**39**
Meliá	5	5	5	4	5	5	4	5	5	4	5	4	5	4	5	5	4	5	5	**89**
IHG	0	0	0	5	5	0	0	0	0	0	0	2	4	2	0	0	0	0	0	**18**
NH	4	0	0	5	5	0	0	0	0	0	0	1	3	4	0	0	1	0	0	**23**
Total	**28**	**6**	**21**	**42**	**38**	**13**	**13**	**20**	**17**	**9**	**6**	**20**	**35**	**25**	**15**	**25**	**13**	**13**	**8**	**367**
C index	**0.07**																			

The next step in the research was to calculate the C-index and thus the degree of harmonization. The C-index allows the comparison of compatible reports of different business systems from different countries, how many use the same accounting method. This index ranges from 0 (zero) to 1, where 0 represents no harmonization and 1 represents absolute harmonization. The C-index measures the number of reports that are comparable to each other (number of business systems using a particular indicator relative to the total number of business systems included in the research). A formula for calculating the C-index is as follows (Van der Tas, 1988):

(1) $\Sigma[n_i*(n_i-1)]/[N_i*(N_i-1)]$ where: n_i is the number of companies using method I; N is the total number of companies.

The results of both, harmonization of environmental indicators and harmonization of social indicators are disclosed in Table 4. The C-index for harmonization of environmental indicators is 0.15, which means that the level of external harmonization of environmental indicators among the world's leading hotel chains is very low. The C-index for social indicators is even lower at 0.07, which means that there is almost no harmonization for the social dimension in sustainability reports among the top 10 global hotel chains. This could be related to the use of different reporting frameworks and different stages of alignment with the requirements of the GRI standards, which have been in force since 2018. The results show a rather low level of harmonization of reported environmental indicators and hardly any harmonization of social indicators in sustainability reports. The research results also show that majority of these hotel companies apply some form of GRI framework in their sustainability reporting, a minority of these companies do not apply any framework while very few use UN Global Compact as a framework for their sustainability report. The research results also showed that the respective hotel companies did not differ in the amount of indicators disclosed across the five sustainability reporting periods observed.

DISCUSSION

The research found that the comparability of external sustainability reporting in the hotel industry is very low. There are several reasons why we rejected the analysis of synthetic, analytical and sub-analytical level of GRI indicators. One such reason is the diversity in the level of information disclosed by a single hotel chain in the observed time period, implying that hotel companies have improved their sustainability, which was evident when we analyzed the reports. Another reason for rejecting this approach is that management did not consider it essential to disclose the same level of detail over the observed period, meaning that for certain indicators the level of detail was not disclosed over the five consecutive periods. The third reason for rejecting this approach is due to the differences in the frameworks that hotel chains use when preparing sustainability reports, as different frameworks require different levels of detail for disclosure in the report. However, it is expected that further research of this nature will discover a higher level of harmonization as the GRI standards are more widely applied as a basis for sustainability reporting and there is a greater number of sustainability reports available from these hotel chains, as well as a better experience that will inevitably emerge over time.

Although there are quite a number of studies that address the issue of harmonization of sustainability reporting in different sectors, to the best of our knowledge, this is a first study that examines and measures de facto harmonization in the hotel industry. Other studies have found that "adherence to global CSR standards ‘reduces’ differences in sustainability reporting (Fortanier et al., 2011), as well as a need for harmonization of sustainability reporting (Steinhöfel et al., 2019). Although there has been progress in harmonizing reporting on more traditional sustainability topics due to more experience and easier measurement techniques, such as water consumption, gas emissions and the like, this research shows that there is a low level of harmonization of sustainability reporting on sustainability topics in the hotel industry per se.

Harmonization of sustainability reporting as the newest trend involves at least 10 harmonization initiatives (Schrader, 2021), with essentially different types of key participant being involved, varying from independent sustainability reporting standard setters (GRI, SASB, IIRC, CDP, CDSB), over business coalitions (Big 4, BASF, BMW, SAP, Deutsche Bank, etc.), environmental NGOs (Value Balancing Alliance, WBCSD), down to financial standards setters such as International Financial Reporting Standards and supranational government, such as EU Commission and European Financial Reporting Advisory Group (EFRAG). Considering an example of the hotel industry and its low level of sustainability reporting harmonization, it might be unwise to solely rely on independent sustainability reporting standard setters, financial standard setters or regional government, although the latest two are likely to have high impact on the harmonization process. With all these ongoing harmonization initiatives focusing on *de jure* sustainability reporting harmonization, it is our opinion that a greater significance at this specific moment ought to given to suggestions and solutions that business coalitions will inevitably provide, albeit their impact might seem unclear insofar. This our opinion is grounded in the fact that most of these sustainability reporting harmonization initiatives promote *de jure* sustainability reporting harmonization (Mion and Adaui, 2019; Kinderman, 2019), whereas *de facto* sustainability reporting harmonization has been overlooked so far. We believe that a true or “sustainable” harmonization of sustainability reporting cannot be achieved without considering the needs and requirements of the companies in each and every industry that are to measure, create and disclose sustainability information.

When elaborating on harmonization, it is important to know what can be harmonized in sustainability reporting. Schrader (2021) suggests the following points of sustainability reporting harmonization to be considered: (1) nomenclature and unit definitions, (2) application of standards, (3) stakeholder interaction, (4) link between financial and non-financial information, (5) materiality methodology, and (6) timing and format of reporting. Many of these points have been the subject of countless, independent, uncorrelated researches (Asogwa et al., 2021; Bellantuono et al., 2016; Christensen and Leuz, 2021; Hahn and Kühnen, 2013; Hsu et al., 2013; Mio et al., 2019; Pasko et al., 2021; Rashed et al., 2022; Stocker et al., 2020). Perhaps the time has come for the key participants of sustainability reporting initiatives to come together around these six issues and, with the help of the worldwide academic community begin unraveling this complex subject of sustainability reporting harmonization. Limitations of this research refer to almost all of the above mentioned points of sustainability reporting harmonization. Volatile application of the sustainability reporting standards (2nd point of sustainability reporting harmonization) has caused several obstacles in this research:

- the time frame differed not only between the hotel companies, but also within the companies themselves, causing the researchers to consider and observe the reporting periods and not the publishing years of the reports;
- throughout the observed timeframe, covering mainly a time span from 2014 to 2018, hotel companies would vary in application of different reporting standards (frameworks), making the content analysis extremely susceptible to the subjectivity of the researcher (Abhayawansa et al., 2019);

Timing and format reporting (6th point of sustainability reporting harmonization) would also vary even within a single hotel company. Some hotel companies would issue a sustainability report every two or three years, whereas in between they would yearly disclose a corporate responsibility scorecard. Needless to say, sustainability reports would contain and provide much more information than in-between-released scorecards, which caused us to change the flow of the research and to take into consideration only numeric indicators. This limitation led to the issues of materiality methodology (5th point of sustainability reporting harmonization) of the information disclosed in the analyzed sustainability reports. There is no doubt that the stakeholders' interests were one of the drivers for including or omitting certain sustainability indicators in different reporting periods (3rd point of sustainability reporting harmonization). Except for finding the solutions to these limitations, future research ought to focus on a correlation there might be between financial and non-financial information, and the impact these information might have on the quality of sustainability reports.

CONCLUSION

This paper is a contribution to the literature of sustainability accounting. To the best of our knowledge, this is the first study to examine the harmonization of sustainability reporting in the hotel industry. During this COVID -19 crisis, hotel companies need to place even more emphasis on sustainability. It is not enough to implement sustainable practices, but also to promote them through these reports. Stakeholders need to know what companies are doing to adapt their business to these challenging times. The low level of external harmonization in sustainability reporting in the hotel industry suggests that reports are difficult for users to compare, meaning that neither companies nor stakeholders can compare their results in the short or long term. The research findings also suggest that there is a great need for industry-specific standards and/or reporting formats. In today's world, sustainability reports are a very important tool for companies to disclose how they are adapting to new realities. Future research should include a larger sample in exploring the external harmonization of sustainability reporting. In addition, further research should focus on the development of industry-specific guidelines/standards to facilitate the reporting of sustainability issues in the hospitality industry.

The COVID -19 has affected many industries globally, with tourism and hospitality perhaps the most affected. Although the crisis has had some short-term positive impact on the environment (Jones and Comfort, 2020), it has had a far greater negative impact on the economic and social aspects of business. In a short period of time, companies had to deal with numerous risks ranging from health and safety risks to financial issues. This situation led investors to be particularly cautious with their investments (Ortmann et al., 2020), and hotel companies had to use persuasion to convince investors to continue investing in this industry. Sustainability reports can be seen as their 'business cards', in which companies present all aspects of their business, including the risks they face and how they manage them. This COVID-19 crisis can be seen as an opportunity to improve not only the sustainability of a hotel company and the industry in general, but also their reporting practices by providing a reasonably harmonized approach to reporting on sustainability issues.

Acknowledgement

This contribution presents some results from the doctoral dissertation Halmi, L. (2020). *Harmonization of Sustainability Reporting System in the Hotel Industry*, University of Rijeka, Faculty of Tourism and Hospitality Management, Opatija, Croatia.

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Article history: Received: 19.12.2021 Revised: 29.03.2022 Accepted: 03.05.2022 Available online: 30.05.2022

GeoJournal of Tourism and Geosites
ISSN 2065-1198, E-ISSN 2065-0817

Year XV, vol. 41, no. 2, 2022, p.548-554
DOI 10.30892/gtg.41228-862

THE RELATIONSHIP BETWEEN CONVENIENCE MOTIVATION, ATTITUDE, AND BEHAVIORAL INTENTION OF FOOD DELIVERY APPLICATIONS' USERS

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Citation: Wiastuti, R.D., Prawira, O., Lusyana, L., Lestari, N.S., Masatip, A., & Ngatemin, N. (2022). THE RELATIONSHIP BETWEEN CONVENIENCE MOTIVATION, ATTITUDE, AND BEHAVIORAL INTENTION OF FOOD DELIVERY APPLICATIONS' USERS. *GeoJournal of Tourism and Geosites*, 41(2), 548–554. https://doi.org/10.30892/gtg.41228-862

Abstract: This study aims to analyze the impact of convenience motivation on behavioral intention of food delivery apps' users with the mediating role of attitude. The research object is three major Food Delivery Apps (FDA) in Indonesia namely GoFood, GrabFood, and ShopeeFood. Primary data was collected through online questionnaire to 195 samples of FDA users. Data was then analyzed with path analysis with three hypothesis. Findings show that user first assess the ease of use in operating FDA above anything else, in which driving in adopting FDA, as well as emerging the intention to purchase food through FDA. However, attitude was found mediate the relationship between convenience motivation and user's behavioral intention. The impact of convenience motivation on behavioral intention of FDA users is mediated by attitude. It means that users' intention to order food through FDA at first emerges because there is a positive attitude, where that attitude is formed when users feel that using FDA is easy. FDA are expected to prioritize ease of use from the application from its design, writing style, symbol, map, and process sequences. Small food enterprises might consider placing their products in existing FDA as consumer prefer to order from the application that familiar with.

Key words: attitude, behavioral intention, convenience motivation, food delivery apps, GoFood

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INTRODUCTION

Online Food Delivery (OFD) is an internet and mobile apps-based food delivery service where the consumer can order food through smartphones, then it is delivered right to their door (Prabowo and Nugroho, 2018; Ray et al., 2019). Refer to Pigatto et al. (2017), a mobile apps-based OFD that provides service to order, pay, and track order, but not involved in the process of food making is called Food Delivery Apps (FDA). FDA is one of the fastest-growing e-commerce categories (Cho et al., 2019) due to it supports a more efficient service and can expand the target market (Sjahroeddin, 2018). The presence of FDA as intermediary service is not only used by large restaurants, but also small restaurants as well to provide delivery services (Yeo et al., 2017). Other than FDA (Ray et al., 2019; Cho et al., 2019), there are other terms used in previous studies to describe internet and apps based food delivery service, such as online food delivery platforms (Li et al., 2020), online food delivery applications (Gupta and Duggal, 2020; Gupta, 2019; Almansour et al., 2020) and O2O (Online-to-Offline) food delivery services (Roh and Park, 2019). The term used in this research is Food Delivery Apps (FDA). In general, FDA is divided into two categories. First is Restaurant-to-Consumer Delivery (Li et al., 2020) which mainly consist of fast-food restaurants, such as Domino's Pizza, Pizza Hut, McDonald's, KFC (Ignacia et al., 2018; Yeo et al., 2017). Second is Platform-to-Consumer Delivery (Li et al., 2020) or multiple restaurant intermediaries, which is a collaboration of application and various restaurants, acts as an intermediary service between producers and consumers (Ray et al., 2019), such as GoFood, GrabFood, Food Panda, and many others (Sjahroeddin, 2018). In Indonesia, GoFood and GrabFood have dominated OFD

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service markets (Nurhayati-Wolff, 2021). Recently, a new competitor has shown up from e-commerce company, Shopee, with ShopeeFood as their service (Kencanawardhani, 2021). From 2015 until 2019, Google Trends records that there were 15 times increased in OFD brand search in Indonesia (Putri, 2019). The growing popularity of this service attracts the curiosity and desire to try the food delivery system (Chai and Yat, 2019). According to Nielsen survey in six areas in Indonesia, 41% of respondents have used delivery service in their daily life (Pradiksa, 2019). It is supported by the data from Badan Pusat Statistik that shows there was a decrease in the growth in household consumption of food and beverages from 2017 until 2018 which indicates there is a shift in behavior that previously bought food conventionally to electronic (Alika, 2019). This supports the growth of online-based trading activities (Sjahroeddin, 2018). The rapid growth of mobile apps encourages affiliation with various industrial sectors, including the food and beverage industry (Cho et al., 2019). This affiliate is done not without reason. Globally, consumers spend US$ 431 billion on food and personal care purchases through e-commerce (We Are Social, 01.27.2021, 233). With mobile apps, consumers can consume food practically, effectively, save time, and can choose various types of food offered through delivery services (Li et al., 2020; Verma, 2020). This shift in consumer behavior is seen as a business potential in relation to the use of mobile devices for daily routines (Pigatto et al., 2017). Ordering food through applications is gaining popularity among consumers and producers (Almansour et al., 2020).

The rise of the internet, mobile devices, mobile apps, and the emerge of FDA to provide OFD services are the result of technological advances. Technology Acceptance Model (TAM) is a theory used at the technology introduction stage, where it is explained that there are factors that influence a person's attitude and behavioral intention to accept technology, namely perceived ease of use (PEOU) and perceived usefulness (PU) (Yeo et al., 2017; Lee et al., 2017). PEOU, whose term can be replaced with convenience motivation because of the similarity in meaning, is the degree to which users feel it is easy to use technology (Prabowo and Nugroho, 2018) and in relation to FDA, convenience motivation refers to the ease of ordering, choosing food or restaurants, and tracking orders (Troise et al., 2021). Convenience motivation can affect attitude which is the level of someone's evaluation of something (Nguyen et al., 2019) which then becomes the beginning of the emergence of behavioral intention (Gupta and Duggal, 2020). Behavioral intention itself is used to predict whether in the future someone will adopt FDAs to buy food or not, because behavioral intention is related to a person's intention as a consumer (Chai and Yat, 2019). Consumer attitudes are believed to be the main predictor that can encouraged someone to have behavioral intentions towards online shopping (Marza et al., 2019). However, before that, consumers are generally influenced by the factors that make them move to use FDA. Because it is application- based, the convenience motivation factor offered by OFD services to consumers is important, such as the large number of restaurant choices (Ray et al., 2019), ease of finding information and comparing products (Sjahroeddin, 2018), ease of interaction (Pigatto et al., 2017) with efficient UI (User Interface) and UX (User Experience) design (Gupta, 2019). Convenience motivation is a term that substitutes perceived ease of use in the technology acceptance model where both have a similar meaning, which is a degree where users feel the easiness to use a system or technology (Prabowo and Nugroho, 2018). Convenience is stated as the main motivation in adopting technology because consumers must first be convinced by its value before being willing to use the technology (Chai and Yat, 2019). In OFD service context, convenience is defined as perceived time, value, and effort needed to use OFD service system (Chai and Yat, 2019). One of the reasons for food businesses' growth in Indonesia is because the easiness offered through technology advances, which is through OFD service (Ryza, 2019). Based on previous research, the reasons why consumers choose this service are the ease to operate the application and understandable features (Iisnawati et al., 2019). It is also shown in the previous research conducted on online transportation users, where users feel at ease and have adequate knowledge about the application so that they developed a sense of competence (Septiani et al., 2017). Previous OFD research Klang Valley, Malaysia, convenience motivation has a positive impact on attitude because consumers are attracted to use technology that provides ease (Yeo et al., 2017). In contrast with the research of Prabowo and Nugroho (2018) on GoFood users in 10 cities across Indonesia, convenience motivation has no positive impact on attitude where it was predicted that users do not consider or have not felt the ease, but users consider other factors so that they still use GoFood. Research conducted on OFD service where the respondents almost entirely are Sumateranese shows that there is a positive impact between convenience motivation and attitude which is supported by t-statistic value 6.078 (Novita and Husna, 2020). While in research on the GoFood system, convenience motivation has no positive impact on attitude where the main constraint faced when shopping online is difficulty in the process of product searching (Nastiti and Rachmawati, 2019). Attitude is defined as favorable or unfavorable evaluation that reflects a person's responses regarding certain activities (Hwang et al., 2019). In terms of technology, attitude is a person's preference when using technology or a device (Yeo et al., 2017). In terms of online shopping, attitude is a person's response toward purchasing transaction activity (Wahyudin et al., 2020). In the context of tourism such as online travel agent for example for the purpose of online booking, business traveler feels that they encountered many problem in the way the use technology, ranging from payment problem to trust issues (Datta, 2020; Datta, 2021). Consumers' attitude is important because it can highly affect their intention to choose, use, recommend, and endorse a product or service to other people (Gupta and Duggal, 2020). Refer to the technology acceptance model, convenience motivation and post-usage usefulness (Yeo et al., 2017) become the driving factors for the emergence of a positive attitude when using technology in online shopping (Nguyen et al., 2019). Based on a survey done by Nielsen Singapore Report, there are 10 reasons for purchasing food online, such as save time and energy to queue, save time and energy to buy food, promotion, convenient payment, discount, various options provided, best seller, save fare, far location, and convenience to order food anytime (Jayani, 2019). These show that attitude toward OFD is affected by convenience and benefits received by consumers (Jayani, 2019).

Research conducted on OFD in Malaysia shows a t-statistic of 4.035 so it can be said that attitude has a positive impact on behavioral intention (Yeo et al., 2017). This result is aligned with research conducted in Indonesia which states that an increase in attitude can be followed by intention to use OFD service so that behavioral intention can be predicted through attitude because there is a positive impact (Prabowo and Nugroho, 2018). Moreover, previous research says that users' attitude can be affected by factors that lead to behavioral intention to use OFD services, such as time-saving orientation and prior online purchase experience (Novita and Husna, 2020). This is also supported by the result of research conducted on GoFood in Indonesia with a t-statistic of 4.783 which proves that there is a positive impact between attitude and behavioral intention (Nastiti and Rachmawati, 2019). In the research conducted in Italy, it is said that attitude has a positive impact on behavioral intention even though the most dominant predictors are subjective norms and perceived behavioral control (Troise et al., 2021). Behavioral intention is a tendency to respond to something favorably or unfavorably (Gupta and Duggal, 2020). In other words, behavioral intention is consumer intention to do something in the future (Wahyudin et al., 2020). Similar to the previous definition, behavioral intention is defined as consumer behavior that has an intention to use a service continuously (Purwianti and Tio, 2017). In OFD service context, behavioral intention is a person’s intention to use OFD service (Novita and Husna, 2020). Prior research show that convenience motivation has a positive impact on behavioral intention (Yeo et al., 2017; Prabowo and Nugroho, 2018). Further, based on the research that focus on pandemic COVID-19, convenience motivation has positive impact toward behavioral intention which supported by respondents’ demographics where 52% aged 17 to 21 years old and close to technology, also 50% are female so they prefer convenience when using OFD service (Novita et al., 2020). In line with that, research conducted on current and potential users of OFD service in Malaysia showed that convenience is one of the factors that drives someone to adopt the service continuously when the level of ease meets their expectation (Chai and Yat, 2019). The main objective of this research is to analyze the impact of convenience motivation on behavioral intention of food delivery apps’ users with the mediating role of attitude. There are six research questions, which are (1) to what extent the convenience motivation of FDA user?, (2) to what extent the attitude of FDA user?, (3) to what extent the behavioral intention of FDA user?, (4) does convenience motivation positively impact attitude of FDA user?, (5) does attitude positively impact behavioral intention of FDA user?, and (6) does convenience motivation, mediated by attitude, positively impact behavioral intention of FDA user?

MATERIALS AND METHODS

There are three variables in this research. First, convention motivation as independent variables, measured by four indicators adopted from Yeo et al. (2017). Second, attitude as mediating variables, measured by seven indicators adopted from Cho et al. (2019) and Yeo et al. (2017). Third, behavioral intention as dependent variables, measured by seven indicators adopted from Nguyen et al. (2019) and Oliveira et al. (2016). All indicators are measured with five point Likert scale with five being strongly agree, four being agree, three being neutral, two being disagree, and one being strongly disagree (Purwanto, 2018). Primary data was collected through survey with questionnaire. Due to COVID-19 restriction, questionnaire was distributed online in June to July 2021 using google document with open access link through various social media platform. As a result, 203 questionnaire was obtained, in which eight did not meet the minimum filling time criteria and therefore left 195 questionnaires to be further analyzed. Sample criteria are Indonesian citizen, acknowledge and had experience order food from minimum one of the existing Food Delivery Apps (FDA) in mobile phone device such as GoFood, GrabFood, or ShopeeFood. There are two parts in the questionnaire with the first part demand respondent demographic profile (gender, age, education, domicile, occupation) and FDA profile (interval use, the most ordered cuisine, driving factors). While second part demand for indicators for tree variables, in sum of 18 research questions.

Pilot study was conducted with 30 samples to test the validity and reliability for all research instruments (Ismail et al., 2018). As a result, Cronbach’s Alpha value are higher than 0.6 with r_{count} higher than r_{table}. Thus, all research instrument is valid (Riyani et al., 2017) and reliable (Taherdoost, 2016), and therefore further continue with all samples. To answer research question one and two, data was analyzed with statistic descriptive with mean value (Kurniawan, 2018). Moreover, to answer research questions three, data was analyzed using path analysis (Wulandari and Adnyani, 2016), including analyzing the total effect, indirect effect, and direct effect between variables (Datsgeer et al., 2020; Cepeda et al., 2017). Figure 1 show research framework with three hypothesis as that are tested using t-test (Santoso, 2018).

H_1: Convenience motivation has a positive impact on attitude

H_2: Attitude has a positive impact on behavioral intention

H_3: Convenience motivation through attitude as mediation has a positive impact on behavioral intention

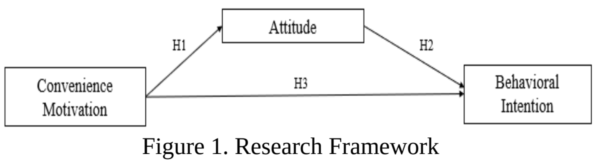


Figure 1. Research Framework

RESULTS AND DISCUSSION

Demographic Profile

The majority respondents of this research are 66.7% female, 49.7% within 19 to 22 years old, 67.7% as college student, and 64.6% domicile in Bekasi area (Greater Jakarta). Further, Figure 2 shows data about Food Delivery Apps (FDA) use frequency to order food. Refer to Figure 2, most respondent frequently use FDA to order for food once to two times a week (32.8%) and once to three times a month (32.3%), followed by three to four times a week (27.2%), and on everyday basis (7.7%). In addition, Figure 3 define the main driving factor on why respondent order food through FDA. The three main determinant factor are interesting promotional program offered by FDA (15.8%) such as discount, cashback, coupon, referral program, e- wallet promo, followed by the ease of use in operating the application (15.2%) and the ease of process in ordering food (13.5%). However, some respondent were also determined by other factors, for example easy to track the ordered food (9.9%), availability of various food or cuisine choices (9.5%), availability of diverse restaurant (9.5%), availability of product information (9.2%), affordable delivery fee (8.2%), driver’s attitude and behavior (4.7%), and accurate order (4.5%). Further, Figure 4 elaborate the type of food that respondent chooses the most when they order food through FDA. Surprisingly, fast food was chosen as the most food ordered (45.1%), even higher compared to Indonesian cuisine with only 12.3% ranked the third. The second most ordered is beverages (17.9%) such as coffee, tea, boba drink, and *kopi kekinian*. The rise of beverages in Indonesia and Jakarta particularly boom since 2018. Up to now, there are various local chain beverage store compete one another to win the heart and the mind of beverage lovers. Just to name a few both local and international chain brand such as Kopi Janji Jiwa, Kopi Kenangan, Kopi Kulo, HAUS, Menatea, Kopi Soe, Chatime, KOI, and Starbucks.

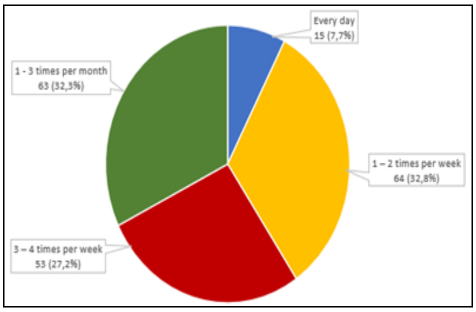


Figure 2. Interval Use of FDA

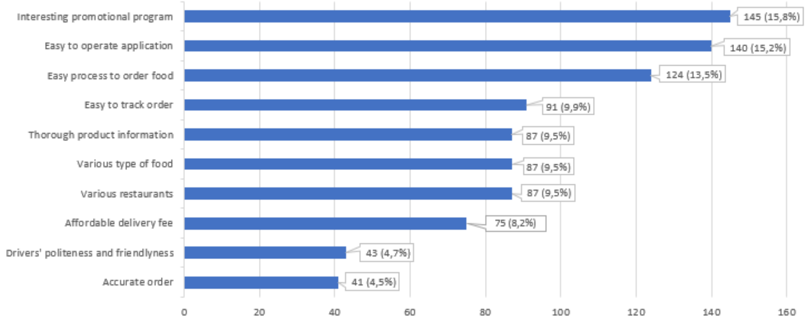


Figure 3. Drivers Ordering Food

Descriptive Statistic of Convenience Motivation, Attitude, and Behavioral Intention

Refer to Table 1, the first research variable of convenience motivation mean value is 4.56, meaning that respondents agree with convenience motivation on Food Delivery Apps (FDA). The standard deviation shows that the distribution of respondents' answers closes to the mean value. FDA indeed save time, save energy, and provide various food options so that respondents can purchase whatever food they want without having to come directly to the restaurant. Furthermore, the features shown in FDA are easy (X1), understandable (X2), operate friendly (X3) even for new users (Respondent C, 2021). Therefore, respondents agree that overall, ordering food through FDA provides ease (X4). The second research variable of attitude mean value is 4.23, meaning that respondents agree with attitude on FDA. The standard deviation shows that the distribution of respondents' answers closes to the mean value. It can be indicated that respondent show their attitude towards FDA purchase as wise (M1), good (M2), sensible (M3), rewarding (M4), and useful (M5). In addition, respondent show that they have desire to order food through FDA (M7). The third research variable of behavioral intention mean value is 3.71, meaning that respondents show neutral on behavioral intention on FDA. The standard deviation shows that the distribution of respondents' answer is further from the mean. It can be indicated that respondent plan to use FDA in the future (Y3), intend to purchase food through FDA shortly (Y1), and further intend to recommend FDA to friends (Y1). However, the findings show in contrary where respondents tend to neutral in purchasing food regularly in the future through FDA (Y2), neutral in willingness to try using FDA in daily life (Y5), neutral in willingness to give financial account data (Y5) and personal information (Y6) needed to run FDA.

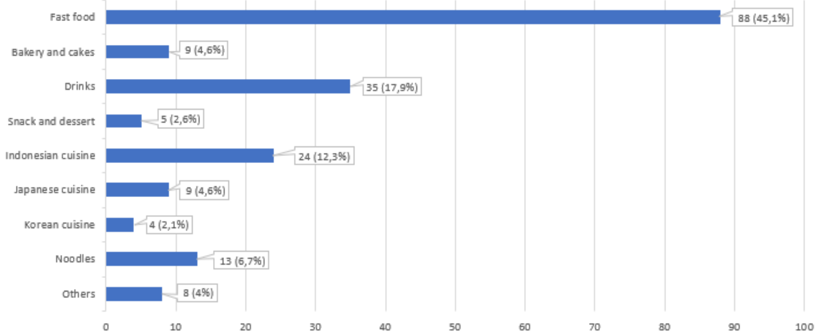


Figure 4. Type of Food Ordered through FDA

Table 1. Descriptive Statistic

	Indicator	Mean	SD
	Convenience Motivation (Adopted from Yeo et al.**, 2017)**		
X1	Ordering food through food delivery apps is easy	4.55	0.57
X2	Interaction through food delivery apps is clear and understandable	4.55	0.58
X3	Easy to operate features in food delivery apps	4.54	0.59
X4	Overall, ordering food through food delivery apps provides ease	4.59	0.55
	Attitude (Adopted from Cho et al.**, 2019; Yeo** et al.**, 2017)**		
M1	Purchasing food through food delivery apps is wise	4.12	0.85
M2	Purchasing food through food delivery apps is good	4.07	0.82
M3	Purchasing food through food delivery apps is sensible	4.65	0.62
M4	Purchasing food through food delivery apps is rewarding	3.91	0.92
M5	Using food delivery apps is useful	3.99	0.89
M6	In favor of using food delivery apps to order food	4.48	0.64
M7	Desire to purchase food through food delivery apps	4.38	0.75
	Behavioral Intention (Adopted from Nguyen, et al., 2019; Oliveira, et al., 2016)		
Y1	Intend to purchase food through food delivery apps shortly	4.04	1.02
Y2	Predict to purchase food through food delivery apps regularly in the future	3.67	1.08
Y3	Intend to recommend food delivery apps to friends	4.01	0.96
Y4	Plan to use food delivery apps in the future	4.28	0.77
Y5	Will try to use food delivery apps in daily life	3.76	1.05
Y6	Willing to give financial account data needed to run food delivery apps	3.05	1.20
Y7	Willing to give personal information needed to run food delivery apps	3.15	1.13

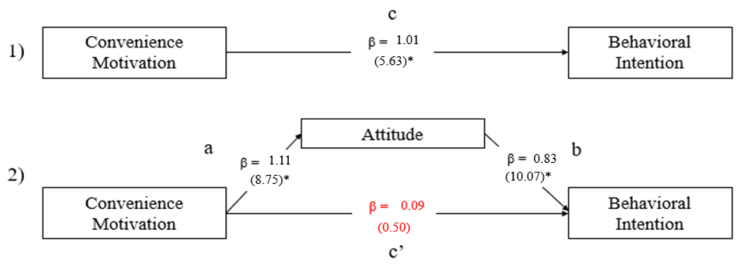
Table 2. Hypothesis Results
Note: CM (Convenience Motivation), ATT (Attitude), BI (Behavioral Intention)

Hypothesis	β	T-Value	P-Value	Result
H_1: CM → ATT	1.11	8.75	0.00	Accepted
H_2: ATT → BI	0.83	10.07	0.00	Accepted
H_3: CM → BI	0.09	0.50	0.62	Rejected

HYPOTHESIS RESULTS AND DISCUSSION

Hypotheses was tested using T-test and summarized in Table 2. T-table value in this research is 1.972 with 0.05 as the level of significance and degree of freedom 193 (n-2). Refer to the fourth research question, convenience motivation has positive impact on attitude (H_1) is accepted because t-value (8.75) > t-table (1.972) with effect size of 1.11 on path coefficient and p-value (0,00) < 0,05. This finding is in line with the research conducted by Yeo et al., (2017) and Novita and Husna (2020) which also proved that there is a positive impact between convenience motivation and attitude. Refer to the fifth research question, attitude has positive impact on behavioral intention (H_2) is accepted because t-value (10.07) > t-table (1.972) with effect size of 0.83 on path coefficient and p-value (0.00) < 0.05. This finding is in line with the research conducted by Prabowo and Nugroho (2018); Nastiti and Rachmawati (2019); Nguyen et al. (2019); Gupta and Duggal (2020); Troise et al. (2021); and Al-Gharaibeh and Arifin (2021) which also proved that there is a positive impact between attitude and behavioral intention. Refer to the sixth research question, convenience motivation through attitude as mediation has positive impact on behavioral intention (H_3) is rejected because t-value (0.50) < t-table (1.972) with effect size of 0.09 on path coefficient and p-value (0.62) > 0.05. This finding is in line with the research conducted by Yeo et al. (2017) and Novita and Husna (2020) which also proved that attitude mediation role between convenience motivation and behavioral intention.

Figure 5 shows the results of the total effect and indirect effect test. In total effect test (c), a positive effect was found because t-value (5.63) > t-table (1.972) and the significance value (0.00) < 0.05. Therefore, this research can be continued to the next test by adding the intervening variable. Next, the result of the indirect effect test shows that there is a positive effect in (a) and (b), while in contrary no positive effect in (c). Hence, according to Kenny and Baron (1986), it can be concluded that there is a mediation effect. Furthermore, mediation happened in this research is full mediation. This is because there was a positive effect in (c) at first, but when attitude was added to the research model, there is no positive effect found in (c). Full mediation happened in this research showed that the impact of convenience motivation on behavioral intention is fully mediated by attitude. Based on the finding, it can be said that convenience in using FDA has a positive impact on respondents' perception toward time, value, and effort. Respondents' willingness to adopt FDA to their everyday life is developed because of their evaluation of the perceived value, such as practicality, save time and energy, and many other conveniences offered by FDA. Moreover, a clear and understandable interaction through FDA creates a satisfying experience for respondents as users because it makes the process of choosing a restaurant, choosing food, making payment, tracking orders, and evaluating the order easier. Otherwise, users tend to have no interest in adopting FDA if in practice they are faced with several constraints, such as difficulty to operate FDA and complicated systems. Convenience in using FDA can strengthen users' attitude and intention to continue using FDA. It is aligned with the statement of Prabowo and Nugroho (2018) which stated that convenience motivation can be used to figure out someone motivation and attitude toward long- term use. Therefore, convenience motivation becomes an important driving factor that can influence users' attitude toward FDA as mentioned in the Technology Acceptance Model (TAM) so that FDA service providers should pay attention well to this factor. In addition, for FDA users that already had experience in ordering food through FDA because that experience contributes to forming their attitude and decision in the future (Prabowo and Nugroho, 2018). If user or customer are satisfied, then the attitude formed tends to be positive and they are driven to repurchase food through FDA in the future. In contrast, if they experienced bad experiences, it would form a negative attitude and lead to tendency of not using FDA anymore in the near future.



*Note: 1) Total Effect; 2) Indirect Effect; β = path coefficient, (t-value), * p < 0.05*

Figure 5. Total Effect and Indirect Effect of Path Analysis

Attitude is a degree of evaluation toward certain activities (Hwang et al., 2019). After being influenced by convenience motivation, the degree of evaluation toward FDA use becomes positive. It is proved by the findings which shows that users have preferences in using FDA because it is wise, good, sensible, rewarding, and useful so that users are in favor of using FDA and have the desire to purchase food through FDA. Refer to Gupta & Duggal (2020), attitude has an important role because of its impact on someone's tendency to use and recommend FDA to other people in the future. This research shows that the tendency or behavioral intention is impacted by attitude. Later, users have the desire and plan to try, use, and recommend FDA to purchase food because users have a positive attitude. This findings are supported due to recent condition in COVID-19 pandemic in Indonesia, in which dine- in restriction thus boost the options of ordering food through FDA (Novita et al., 2020). The existence of FDA in Indonesia has also encouraged people to stay at home thus minimize crowd in restaurant premises and support social distancing. User can also request for FDA driver to place the food order outside their home, leaving no single contact persons. This process indeed eliminates direct contact that might be dangerous for COVID-19 contamination. Worry no about the payment as all FDA in Indonesia have e-wallet for the food payment such as GoPay for GoFood, OVO for GrabFood, and ShopeePay for ShopeeFood. Based on Momentum Works report entitled "Food Delivery Platforms in Southeast Asia", Online Food Delivery (OFD) service in Indonesia in 2020 had gross merchandise value (GMV) of US$ 3.7 million (Jatmiko, 2021). Furthermore, OFD service in Indonesia is predicted to increase 11.5% each year starting from 2020 until 2024 (Aprilianti and Amanta, 2020). OFD also becomes the biggest income contributor from overall sales through e-commerce in 2018 (Statistics Indonesia, 12.18.2019, 14). Therefore, OFD service provided through FDA deemed to have a good prospect in midst of the large Indonesian market (Eka, 2021).

CONCLUSION

There are six conclusions obtained from six research questions. The first conclusion shows that promotional program and ease of use become the main driving factor in adopting Food Delivery Apps (FDA) such as GoFood, GrabFood, and ShopeeFood in everyday life to order food. The convenience of using FDA is one of the factor that motivate customer to order food through online platform. This is supported by the fact that FDA is Indonesia have higher download rate in Play Store and Apple Store compared to other restaurant official mobile apps. Not to mention regular promotion program provide by FDA in a form of cashback, voucher, referral, and discount that attract customer to keep on ordering more and more. The second conclusion shows that respondents have a positive attitude toward the use of FDA due to its sensibility and practical. They show that that have desire and in a favor of using FDA to order for food. The third conclusion shows that intention and plan to order food through FDA is neutral. In other words, the intention and plan are not always there. The fourth conclusion shows that convenience motivation has a positive impact on attitude of FDA users which indicates that users' positive attitude toward FDA is influenced by easiness to use FDA.

On the contrary, low convenience motivation will lead to lower attitude towards FDA. The fifth conclusion shows that attitude has a positive impact on behavioral intention of FDA users which indicates that users' intention to order food through FDA is influenced by their positive attitude and evaluation. The sixth conclusion shows that the impact of convenience motivation on behavioral intention of FDA users is mediated by attitude. It means that users' intention to order food through FDA at first emerges because there is a positive attitude, where that attitude is formed when users feel that using FDA is easy. From this conclusions, several suggestions arise for both FDA management and food enterprises. FDA are expected to prioritize ease of use from the application design, writing style, symbol, map, and process sequences as it will enhance attitude towards the use of FDA in a long term. In addition, FDA should also maintain its diverse promotion program to attract new and repeater customer. The more FDA provide diverse food variety and menu from different type of cuisine, the more choices users has, that eventually led to broaden user market. Meanwhile, for existing and newcomer's small food enterprises might consider placing their products in existing FDA based on practical use consideration. Moreover, consumer prefer to order from the application that they are familiar with rather than through direct company mobile application that they are not familiar with. In Indonesia, GoFood from GoJek and GrabFood from Grab are two major FDA used by many throughout various region.

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Article history: Received: 29.10.2021 Revised: 30.03.2022 Accepted: 04.05.2022 Available online: 30.05.2022

GeoJournal of Tourism and Geosites
ISSN 2065-1198, E-ISSN 2065-0817

Year XV, vol. 41, no. 2, 2022, p.555-563
DOI 10.30892/gtg.41229-863

THE ROLE OF KNOWLEDGE STRUCTURES IN RECONFIGURING RURAL TOURISM IN RESPONSE TO THE COVID-19 PANDEMIC: AN EXPLORATORY STUDY OF RURAL TOURISM IN ITALY AND KAZAKHSTAN

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Citation: Grandi, S., MacDonald, S., & Tankibayeva, A. (2022). THE ROLE OF KNOWLEDGE STRUCTURES IN RECONFIGURING RURAL TOURISM IN RESPONSE TO THE COVID-19 PANDEMIC: AN EXPLORATORY STUDY OF RURAL TOURISM IN ITALY AND KAZAKHSTAN. *GeoJournal of Tourism and Geosites*, 41(2), 555–563. https://doi.org/10.30892/gtg.41229-863

Abstract: The aim of this paper is to analyze changes in the notion and role of rural tourism provoked by the COVID-19 pandemic. The paper examines how rural tourism in the pandemic year 2020 has accommodated human needs for well-being: which touristic resources have been mobilized and what knowledge structures have contributed to mobilization of touristic resources. The authors use a qualitative multimethod approach to develop insights about the impact of the COVID-19 pandemic on changing roles played by rural tourism in Italy and Kazakhstan. The theoretical novelty of the research is that it conceptualizes tourism resource mobilization strategies as a result of the historical and emerging knowledge structures. It was found that while both geographical and ethno-cultural resources form the basis for rural tourism development, knowledge structures play a critical role in setting both the interpretative and institutional frames defining rural tourism forms and directions of development.

Key words: rural tourism, pandemic, resilience, sustainable tourism, Italy, Kazakhstan

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INTRODUCTION

Rural tourism has been more resilient than other tourism sectors in the COVID-19 pandemic. In general, rural tourism showed both areas of vulnerability and resilience. However the precise assessment of its effects and outcomes are yet to be understood. The aim of this paper is to analyze changes in the notion and role of rural tourism provoked by the COVID-19 pandemic. The pandemic has been transformational to both tourism practice and the research agenda calling for better understanding of 'fundamental values, institutional logics and pre-assumptions' (Sigala, 2020:311) on which tourism, including rural tourism can and should be reset (Rosalina et al., 2021; Sharma et al., 2021). The economic downfall caused by the pandemic on tourism is well-evidenced. According to UNWTO (2021) as of 2021 the loss of pandemic has made up to US$ 1.3 trillion in total export international tourism revenues. The international and domestic tourism employment has lost from 100 to 120 million jobs. The paper argues that for optimum tourism sector recovery, the consolidation of existing and emerging knowledge would have to be realized in three types of knowledge structures: tacit, codified, and institutionalized:

Tacit knowledge structures refer to beliefs and assumptions about the value of tourism - these are rationales and objectives about the forms and benefits of tourism collectively shared among the members of the society. Having similar tourism resources bases, societies can develop different interpretations to the best uses and value of those resources (Rose, 2020). While physical-geographical bases such as natural landscape, climate, indigenious flora and fauna form strong pre-conditions for privileging one type of human activity over the others, tourism as a leisure-oriented and recreational type of activity incorporating a visiting component has developed on more complex bases (Wu, 2018; Cawley and Gillmor, 2008). The beliefs about the value and role of a certain type of tourism are defined by a mixture of subjective and objective factors stemming from individual and collective understandings of the destination potential and reflections on their touristic experience in those destinations (López-Sanz et al., 2021; Dredge and Jenkins, 2003). The meaning-making is a central component in destination branding and there is a multitude of literature attesting to the complexity of meaning-making in tourism (Pike, 2005; Zenker et al., 2017). Destination promotion efforts rely on different extents of meaning-making: ranging from a deliberate story-telling enabled through comprehensive promotion campaigns to the small talks happening among tourists themselves. In any case, a full understanding about the tourism forms and their touristic value is not possible without understanding of the tacit knowledge structures.

Codified knowledge structures are formal systems of data and information relevant to the tourist sector. The most common representation of codified structures are administrative data and systems of statistical accounts. The importance of

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statistical systems is strongly recognized by the tourism policy-makers and destination development managers. The review of national statistics in this paper suggests that countries aim to measure the demand and supply side of tourism and its socio-economic impact. While acknowledging the overall complexity of conceptualizing tourism statistical accounts, there is a consensus that conceptualization is especially difficult at the supply side (Frentt and Frechtling, 2015; Dmitrović and Žabkar, 2010). In other words, it is difficult to capture what kind of services or goods are offered but are not consumed by tourists. When assessing value-added of accommodation supply, for example, the room reserved as compared to rooms available but not reserved will illustrate idle supply capacity. However, with many other tourism supply categories, identifying value-added components in the structure of tourism supply is more difficult.

Finally, *institutionalized knowledge structures* are a mechanism of knowledge generation and exchange among the institutional actors. Their role in the formation and development of the tourism sector is defined by the knowledge inventory (for example skills, data, information, competences, technology,) they have and incidentally their knowledge is shared with other actors in the industry. Marzo-Navarro et al., (2017) identified two crucial dimensions on which actors have to cooperate for sustainable development of the tourism sector. First, on developing a tourism product and second, on exchanging adequate information about the tourism activities. Whereas the latter reflects the negotiated agreement on services, goods, standards of behavior and limits of use of a certain tourism resource, the former ensures that all actors have access and can utilize information critical for their activities in a sustainable manner. In the study of Jesus and Franco (2016), the relations between actors varied from within urban networks and rural networks, thus drawing attention to exploration of rural tourism specifics. Hylinder and Hall (2005) pointed out that the effectiveness of rural tourism development is defined by the level of integration of stakeholders, their effective communication, scale of implementation and allocation of each policy measure to relevant stakeholders. At the same time Hylinder and Hall (2005), Char-Lee et al., (2014), Komppula (2014) attest that there is no uniform institutional set up for rural tourism development, and that in each case it is important to understand the stakeholder's roles, facilities, areas of influence and responsibilities within the sector. Finally, sustainability itself, recalling the 2030 Agenda and the sustainable development goals (UN General Assembly, 2015), can be considered within the institutionalized knowledge providing the a structured framework of aims and actions to ensure a prosper and a resilient growth considering people and ecosystems as fundamental in the rural areas, thus in tourism sector.

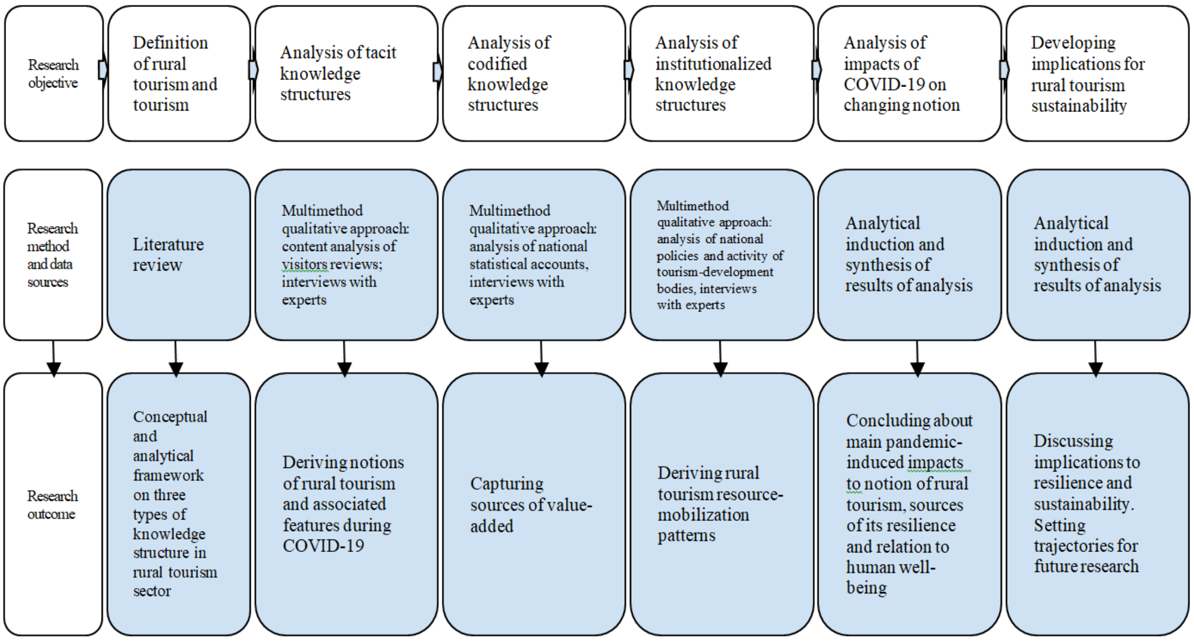

Figure 1. Methodological Framework for multimethod qualitative approach (Rishi and Gaur, 2012; Mik-Meyer, 2020; figure compiled by authors)

RESEARCH METHODOLOGY

The authors adopted a multimethod qualitative approach for data collection and analysis. This methodology applies a combination of several qualitative methods within one study and is particularly useful for studies with several types of data sources (Mik-Meyer, 2020). The methodology and consequently the research design is based on the premises of pragmatic philosophical and methodological paradigm in research (Johnson and Onwuegbuzie, 2004) that underscores the reality of multiple stage of a research study, multiplicity of data sources and consequentiality of data collection (Datta, 1997). Literature displayed the appropriateness of a multimethod qualitative approach for, especially, exploratory studies like this one ((Rishi and Gaur, 2012; Pansiri, 2006). The research design of the current study involved work with several types of data collection and data sources conditioned by the particular research objectives. The conceptual framework on rural tourism and tourism resources was derived from reviewing the literature. The tacit knowledge structures were analyzed based on results of interviews with (3 from Kazakhstan and 1 from Italy) experts undertaken in the period of January - May 2021 and content analysis of visitors' reviews for 2019-2020 from platforms Trip-Advisor (Italy, Kazakhstan) and IndyGuide (Kazakhstan). For analysis of codified knowledge structures, pre-existing data from national statistics on Italy was examined and used to reflect on what has emerged from the Kazakh experience so far. Databases for Italy were differentiated across 21 regions over a period from 1999 to 2019 (ISTAT, 2020). For Kazakhstan, 14 regions' data from the National Bureau of Statistics over the period 2009 to 2019 were analyzed. The results of this analysis were supplemented by data received from interviews with experts and an open-ended survey with owners of tourist sites. The survey of rural tourism sites in Kazakhstan and Italy was conducted in February-April 2021, when tourism was still in limited mode of operations and tourist sites had been at the stage of probing and adjusting to the conditions during the pandemic. The final stage of data collection was conducted using analysis of institutionalized knowledge structures and tourism resource mobilization - interviews with experts and analysis of national strategies and policies in rural tourism sectors as main data sources. The results of analysis were synthesized via analytical induction and 'thick descriptions' were constructed featuring core impacts of COVID-19 to the changing notion of rural tourism in both countries.

FINDINGS AND ANALYSIS

Adopting the three-dimensional knowledge framework for comparing rural tourism development returned insightful results. The framework presents a novel approach to understanding the touristic resource mobilization: By exploring the functioning of tacit, codified and institutionalized knowledge in the formation of rural tourism, the authors identified the sector's resilience and sustainability mechanisms. It was found that during the pandemic the main rationale for resource mobilization was ensuring the resilience of rural tourism. Resilience of a sector should be understood as a sector's ability to withstand and recover quickly from shocks, while sustainability refers to a balanced functioning of a sector where meeting its needs does not compromise on socio-economic equity and preserve integrity and richness of environmental ecosystems (Brundtland and Khalid, 1987). The following sections contain a detailed analysis of the contributions of tacit, codified and institutionalized knowledge structures in formation of the rural sector transformations as a response to the COVID-19 pandemic. The discussion section presents analysis of intersections of resilience with sustainability. The paper concludes with an outline of the implications for the future sustainability of rural tourism.

Rural Tourism Bases

Geographical bases for rural tourism are seen via the meanings that societies attach to the notion of rurality. Both historical and contemporary beliefs about rural life and its resources define interpretations of the geographical features, both physical and cultural. In Italy, modern rural tourism developed in the late 19th century, despite the fact that back in Roman times the Mediterranean countryside was used as an exclusive place of leisure and relaxation time as an escape from the chaotic urban life (Battilani, 2001). In 1991, Bernardi observed that, despite the hospitality culture being seen as part of the tradition of farmers' families in most of the Italian regions (hence a *tacit knowledge*), agritourism as *codified and institutionalized* structure was still developed only in a few places (Alto Adige and Tuscany). However, this perspective has changed significantly since the 90s when joint efforts of agrifirms and governments have made agritourism visible. In the first decade of the 20th century: agritourism was one of the highest growing tourism sectors in Italy. According to ISTAT (2008; 2020), from 1998 to 2007 the number of agritourism firm raised from 9 718 to 14 822 (+52.5%), beds from 93 824 to 179 985 (+91.8%), agri-restaurants from 4 724 to 8 516 (+80.3%). In the last decade, growth, despite being less rapid, has been still significant moving from 14 822 to 19 354 (+30.6%) firms showing that it is a lively and attractive sector. It is interesting to note that, in Italy, agritourism, "agriturismo" in Italian, is specifically legally defined as activities of hospitality performed by agricultural entrepreneurs and their family members that must remain connected and complementary to farming activities. This is to make it possible for tourists to enjoy the atmosphere of the countryside by staying at 'real' working farms. In exchange, farmers are given the opportunity to supplement their income through room rent and, occasionally, direct sales and meal provision. Therefore, in the last 40 years, rural tourism in Italy moved from a tacit to a codified and institutionalized knowledge, and the spatial distribution can be considered quite even in the whole nation. In Kazakhstan, rural tourism as a codified and institutionalized structure is a nascent but multifaceted phenomenon. Historically, people in Kazakhstan lived in nomadic ways where rurality was a natural medium for their work and leisure, thus rooting tacit knowledge. Urban-rural differentiation was established in Kazakhstan in the beginning of 20th century fostered by rapid industrialization and transfer to the farmed agriculture (Erdavletov, 2015). This intensive industrialization was accompanied by organized leisure in mass recreational facilities in remote nature-based settings and resort-type facilities blending tacit and codified knowledge, but depending on the region of Kazakhstan, the countryside has been mainly associated with various types of agricultural production and less with tourism. Northern and eastern areas in Kazakhstan are characterized by large-to-medium scale crop production, while in remaining areas crop and vegetable farming, gardening, cattle-breeding including pasture grazing and bee-keeping are prevalent (Iskakova et al., 2021). Until the mid-2010s these activities were mainly seen as part of the agricultural economy, without strong association to rural tourism whilst the COVID-19 pandemic in 2020-2021 has turned the attention of both tourists and tourism entrepreneurs to the touristic value of such activities.

As a form of tacit knowledge, rural tourism, however, is not a completely new phenomenon in Kazakhstan. In the nomadic lifestyle, where families migrating over long distances could meet occasionally, a guest-honoring culture became a prominent cultural norm. Thus, not having been labelled as tourism, visiting practices have been maintained through family urban-rural travel and rural-rural travel. Emergence of rural stays as a tourist product with an explicit price can be observed in mid-2010 when tourism, including rural tourism, received increasing policy attention and inflow of knowledge on tourism technologies and standards (Erdavletov, 2015). For example, the number of accommodation units in rural areas has increased from 483 in 2010 to 1 468 in 2020, showing about 204% growth. Although the share of rural tourism is smaller compared to urban tourism, it has a more intensive growth rate as compared to about 107% growth in urban accommodation units from 975 in 2010 to 2 016 in 2020 (Bureau of National Statistics, RK, 2021). Finally, nature was found to be a necessary medium for rural life: both in Italy and Kazakhstan rural settings are appreciated for their nature-related characteristics. In Italy, the natural features created bases for tourism associated with agricultural products, which have developed into agricultural cultural heritage (Piñeiro et al., 2019; Sidali et al., 2011). Italian delicacies are known internationally, with the regional specialities offering each peculiar gastronomic experience: offering more than 300 agrofood and 500 wine typologies with an institutionally recognized geographical protection indication.

In Kazakhstan nature is linked with rural settings as a manifestation of ancestorial (nomadic) roots. Rurality, in this context, is seen as an ancestral space and place, to where many families in Kazakhstan link their sense of origins. Interest in some traditional sports, craft-making, pastime and traditional family events maintain links to rural settings as cultural space (Tleubayeva, 2019). However, rural tourism based on farm's products in Kazakhstan is also growing in popularity.

Tacit Dimension: Effects of COVID-19 on the notion and role of rural tourism

This exploration of the developments in rural tourism in two countries, as well as review of available research, suggests that it is premature to make a conclusive statement about the COVID-19 pandemic and the long-term impact on societal conception of rural tourism. Nonetheless, certain changes in the collective notion of rural tourism are observed. Literature worldwide attests that rural tourism has become more associated with human well-being. Along with conventional associations of rurality with quietness, gastronomic specialties and natural sceneries, tourists perceive lower health risks (Wojcieszak-Zbierska et al., 2020; Silva, 2021; Vaishar and Šťastná, 2020; Duro et al,2021) away from the inconveniences related to overtourism. There are considerations and some evidence in the literature that rurality has become more associated with human wellbeing overall: tourists focus more on emotional, mental and physical wellness and retreat (Avram, 2020; Cooper and Buckley, 2021; Qiu et al., 2021). Brouder et al. (2020), Lapointe (2020) question whether the COVID-19 effects on tourism will change tourism to 'new normal' or will return tourism developments 'back to normal', while Stankov et al. (2020) and Ateljevic's (2020) assert that it is the right time to set the trajectories for mindful tourism development, focusing comprehensively on human well-being. Tourism, including rural tourism, recovery in a sustainable way is already established as a cornerstone of national and international economic recovery strategies (OECD, 2020).

The findings of current study revealed some recurring themes in societal perceptions about the value of rural tourism in both countries. In line with the global trends, rural tourism in both Italy and Kazakhstan is seen as a *safe option healthwise*. An increase in *vacational* interest is observed from tourists who would choose to spend their vacations in other ways but due to travel restrictions decide to stay in rural settings within allowable travel zones. In both countries, the narrative about the link between *rurality and nature* has had a ressurgence and the sense of undertourism became an asset in this period. In addition, in Kazakhstan the rural settings have received a renewed and somewhat reconfigured notion about cultural heritage: rural tourism is interlinked with *traditional and contemporary* crafts, meals, sports, spiritual and wellness practices.

The results of the analysis indicate that features of resilience inherent in the notion of rural tourism, when put in operationalization, can confront a number of sustainability challenges. There are risks stemming directly from the functioning of rural tourism facilities, as well as risks from contingent sectors. For instance, Bonaccorsi et al. (2020), Galeazzi et al. (2020) found that human mobility during the COVID-19 restrictions had been characterized by relocation of city population to more rural (low density) areas but not remote. Most relocation happened in urbanized rural areas in proximity to large cities. With reference to tourism, people would like to travel to less dense areas to avoid risk of infection and to refresh themselves from staying locked in their homes. Often in Italy people moved to second homes inherited from their parents or grandparents representing the sense of rural heritage of urbanized families. At the same time, the concern for availability of health care and preference fordern amenities does not make remote rural areas attractive. A similar pattern is observed in Kazakhstan, where tourists to nature-based sites showed preferences for either short-term (one-two day stay) or stays in modernized sites. Agricultural farms with tourism offerings are mainly located within close proximity to main cities and very few offer staying options. This concentration of visitors might increase the impact on carrying capacity of some sites, and redefine the type of rural experiences of those areas.

Codified Dimension: Identifying sources of rural-tourism value-added

In Kazakhstan, the increased interest in rural tourism has triggered the emergence of new forms of rural tourism. For instance, farm and hive visits, staying in glamping, provision of photo-tours and holding corporate business events in rural settings. The drivers of new forms of tourism appeared to be entrepreneurs mainly from the non-tourism sector, while rural residents showed moderate interest in development of conventional forms of nature-based rural tourism, enhanced by either gastronomic or accommodation offerings or a combination of the two. ADB (2019) suggested that entrepreneurs in rural tourism rely on their own interpretations of resources in locality where a particular rural tourism site operates. Farm owners may not always have access to the best practices in tourism business and management. Another reason for moderate engagement of farm owners into rural tourism can be explained by their reluctance to invest time and capital in investing in new forms until there is clarity about their business model and reception with customers. In this light, the Italian system of national agritourism accounts can be useful. As previously mentioned, Italy had a specific National Framework Law on Agritourism n. 730/1985 since 1985. Later, in 2006, a new one, more in line with the current trend of a mature form of tourism, was issued. The specificity of the legal definition helps to understand the difference between rural tourism and agritourism. The first is intended as a general term describing all the forms of tourism held in rural areas, whilst agritourism has the specific implication that this is to be supplied by a registered farmer. Other forms of rural tourism are also developing in Italy, however, agritourism has a thoroughly codified system of knowledge, which makes an insightful case for analysis. The system of codified knowledge about agritourism in Italy is particularly suited for understanding and assessing the value-added in operation of agrifarms.

In the light of the emergence of new forms of tourism induced by the pandemic, this example can be useful for other types of tourism, when insights in generation of tourism value-added is needed. In Italy's case, the agritourism indicators provide data on both 1) each type of accommodations and 2) each type of available tourist activities in the rural farms. For instance, there is a track on farms with agri-restaurant, agri-campsite, horse-riding activities, as well as statistics on visitors by tourist activity: food and wine tasting, sports, educational tours, etc. This breakdown can also be used as the basis for an analytical framework for capturing the effects of each activity and form of agritourism on various kinds of sustainability.

In Kazakhstan, national statistical accounts on tourism are run by the National Bureau on Statistics with the Ministry of National Economy (www.stat.gov.kz). The Bureau issues monthly, quarterly, semi-annual and annual sets of data related to the development of the tourism industry. The data is available from the early 1990s when Kazakhstan became an independent state. Generic accounts for the tourism sector on flow of inbound and outbound tourists, tourist spendings, types of transport, occupancy rate of various forms of accommodation and other sectoral indicators provide useful data for understanding performance of the tourism sector in general. The niche indicators mainly relate to the tourism flows and services consumed at the nature-based tourism clusters. This breakdown makes sense as rural tourism in Kazakhstan has been mainly associated with nature-sightseeing, camping and hiking. As of May 2020, the most elaborate and diversified category of accounts to capture the performance of rural areas is based on numbers on types of accommodations and correspondingly number of tourists served and amount of sales in those accommodation units. The State Program of Tourism Sector development for 2019 -2025 (https://adilet.zan.kz), however, clearly outlines the trajectories for diversification of the tourism sector. The priority areas, among others, are indicated as agrotourism, eco-tourism and ethnographic tourism, including development of crafts. Furthermore, the Strategy sets the following objectives in regard to rural tourism: 1) developing and introducing the concepts of "agritourism activity" and "rural tourism"; 2) popularization and promotion of agritourism (rural tourism); 3) development by local executive authorities of agritourist facilities in rural areas: guest houses, specialized private hotels in the form of stylized "agritourist villages", "fishing and hunting villages", etc. The increased interest in domestic tourism invigorated tourist and business activity in regard to rural tourism. The proposed dimensions of codification of knowledge for rural tourism development appear timely and relevant.

It can be suggested that for short-term and for long-term, COVID-19 pandemic has changed the structure of demand and supply in rural tourism. The survey undertaken by this study aimed to explore whether tourism sites have perceived changes in the touristic value of rural tourism and if they undertaken any response to adjust to those changes. Shown in table 1 and table 2, the results revealed the variety of adjustments that sites have realized to generate touristic value in the restrained conditions. In the overall picture, it can be concluded that the changes have been implemented at each chain of value creation: starting from targeting and reaching the customer to product innovation. This finding underscores the importance of systematic codifying value-generating activities as this knowledge enables tourist sites to act with competence and creativity.

Table 1. Italy- responses to Agritourism survey

Italy	Agritourism with international targets (Reviews in Tripadvisor)	Agritourism with domestic targets (Reviews in Tripadvisor)	Agritourism close to urban area (max 1,5 hr drive from a major city - Rome)	Agritourism in remote area (More 1,5 hr drive from a major city –Milan/Rome)
Was your agritourist affected by Covid-19 (more than other tourism business, less than other tourism business)?	Base for day trips or rural Life less than other tourism business In Summer (when open) even more request but 95% domestic, vs 50% of previous years	Base for day trips or rural life I cannot evaluate, definitely no foreign tourists	Horse riding and rural life less than other tourism business In summer even more request, all very concentrated in July and august (Foreign only in case of returning customer)	Rural life and food/wine less than other tourism business In summer even more request, all very concentrated and domestic
What was the most difficult situation that you had to face?	In general, only 35% of room occupancy compared to before (due to strong lockdown)	but was significantly hit a part from august 2020 that had the full room occupancy Having the swimming-pool made a difference	Continuous change in regulations; Volatility in reservation, booking platforms cancellations management; Request of powerful wifi for teleworking	Continuous change in regulations Volatility in reservation, booking platforms cancellations management
Have you made Changes to your business since COVID 19? If so, what are they?	Adopted sanitisation guidelines; Enjoyed public support (compensations, zero-cost loans) thanks to Business Association admin support; Some updates on tourism IT platforms	Adopted sanitisation guidelines Enjoyed minima l public support	Stopped restaurant moved to B&B only for the time being Enjoyed “bonus holiday” state programme Stopped to use booking platform, only for last minute	New personnel hired to satisfy the need to serve instead of using a self service buffet Increasing sanitisation procedures
Do you think that there are changes that will be permanent in the way you run the business?	No, just some updates on tourism booking platforms	No	No significant The need of a powerful wifi	No significant in long term
Have customer demands changed? How?	Domestic vs International, but seems only temporary	Domestic some more from big city but generally for fewer time	Domestic even from close by city for long period The need of a powerful wifi	Last minute confirmation, reluctancy in booking and downpayment in advance

Table 2 Kazakhstan- responses to agritourism survey

Kazakhstan	Agritourism with international targets	Agritourism with domestic targets	Agritourism close to urban area (max 1,5 hr drive from a major city)	Agritourism in remote area
Was your agritourist affected by Covid-19 (more than other tourism business, less than other tourism business)? (in case more positive: Do you think you had even better performance on average compared to previous years?)	Horse riding no, the pandemic has not affected horse riding tourism.	Apiary (bee-garden) Pandemic has not been negatively affected. The interest has increased. When the mobility restrictions were lifted the visitors inflow increased. Honey has also become of interest as a form of healthy food.	Ethno-village the pandemic has created restrictions on how many people can be accepted but general demand has risen; domestic visitors increased, while international decreased	Ethno-village in remote area The demand has risen significantly -at multiple times; domestic tourists increased, while international decreased
What was the most difficult situation that you had to face?	increased demand and not sufficient capacities; also in general there need to be investment to construct a warm shelter for horses during winter time	When mobility was restricted it was difficult to deliver the honey products to their vending stands in cities	compliance with sanitary requirements and absence of visitors at time of strict mobility restrictions	Managing large flows of visitors
Have you made changes to your business since COVID 19? If so, what are they?	reorient to horse riding teaching instead of racing competition	At some times vendings stands were closed and we had to fond options for delivery online. s	focus on health safety	No, but if there is a possibility internet and mobile connections would be strengthen, better roads and more accomodation places with amenities are needed
Do you think that there are changes that will be permanent in the way you run the business?	there will be return of national and international competitions, and international tourists	yes, the interest seem to be quite stable	after the pandemic international visitors will return	In case the infrastructure is constructed the demand will increase as compared to pre-pandemic. If the infrastructure will remain like this - the demand will increase as well, but to a lesser degree
Have customer demands changed? How?	yes, more families with kids	We also adjusted some products to reflect more inte-rest in health-related product	yes, more families with kids; more demands for varied services	Yes, more people come with expectations of comfort and come for longer stay.

Two specific contingent effects are identified in the extant literature, and have received some support in the current study. First, farms contributed to the resilience of food supply chains. In Italy, where the links between rural tourism and agriculture are strong, farms mitigated loss of agritourism income with satisfying demands of neighbouring settlements. Although farmers themselves positively evaluate increased demand for food supplies, and the possibility of local production and consumption circuits can make localities more resilient, the trade-off between rurality as a place for recreation for production sites can entail questions of sustainability (Cavallo et al., 2020; Mastronardi et al., 2020). In Kazakhstan, agritourism is in its nascent stage, however, the implications can be relevant for setting the future of agritourism. Second, the results of the survey showed that Covid-19 impacted significantly on the domestic/foreign ratio arrivals in agritourism, shifting to domestic almost all arrivals, but in general those interviewed recognized that they were less affected than other business in absolute terms, showing a stronger resilience versus that found in urban tourism. The length of stay shifted too, and significantly the health and safety concerns of customers had raised as had the requests for powerful wifi to ensure homeworking, significantly used during the pandemic period by employers.

Furthermore, as can be seen from the tables, Kazakhstan tourism appears to have been less affected than that in Italy by the pandemic, at least at this particular point in time and based on the limited data provided by this survey. However, rural tourism sites in both countries perceived that they are in a better condition as compared to other types of tourism. Literature identifies this rural tourism position as a global trend (Bratić et al., 2021; Campisi et al., 2021). The literature points out possible sustainability implications of such a trend - whereas low-density areas are perceived more positively, travel anxiety induces visitors to avoid public transport (Bratić et al., 2021). Moreover, often private cars are used as the main transport option to reach remote rural areas (Campisi et al., 2021). For rural tourism, therefore, sustainable transport is one of most crucial post-pandemic goals. Finally, both countries reported more domestic business, and tourism providers from both countries were optimistic about a return by international tourists in the future. This optimism is contingent on some changes being made and providers in Kazakhstan were more likely to report needing to adjust their product to meet the new market that seemed to be emerging. This market included more families, longer stays and more health-related offerings to tourists. In Italy changes were not seen to be affecting the product itself but more related to domestic vs. international tourists and issues around uncertainty, making booking in advance problematic. This diversification of rural tourism site activities during the pandemic makes an apparent argument for the importance of maintaining a dynamic and up-to-date system of accounts capturing the value-generating activities of rural tourism sites. It is crucial for both the mature rural tourism sector like in Italy and a sector at an early stage of development like in Kazakhstan. Studying data at farm level allows a convenient interface for entrepreneurs to explore and analyse the performance of various tourism forms and activities, which is also essential for SME support in both mature and nascent contexts.

Institutionalized Dimension: enabling sustainability amidst complexity of rural tourism

Italy and Kazakhstan are at different stages of institutionalization of the rural tourism sector. The difference is also observed in the degree of institutionalization of knowledge structures. Italy's rural tourism has developed a complex framework for support of rural tourism and agritourism. There are similarities in the strategic normative frameworks - both countries have guiding master-plans and a number of regional and local plans for development of tourism. Moreover, in Italy, rural tourism is influenced by the EU-wide Common Agriculture Policy (CAP), Regional Rural Development Plans and other development policies of the Ministry of Agriculture, Food and Forestry Policy regarding *agritourism*. In the Alps and Appennini, programs for mountain area development are often tackling and supporting rural tourism. Moreover, the role of agribusiness association has been also very relevant in the governance and promotion of agri tourism since the early birth of the phenomena. Kazakhstan has adopted a State Strategy for Tourism Development for 2019-2025 as a main comprehensive plan for tourism sector development, as well as regional, sub-regional and local initiatives. These frameworks, in Italy and Kazakhstan, envision tourism development as collaborative effort and include provisions for integration of a wide array of industry actors: rural residents, professional associations aimed at rural tourism development, destination development organizations, specialized governmental agencies, municipal structures, business structures, Universities and associations of independent experts. The difference is observed in the numbers, diversity of specializations and degree of integration among the rural tourism actors. Tiberghien et al. (2018) suggest that rural tourism in Kazakhstan is still in search of its forms and at the stage of early experimentation: there are possibilities for agritourism based on a variety of orchards, vegetables, berries, honey, meat and dairy products. In addition, the experts noted the links of diverse nature and geographical bases of rural sites in Kazakhstan with its historical heritage: for example, a species of apples Malus Sieversii the ancestor variety of all modern apples is native to the Almaty region (Omasheva et al., 2017), as well as there still about 40 varieties of combined wild tulips species and species that have been cultivated for more than five hundred years that can be observed in the steppes of Kazakhstan (Tolenova et al., 2021; Ivachenko et al., 2006) pointed out the task of finding balance between modernization and authenticity of rural tourism products and understanding how international tourism will perceive rural tourism in Kazakhstan. In light of these multiple tasks and objectives, the knowledge structures are being formed. There is a national JSC Kazakh Tourism established in 2017, which aims to promote all kinds of tourism in Kazakhstan. The Kazakh Tourism Association, Kazakhstan Association of Hotels and Restaurants and Kazakhstan Association of Agri and Rural tourism are independent professional associations, who serve as integrators, promoters and knowledge facilitators within the industry and with other sectors. Informational and expert circles appear in social media and gather around tourism-related events, which have not yet developed clear functionality and serve as networking and information exchange.

The survey results confirm that there are differences in how rural tourism sites in two countries perceive the knowledge infrastructure and financial support during the pandemic (Table 1 and 2). Rural tourism sites in Italy commented on the availability of financial support that was made to them, while no mentions of such were expressed by sites in sample from Kazakhstan. Such differences are important to understand and delineate in the drive towards sustainability and resilience of rural tourism in each country and for devising conceptual insights about rural tourism development. Despite different stages of rural tourism institutionalization in two countries, there is much similarity in regard to how rural tourism has faced the COVID-19 pandemic. Italy has been severely affected in terms of spread and intensity of infection, which entailed more strict mobility restrictions. Nonetheless, the authors found that the rural tourism sector referred to similar sources of resilience. According to rural tourism providers interviewed in this research in both countries, Government support was one of the core sources of resilience. Understanding the tourist concerns and having more effective lines of communication with tourists were other important factors of resilience. Both in Italy and Kazakhstan, farms who could diversify their offering and adjust for domestic demands showed more resilience (Mastronardi et al., 2020). The author's interview with the rural tourism providers suggest that the pandemic brought new perspectives on the importance of private investment, as for novel and risky solutions rural tourism entities could only refocus or reorient their activity when supported by private investments. The main lesson from the pandemic has come to light from the complexity of rural tourism. Italy and Kazakhstan have similar strategic orientations for rural tourism as a complex of sustainability objectives: social and economic development of rural areas, preservation of cultural and natural heritage, ensuring human wellbeing, promotion of richness and authenticity of rural experiences and enhancement of relations between the urban and rural areas. The experience of the pandemic clearly illustrated that rural tourism is a dynamic phenomena with its own specifics.

CONCLUSIONS

Although at different stages of rural tourism development, in both cases the significance that societies attach to rural tourism implies inherent features fostering both resilience and sustainability. In response to the COVID-19 pandemic rural tourism resources have been mobilized to continue to generate tourism value of rural sites, while accommodating increased demand for human well-being and health safety. While the pandemic has highlighted the sustainability facets in rural tourism, the effects of intensification of tourism in the sector are yet to be understood. In this paper the authors analyzed the knowledge structures that have been effective in mobilizing rural tourism resources during the pandemic and how they can facilitate sustainable transformations of the sector. In Italy the notion of rural tourism as a socio-economic sector has long been established (ISTAT, 2020). Kazakhstan has just started exploration of the potential of rural tourism in the last decade (Shaken et al., 2019). Nonetheless, for both cases, the momentum points to the importance of varied knowledge and skills to ensure balanced effects to the socio-environmental sustainability of rural areas. The changes in the notion of rural tourism have real effects in terms of increased interest among domestic tourists. Analysis of codified and institutional knowledge structures suggests that rural tourism entrepreneurs became more resilient during the pandemic in cases where knowledge is available about sources of value-added in rural tourism sectors and when rural tourism providers are more qualitatively integrated with various institutional actors. The two countries have different stages and forms of rural tourism, however they have similar strategic orientations for sustainable rural tourism development. The complexity and specifics of rural tourism can be sustainably managed when institutional knowledge structures consistently perform two functions:

1) capturing interdependencies of resilient and sustainable developments within the sector and with other sectors and

2) integrating various actors to help make informed decisions. The COVID-19 pandemic has clearly impacted on tourism and there are implications here for existing knowledge gaps about the functioning of rural tourism and sources of its resilience as well as for sustainability. Application of the three-dimensional knowledge framework to compare rural tourism development in pandemic times in Italy and Kazakhstan has been useful in developing a nuanced and insightful understanding of the issues. The impact of the COVID-19 pandemic has shown that the way societies look at rural tourism has itself diversified. Rural tourism has become more linked to human health and safety, and its potential for human well-being has become of interest to destination developers. It is also clear that further research is needed to analyze if these changes are structural or conjunctural, and how, given an amplified interest, rural tourism can be developed in a sustainable way.

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Article history: Received: 19.01.2022 Revised: 31.03.2022 Accepted: 05.05.2022 Available online: 27.05.2022

GeoJournal of Tourism and Geosites
ISSN 2065-1198, E-ISSN 2065-0817

Year XV, vol. 41, no. 2, 2022, p.564-570
DOI 10.30892/gtg.41230-864

CRISIS MANAGEMENT IN TOURISM: VISIT INTENTION, DESTINATION IMAGE AND SOCIAL MEDIA IN TIMES OF COVID-19, THE GREEK CASE

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Citation: Rapti, E., & Gkouna, O. (2022). CRISIS MANAGEMENT IN TOURISM: VISIT INTENTION, DESTINATION IMAGE AND SOCIAL MEDIA IN TIMES OF COVID-19, THE GREEK CASE. *GeoJournal of Tourism and Geosites*, 41(2), 564–570. https://doi.org/10.30892/gtg.41230-864

Abstract: The research objective is to analyze the factors influencing visit intention and destination image in Covid-19 crisis recovery. Mixed research methods were used on a random sample of 461 citizens/tourists within Greek territory and the findings were examined using correlation and regression analysis. The findings suggest that location affects the intention of the visitors with regard to choosing a place; that natural sights have the most profound influence on tourists' intention to visit a place and that the image of the destination on the social media changes significantly, based on physical factors and travel intention.

Key words: Crisis recovery, Destination image, Visit Intention, Travel motivation, Covid-19, Social Media

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INTRODUCTION

The attractiveness of each destination depends, to a great extent, on its natural landscape, attractions, culture, monuments, cultural activities, entertainment, hotel comfort and low prices. The purpose of this study is to analyze the determinants that affect the intention of tourists to visit a destination in times of Covid-19. Specifically, an appropriate action plan is under both consideration and investigation, aiming to contribute to the immediate restoration of the hospitality sector, in order to diversify tourism products and create a distinctive and unique identity for each destination. For this reason, the first step is a theoretical review of the core international literature, followed by a questionnaire, for an empirical analysis based on the theories formulated on the role of the brand (Branding) which is created in order to investigate the degree of tourist satisfaction derived from the set of main characteristics and services of the tourism product while also measuring the degree of importance that tourists place to these characteristics. At the same time interviews with hotel business executives were conducted, in order to have a more complete and holistic picture of the subject under study, as well as to enable the examination of the data from different methodological perspectives. Participants were asked to rate the destinations under examination (Ioannina and Chalkidiki in Greece), based on specific characteristics that define a place and make it attractive, as well as competitive. In this way, the results of the two research methods can be compared, while highlighting the new trends and challenges that shape tourism as a commercial good, after the outbreak of the pandemic. As a result, several determinants that have an impact on the intention of tourists to visit a destination will be taken into consideration, particularly in the post-Covid-19 era.

LITERATURE REVIEW

According to Barton (1993), the crisis can be described as "a large, sudden event, which is likely to have negative consequences. The fact and its consequences can seriously damage an organization, its employees, products, services, financial situation and reputation". Rosenthal and Pijnenburg (1991) as well as Lai and Wong (2020) argued that the crisis as a concept refers to any situation which includes serious threat, uncertainty and a sense of urgency. Crisis management, or risk management, can be defined as the set of actions aimed at designing and organizing a plan to prevent or reduce the effects of a crisis. Fink (1986) linked crisis to illness and formulated its life cycle. Particularly, the perception that crises progress in a specific way, or that they follow a specific life cycle, is expressed through a four-stage process: a) Prodromal Stage, b) Acute Stage, c) Chronic Stage and d) Resolution Stage.The Prodromal Stage includes all the initial signs and indications of a possible crisis, which are difficult to detect, but whose detection is essential, as it is much easier to attempt to manage the crisis at its early stages. This stage may include a Crisis Management Plan (CMP) properly preparing those involved on anything they might not be aware of, even points that are "invisible" or unpredictable. Acute stage is the acute period during which a crisis actually manifests itself and peaks, thus, unfortunately, losses are inevitable. The damage has already been done and it is up to the organization to determine

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how to deal with it. At this stage it is difficult to control the situation due to the rapid unfolding of events. Chronic Stage is the third phase in the life cycle, where the effects are obvious and the consequences are evident, thus prolonging the critical period. At the same time, an effort is being made to restore things and analyze the current situation.

In addition, it is a period in which economic changes, strategies for dealing with future crises, as well as administrative reshuffling are taking place. The stage of resolution starts when it is observed that the response measures begin to work and at the same time, the causes that led to the crisis as well as its effects are weakened. Tourism is a social, cultural and economic phenomenon, which presupposes the transportation to new locations, different from or beyond the boundaries of the place of residence, primarily motivated by enjoyment (Glaesser, 2006). According to Cooper (1993) and Mtapuri and Giampiccoli (2019), tourism is a holistically structured system that combines the human factor, organizations, businesses and a specific location in order to create a unique travel experience.

Moreover, a tourism product is a combination of services and activities, in a variety of prices that an area "produces" and offers and whose characteristics it incorporates (Morrison, 2013). In the context of the tourism industry, the concept of "destination image" was analyzed by several academics (e.g.Chatzigeorgiou and Christou, 2016; Fotiadis et al., 2017; Séraphin et al., 2019; Stylidis, 2020; Lee and Xue, 2020). According to Ritchie et al. (1998) and Afshardoost and Eshaghi (2020), a destination image is defined as a name, symbol, logo, word, or whatever makes it recognizable and differentiates a destination from others. In addition, it conveys the promise of an unforgettable travel experience uniquely and exclusively related to the destination and also serves to establish and enhance the recollection of pleasant memories associated to the destination (Casali et al., 2021). Hunt (1975) and Kim (2018) mentioned the importance of the creation of a destination image as a tool used to increase the number of tourists visiting an area and noted that this factor is very important since it affects the process of choosing a destination, tourist satisfaction, tourist loyalty, the intention to visit and individual tourist decisions. The destination image could be measured by the consumer movement in perspective (Fakeye and Crompton, 1991). According to Crompton's (1992) theory, decision-making bytourists is a gradual process that leads to them choosing a specific destination when they realize that the characteristics of the respective destination meet their needs and requirements. This is due to the tendency of tourists to categorize their potential options based on criteria such as images and personal incentives, factors affecting motivation as well as the availability of time and money (Goodall, 1991; Maghrifani, 2018).

Social media now play an instrumental role in the tourism and the hospitality sectors, resulting in reduced cost, increased business efficiency, improved services and satisfied customers (Paul et al., 2019). Nowadays, the digital approachand tourist service basically startbefore the trip, in order for them to decideon a destination and get all the necessary information about it (accommodation, transport, tourist services, activities, security issues and locals' hospitality), and then check whether the options offered by the destination product meet their needs (Djeri et al., 2007). Also, there is the option for online bookings for means of transport and hotel accommodation. Finally, the perks of a digital approach e.g. with the use of social media stay with the tourist even after their trip, through the memories they have collected and stored in digital form and which they will share with relatives and friends on social networks (Yuan et al., 2019). In addition, travelers experiencing satisfactory travel services can serve as a source of motivation for their families and friends through persuasive word-of-mouth advertising. Additionally, they themselves will be more likely to return to the same destination (San Martin et al., 2013). According to the World Tourism Organization (UNWTO), a "conventional" mode of promotion that continues to be very powerful even in the digital age, are the potential recommendations from relatives and friends, the most inexpensive means of promotion, which is still dominant among the reasons for choosing a destination (Buhalis and Law, 2008). A key condition for revisiting is the redesigning of the product through a careful management strategy, emphasizing on the creation of additional value and enhancing the dynamics of tourism development (Rup et al., 2021). A pandemic can occur at any time and has a significant impact on public health, while affecting important social and economic aspects of everyday life (Abodunrin et al., 2020).

In the last 20 years, humanity has been confronted with new, previously unknown, pathogens (e.g. SARS, MERS, Zika, Ebola), which have led to severe disease outbreaks (Gossling et al., 2020). One of the peculiarities of the tourism industry is that it is exposed to adverse events more than any other sector of the economy (Wut et al., 2021). Despite its importance, tourism is one of the most vulnerable sectors because it can be affected by wars or political instability, terrorist attacks, economic crises, natural disasters and health concerns (Skare et al., 2021). Tourism demand can be negatively affected by a wide range of problems, particularly safety and health issues that, while taking place locally, have a global impact (Wut et al., 2021; Sharma and Nicolau, 2020). According to the official data of the World Health Organization, Covid-19 turned into a pandemic in March 2020. Gradually, all destinations around the world introduced travel restrictions, signaling a conjuncture that had not occurred at any other time in the past. The Covid-19 pandemic, apart from being the cause of a huge health issue, has also affected tourism and especially countries dependent on it, such as Greece (Papanikos, 2020).

Research methodology

The specificity and complexity of the factors that arise in the present study render a multi-method analysis as the more appropriate. For this purpose, the research tools selected are the interviews in combination with the use of a questionnaire. To ensure the validity of the data, the triangulation method was used in order to combine data from different sources. According to Ghauri and Firth (2009), the main advantage of triangulation method is that it can create a more complete, holistic and relevant picture on the topic and contribute decisively to the data examination from different points of view. Based on a systematic review of the literature involved in published research papers from 2003 to 2020 on crisis management in tourism, as well as on studies that compile the characteristics of a destination and the effect they have on the intention of tourists to visit it after a crisis, specific determinants that make up a destination after the Covid-19 pandemic were selected. The variables under investigation in this study consist of the physical features and financial factors that compose a destination, the destination image after the Covid-19 crisis and the intention to visit, based on the study conducted by Ahmad et al. (2021). The fifth variable concerns the image of the destination on social media and is based on the study of Govers et al. (2007), who showed that the media play an important role in shaping the image of the destination and consequently, the intentions of tourists to visit it.

All variables were adjusted and modified according to the research questions asked. The research was conducted between December 2020 and January 2021, on a random sample of 461 citizens/tourists of the Greek territory and the relevant descriptive and inferential statistics were used. Moreover, in the context of the case study, the areas examined were thoseof Ioannina and Chalkidiki in Greece, where hotel executives identified and evaluated the respective destination, based on specific characteristics that compose the tourist identity of the location. According to Yin (2003), Cakmak and Akgun (2018), case study is a widely used and supportive method of scientific research. In this way, the research highlights new trends and challenges that shape the tourism product after the outbreak of the pandemic. Figure 1 below shows the conceptualization of the current research and the overall research process.

Table 1. Demographics (Authors' survey and analysis)

	Frequency	%
Gender		
Male	186	40.30
Female	275	59.70
Age Group		
18-25	39	8.50
26-35	180	39
36-45	167	36.20
46-55	49	10.60
56 and above	26	5.60
Education		
High School	77	16.70
Bachelor's Degree	171	37.10
Master's Degree	157	34.10
PhD	11	2.40
Other	45	9.80
Marital Status		
Unmarried	213	46.20
Married	192	41.60
Other	56	12.10
Work Status		
Unemployed	53	11.50
Seasonal Employment	29	5
Part time job	33	7.20
Full time	324	70.30
Other	28	6.10
Monthly Earnings		
0-500	94	20.40
501-1000	171	37.10
1001-1500	141	30.60
1501-2000	29	6.30
2001 and above	26	5.60

Table 2. Means of main variables

	M	**SD**
Physical features of destination		
Adequate accommodation	4.01	0.947
Climate	3.99	1.030
Accessibility to destination information	4.06	0.953
Availability of public transport	3.47	1.280
Infrastructure	4.22	0.891
Financial factors of destination		
Affordable accommodation costs	4.50	0.721
Affordable cost in local markets	3.89	1.010
Affordable public transportation	3.12	1.250
Quality of services provided	4.28	0.793
Cost of services provided	4.21	0.819
Post - crisis destination image		
The location as a safe destination	4.50	0.770
Crises are isolated and temporary	3.48	1.360
Actions to prevent future crises	3.22	1.000
Recommend to my friends/family	4.51	0.781
Intention to visit		
Sufficient accommodation facilities	4.36	0.769
Diverseand quality leisure facilities	3.73	1.090
Clean and hygienic environment	4.81	0.503
Branding location	3.58	1.110
Well-planned tourism	3.93	0.951
Historical and cultural attractiveness	3.93	0.986
Gastronomy	3.78	1.080
Hospitality rate	3.82	1.050
Safe and secure	4.30	0.874
Destination image on social media		
Search on social media	3.71	1.140
Promotion on social media	3.37	1.180
Criticism/Negative feedback/ reviews on social media	3.63	1.160

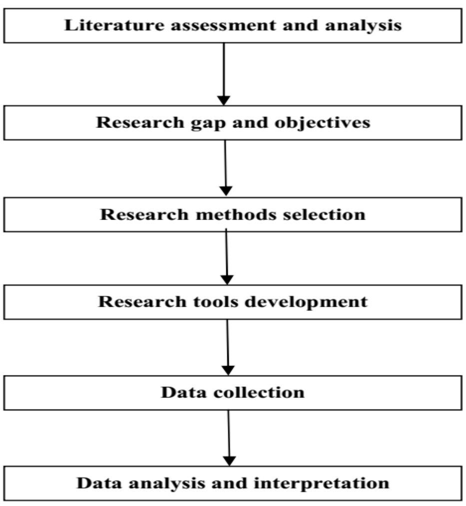

Figure 1. Research topic development

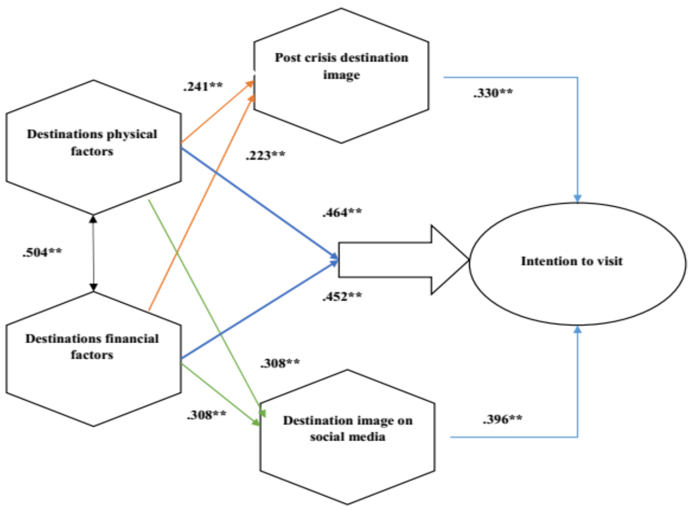

Figure 2. Correlations between the variables

Findings and analysis

A total of N = 461 participants from the 500 who were initially approached responded to the data collection (92.2% participation rate).The majority of the respondents were female, representing 59.7%; 40.3% were male; the predominant age group was between 26-35years old (39%) followed by the group between 36 and 45(36.2%); the majority of the sample participants had completed their bachelor's degree studies (37.1%);the largest percentage were unmarried (46.2%); likewise in the work status category, full employment had the highest percentage (70.3%). Regarding the monthly earnings, most of the participants' wages (37.1%) ranged between 501 and 1000 euro's (Table 1).

Analyzing the data in the Table 2, it can be observed that:

a) In the category "Physical features of destination" the infrastructure of the place is the factor that contributes the most to the choice of visitors while the second most important factor, for this category, is the ease of access to information about the place. Infrastructures include awell-established road network, accessibility (by sea or air) and tourist accommodation. Ease of access to information includes the proper organization and display of information, so that the prospective visitors can easily find a place that they are interested in.

b) In the category "Financial factors of destination", the most important factor is the one related to the affordable prices of accommodation, followed, by a small margin, by the quality of services provided and the price of services provided

c) In the "Post-crisis destination image" category, the greatest impact on potential visitors will be the combination of positive views about an area, coming from their friendly environment and the reassurance that a destination has been classified as safe.

d) In the category "Intention to visit", the deciding factor is, judging by the participants' responses, the clean and healthy environment that the place and the accommodation should have, followed immediately by the adequacy of accommodation facilities and the reputation of the place as a safe destination.

Table 3. Correlations between the variables

Hypothesistesting	Relatedvariables	P	Strength of Correlation	Case Verification
H1: In the post-Covid-19 era the "intention to visit" of a location is positively related to its "special features (Physical factors of destination)"	Physical factors of destination VS Intention to visit	0.464	Moderate	Verified
H2: In the post-Covid-19 era, the "intention to visit" of a location is positively related to the "financial factors of destination"	Financial factors of destination VS Intention to visit	0.452	Moderate	Verified
H3: In the post-Covid-19 era, the "intention to visit" of a location is positively related to the "Post - crises destination image"	Post - crises destination image VS Intention to visit	0.330	Low	Verified
H4: In the post-Covid-19 era, the "physical factors of destination" are positively related to the "financial factors of destination"	Physical factors of destination VS Financial factors of destination	0.504	Moderate	Verified
H5: The "destination image on social media'' is positively related to the "Intention to visit"	Intention to visit VS Destination image on social media	0.396	Low	Verified
H6: The "destination image on social media'' is positively related to "the physical factors of destination"	Destination image on social media VS Physical factors of destination	0.308	Low	Verified
H7: The "destination image on social media'' is positively related to the "financial factors of destination"	Destination image on social media VS Financial factors of destination	0.308	Low	Verified
H8: In the post-Covid-19 era, the "physical factors of destination" are positively related to the "Post - crises destination image"	Physical factors of destination VS Post - crises destination image	0.241	Low	Verified
H9: In the post-Covid-19 era the "financial factors of destination" are positively related to the "Post - crises destination image"	Financial factors of destinationVS Post - crises destination image	0.223	Low	Verified

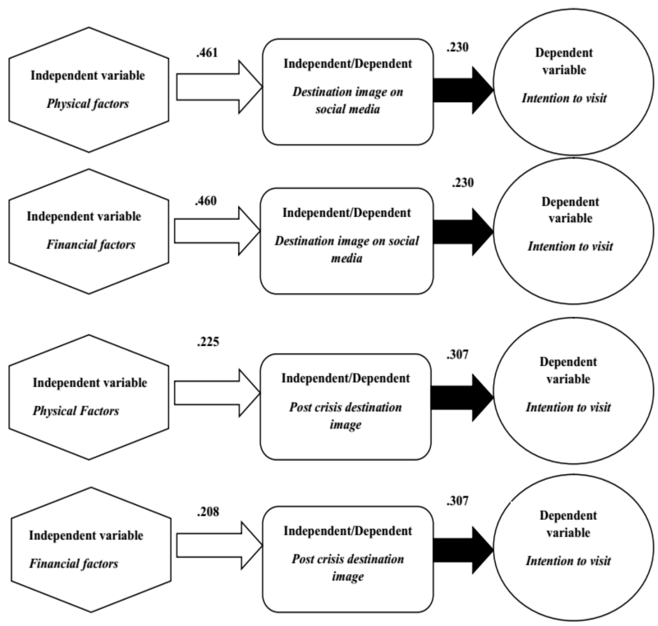

Figure 3. Moderator effects (authors' data collection and analysis)

e) Finally, in the category "Destination image on social media" their effect on visitors choosing a place is deemed positive, with their most important contribution being the ease of searching for a destination. Table 3 contains the results of the correlations between the variables, which verify the research hypotheses. These hypotheses are characterized by low to moderate positive correlations. The strongest influence on the final decision of the visitors on choosing a destination was found to concern physical features (r =.464), followed by financial factors (r =.452). Additionally, physical factors found be positively related with financial factors (r = .504). The effect of the destination image on social media (r =.396) on intention to visit is also remarkable, while the destination image after the crisis has the least impact (r =.330) (Figure 2).

According to Figure 3, the findingsindicate that the variables "Post crisis destination image" and "Destination image on social media" have a mediating role. In all cases it was shown that there is a positive correlation of the dependent variable "Intention to visit" with these two variables. In addition, the variables "Post crisis destination image" and "Destination image on social media" were found to have a dual role which is supported by their dependence on the variables "physical features" and "financial factors". The findings suggest that the location image affects the intention of the visitors to choose a place, that the natural features have the most prominent influence on visiting intention and that the image of the destination on the social media changes significantly in relation to physical features and travel intention. The results show that promoting the physical features of a destination on the social media, especially those related to the infrastructure of a region, in combination with financial factors, such as affordable prices (value for money), constitute the most efficient way to ensure recovery of the industry as they will bring about the greatest possible increase in consumer arrivals. Additionally, the image of a destination was found to be affected by natural features and financial factors which also show an indirect relationship with travel intention. Finally, qualitative analysis (Table 4) shows that financial measures within the governmental policy can be helpful and supportive for the industry; should be included in an overall strategic plan, focusing on the product differentiation of each destination.

Table 4. Interviews' findings

Topics	**Convergence of views**	**Difference of views**
Quality and Adequacy of infrastructure	Quality of services provided regarding accommodation and adequacy of comforts	Road network & accessibility
Cost of services provided		High cost in Chalkidiki, compared to affordable prices in Ioannina
Priorities of tourists for choosingaccommodation in the post Covid-19 era	The clean and healthy environment	
Attitude and contribution of local authorities	The actions of the local authorities are important, with participation in exhibitions and promotion of the place.	
Specific characteristics of the location		Ioannina is known for its rich cultural heritage, natural beauty and local gastronomy Chalkidiki is popular for the beaches and its natural beauty
Hospitality and Security	The reputation of the place, regarding the hospitality, safety and protection to the tourists, are the motivation for choosing these locations	
SocialMedia	Promoting the location through social media is considered the most effective way of advertising and should be further strengthened	
Pandemic, obstaclesandactions	Restrictive measures as an obstacle affecting the visit intention Stagnation and lack of actions to avoid future crises	
Challenges and financial measures in the hotel industry	Financial measures to support companies and employees. Alternative actions such as the strengthening of social tourism by the state as well as the promotion of the country as an attractive tourist destination	
Change in visitor behavior in the post-Covid-19 era	The change in the behavior of tourists will be mainly related to the hygienic conditions in the accommodation, which will be more demanding	
MassMedia	Maintaining a more rational attitude on the part of the media, so that they do not focus only on negative news, terrorizing visitors	
Maintaining the value of the brand and contact with customers	Maintaining contacts with customers via the Internet (receiving e-mails or sharing on social media various useful information); Customer loyalty: offers or reduced prices to regularcustomers	
Changes in the hotel industry		Differences of opinion: Regarding the expected changes in the hospitality service and the hotel of the future.

DISCUSSION

The tourism industry has been hit hard by the pandemic crisis, compared to any other. As it is characterized as the "heavy industry" of the country, with a significant contribution to other sectors such as catering and transport, it is considered of paramount importance to support the industry, in order to maintain its viability.Financial support measures from the government, as suggested by industry executives, could revitalize the tourism industry, until is fully restarted. However, these measures, apart from being temporary, are considered insufficient if they are not accompanied by astrategic action plan, which will aim to promote the destination in such a way as leading to a competitive advantage.

Testing how the image of a destination affects the intention of the visitors to choose a place, showed that the correct promotion of the country by using all the available means and especially the social media is the most efficient way for a faster recovery of the industry. In this way, there should be a strategic national action plan, coordinated by all stakeholders, to highlight the positive features that make up the image of a tempting tourist destination. However, as in any crisis, companies in the industry are called upon to adapt to the new reality and create the appropriate conditions for a health and safe environment by adhering to all health protocols and enhancing the sense of trust and security of potential visitors. Here, the media also play an important role, by the way of addressing the events, focusing only on negative news and magnifying the issue, ending up to negatively affect potential visitors.

CONCLUSIONS

Nowadays, Greece has the opportunity to review its production model in order to render its economy more resilient and less vulnerable to crisis. The new model of tourism development that is now emerging should be based on quality tourism and a new tourist identity, where potential visitors have the opportunity for quality tourism services at affordable prices (value for money). In addition, there is a growing trend (which tourism businesses should respond to immediately) on the part of consumers and potential tourists to opt for more environmentally friendly products and services, so they choose destinations under such specific criteria. Furthermore, the pandemic has dramatically changed the relationship of businesses, employees and consumers with digital technology in just a few weeks. All businesses are gradually required to improve their customers' digital access and move forward to the spectrumof e-commerce, as in the coming years this element will be transformed from a potential choice into a necessary condition.

The acceleration of investments in the fields of digitization and robotic process automation is also considered certain. The current international trend in tourism, which will be accelerated by the crisis caused by the pandemic, is that of the experiential connection of tourists with local communities in the destinations they visit. Modern "experience tourism" is associated with the "localhood", culture and way of life of the inhabitants of a place. "Experience tourism" is one of the largest and fastest growing branches of tourism activity. It is worth mentioning that Greece meets all the conditions and possesses all the advantages to be included in the list of alternative tourism destinations. Each of its geographical areas is famous for its special local characteristics, which constitute competitive advantages.

As tourism is a complex phenomenon highly susceptible to changes taking place in the external environment, the state should invest in a model that will enrich the tourism product and improve its competitiveness. Moreover, it should extend the tourist season all year round, substantially alleviating the seasonality of the Greek tourist industry during the summer months (repositioning of the tourist product). Generally, adaptability in each unique situation is a key element for the tourism sector. Planning, in the post-Covid-19 era, should prioritize new trends since, after the pandemic, there will be no return to regularity, but rather a transition to a new reality. The findings will provide managers with knowledge on factors affecting consumer behavior and, based on that, they can create a better tourist package proposal, making the image of a destination far more attractive. Future research should broaden its spectrum by analyzing the factors that influence the intention to visit a destination and the image of the specific destination in terms of the recovery from the health crisis. Even though, the aforementioned analysis provides essential results and clarifications for the management of tourism destination in the framework of Covid-19, research limitations still exist. A future research could expand the size of the sample in order to evade the overgeneralization of the findings.

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Article history: Received: 19.01.2022 Revised: 11.04.2022 Accepted: 09.05.2022 Available online: 03.06.2022

GeoJournal of Tourism and Geosites
ISSN 2065-1198, E-ISSN 2065-0817

Year XV, vol. 41, no. 2, 2022, p.571-582
DOI 10.30892/gtg.41231-865

MEDIEVAL RELIGIOUS LANDSCAPE AND ITS USE IN RELIGIOUS TOURISM (CASE STUDY OF THE EARLY GOTHIC CHURCH KOSCELISKO SURROUNDINGS IN KYSUCE, SLOVAKIA)

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Citation: Hronček, P., Gregorová, B., & Weis, K. (2022). MEDIEVAL RELIGIOUS LANDSCAPE AND ITS USE IN RELIGIOUS TOURISM (CASE STUDY OF THE EARLY GOTHIC CHURCH KOSCELISKO SURROUNDINGS IN KYSUCE, SLOVAKIA). *GeoJournal of Tourism and Geosites*, 41(2), 571–582. https://doi.org/10.30892/gtg.41231-865

Abstract: The study presents fundamental theoretical and methodological information on individual sacral tourism as a suitable type of tourism during the COVID-19 pandemic. Individual (virtual) tourism on the example of the Koscelisko locality in Radoľa municipality (northwestern part of Slovakia) in the area of the extinct medieval sacral landscape, thanks to modern technologies, represents a relatively modern segment of the alternative - modern types of tourism. In the first step, a bibliometric method combined with content analysis of literary and archival sources was used to process the study. It was followed by a comprehensive method of historical-geographical research and field research, which generate a database of information to create a 3D model of the defunct church Koscelisko. The outputs processed in this way are available online to potential tourists via smartphones on the platform called Multimedia Guide to Geotourism (https://www.montanistika.eu).

Key words: sacral landscape, vanished sacral monuments, 3D reconstruction, virtual space, religious tourism

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INTRODUCTION

Christianity formed the population and territory of Central Europe, including Slovakia, from the 9th century. Its influence has shown in many places within the landscape to the degree that it has acquired a specific appearance of the religious landscape filled with religious buildings, objects, small sacral architecture, and Christian symbols accompanied by typically adjusted vegetation - gardens, trees, solitary trees. In Slovakia, two dominant religious landscaping complexes have gradually become part of the area included in the UNESCO World Heritage List (http://whc.unesco.org/en/list/), namely the Calvary in Banská Štiavnica and the Calvary near Pažica (called Jerusalem of Spiš) in Spišské Podhradie.

The territory of Slovakia is affluent in the uncountable amount of sacral sites represented by calvaries and crossroads. We can find up to 113 of them located e.g., in Košice, Bratislava, Banská Bystrica, Nitra (Jančura et al., 2011). The official pilgrimage points (http://www.putnickemiesta.sk/) registered by the Roman Catholic Church (counting 133 points) are, e.g., Mariánska Hora in Levoča, Šaštín-Stráže, Záhorská Bystrica, Staré Hory, Nivčáková, and many others. The Greek Catholic Church registers 21 pilgrimage points (http://www.putnickemiesta.sk/) including Litmanová, Chirč, Prešov, Košice, and others. Fourteen monasteries and their ruins are also located in Slovakia (based on original research), including Leles, Jasov, Červený Kláštor, Hronský Beňadik, Bzovík, Skalka near Trenčín, Zobor in Nitra. During centuries, more than 4,200 cathedrals, urban or rural churches, chapels, and other church buildings were built in the landscape (based on original research). Although these cultural and religious monuments are still actively used by believers and thus maintained in operation, many have fallen into touristic oblivion. They have not matched the expected potential during the second half of the 20th century due to the communist regime. A separate chapter among the sacral objects is represented by wayside crosses and God's Tortures whose number is dominant, certainly above 10,000 (according to own research), which belong either to nobody or only exceptionally to local municipalities or parishes. Fortunately, these objects are recently a subject of mapping (www.montanistika.eu/?kategorie=13) and gradually also landscape research of architects and religionists.

In Slovakia and the adjacent Central European countries, the Communist regime directly interfered with the science and research topics concerning the Church and Christianity. Therefore, we are observing a specific vacuum in the study of religion, the religiosity of the population, religious tourism, and pilgrimage from the 1950s so far (Bunčák, 2001; Krivý, 2001; Očovský, 1993; Matlovič, 1997, 2001). Renaissance of the research in this area occurred in the 90s of the 20th century when a strongly shaped, mainly Polish religious-geographic school in Krakow formed under prof. Jackowski (e.g.,

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1995, 2003). The current pandemic caused by Covid-19 has led us to innovative processing of religious tourism when the world's tourism decreases in all regions, and neither Central Europe nor Slovakia is an exception. This innovative approach is pointed out in using individual, modern forms of virtual tourism to discover (vanished) sacral cultural monuments. After arriving at the site, individuals or groups can view the assumed object/site appearance and condition in the selected time horizon using freely available modern technologies (smartphones). Thus, tourists can learn basic information about the visited sites through various platforms or applications and even view 3D reconstructions of non-existent monuments in the field, as if traveling in the past. The study aims to reconstruct the vanished early Gothic church of Koscelisko in Radoľa and the adjacent historical sacral landscape and subsequently create a 3D church model and point out its position in the landscape. Furthermore, propose using historical heritage in modern virtual religious tourism based on theoretical-methodological bases relating to religious tourism and knowledge of the sacral landscape.

THEORETICAL FRAMEWORK

Historical sacral landscape

A detailed overview of landscape entity perception and its definitions as understood by various scientific disciplines (from natural sciences, through historical and social science to engineering) is given by (Chrastina, 2009).

In terms of conceptualizing the scientific terms at the border of geography and history, it can be considered a complex dynamic system consisting of (quasi) natural and anthropogenically reshaped and developed components linked with bonds and mutual interaction in a particular space and time. A particular landscape is an existing part of the earth's surface forming a homogeneous entity, qualitatively distinguishable from its surroundings, i.e., from a different type of landscape. The man transformed and developed landscapes include agricultural, urban, industrial, mining, and religious (i.e., sacral, sacred, or spiritual). If a studied area contains a stabilized landscape in more than five years, we speak about a historical landscape. It is, therefore, a spatial entity in which human life took place (human activity) in the past, i.e., within the selected (examined) time horizons (Hollý and Hronček ,2017). Based on a broader understanding of a religious landscape meaning in geographical sciences, we define it as a system of relations between space and religious manifestations (in our case Christian), actions, and interactions associated with socio-cultural material transformations in space and time from local to global level (Zelinsky, 2001; Kong, 2004; Knippenberg, 2005). In the strict sense, therefore, it is a sacral landscape of a selected territorial unit (geographical area of local importance), or rather the site, which has been (or is to present) greatly influenced and transformed by religious influences and activities of different nature. The sacral landscape can be represented by groupings of religious buildings and objects and a solitary sacral landscape element that adds or creates (defines) the typical landscape character of the area (Havlíček and Hupková, 2007; 2008; 2013). Perception of solitary elements in the local historical sacral landscape space is essential in research, whether it is a small building (crosses, wayside chapels) or freestanding churches and calvaries. P. Jančura elaborated on the issue of research freestanding churches in the landscape (Jančura et al., 2011; Jančura, 2016). He did not consider them only as cultural monuments but as sacred buildings, which can change the character of the surrounding landscape as solitaires. They had and still have a specific position in space because they represent several other meanings in addition to their religious missions.

First, the church (especially Romanesque and Gothic) was built on relief predisposed by significantly higher ground to dominate the surrounding landscape visually. The nave was usually east-west oriented, with the altar located in the eastern part and the central entrance in the western part of the church. East accounted for sunrise, which symbolized rebirth and positive force. West represented dusk and the end (of life). Tall trees, either oaks or lindens, were usually left growing in the immediate surroundings of these churches (as remnants of the original vegetation). If the site had been without trees, people would have planted them artificially (Jančura, 2016; Tóth, 2020). Landscapes' spiritual value gradually began to change, and whereas it added up sacred elements, it became "religious"(sacral). Holy hills, calvaries, crossroads, and places of pilgrimage originated. Roads in the landscape were lined with smaller sacral buildings: chapels, wayside crosses, and statues of saints, well landscaped and planted with trees. In Slovakia, calvary complexes became a synonym for sacral landscape (Jančura et al., 2011). Medieval churches created places of a specific meaning in the landscape - genius loci. We understand it as a spiritual character of a specific place, hence the landscape, which can be found in different cultures and forms in history. The belief in its existence unwound throughout history with Christianity. Places considered "strong" or directly sacred are those that can change our inner state and agitate our respect. Experiencing them brings us humility and refinement, developing and changing our relationship with the world around us. Such places exist in nature (in the landscape) and have originated and deepened since prehistoric times, with a sizeable elemental force affecting our spirituality. We can include artificial areas, such as Koscelisko (end of 13th and the first half of the 14th century), among "the most sacred." Such places visually dominate the landscape and hide some mystery, mystique, and atmosphere that subconsciously attract humans and create positive experiences and feelings (Day, 2004).

During the next more than six centuries, the sacral landscape around Koscelisko became a semi-sacral and gradually semi-profane, respectively profane landscape (Gregory et al., 2009). In the middle of the 20th century, the sacrificial vanished from the landscape almost entirely and had to be uncovered through subsequent archaeological research.

We can create a typology of tourism forms and species based on participants' motifs (Figure 1). Religious tourism represents a substantial part of the other forms of tourism. Religion (Christianity in our geographical space) is a system of opinions (beliefs) relating to traditions explaining the world and forces that control it. In this system, beliefs reflect a person's relationship to a varietally understood "Sacrum," which acquires its expression in a religious doctrine, cult, and organization (Banek et al., 1992). We can define religious tourism (Matlovičová et al., 2015) "as all touristic journeys whose primary motive is visiting sacral and religious objects or sites." Some geographers do not recognize it as a separate form, but they consider it a part of cultural tourism (e.g., Lochmannová, 2015; Tanaś, 2008). Economists perceive the issue similarly. According to them, it is associated with world religious traditions, and its most common manifestations are pilgrimages, for which participants, religious acts, and pilgrimage sites are characterized as features. Religious tourism varies from cultural tourism by religious motives and refers to the participants as pilgrims (Rinschede, 1992).

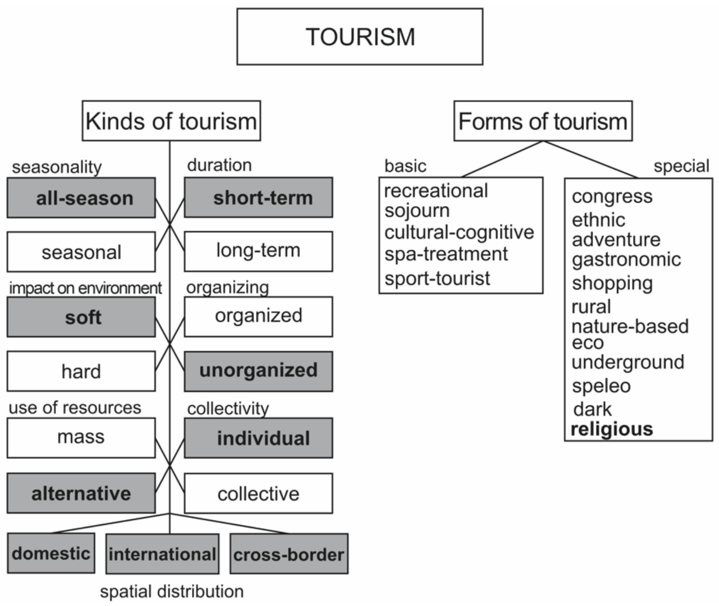

Figure 1. Kinds and forms of tourism with an emphasis on characteristics of virtual individual religious tourism (Source: authors)

Religious tourism

Geography of tourism (as well as any other scientific discipline) uses a conceptualized terminology, i.e., own scientific conceptual apparatus, to describe or clarify models, phenomena, tourism elements, and relationships between them.

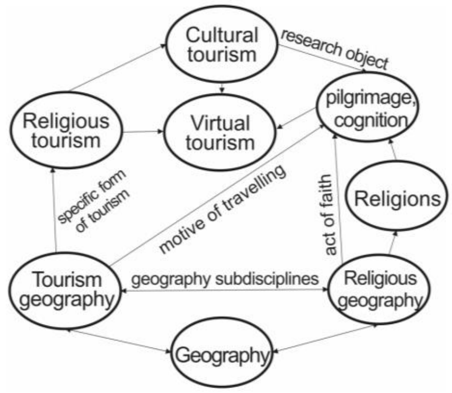

Figure 2. Relations and links between individual disciplines studying religious tourism (Source: authors)

However, we must state that cultural and religious tourism differences in the current globalizing period are vanishing; respectively, it is challenging to identify the boundaries between them (Krogmann et al., 2017). Relationships between geographical (sub) disciplines studying religious tourism are shown on the following heptagon (Figure 2). So far, experts have distinguished two types of religious tourism participants (Krogmann, 2007). The visits of a closely specified professional public at the religiously motivated conferences (most commonly priests) represent the first (minor) group. The second group is believers arriving at religious festivals (pilgrimage activity), local celebrations of the church ordinations, and religious camps or spiritual exercises. Based on our research of modern forms of tourism (Gregorová, 2019a; 2019b; Hronček et al., 2020; Gregorová et al., 2020; Chrastina et al., 2020; Hronček and Gregorová, 2021) we have to define the third category of religious tourism participants. These are motivated by visiting religious-cultural monuments (churches, chapel, monasteries) with a dual character. First of all, it is a classic visit to the monuments (or its ruins *in situ*), but currently (especially on the background of the Covid-19 Pandemic), the second (alternative) form - a virtual visit, is developing very rapidly. We distinguish visits and tours of the existing sights processed in 3D forms or the vanished religious landmarks that came to life based on archaeological, historical-geographical, geographical, or architectural research and the subsequent 3D reconstruction (our study is an example). Such types of visit motifs are significantly close to cultural tourism. Reconstructions of vanished (religious) monuments represent a new phenomenon - virtual cultural heritage creation (resources citation).

3D virtual reconstructions of (religious) cultural monuments and virtual cultural heritage

In the current globalizing tourism, 3D visualization is crucial and, in many cases, irreplaceable concerning its natural development. It is used for presentation and promotion and as a virtual travel tool. Visualizing the landscape and its objects can thus significantly increase the promotion and attractiveness, potential, and visit rate of touristic destinations, including the religious landscape and its monuments. Increasing attractiveness is justified regarding physically preserved historical religious landscapes, sights, or ruins (relicts) of sacral monuments. Suppose they have vanished or are unavailable for various causes (political, economic, technical, social - protection). In that case, a 3D visualization is not only a means of their promotion and advertising but often the only tool to explore the given landscape and sight (visually) in an online space, respectively, through a shared/augmented reality in situ (see, e.g., Guttentag, 2010; Singthongchai et al., 2012; Champion, 2017; Pavolová et al., 2019; Melelli, 2019; Ualkhanova et al., 2019; Hronček et al., 2020).

Virtual technologies have changed the way people perceive the landscape and the world around them, not only in professional life but also in leisure time, including traveling. Many studies show that the entire population, not just younger generations, are generally familiar with modern digital reality computer technologies, whether virtual or extended (Yovcheva et al., 2012). Thanks to modern technologies, a significant group of users can generate a considerable amount of data usable on various multimedia devices such as computers, laptops, tablets, smartphones. This primarily visual information can be overlayed with the elements of the existing landscape (Olar, 2019), which has a wide application mainly in modern forms of individual tourism. Creating virtual images in a computer environment must be professionally correct in input data and technically correctly processed to ensure that the information created is as accurate as possible and that the final result is natural for the historical period (Kounavis et al., 2012). It applies primarily to visualizations of the vanished buildings (not only sacral) from different architectural periods. The processing of text or spoken word accompanying the historical visual reconstruction of the landscape, respectively buildings, regardless of whether it is a static 2D or 3D reconstruction or various computer videos, shared or virtual reality, is also very important. Virtual reality is a unique tool for modern tourism (also during the pandemic) to present cultural and religious heritage (Caciora et al., 2021; Kounavis et al., 2012; Guttentag, 2010).

Many of the sacral monuments in Slovakia are irreversibly destroyed or maintained only in the form of ruins. Thus the restoration is almost exclusively possible in a computer environment following the UNESCO Charter on the Preservation of Digital Heritage. The conditions of creating and maintaining a digital heritage were approved at the 32nd meeting of the UNESCO General Conference in Autumn 2003 in Charter on the Preservation of Digital Heritage (http://unesdoc.unesco.org/images/0013/001331/133171E.pdf#page=80). The Charter describes, among other things, the most important provisions concerning the creation and preservation of sacral digital heritage and its subsequent use in religious tourism. Digital heritage is a unique source of human knowledge and includes cultural, educational, scientific, administrative, technical, medical, or other types of information created digitally. Charter distinguishes two types of digital heritage - created by digitizing existing monuments and then new ones born in a digital environment (such as 3D reconstructions of vanished sacral monuments). Computerized "materials" include texts, databases, still and moving images, sound, graphics, software, or web pages of different formats. They often have an ephemeral nature and require purposeful production, maintenance, and administration. Many of these resources have a long-term value and importance for human society, whether on a regional or global scale, so it is necessary to create and store/protect them (https://www.infolib.sk/).

RESEARCH METHODOLOGY

To fulfill the aim of our study, we chose a methodological procedure consisting of multiple steps in which we have applied several interdisciplinary methods. Research procedures logically followed and often consisted of simultaneously realized stages (Figure 3). Systematic work has led not only to fulfill the research aim but also to form the original scientific study using final geographical syntheses (Michaeli and Ivanová, 2015). The primary step was a heuristics of the information database, respectively, a critical analysis of archival and literary sources. Subsequently, we assessed the research on the investigated issue using the bibliometric method and worked in two levels (Krištofičová, 1997; Carrizo-Sainero, 2000; Ondrišová, 2011). At first, the work focused on the historical-geographical reconstruction of the Koscelisko church and the adjacent landscape. Then we focused on religious tourism. These analyzes are included in the Theoretical Framework section. The methods of historical-geographical research were also used, which we applied to critical analysis of historical sources, professional reports, and historical literature. An essential stage in the topic processing was comprehensive field research of historical landscape relics in the Koscelisko surroundings/space (Demek, 1987; Ivanička, 1983; Butlin and Dodgshon, 1998; Chrastina, 2009; Semotanová, 2002), during which we have also made photographic documentation and morphometric and morphological mapping in addition to detailed topographical site sketches (Figures 4a, 4b, 7a, 7b, 8).

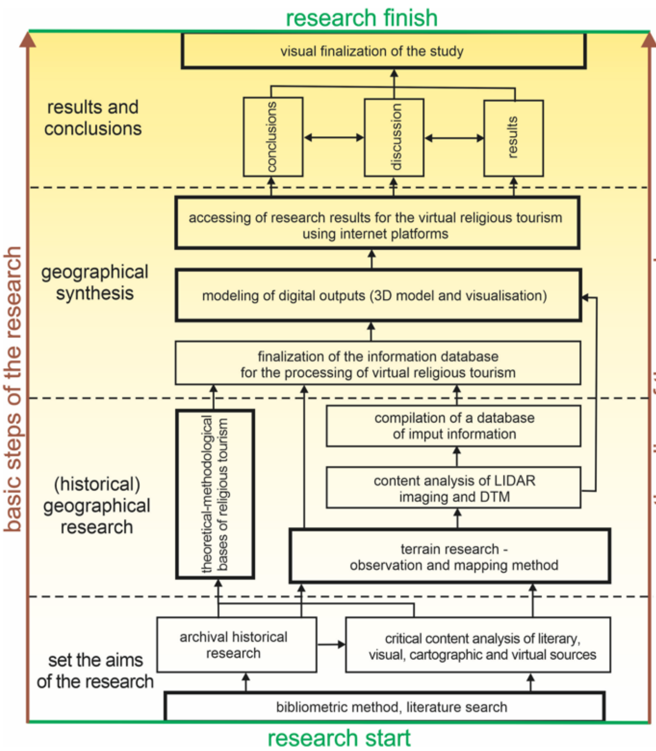

Figure 3. Methodological procedure scheme (Source: authors)

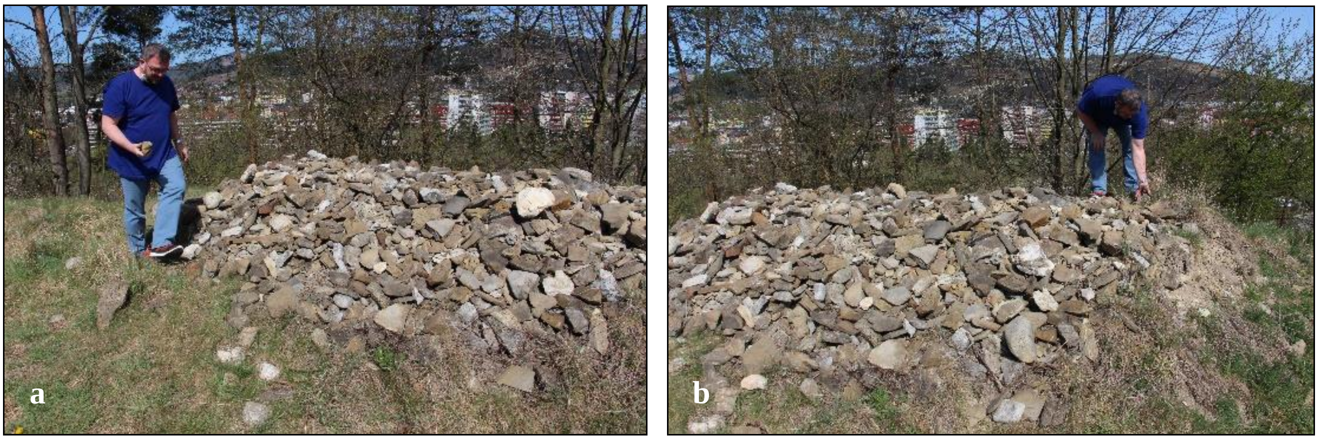

Figure 4a, 4b. The present state of the Koscelisko site. Identification of stones from the church during field research in summer 2020 (Source: authors)

Simultaneously with field research, we also used Light Detection and Ranging (LIDAR) imaging results analysis. LIDAR digital terrain model can provide detailed information about relief microforms (sizes from 10 cm) otherwise imperceptible in the landscape, possibly covered by vegetation. Classification and filtering of point clouds obtained by air scanning can create high-quality materials for a detailed digital model of relief (DMR) (Gojda et al., 2011; Hofierka et al., 2018; Hronček et al., 2019). The information obtained through LIDAR systems is effectively used in researching the historical medieval landscape of Koscelisko and its surroundings. LIDAR map is available online at: https://zbgis.skgeodesy.sk/. Based on historical-geographical research of the medieval religious landscape of Radola (Koscelisko) with an emphasis on the church's building, we have acceded to its 3D modeling and reconstruction in a computer environment. As the background, we used both scanned, georeferenced, and interpreted orthophotos that we generated using UAS TRIMBLE UX5 (Unmanned Aerial System). The data obtained were interpreted using Agisoft PhotoScan (see Hronček et al., 2020). The position and dimensions of the church ruins were verified and compared to the data of Selucký (2016) and Majerčíková et al. (2015). The result is a 3D visualization of the model and surroundings of this important medieval sacral location. The accurate dimensional and volumetric model was created in Sketchup Pro2017. Because of the distinctive character of today's church's surroundings with marks of significant secondary planation of the peak platform, was its model set into a digital terrain model in the VOXLER4 software environment (available online: http://www.goldensoftware.com/products/vuxler), also to 2D Google StreetView screenshot and then to pseudo-3D Google Earth model. For virtual (religious) tourism purposes, the 3D model was placed in Google Earth and the free online platform Multimedia Handbook of Geoturism (https://www.montanisti.eu) in the section Churches and bell-towers. The last step of the study was the final synthesis of scientific knowledge and research results (Pružinský et al., 2011; Hendl and Remr, 2017). The final synthesis aimed to create a debate and conclusions and complete the study's finalization applying a generally adopted model of the research procedures organization in the research of tourism (also religious), which has a systemic character (Matczak, 1992).

Site location and definition of the territory

The studied Early Gothic Church with the adjacent religious landscape was found in the residential area of Radoľa village in Kysuce. Radoľa is located in the district of Kysucké Nové Mesto (1 km southeast of the district town) and 9 km north of the regional capital of Žilina (Korec et al., 1996). Koscelisko is situated on the southern edge of the residential area of Radoľa village, on the distinctive river terrace at the mouth of the Radoľa Creek (Vadičovský Creek) to the Kysuca River (Figure 5). The historical region of Kysuce has completed the northwestern part of Slovakia near the border with the Czech Republic and Poland. Although Kysuce has a strictly defined territory boundary, it never became a separate administrative unit and always belonged to Trenčín County (Hronček et al., 2016). The naming of the region was first written in 1244 (Fejér, 1829) and is derived from the then naming of the Kysuca River *(Cussus)* (Vancsa, 1905).

Figure 5. Location of the church Koscelisko in Radoľa within Slovakia and Europe (Source: authors)

RESULTS

Reconstruction of Early Gothic Church Koscelisko and the adjacent landscape

Based on archaeological research findings from the mid-20th century, the emergence of the Early Gothic Church on Koscelisko can be dated around 1270 (Petrovský-Šichman, 1963). After performing more archaeological works in the 1980s (Ďurišová, 1992) and above all in 2012 - 2013 (Samuel et al., 2014), this date seems even more likely. Based on the medieval paper material review, we can assume its construction in the 60s of the 13th century, as there already was a parish in this region (Dvořák, 2003). Based on archaeological research, we know that at the turn of the third and fourth decade of the 15th century, there was a sudden, rapid, and particularly catastrophic end of the church's existence. Its destruction by fire confirms a distinctive layer of charcoals and burnt clay found in the object's interior and exterior. The burnt clay layer of red-black color inside the building bases includes burned wood pieces and melted metal cakes (Samuel et al., 2014). We are most likely to combine this catastrophic event with the Hussite's campaign from Moravia, respectively, from Silesia through Jablunkov Pass. The Hussites got up to Budatin Castle, located in Žilina and destroyed in September 1431 through the valley of Kysuca (Marsina, 1986) (Figures 7a, 7b, 8). The church building was standing on the oval platform of the left-bank river terrace (395 m a. s. l.) above the floodplain of Kysuca River. The terrace was created during the post-tertiary when the in-depth, especially the side river erosion, carved into an easy-to-erodible bedrock. This distinctive geomorphological element has created the ideal conditions for locating a building with a similar character. Natural protection was provided by steep, almost perpendicular slopes of the terrace. The western and southwest slopes rise 30 m above the floodplain. The height of the northern slope is approximately 10 m lower because the Vadičovský Creek has shaped one 15 m high intermediate terrace. The nearly natural perfection of the location for the building is multiplied on the south by a deep ravine of Besný Creek, which cuts the terrace from the northern foot of Veľký Vreteň (821 m a. s. l.).

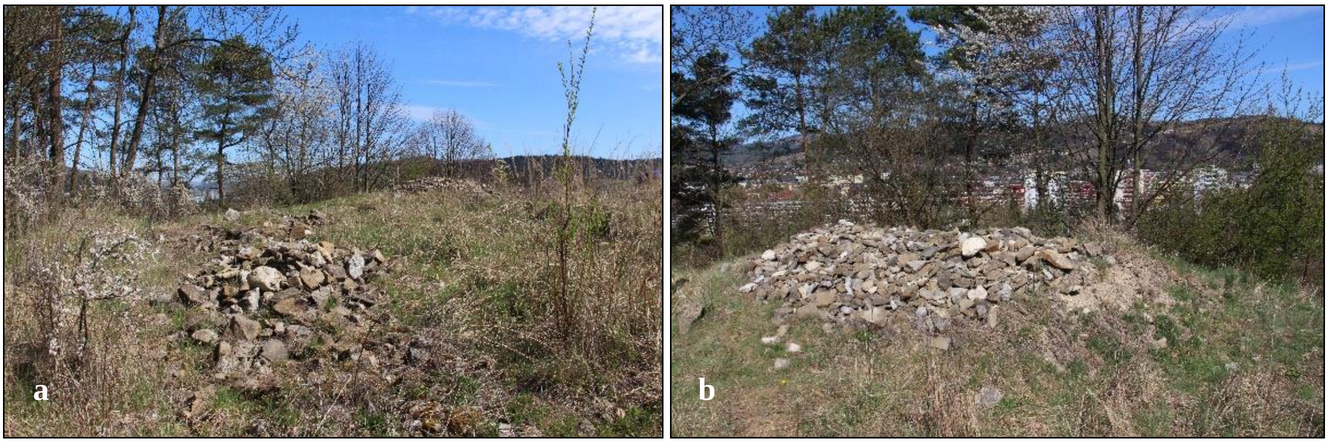

Figure 6a, 6b. Heaps (left – south heap, right – north heap) of construction stone from Gothic church Koscelisko are the last evidence of its past existence (Source: authors)

Church foundations were set almost to the edge of the terrace in its narrowest, northwestern jut. Foundations were situated on a terrace platform approximately 50 m in diameter, closed by an earth wall from the southeast. The building was a simple single-nave with a rectangular floor plan with a length of 15.13 m, a width of 8.65 m, and an anticipated height of 11.8 m. The entrance to the main nave of the church was located on the western side, respectively, on the northwest side, because the long axis of the church is deviated by 34 degrees (Figures 7a, 7b).

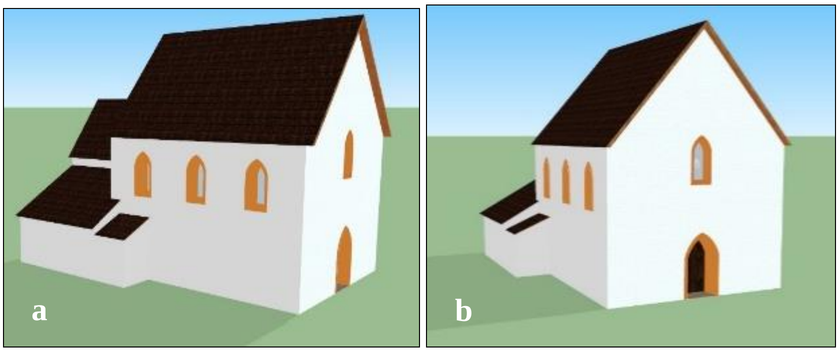

Figure 7a, 7b. Computer model of the church Koscelisko based on archaeological and historical-geographic research. View of the church from the northwest (left) View of the church from the west (right) (Source: authors)

In the first stage of construction, a slightly narrowing quadratic shrine was built on the eastern side (internal dimensions 4.53 – 4.80 × 4.50 m) along with the central nave (outer dimensions 9.30 - 9.70 m × 8.65 m). Square adytum was built on the northern side (internal dimensions of 3.45 × 3.45 m). Archaeological research has confirmed the uniformity of the masonry of these church parts, so it is clear that they were built during the first phase of construction (Samuel et al., 2014).

Foundations of the church walls were laid in depth from 40 to 100 cm. While the ossuary walls had a thickness of only 50 - 55 cm, the main nave with the shrine had a width of 90-100 cm. Adytum walls were a bit thinner, 80 - 90 cm. In several places were the foundations of the main nave wider than the walls of up to 20 cm. The stone used was partly worked as the flysch sandstones have the advantage of being flat from two sides thanks to its layering. Large worked stone blocks were used for the corners. Only the stones used for the face side of the wall were worked.

Based on the exact dimensions of the building foundations and the expected building height, we also calculated the volume of the stone used for the church's construction in the computer modeling. The volume of walls, i.e., the estimated stone consumption for the church's main nave construction, was approximately 266 m^3, and the volume of the sanctuary was determined at 54 m^3. The mass of sacristy on the north side of the shrine and the ossuary represents an additional 38 m^3 of aggregate, estimated at 358 ± 2.5% m^3 of construction stone and aggregate.

According to archaeological research, the entire church had plastered interior and exterior. It was stained white, but the window lining was likely brick-red. Color residues indoors indicate that it could be decorated (frescoes) from the inside.

The church hill also included a cemetery used from mid-13th to mid-15th century (Ďurišová, 1992). A minimum of two graves lay under the foundations, so it is clear that there was a burying on the site before the church's construction.

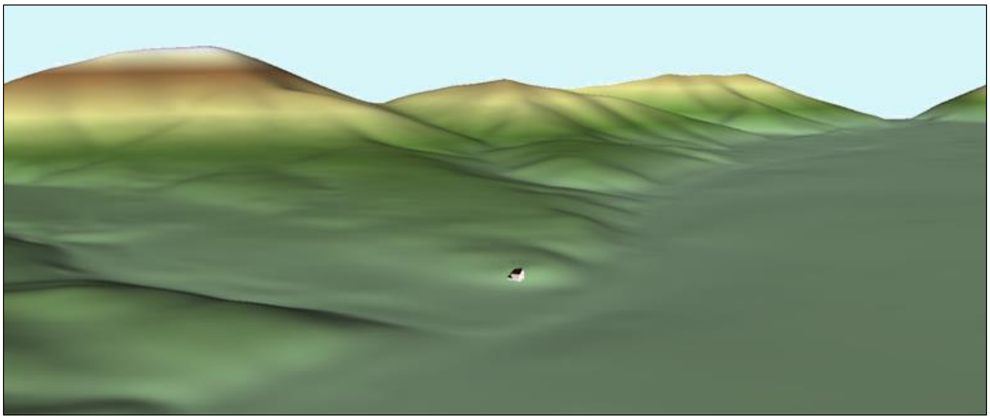

Figure 8. Computer reconstruction of the church location in "natural landscape", in a filtered 3D relief models (view from the northwest) (Source: authors)

The exact 3D model of the Early Gothic church Koscelisko based on archaeological and field historical-geographic research offered us the opportunities to analyze the derived building characteristics. We could compute the volume of relocated construction material and define its predicted character and properties. Figures 8 and 9 show the predicted layout of the building on the edge of the terrace and that its character and location significantly affected the landscape image's perception. The dominant single-nave building has been significantly mystical, perceived from a further distance (see Discussion). The view of the terrace was also impressive for the medieval man (Figure 10).

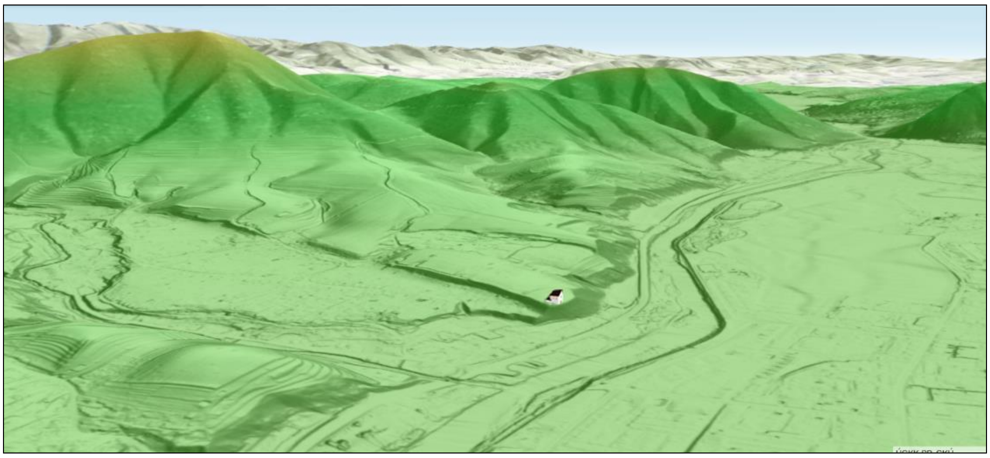

Figure 9. Computer reconstruction of the church location in "natural landscape", in a LIDAR image (view from the northwest) (Source: authors)

Figure 10. The position of the church on the terrace edge embedded in the present land (Source: authors)

Availability of the 3D visualization for virtual religious tourism

The extensive use of the internet and new technologies as information media in tourism is not always a matter of course in Slovakia. Many organizations and municipalities still rely on classical access to tourist information through stationary boards or educational trails in situ, and Radoľa is not an exception. The educational trail with eight stops was set up by the municipal office in 2014. Koscelisko is its part as stop no. 7 (http://naucnechodniky.eu/). It is a classical information board with several methodological errors that annoy tourists instead of attracting (Weis et al., 2019), and what is most important, a blackboard does not show any visualization of the vanished church (Figures 11, 12).

Figure 11. Noticeboard on the Koscelisko (left) Figure 12. The Koscelisko site (yellow ring) in present landscape (right) (Source: authors)

For visualization, promotion, and accessibility of 3D models and computer videos complemented by a suitable popular-technical text based on our research applied to the general public (religious tourists), we have chosen a verified multimedia internet application known as a Geoturism Multimedia Guide. The map portal, available from 2011 at http://www. montanistika.eu/, offer the opportunity to interactively present the results of mapping a wide range of geotourism objects structured into information layers, as well as research results methods applicable in modern forms of tourism in regions of Slovakia in a multimedia form, within a single imaging environment - map server (Weis, 2012a; Weis, 2012b).

The most important advantage of the application is that it can be triggered and used on portable multimedia devices such as laptops, tablets, or smartphones. Since the display window automatically adjusts the device's screen size, the application can be used anywhere the internet is available. The application system allows browsing the embedded items by clicking the appropriate pictogram on the map. Individual sites are visually presented through photos, maps or models, texts, and audio records (audio) or video sequences of different formats (video). So far less used is the launch of the audio commentary with the possibility of simultaneous view of graphics and other shared content. Items are displayed in interactive windows that can be changed according to the user's interest. The website presents essential factual data in information windows, such as accurate position, brief history, current characteristics, attractions, availability, and contacts. Whereas there is internet available at the Koscelisko site, we have used the Quick Response Code (QRC), which was placed in the corner of the board no. 7 of the educational path. After loading the QR code by a multimedia device, the user gets the main menu of www.montanistika.eu centered at the specific site with a pictogram showing. By placing the cursor over the pictogram, the name of the site (Koscelisko) is displayed, and simply clicking the pictogram will open the location window (object) (Figures 13, 14a, 14b).

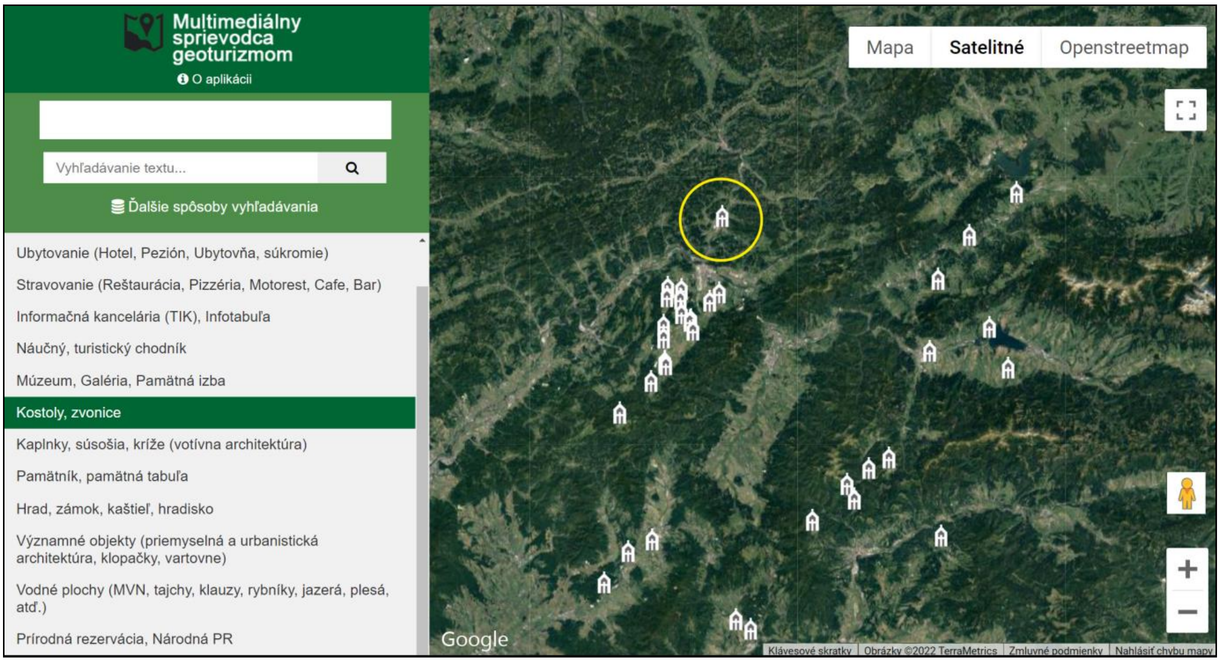

Figure 13. Input pictogram (yellow circle) of the church in Koscelisko in the Geoturism Multimedia Guide platform (https://www.montanistika.eu) in the Churches and bell towers category. Clicking the pictogram opens the information window (Source: authors)

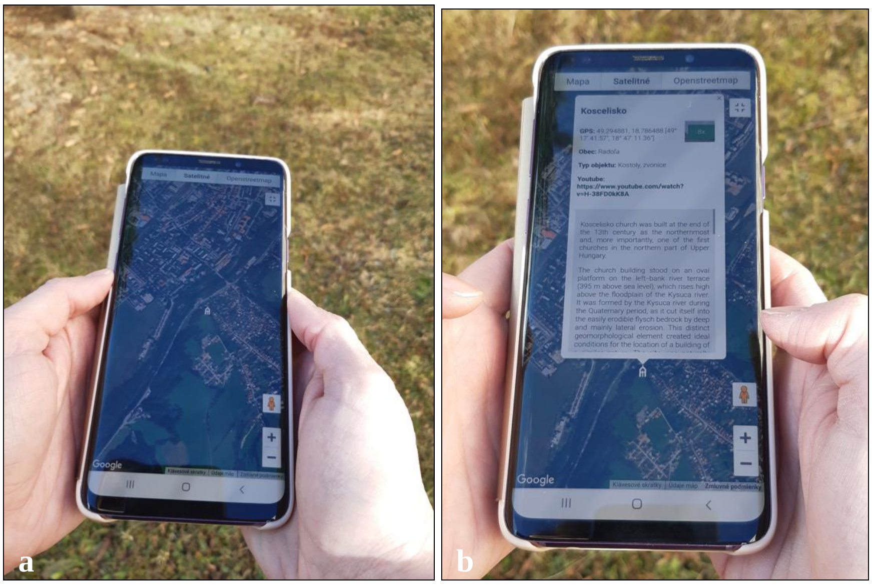

Figure 14a, 14b. View of the Geoturism Multimedia Guide (https://www.montanistika.eu), global view on locality (left). Detail of Churches and bell towers category on a smartphone directly at the Koscelisko site (right) (Source: authors)

The application can also free search by cadastral category of objects or any text string (also incomplete) during regular use. Search results can be displayed as a list or in a new window as a map composition. Window contents belonging to the religious site Radoľa Koscelisko contain detailed information on our research processed to make them understandable and attractive to the general public. The displayed window Radoľa Koscelisko (based on the structure that applies to the entire application) contains the site's name, its exact location, location in the cadastral territory, and links to other attractive websites. However, the primary source of information is the text (description of the site) in Slovak and English languages and the accompanying field research photos, especially reconstruction drawings and 3D computer models of the church. The website shows the reconstruction videos made by the Archaeological Institute in Nitra that present in detail and very realistically the likely form of the church in the Romanesque and Gothic versions.

DISCUSSION

The chosen location is only an example (case study) in terms of religious tourism, and its use is simple and economically available to any other location or form of tourism. Currently, almost every cultural object or artifact (even in the narrowest sense) is "touristic-able," i.e., transformable into a product that can be consumed by potential tourist clientele as experience, authenticity, exoticism, or image. Any landscape area or point can become an attraction through a correct presentation and advertising (Wang, 2000), including vanished religious landscapes and monuments.

At present, the use of computers and digitization is an unstoppable phenomenon that has penetrated all spheres of our lives. It becomes an integral part of the cultural and historical heritage and tourism. Classical forms of information are converted into digital formats, making them generally affordable. The situation is different regarding vanished (religious) monuments that have been preserved only in documents or archaeological findings, as is the case of the Koscelisko church. We, therefore, have to use multidisciplinary scientific research to obtain information about these monuments and computer modeling to generate new, previously unknown knowledge. Modern computer technology allows us to virtually visit places that would otherwise remain inaccessible and see objects that would otherwise remain invisible. This advantage can benefit tourism because it allows "virtual" movement in space and time. However, essential quality internet networks and active knowledge of "smart devices" are needed. Although currently, up to 85% of Slovaks are actively using the internet (https://www.internetworldstats.com/), its use in tourism is minimal, mainly for stay reservations and payments.

First virtual tour exhibitions in museums are finally beginning to emerge, notably accelerated by the Covide-19 pandemic. There are a plethora of 3D visualizations online, which, however, lack expert commentary and methodical use and accessibility for tourism. The presentation of the site Koscelisko was realized only through "classic" elements used in tourism (Weis et al., 2019) via the educational trail (http://naucnechodniky.eu/naucno-historicky-chodnik-v-radoli/). However, the board on the trail does not have a visualization of the church, whether artistic or professional, in the form of reconstruction drawings. At the time of the trail construction, such materials already existed in the archives of the Kysuce Museum in Čadca. Even though a professional drawing and 3D computer reconstruction were created in 2018 (Hronček et al., 2020), these were not included on the board to increase the attractiveness and document the entire site. Some professional websites, e.g., Portal of medieval churches in Slovakia (https://apsida.sk/), the official website of the Kysuce Museum in Čadca (https://www.kysuckemuzeum.sk/sk/) or the website of nature trails in Slovakia administered by the Department of Physical Geography and Geoinformatics of the FNS at the Comenius University in Bratislava (http://naucnechodniky.eu/) pay marginal and fragmented attention to the Koscelisko church. The village Radoľa also promotes the site on its website (http://www.radola.sk/). However, all the abovementioned websites are opaque, and searching is nonconceptual, tedious, and discouraging in terms of tourism.

Not only must the illustrated parts of the presented vanished sacral objects be professionally correct and visually attractive, but the text part must have the correct range, form processing, and attract visitors (Weis et al., 2019). Therefore, we had processed the text that should reach out to the religious tourism participants and draw them into the Middle Ages when the church existed in the contemporary landscape of Kysuce. Such text must be based on several levels and meet multiple attributes (Hronček et al., 2017):

- The first is visual information, i.e., a description of the physical existence of some object, place, and location. In our case, the Early Gothic Church of Koscelisko stood here in the Middle Ages. At the same time, we perceive a site in the context with its surroundings, relief, and landscape character.
- The second attribute of the site are associations and feelings that the presence of church could invoke in a conventional person in the past (today in a tourist). We can imagine its original form and architecture. Proportions and beauty of its shapes or its setting in the surrounding landscape. The overall perception creates an individual sensation (different for each individual).
- The third attribute is a symbol the church represents - Christian faith and God's presence, hence, something that exceeds our existence. Even if the church will vanish (which is the case), the response remains as the atmosphere of the place. The atmosphere itself is further illustrated by minor specific but perceptible symptoms of its existence, ruins, embarkments, stone wall residues. These features are also impressive and vital for the perception of the importance of the place.

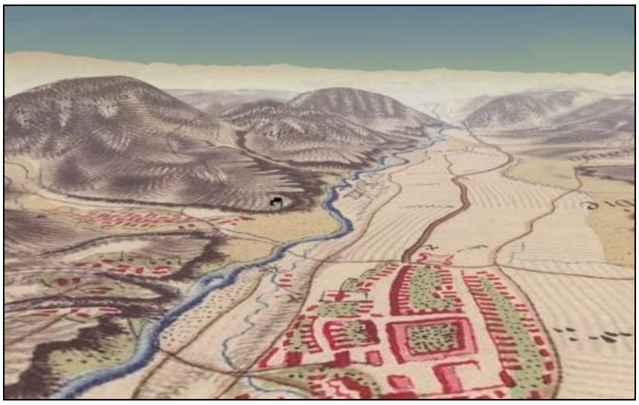

Figure 15. Computer reconstruction of Koscelisko church location in the historical-cultural landscape as it would look in the second half of the 18th century (left)

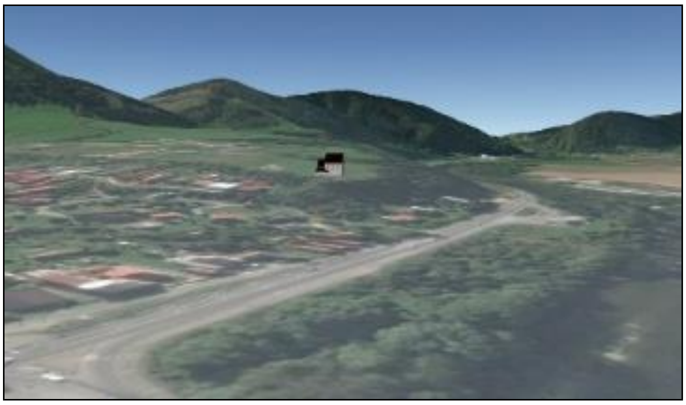

Figure 16. Computer reconstruction of church in 3D model in present country (right). Views from the northwest (Source: authors)

The setting of the medieval sacral building in the landscape of Radoľa is relatively significant (Figures 15, 16). It stands on a high terrace, with a far outlook of the medieval cultural landscape, above the confluence of the Kysuca River and Radoľa Creek (Vadičovský Creek) confluence. It is surrounded by an attractive, a little rough (Flysch) landscape, near Kysucká gate and a massive peak of Ľadonhora, in the undulating relief of Kysucká vrchovina. The location gives the site another unique charm. It was the last place with a church (as a distinctive stone building) north of Žilina, on the southern edge of Kysuce. When seen from below, it was a landscape dominant, in his historical context, that could not be overlooked (Figure 17).

Figure 17. The location of the church on the edge of the terrace embedded in the present landscape (Source: authors)

Based on research, it is clear that this stone church building, which dominated the given space, was more than 11 m and more than 15 m long, towering on the edge of an imposing 30 m high left-bank terrace of Kysuca River. The building has impressed the medieval traders, pilgrims, and passengers passing along the old road on the right bank of the Kysuce River and the domestic peasant and shepherd population. Even though it did not reach large dimensions in the present scale, its magnetizing position in the medieval landscape has been multiplied by the contrast of the white wall (yellowish, similar to the Church in Kopčany) and brick-red color of windows and doors linings with the surrounding country. Another element of its uniqueness in the medieval landscape of the Kysuce region was that the closest comparable stone building was standing behind the Kysucká gate 12 km from Žilina. Based on the current state of research, we know that the traditional buildings in Kysuce were small and wooden in this period, including houses in the town of Kysucké Nové Mesto and its fortifications. These simple wooden buildings covered with shingle roofs harmonized naturally with the environment. The natural broad, often relocating channel of Kysuca laid under the almost vertical foot of the Koscelisko terrace. Across the river, a ford crossing led probably from Kysucké Nové Mesto to Radoľa. The right and much broader part of the valley ascending above the river channel created a space for the medieval town of Kysucké Nové Mesto. Based on the reconstruction of the medieval sacral landscape of Koscelisko and its closest surroundings, we can at least partially combine 3D modeling and text descriptions to draw the current (modern religious) tourist into the feelings and thoughts of a simple medieval man. We can at least partially mediate the perception of this attractive Christianity-influenced/created genius loci of the Koscelisko medieval landscape.

CONCLUSION

Based on the general definition of tourism (Horner and Swarbrooke, 2003; Zelenka and Pásková, 2002), we can conclude that when religious tourism focuses on a particular religious landscape (site) or building, it is a short-term transfer of people related to religious inheritance (also in combination with virtual), aiming at pleasant and exciting experiences. Within the religious tourism, aimed at less known or forgotten historical objects and sites or scattered sacral relics and small architecture in the landscape, a more practical application of individual and family (unorganized) religious tourism expected primarily in the short-term day trips is observed. Such types and forms of tourism are justified primarily in the current pandemic situation caused by Covid-19. In the individual and family forms of religious tourism, the diversity of interests is expected from participants. Based on our field research, the frequent visitors of such sites are tourists, families with children, scientists, students of various sciences and historical unions, who are interested in the writing of final works, and random travelers or mountain cyclists. Furthermore, just the availability of information on individual sites online obtained mainly by computer modeling aimed at various aspects is a suitable solution of such sites "accessibility" that can offer visitors only very limited or no monuments except for outlooks. Therefore, as long as the situation allows, an optimal solution is the combination of information boards (also on educational trails) supplemented by either QR code or other types of internet information management with additional and, in particular, updateable information with the possibility of their rapid repair, exchanging or supplementing. Finally, we can say that the object of tourism in a broad sense may be any landscape (and religious), where recreational activities can be realized and in the narrower sense all objects and elements that can become the goals of our visit (Pichlerová and Benčať, 2009), but they must be adequately accessed and presented to the visitors.

Acknowledgment

This research has been supported by the Research Grant Agency Ministry of Education, Science, Research and Sport of the Slovak Republic grant number VEGA 1/0667/21 Environmental specifics of selected mining water management systems in Slovakia), and by The Slovak Research and Development Agency grant number APVV-18-0185: Land-use changes of Slovak cultural landscape and prediction of its further development, and by the Research Agency of the Ministry of Education, Science, Research and Sport of the Slovak Republic grant number KEGA 041UMB-4/2019.

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Article history: Received: 19.01.2022 Revised: 12.04.2022 Accepted: 10.05.2022 Available online: 03.06.2022

GeoJournal of Tourism and Geosites
ISSN 2065-1198, E-ISSN 2065-0817

Year XV, vol. 41, no. 2, 2022, p.583-588
DOI 10.30892/gtg.41232-866

ABILITY TO DO FOR SELF. A RURAL COMMUNITY'S VIEW OF THE IMPORTANCE OF CAPACITY BUILDING IN SUSTAINABLE TOURISM DEVELOPMENT

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Citation: Setokoe, T.J., & Ramukumba, T. (2022). ABILITY TO DO FOR SELF. A RURAL COMMUNITY'S VIEW OF THE IMPORTANCE OF CAPACITY BUILDING IN SUSTAINABLE TOURISM DEVELOPMENT. *GeoJournal of Tourism and Geosites*, 41(2), 583–588. https://doi.org/10.30892/gtg.41232-866

Abstract: This article investigates the importance of capacity building aimed at enhancing community participation in the development of tourism in rural areas. The article was undertaken through the employment of a qualitative research approach, using semi-structured interview, which were then analysed using NVivo system, version 11, thereby producing a comprehensive observation report that allowed for presentation and discussion of the findings. The article found a common narrative indicating a chronic lack of capacity within the village to develop tourism that can sustainably support the livelihood of members of the community.

Key words: community-based tourism; development; capacity buiding; poverty alleviation; community development

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INTRODUCTION

Rural economies have in recent times seen a drastic decline in economic activities, resulting in high levels of unemployment and poverty in rural areas, especially in the developing world (Binns and Nel, 2002). The circumstances indicated above have often been attributed to a variety of factors that include, but not limited to poor governance, unstable development, climate change and vulnerability of the natural environment to disasters (Ribot, 2013). Given all the above challenges, Nyaupane et al. (2006) indicate the credence of decisions often made by authorities to look to tourism as a possible solution for such problems. This is not without detraction as the appropriateness and effectiveness of tourism to deliver on what has been taken away by the challenges stated above is dependent on a range of economic, political and socio-cultural considerations (Rosalina et al., 2021). Such factors bring to the fore a common narrative amongst scholars (Aref, 2011; Goodman et al., 1998; Moscardo, 2008) acknowledging community capacity building to be a key component of tourism planning and development in rural settings, as it allows for endogenous participation in decisions relating to the management of tourism resources for the benefit of the local community. This approach is said to assume the building of capacity within the local community will enable the community's sense of ownership of development, thereby allowing for a self-mobilisation kind of participation which is often aimed at the empowerment of the citizenry to organise themselves and resolve their priorities aligned with daily life, which ultimately leads to greater sustainability (Rosalina et al., 2021).

Conceptualizing community capacity for tourism development

Defining capacity building has been a toil that has borne little fruit in literary circles. This has seen many tools being employed in an attempt to explore the role of community capacity building in the development process. The toils undertaken to evaluate the concept of community capacity has seen many scholars suggest various requisites that include the acquisition of knowledge and information, skills, education and training (Moscardo, 2008; Cole, 2006; Mabudafhasi, 2002). This further extends to the community's ability to access requisite resources that enable civic engagement, participation and involvement and local support (Monypenny, 2008; Moscardo, 2008; Hough, 2006; Skinner, 2006; Malik and Wagle, 2002). In addition to the attempts made above in relation to community capacity, the concept of capacity within the tourism development sphere goes far beyond skills and knowledge of individuals and the collective, but include elements external to the immediate community such as infrastructure and facilities, positive partnerships and collaborative arrangements between NGOs, the private sector (e.g., travel trade organizations), government agencies and local people and local awareness of tourism (Koster, 2008; Williams and O'Neil, 2007).

Capacity building for community participation in the implementation of tourism development initiatives

The main objective of tourism development in remote and rural areas has been to create modernity that will allow for

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the creation of opportunity and facilities for income generations for the local communities (Reza-Maleki et al., 2014). Evidence of declining rural economies have seen considerable decline in income levels and employment leading to authorities placing emphasis on the development and promotion of tourism aimed at the revival of the socio-economic health of rural areas (Sharpley, 2002). However, efforts placed in such endeavours have seen other authors raise a voice of concern about the slow realisation benefits often produced by tourism, most of which are often accruable to certain groups within the community (Moscardo, 2014; Sharpley, 2002). This is further compounded by the dependence of tourism on exogenous support over considerable periods together with limitations of the local community in terms of knowledge, skills and resources require for meaningful participation in tourism development, thereby robbing them of empowerment and even constrains the earning potential of the local citizenry from tourism ventures (Moscardo, 2014).

A negative outlook provided above relating tourism's ability to aid development in rural areas can have ominous ramifications for communities. However, this less than impressive outlook can be ratified through considerable endeavours to build capacity among members of the local communities. This will ensure effective, efficient and meaningful participation of local community members in tourism development that will be sustainable. Edwards (2015) denotes the building of capacity within a community to be a critical mechanism for the promoting and supporting development at community level. Such views are further echoed by Aref et al., (2010) who indicate the process to be the undertaking of initiatives that intend to provide members of the community with knowledge and skills that will empower them in making participation in decision making that will see the development of tourism not only bear fruits of an economic, but social and environmental nature, with minimal negative effects to the host destination and its people. The capacity of a community within the development sphere can be described as a resource often needed for effective implementation of community development initiative which should enable seamless functioning of the said community (Edwards, 2015). Such a functionality can only be attained through the community's acquisition of requisite skills and know-how that will enable them to act together, provide indigenous resources and ultimately advance the process of development (Labonte and Laverack, 2001; Edwards, 2015). The above mentioned requisites are noted in line with the study done by Sithole et al. (2018) who found that "community participation is an essential condition for tourism development, which can lead to the creation of social capital, which in turn can result in effective community development".

The proper implementation of community capacity development interventions requires an eloquent understanding of what constitutes a community. Aref et al. (2010) define a community as "a group of people sharing a geographic location, common interests, concerns, culture, values and working together to achieve a common goal". The authors further describe a community to be a critical component of development aimed at preparing the area for the development of tourism. In addition, Sithole et al. (2018) note the term 'community' to be very elusive without downplaying the role played by local communities in the development of tourism by crediting them with the ability to create an environment conducive for tourism activity and more so the community also being part of the tourism product itself. Zamani-Farahani and Musa (2012); Spencer and Nsiah (2013) further echo Sithole et al. (2018) sentiments in emphasising the dependence of tourist satisfaction, expenditure levels, and repeat visits on the hospitality of the local community. This makes it pivotal for communities to co-operate in order to ensure a successful endeavour in the development of sustainable tourism in rural areas, thereby ensuring that tourism benefits are accrued by the citizenry (Stylidis et al., 2014).

Nonga and Haruna (2015) highlight the importance of ensuring that the development of tourism in rural areas is resident-responsive by placing local communities at the core of the decision-making process of any proposed tourism development in the area. This will ensure active participation of community members in tourism development initiatives undertaken within the area, thereby safeguarding the endogenous management and control of the development as well as ensuring maximum benefit and profit generation from tourism. Community involvement undertakings of this nature more often than not require the building of capacity that encompass areas of strengthening of human resources, organisational and individual capacity, the development of appropriate facilities and training in tourism, and the assessment of tourism impacts (Aref, 2011). This requires a proper interrogation of capacity building intended at reaching an understanding of the concept at different levels [the individual level, the organisational level and the community level] (Aref et al., 2010; Sithole et al., 2018). Such an understanding is emphasised through a focus on (1) enhancing individuals' abilities to set and achieve objectives through skills augmentation; (2) influencing an organisation's performance through leadership, structure, resource mobilisation, physical and intellectual resources, organisational strategy, management, business approaches, and organisational linkages such as networks and partnerships and organisational systems; and (3) encouraging, promoting and developing informal and formal linkages between organisations and individuals and organisations within the community, infrastructure within the community, networks and resources from external support to the community and social capital developments which include networks, relationships between people in a community, and levels of trust and co-operation existing within a community (Aref et al., 2010; Pat-Mbano and Ezirim (2015). The abovementioned levels of capacity building within communities are noted to be important as they enable meaningful participation of community members in tourism development initiatives, which is something that has the ability to prevent strain that can be created by developmental undertakings that are contrary to aspirations, values, needs and capabilities of the host community (Nonga and Haruna, 2015). Participation by local communities that is both active and meaningful allows for true involvement in the decision-making process and enhances resource (human, organisational and infrastructural) with the sole intention of affording the citizenry an opportunity to improve their own lives (Khosvari et al., 2015; Sithole et al., 2018). It is therefore safe to suggest that the possession of essential skills and requisite resources within a locality can translate to positive impacts on the local community (Sithole et al., 2018). The building of capacity within communities, endeavouring to enable the active and meaningful participation in the development of tourism, then becomes a noble undertaking.

MATERIAL AND METHODS

The study was undertaken in a tourism-dependent village of Nqileni in the Xhora Administrative Area of the Eastern Cape Province of South Africa. Nqileni village houses Bulungula Lodge, a tourism enterprise wholly owned and managed by the community, which makes it pivotal to investigate the importance of capacity building within the tourism sphere for the purpose of sustainable development within the area. Given the dynamics associated with the chosen study area in relation to its low levels of high school completions (10.2%) in adults over 20 years and only 5.1% success in higher education (Bulungula Incubator, 2014), the study found it necessary to employ a qualitative research approach as it allows for respondents to answer questions in an interview setting, thereby enabling them to articulate their view on the matter under investigation. This allowed for an in-depth exploratory examination of the importance of capacity building in the development of rural areas through tourism. This saw the study employ a non-probability purposive sampling technique with the use of a semi-structured interview schedule to solicit the requisite empirical data needed. The employment of a non-probability purposive sampling allowed for the researchers to target respondents that will bring value to objective of the study. This was evident in the selections of respondents that ensured a balance that included voices ranging from community leaders to active part-takers in tourism and general members of the community. As indicated in the paragraph above, the area has a low level of educational attainment among its adult population. This made it necessary for the data to be collected in the language of the local community (isiXhosa). The data then underwent transcription and translation into English for purposes of analysis. This was followed by an in-depth analysis using NVivo software version 11 that produced a comprehensive observation report that enabled the study to presents findings that aided in a discussion that will contribute to the body of knowledge within the community capacity building arena.

Figure 1. Research method flowchart

RESULTS AND DISCUSSION

The collection and analysis of empirical data brings the study to a point of discussing the findings. The analysis of the data then produced themes that are indicative of the views of the Nqileni village community in relation to the importance of capacity building in sustainable tourism development. The themes generated from the narratives accrued from interviews conducted include the views of the community on the importance of capacity building, the role of the community leadership in capacity building, skills development and empowerment of residents, and shortcomings in building capacity aimed at developing the community.

Importance of capacity building

The importance of capacity building is acknowledged by residents to be central to the development, promotion and sustainability of tourism in the area. This is evident in the extensive narrative that indicate the need for initiatives that enable skills development, which include training and knowledge creation. The building of such capacity is seen to be a driving force that can lead to the development of a sustainable tourism and other development initiatives within the locale. In addition, the respondents further emphasised the importance of making available information that relate to development projects and initiatives undertaken within the area as this empowers members of the community, demystifies developments happening in their backyard, and ultimately enhance the community standard of living. This is given credence by proclamations of respondents that follow:

"It is important for people to be equipped with the right skills so that they can have a better life."

"The community must be informed with each and everything concerning the village."

"I think it is important because most of the community members do not have enough knowledge about development."

"One thing I think is important is that someone has expertise in tourism and development projects should come and teach us more about them, so that we may be able to follow the trend."

The findings presented above are congruent with scholarly literature on the importance of capacity building in relation to development. The survival, continuation and sustainability of a society is highly dependent on its ability to adapt, which requires the re-examination of core values together with their expression through mechanisms including social institutions, processes and individual actions (Budeanu et al., 2016). This requires that community members procure skills and knowledge to help them think and act in ways that will enable them to harness opportunities brought by development initiatives in the area (Aref et al., 2010). This has seen authorities in rural areas put emphasis on the development of skills in sectors such as tourism, with the aim of reviving the socio-economic health of rural areas, and in the process escalate prosperity within the community (Sharpley, 2002; Nygaard, 2009: 163; Sango, 2014). Such endeavours can be exemplified by efforts made by the South African government's development of a human resource development strategy aimed at building and improving the skills base for the tourism sector (South Africa. NTSS, 2011: 29-30).

Role of the community leadership in capacity building

The findings of the study present divergent views relating to the contribution of the community leadership regarding the building of capacity that will enable meaningful participation in development initiative undertaken within the village. Sections of the community held a view that the leadership did not do enough in this regard, due to factors such as resources available to the leaders, capacity of the leaders themselves, and leaders overextending themselves to provide for the community members - simply due to the multitude of needs that the community has. In addition, respondents narrated further issues relating to community leaders being selective (unfairly so) on the type of matters that warrant attention, which often leaves community members frustrated and development initiatives that are not seen to be primary left hanging without any prospect of fulfilment. These concerns are accentuated by the narratives that follow:

"I would say the leaders are not doing enough to develop this place. For example, in some places, the leaders have brought about developments but just not in our community. There are services we are unfortunately not have access to, yet every time when there are elections, we vote but still do not see any changes. We are not able to access some things, yet there are leaders that represent us."

"Leaders do not have enough resources to equip community members, so that they can do things for themselves."

"So, I don't think there's capacitating in terms of training. So that is not happening from the community leadership side because they themselves are not equipped with the requisite skills."

"I would say they don't, our leaders are involved in many things and come short when it comes to tourism related matters. The leaders are mostly involved in services from the government, i.e. water and electricity."

However, another section of the respondents felt that the community leadership is doing enough to empower and capacitate the community to meaningfully participate in development initiatives. This is made palpable through training and workshops organised for community member to attain skills in areas such as hospitality, bookkeeping and other managerial functions needed in running businesses, especially in tourism. These are further complemented with the placing of community member in committees tasked with the planning, implementation and management of development initiatives, which allows them to engage skilled individuals (mainly external), while gaining skills and experience in the process. This is given credence by the following proclamations:

"Workshops are running where skills are taught, especially in tourism and hospitality and entrepreneurship."

"Some of the ladies in the village were trained to do massages, while other people were taught business skills."

"Uh…so certainly there is space for communities to participate on health committees, educational committees, high school committee. We've got parent committees at all the ECD centres, the large committee. So those are opportunities to develop skills and capacity and get exposure to what it takes to make things run."

The above discussion highlights both the shortcomings and capabilities of the community leadership in terms of capacity building for participation in development that is aimed to be sustainable. The building of capacity in a community for sustainable development requires a leadership that will ensure that community participants procure skills and knowledge to help them think and act in new ways (Aref et al., 2010). In addition, this allows for the development of skills and abilities that empower the local community to engage in decision-making processes and take actions appropriate for themselves as far as tourism development is concerned (Aref et al., 2010). This is further seen to be an important source in assisting tourism and community development (Aref et al., 2010), thereby increasing local leadership capabilities and entrepreneurship (Moscardo, 2008).

Skills development and empowerment of residents

Development of any nature requires that the local community be capacitated with requisite skills and knowledge that will enable them to meaningfully participate in development initiatives. The findings of the study revealed a common chronicle indication the vision on ways in which the community intend to overcome challenges faced by the citizenry in relation to the capacity to meaningfully participate in development initiatives within the locale. Such a vision includes the training and skilling of community members in areas such as marketing, finance, administration, information sharing, and other facets of business and entrepreneurship. In addition, it has been indicated by respondents that a skilled community can be able to maintain the appeal and attractiveness of the area, which can translate in tourism being sustainable for future generations. This was further elucidated by the following respondents' narrations:

"Community member needed to be trained in areas which they lacked or were weak in."

"Keeping the areas clean and tidy would be appealing to any tourist and they would then feel the need to stay and indulge more into what the area has to offer."

"Community members need to be encouraged to participate in development. They need to know what the rewards would be to the community for the developments as this would keep them motivated and empowered."

"There must be mutual understanding between leadership and community members on all aspects of the tourism and development projects as this will empower the community, thus allowing for meaningful participation."

"Community members are encouraged to work together during any tourism and development projects. This also ensures the protection of the entire community as well as the tourists that visit the village."

"Empowerment is key to meaningful community participation. This entails trainings, skills, education and information about the development."

The narrative disseminated by the respondents is consistent with promulgations of the National Tourism Sector Strategy [NTSS] (2011) indicating limitations in relation rural communities' levels of awareness of the tourism industry and capacity devoid communities of accruable benefits due to them, which often leads to external players taking advantage the natural and cultural resource without the host community receiving any reaping the fruits of their land. Such negative sentiments are often a result of poor and negligible involvement of local communities and previously neglected groups in the tourism and other economic activities, coupled with coupled with the absence of adequate education, training and awareness opportunities (South Africa, DEAT, 1996: 11-14). Enhancing the skills and knowledge of the community can result in building the capacity that will enable meaningful participation in tourism development, thereby minimising constraints that can limit the community's ability to control their participation in projects aimed for their development (Cole, 2006: 39; Moscardo, 2008: 67; Aref et al., 2010).

Shortcomings in capacity and skills status of the community aimed at developing the community

Assertions were made of chronic shortcomings in relation to the local capacity to meaningfully participate in development initiatives. This has been primarily attributed to the low levels of literacy and lack of skills development. Additionally, this is not limited to literary and physical skills, but further extends to awareness, exposure and understanding of the prerequisite abilities needed for sustainable development. This is made evident in a survey previously undertaken to establish the needs of the community, with most people indicating that they wanted television sets, irrespective of a spate of deaths suffered due to a lack of access to clean water, showing the level of awareness of members of the community in relation to needs, which can hinder the success of a sustainably developed Nqileni village. This has resulted in the village being reliant on external skills for the development of the area to be realized. These are further elucidated by the following respondents' narrations:

"No, because of the lack of exposure to…I mean I can give you one example. When the Bulungula incubator first opened and they did a survey in the community about community needs, most community members said they wanted a TV. And this was in a time where one in nine women had lost three or more children; and one in three women had lost one child. So, from a development perspective one thinks water is your most important need that needs to be addressed. But the community was unaware of the fact that they were entitled to free, clean water. The government was supposed to provide free clean water. And that the child deaths were related to the fact that they were not accessing free clean water. So sometimes it does connect with the education and what you're entitled to leads to communities not always making the best decisions for themselves or how to spend money or allocating what their needs are so that they can make more prosperous decisions later."

"As I have mentioned earlier that some of them are illiterate and as such are not able to speak English, however, they show their talents to the tourists. Such talents include traditional dance."

"Like I said: skills and tourism, if you've never experienced tourism how do you give the tourism service that people are looking for? How do you…if your business is going so well, how do you evaluate what to invest in to make it go well? Like what are the gaps? What would make it successful? What are tourists looking for? What is necessary to support them to come? I think that kind of savviness comes with experiencing tourism and sometimes having the money to experience tourism."

The shortcomings highlighted above agree with a key constraint of the development of tourism identified in the White Paper on Development and Promotion of Tourism, indicating the greatest deficiency of tourism development in South Africa as being the absence of adequate education, training and awareness opportunities (South Africa. DEAT, 1996: 13). Such deficiencies amongst locals often lead to an inability to fully exploit opportunities and benefits that can be brought by development initiatives such as tourism to an area (Moscardo, 2008; Saufi et al., 2014), which gives credence to rhetoric of the importance of education and training as fundamental pillars of development (South Africa. DEAT, 1996: 13).

CONCLUSION

This article noted that tourism development in remote and rural areas is ideal for the enablement of modernity that allows for the creation of opportunity and facilities that will bring positive economic, social and environmental impacts to the area and its communities. However, the creation and exploitation of opportunities alluded to above require that members of the community be capacitated to take advantage of prospects that development initiatives such as tourism present. This further presents the community with an ability to make real the adage of 'teaching a man to fish', which places ability and skills in the hands of members of the community. This is seen in a narrative presented by respondents indicating the importance of capacity building for purposes of development initiatives that have the potential to accrue benefits for the area. The narrative further postulated the importance of leadership in the building of capacity, empowerment of residents and shortcoming in the building of capacity aimed at ensuring the community's ability to meaningfully participate in development initiatives intended to bring advancement to the area.

Finally, the study makes no claim to be authoritative on the building of capacity for the development of tourism in rural areas. The study concludes to recommend that a community's ability to meaningfully participate in their own development requires a concerted effort on the part of all stakeholders to the build capacity to ensure the sustainable development of tourism in the area. This is deduced from the empirical evidence solicited through the collection of data that suggest that the sustainability of tourism development hinges greatly on the community's ability to do for themselves as opposed to being reliant on exogenous forces to do for them.

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Article history: Received: 20.01.2022 Revised: 14.04.2022 Accepted: 11.05.2022 Available online: 03.06.2022

GeoJournal of Tourism and Geosites
ISSN 2065-1198, E-ISSN 2065-0817

Year XV, vol. 41, no. 2, 2022, p.589-596
DOI 10.30892/gtg.41233-867

FESTIVALS AND SUSTAINABILITY IN HUNGARY – THE STUDY AND PRESENTATION OF THE ASPECTS OF SUSTAINABILITY IN SELECTED HUNGARIAN FESTIVALS

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Citation: Lőrincz, K., Ernszt, I., & Csapó, J. (2022). FESTIVALS AND SUSTAINABILITY IN HUNGARY – THE STUDY AND PRESENTATION OF THE ASPECTS OF SUSTAINABILITY IN SELECTED HUNGARIAN FESTIVALS. *GeoJournal of Tourism and Geosites*, 41(2), 589–596. https://doi.org/10.30892/gtg.41233-867

Abstract: Realizing the importance of festivals as a segment of the Hungarian cultural tourism market, the authors, after the theoretical review of the most important pillars of sustainability (economic, social-cultural and environmental), design the factors which establish the realization of the principles of sustainability in practice. Therefore such Hungarian festivals are analysed where during the organization and actuation, it is distinctly important to take into consideration the aims and principles of sustainability. The three analysed festivals represent different characteristics and supply and are important representatives of the Hungarian festival market. The authors chose these festivals as case studies because of several reasons: first of all the examined festivals address different target groups, furthermore, their themes and topics (supply) are also different; meanwhile all of them have communicated sustainability aspirations during their organisation and implementation. Data were primarily collected in 2020 and 2021 as an exploratory research based on content analysis of the web pages of the festivals. Parallel with this, structured interviews have been carried out with the organisers of the festivals. The analysed festivals were chosen based on their thematic approachThe authors believe that the analysis of these Hungarian good practices can serve as a design for other Hungarian and international festivals alike. The results of this investigation show that festivals mediating the elements of sustainability have already appeared in Hungary and the progress of the place and role of sustainability in event organization is applied in the country in an increasing extent serving as good examples for the non-sustainable events as well.

Key words: festival tourism, sustainability, Hungary, case studies, benchmark

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INTRODUCTION, AIMS AND OBJECTIVES

The efforts of sustainability recently reached not only the international but the Hungarian festival market segment as well, by realising that great events necessarily take effect on the environment both in a positive and in a negative aspect (Kaszás et al., 2022; Saha et al., 2021; Ziakas, 2015; Ásványi and Jászberényi, 2017; Negrusa et al., 2016; Yolal et al., 2016). For the measurement of the impact of such festivals and events numerous earlier approaches have been elaborated taking into consideration the calculation of the carbon footprint (Milford et al., 2020; Scrucca et al., 2016; Brown et al., 2015) or highlighting economic, social-cultural and environmental impacts (Pang, 2021; Andersson and Lundberg, 2013; Andersson et al., 2012). With the adaptation of the international approach to the Hungarian practice, we can state that the domestic Hungarian festivals lay a growing emphasis on taking into account all the pillars of sustainability. This is confirmed by the fact that most recently, during the organisation and the transaction of the event or festival, organisers focus not only on the environmental and economic, but on the social pillars as well (Ásványi and Jászberényi, 2017). In our study, after the theoretical review of the most important pillars of sustainability (economic, social-cultural and environmental), we design the factors which establish the realisation of the principles of sustainability in practice. Based on this the research questions are the following: How are the three pillars of sustainability put into practice? What are the most important measures for sustainable aspects of the festivals that can be expected from both the demand and supply sides? Therefore in the second part of the paper, the authors analyse such Hungarian festivals which first of all alter in their supply and objectives and where during the organisation and actuation it is distinctly important to take into consideration the aims and principles of sustainability. The analysis of these Hungarian good practices can serve as a design for the other Hungarian and international festivals as well.

THEORETICAL BACKGROUND

The relationship between festivals and tourism

In the early history of festival tourism research, only large-scale art events and competitions on an international scale were

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defined as festivals, but today the concept has been diluted (Zou et al., 2021). Nowadays, smaller events with a local or regional appeal also advertise themselves as festivals not only in Hungary, but on the international scene as well (Vliet, 2019; Inkei, 2010,).Together with the new trends in tourism, people became more mobile, and in line with the completion of globalization, the number of festivals has grown exponentially over the past two decades (Laing, 2018; Sulyok and Sziva, 2009).

Festivals also became the most marketable cultural and tourism products of the 21st century (Choo, 2022; Gursoy et al., 2004; Crespi-Vallbona and Richards, 2007). As prosperity and well-being increases, the role of and need for experiences in society becomes more and more important (Ásványi and Márta, 2016). Unlike most products or services, festivals provide a community experience by creating an optimal breeding ground for encounters, people-to-people interaction and togetherness. On the supply side, the phenomenon of the experience society also affects the expansion of the art supply. The proportion of artists in society is increasing and so the increased number of artists requires the expansion of opportunities and venues. Parallel with this phenomenon, festivals meeting these requirements ensure the expansion of cultural infrastructure as well (Hunyadi et al., 2006). The authors agree with Richards (2001) and Smith (2003) that festival tourism shall be considered as a type of cultural tourism (Richards, 2001; Smith, 2003). In addition to festivals, other forms of living culture – e.g. carnivals, religious and artistic events such as concerts, theatre performances – are also worth mentioning, as these events are often the cornerstones of the festival program. It is no coincidence that within cultural tourism, the market demand for festival tourism has increased to such an extent that it can be considered as a dominant tourism product itself (Csapó, 2012). One reason for this is the complex supply and branding of the festivals, and on the other hand, the festival atmosphere, or, if you like, the elevated, festive effervescence that permeates the event.

The economic role of festivals is most conspicuous through their impact on tourism. According to the literature, festivals which have identifiable visitor segments including tourists whose visit involves “traveling beyond a 60 km radius and staying for at least one night” have tourism attractiveness (Getz, 1991 in: Sulyok and Sziva, 2009:4). Festivals enhance the attractiveness of a destination, especially if they function as tourist attractions (Çelik Uğuz and Gačnik, 2015). One of the main aspects in determining the tourist attraction of a festival is to differentiate festival visitors based on who came to the destination primarily with a motivation to visit the festival and who came with other, secondary motivations (Anastassova and Luizov, 2016; Wee et al., 2017). In the case of tourists with a secondary motivation the festival represents an element of the destination experience chain, which can be decisive in terms of tourism revenues as the tourism program supply is expanded. Festivals play a key role in place marketing and destination marketing, and can be suitable for extending the tourist season and alleviating seasonality (Kim et al., 2018; Alaux and Boutard, 2017,).

The impacts of tourism in the case of festivals

Environmental pressure can be manifested in noise, air, soil, light or water pollution, but in the case of festivals most of all the accumulation of garbage and the degradation of vegetation are the most common negative features on the environment (Cierjacks et al., 2012). Besides these, noise pollution is one of the most common negative social impact of the events negatively influencing the attitude of the local population (and the fauna as well). We also have to mention that festivals have an impact on their environment not only on the exact location but in their wider environment as well (Buathong and Lai, 2019). As long as great events and festivals are organised which started to take into consideration sustainability, we can experience positive environmental, economic and social impacts as well naturally with the involved responsibility of both the supply and demand side (Wee et al., 2017). On the supply side, this approach is incorporated in the pro-sustainable attitude of the organizers and on the demand side consumer behaviour seems to be just as important in terms of achieving complex sustainable attitudes. In this respect, festivals can serve as tools for education and awareness raising in terms of establishing sustainable behavioural models (Buathong and Lai, 2019; UNEP, 2012,).

The sustainable organization of events comes together with numerous advantages covering a more complex set of indicators than only the environmental benefits. According to this approach, due to the environmental protection measures, one can experience economic (e.g. online materials instead of printed brochures, tap water instead of PET bottles) and social (e.g. the involvement of the local population, team building, common experiences) benefits as well (Aysel et al., 2017). Such good practices can also spread in a wider context aspiring for innovation other festivals organisers as well (Black, 2016). Parallel with this, the positive attitude change of the visitors can be beneficial in their everyday customs and lifestyle as well (Frost and Laing, 2015). Besides the mentioned complex impacts, the measures of sustainability can contribute to image creation, innovation and its marketing value can also raise the overall value of the certain destination (Ariyani and Fauzi, 2022; Supriono and Yulianto, 2021; Chirieleison and Scrucca, 2017). Festivals also create a unique milieu, which can serve as a tool to change the former lifestyle of visitors discovering alternative everyday solutions and creating a sustainable lifestyle model (Browne et al., 2019). Moreover, the transmission and mediation of local culture can promote to create a connection between the visitors and the local population, which can also contribute to the abolition of anti-tourism movements (Seraphin et al., 2019). In this respect, the festivals based on the local community can function as a kind of mediator between the visitors and the hosts, promoting the better understanding of the local culture and fostering interactions between these two segments. Thereby the created authenticity can also function as attraction. Festivals can also contribute with positive impacts on the local population by promoting the development of local economy and increasing the bondage and so the pride and image value towards the settlement (Seraphin et al., 2019).

Sustainable matters regarding festivals

For festival visitors, an event is primarily about fun, relaxation, encounters and a break-away from the everyday life (Andersson et al., 2015). In addition to the positive economic effects of festivals (local suppliers, local producers, image enhancement, investment stimulation), the visitors also emphasize social impacts (community building, strengthening identity, nurturing local values, quality of life, participation of local people) (Yolal et al., 2016; Rollins 2007). Thus, the functions of festivals and Delamere, include providing a community experience and introducing the local, unique elements to the audience while making everyday life special. In addition to the listed functions, the formation of the attitudes of the festival visitors is also an important aspect, which has special significance in connection with sustainability (Hunyadi, 2004). Among the detected functions, the following can be highlighted as elements of sustainability: the strengthening of tolerance, education and training, and sustainable economic development (Figure 1).

Figure 1. The general functions of festivals highlighting the sustainable aspects Source: Own ed. based on Hunyadi, 2004, Szabó, 2011

Community experience, strengthening community	Equalization event	Presentation of the best, most interesting	Presentation of local specialties
It involves people who are lazy about culture	**It strengthens tolerance**	**Education, training, broadens the horizons**	They make everyday activities a special experience
Increases self-esteem	Inspires artists	**Development, economic recovery, employment**	Identity, choice of subculture

Naturally, at the same time, a festival requires water, energy, land, food and other factors and resources causing a wide range of environmental burden or damage. The operation of the festival infrastructure can therefore have an environmental impact in several key areas, such as:

- energy from non-renewable sources, energy from external sources or local generators,
- wastewater generated in catering establishments and toilets,
- transport required for the construction of the infrastructure and the availability of consumer goods (e.g. food), as well as the related fuel consumption, CO_2 emissions,
- the travel of visitors to the venue and the related fuel consumption, CO_2 emissions,
- litter from consumer goods brought to the festival venue by visitors,
- on-site waste from consumption, programs, catering,
- damage caused by cars and people,
- damage caused by cars and people on the ground (Bodnár, 2016).

Organizational activities	Activities that affect both the organization and visitors	Activities affecting the direct conduct of visitors	Activities that affect the attitude of visitors
• selection of venue • application of energy saving tools and logistics principles, environmentally conscious marketing and use of raw materials, • renewable energy vehicles for transport, infrastructure and organizational tasks • selective waste collection • proper wastewater treatment • ordering and delivery of common raw materials for catering units • restoration of the festival venue after the event	• use of renewable energy during the programs of the event • use of low-consumption, energy-saving devices, luminaires • design of suitable mobile restrooms • a ban on the sale of alcohol, soft drinks in PET bottles or bottles and a ban on the use of plastic bags, • procurement of local products (in order to strengthen the local economy and to reduce the so-called food miles), • estimating the amount of food needed as accurately as possible, offering leftover food for charitable purposes.	• the right choice of tableware, the material of the glasses (it is the responsibility of the organizers what the visitor uses, but it is the visitor's decision whether to collect and reuse it selectively.) • encourage selective waste collection, placement of containers • purchase of souvenirs for the bottles of soft drinks and metal cans • provision of drinking water • offering and organizing transport alternatives (organizing a shuttle service to the nearest bus and train stop, encouraging car sharing, setting up a bicycle car park, service point).	• primary information collection, • attitude-forming programs, • preliminary on-site awareness raising, • promotional gifts, souvenirs in the name of environmental awareness

Figure 2. Bodnár's (2016) approach of actions to reduce negative environmental impacts on festivals Source: Bodnár, 2016

The steps and good practices taken to ensure the environmental sustainability of the festivals, and so solving the upper mentioned problematic impacts, target both the organizers and the visitors who can make their impact both directly and indirectly. Figure 2 demonstrates the approach of Bodnár (2016) for the necessary actions in order to reduce negative environmental impacts. The authors rely on this methodology and approach at the second part of the paper in order to evaluate the sustainable aspects of the chosen Hungarian festivals. From the point of view of monitoring and communication, the application of environmental standards, the acquisition of certificates with the appropriate recognition and professional background (e.g. Greener Festival Award) is of great importance (Collins and Cooper, 2017; Gössling et al., 2011). Many events pay great attention to prove their responsible activities with an environmental certificate (e.g. ISO20121), which they also use to build and enhance their positive image towards visitors. In order to achieve these titles a comprehensive audit is required that facilitates a thorough review of each process, the detection of errors, an assessment on a realistic basis, and the optimization of implementation. The application of a system of norms includes access to an extensive knowledge base, in which benchmarks and efficiency-enhancing practices can be achieved, the introduction of which is justified by measurable results. Of course, measuring the environmental impact of festivals is an important step towards sustainability (Bodnár, 2016).

DATA AND METHODS

As mentioned in the introduction, the sustainable approaches and practice of three Hungarian festivals are presented as case studies, which the authors believe can serve as a model for other similar events. In doing so the authors primarily use case studies in this paper which belong to the qualitative field research paradigms. According to Babbie (2010) "a case study focuses attention on a single instance of some social phenomenon (...). The limitation of attention to a particular instance of something is the essential characteristic of the case study" (Babbie, 2010:309). However, the term is used in a broad sense, as there is no consensus, what can be considered to be a case. The three analysed festivals represent different characteristics and supply, so they characteristically differ in size and supply, and are an important segment of the Hungarian festival market. The first festival is the Sziget Festival (Budapest), which was organized first at the beginning of the 1990's. Since then it has grown into a worldwide event. The Valley of Arts (Kapolcs) has a different – local – approach and atmosphere since several small villages of the Balaton-Uplands serve as the venue of the festival. Its history dates back to the change of regime (1989), and since then it has become an iconic cultural-arts festival in the Hungarian countryside. The third chosen festival is the Szeged Youth Days (Szeged), a festival with long history based on the educational and especially university background of the city.

The authors chose these festivals as case studies because of several reasons: first of all the examined festivals address different target groups, furthermore, their themes and topics (supply) are also different; meanwhile all of them have communicated sustainability aspirations during their organisation and implementation. In our opinion by examining these festivals, one can cover the characteristic features of sustainability of the Hungarian festival market, thus by giving an overview about the present state of the initiations carried out on this field serves as a tool for understanding the attitude towards sustainable festival organisation. As mentioned, all festivals are popular and emblematic in Hungary, nevertheless they differ in their type or in the number of visitors, which ranges from 93.000 (Szeged Youth Days) to 530.000 (Sziget). The analysed festivals are located in different regions of the country: Sziget is organized in the capital (Budapest), Szeged Youth Days in one of the regional centres of South Hungary, meanwhile the venue of the Valley of Arts is in several neighbouring small villages in a rural area in Central Hungary (Table 1). Data were primarily collected in 2020 and 2021 as an exploratory research based on content analysis of the web pages of the festivals. Parallel with this, structured interviews have been carried out with the organisers of the festivals. The analysed festivals were chosen based on their thematic approach (Sziget: music; Szeged Youth Days: youth; Valley of Arts: arts), location (Sziget: capital; Szeged Youth Days: regional center; Valley of Arts: rural area) and the aimed audience (Sziget: foreign visitors; Szeged Youth Days: domestic young generation; Valley of Arts: families and middle aged visitors) and also because they cover the dominant Hungarian festival types. Finally, they are all market leading events, flagships in the country.

Table 1. Primary data of the examined Hungarian festivals Source: Magyar Fesztivál Regisztrációs és Minősítési Program, 2020; Művészetek Völgye, 2020; Sziget Fesztivál, 2020b; Szegedi Ifjúsági Napok, 2021

The name of the festival	Venue	The date of the festival	The first year of the festival	Type	Number of visitors	Award
Sziget (Island) Festival	Óbuda-Island, Budapest	August	1993	music	approx. 530.000	AGF Greener Innovations Award
Művészetek Völgye (The Valley of Arts)	Small villages in the Balaton-Uplands: Kapolcs, Pula, Taliándörögd, Vigántpetend, Monostorapáti, Öcs, Pula	July	1989	arts festival	approx. 200.000	-
Szegedi Ifjúsági Napok (Szeged Youth Days)	Szeged, Tisza-River Bank	August	1968	music	approx. 93.000	Greener Festival Award

RESULTS

The Definition, Role and Qualification of Festivals in Hungary

In Hungary, the definition of festival provides a broad framework for the concept. According to the definition of the Hungarian Festival Association (Magyar Fesztivál Szövetség): "Festival means any series of cultural, artistic, gastronomic, sporting or other event, organized around one or more themes, which takes place on a regular basis and has a program announced at one or more venues. It has the aim to provide its audience with high quality, value mediating, informative and at the same time entertaining, leisure community experience" (Magyar Fesztivál Szövetség [Hungarian Festival Association], 2008). Based on these, not only cultural events, but also sports and periodic events with other profile can be qualified as festivals. According to the standpoint of the Hungarian Festival Registration and Qualification Program, an event that lasts at least two days, provides at least 2-3 program opportunities per day, has more than 3-400 visitors and a minimum income of 3-4 million HUF (Hungarian Forints) can be considered a festival (Hungarian Festival Association Registration and Qualification Program [Magyar Fesztivál Regisztrációs és Minősítési Program], 2020).

More detailed information about the festivals has been available in Hungary since 2009. Since then, the registration and qualification system of Hungarian festivals has been operated by the Hungarian Festival Association. Its primary purpose is to map high-quality – and primarily cultural – festivals. As it focuses on only a narrower piece of the festival market, the range of festivals it registers is far from complete. In 2009, when the registration system was launched, there were 212 registered domestic festivals on the list. In 2019, the number of registered festivals was already around 400 (Formádi and Hunyadi, 2019). In 2020, the Hungarian Festival Association had a broader sample of 980 festivals and from these it had detailed information about 480 events. The current membership of the Hungarian Festival Association consists of about 300 festivals represented by 225 organizations. Some of the festivals have both local and regional significance; their role as cultural bridges is also reflected in the preservation of traditions, cultural innovations and international relations. Many festivals contribute to the provision of basic cultural care in settlements. The role of festivals is also significant in the tourism and cultural sectors: in addition to quality entertainment and community building, employed performers, art groups, entrepreneurs providing infrastructure – vendors, caterers, accommodation providers – can also be regarded as significant tax-generating factors. In Hungary, the combined budget of the festivals is 36 billion HUF. They enrich the national income by almost 80 billion HUF, and provide employment for 37,000 employees (Magyar Fesztivál Szövetség [Hungarian Festival Association], 2020). As several criteria must be met in order to register, not all events that consider themselves festivals can be included in the registration system of the Hungarian Festival Association, therefore the actual size of the festival market is much larger than those that have been successfully registered. Based on the criteria of the festival association, we can classify the festivals into groups based on duration, scope, frequency, type of organizers, and topic (Magyar Fesztivál Szövetség [Hungarian Festival Association], 2020). Based on the statistics of the festival association, the registered festivals have a tradition looking back on an average of 12-13 years (in terms of ranked data, the median shows 9 years).

The market of festivals is varied in nature, and in terms of their attractiveness, they vary greatly from visitors of a few hundred to events of more than 200,000 visitors. Nearly 40% of the registered Hungarian festivals belong to the group of less than five thousand people, and 34% to the group of five thousand to twenty thousand people. The median is at 6,600 persons – the same number of festivals had fewer and more visitors. Currently, the Hungarian Festival Association operates with four departments according to their topic: public festival (community festival), gastro-cultural festival, art and folk-art festival. In the supply in terms of type, most festivals are artistic, followed by gastronomic festivals (Magyar Fesztivál Szövetség [Hungarian Festival Association], 2020). According to the Hungarian Festival Association, “in 2020, no festival can be imagined where the aspect of environmental awareness is irrelevant” (Magyar Fesztivál Szövetség [Hungarian Festival Association]). There are “green” elements where “the breakthrough seems to be almost complete”: such as the non-use of plastic cups and the introduction of selective waste collection. At the same time, unfortunately, some organizers think that environmental awareness does not fit their profile, even though “the mood temperature of any togetherness tends to be directly proportional to the ecological footprint of the event” (Magyar Fesztivál Szövetség [Hungarian Festival Association], 2020). According to the authors of this paper, Hungarian festivals in general can present several good examples on the field of sustainability, but still much more attention is needed in order to enhance the scope.

In the following section we present the analysis of the highlighted three Hungarian festivals focusing on their practice of sustainable aspects in the organisation and actuation of the event.

Detected sustainable aspects of the Sziget (Island) Festival

The internationally most well-known and popular Hungarian festival each year – except for the Covid-19 pandemic – attracts highly popular international performers, hosting over 1000 shows across 60 stages, for 7 days straight. At the moment, it is the greatest and most famous festival of Hungary with visitors arriving from around 100 countries mainly from the United Kingdom, France, Germany, Italy and the Netherlands (Sziget Fesztivál, 2020a).

In 2020, the festival has earned an AGF Greener Innovations Award acknowledging “outstanding innovation, initiative or invention that has been a game changer in the green event space, that has disrupted business as usual, or has given a new solution to help turn something problematic in to something good” (AGF, 2020).

At the Sziget Festival, a special emphasis is placed on reducing the amount of waste, as well as on the protection of the Danube and the riverside section (Molnár, 2019). With the institution of the reusable cups, the “straw program” and the decomposing plates, the amount of waste generated can significantly be reduced. Furthermore, festival visitors can exchange the selectively collected waste for gifts (Sziget, 2020a). Sustainable actions include that visitors are called upon to save water when taking showers, and the free drinking water intake possibilities, taps available at the festival venue are also indicated. A dining block is operated that sells food – which is produced with a low CO_2 emission (more vegetables, fruits instead of meat dishes). Mobile composting equipment composts the generated kitchen waste, and the humus generated here is utilized during the recultivation of the Óbuda-Island, the location of the festival. A conscious camping zone has also been created, highlighting the bike-friendly nature of the festival. A new product group, a new merch called SzigEthical has also been introduced, selling organic T-shirts, bags and bottles. In the framework of social responsibility, the musical education of children is also supported by the festival (Sziget, 2020b).

Detected sustainable aspects of the Valley of Arts (Művészetek Völgye) festival

Today, the "Valley of Arts" has almost become a cult institution in Hungary. This festival is held in the hidden, small-sized micro villages of the picturesque Balaton Uplands offering thousands of programs and happenings from all branches of art in a special and unique milieu (Horváth, 2019). The festival was first held in 1989 in a small village called Kapolcs, which had only a few hundred inhabitants where the streets, courtyards and squares of the village gave space to the festival. Later the neighbouring villages, Vigántpetend, Öcs, Pula, Monostorapáti, joined the programs. It seems to be no coincidence that the symbol of the festival has become the snail – a parallel can also be drawn with the emblem of "slow movements". After all, the festival fits perfectly into the requirements of sustainability and slow philosophy. A "Valley Snail Award" has been established, and a Snail-service (bus service) connects the various villages, sites of the festival, also strengthening sustainability. As another example for sustainability, the totem animal of the Valley, was also made in a Gigasnail form by painter Emese Bács in a competition where she used waste to make the work of art (Fidelio, 2019).

In recent years, however, in response to the spirit of the new age, a number of modernizations have taken place on this area. In 2019, the new slogan has been introduced: "The Valley is Greening!" The institution of a "reusable cup" has been introduced, significantly reducing the amount of waste generated which turned to be reduced by up to 50% (Művészetek Völgye [Valley of Arts], 2019). Visitors found messages at the festival encouraging the use of their own cutlery and plates (Hangfoglaló, 2019). The restaurants use compostable cutlery and plates, which are also composted at the end: Sugar cane plates, trays and corn cutlery are used. There is a "Valley Garbage Collection" team, which sorts and collects waste, furthermore, separate waste collection units are placed with warnings for their correct use. The programs of the festival also reflect a sustainable approach: they hold workshops on climate change (in cooperation with NFFT, V4SDG and EIT Climate-Kic), games are organized (e.g. Balaton-Uploads National Park, WWF, Bakony-Balaton Geopark, ZöldZugoly, Jane Goodall Institution), lectures and exhibitions are held based on the topics of sustainability and responsibility. Instead of a booklet printed on paper, an updated, renewed mobile app has been introduced also reducing the burden on the environment. In order to devoid or minimise the use of cars, the organisers increased the local public transport's running time as well (so the cars can be left in the free parking lot on the outskirts of the village (Művészetek Völgye, [Valley of Arts], 2019).

Detected sustainable aspects of the Szeged Youth Days (Szegedi Ifjúsági Napok) festival

The Szeged Youth Days can also be considered to be one of the forerunners of green festivals in Hungary, as for instance they were among the firsts to use reusable cups already in 2008. The event has been awarded by the Greener Festival Award as well (Alternatív Energia [Alternative Energy], 2016). They use biodegradable cutlery and plates, and compost them as well. In order to reduce the environmental impact of traffic, free storage is provided for bicycles. Within the framework of cooperation with MÁV (Hungarian State Railways), festival visitors can arrive with a discounted train ticket to the venue. The company also launches bicycle storage trains. One can visit the city of Szeged by rickshaw-taxi, there is a "green police", a fair-trade cafe, and one can also buy organic fruit from Hungarian producers at the festival. Eatable spoon, ice glass and non-plastic straw are used on the festival as well. In an eco-pub the so called ÖKO-SZIn takes place, where cutlery can be composted. There is also eco/compost toilet. Furthermore, it was also possible to adopt trees (Alternatív Energia [Alternative Energy], 2016, Humusz Szövetség [Humus Association], 2020).

Table 2. Detected indicators of Bodnár's sustainability model at the examined festivals (Bodnár, 2016)
Source: Own editing based on the data received from Sziget, 2020a, Művészetek Völgye, 2019, Szegedi Ifjúsági Napok, 2020

	SZIGET festival	Valley of Arts	Szeged Youth Days
Organizational activities	- Waste-recycling, selective waste collection	-Recycling, selective waste selection - New mobile application for the program guide	-
Activities that affect both the organization and visitors	- Reuseable cups - Green Sziget Vendor Program: environmentally conscious dining block - Bike-friendly festival - Energy Efficiency - Cleaner Riverbank program	- Reusable cup	-Organic fruit from producers - Compost toilet (ECOToi) - Fair trade cafe
Activities affecting the direct conduct of visitors	- encourage selective waste collection, - placement of containers - Green Shower Initiative - FreshWater Points: drinking water for free - Pocket ashtrays	- Encourage selective waste collection, - placement of containers - Bus service (Snail bus ride) - Compostable cutlery, plates	-Cooperation with the Hungarian State Railway) (discounted train ticket) - Bycicle-friendly festival - Compostable cutlery, plates - Eatable spoon, ice beaker, straw straw
Activities that affect the attitude of visitors	- Supporting musical education of children in cooperation with SUPERAR - Green Sziget Center: workshops, Wifi for Trash, collection of tents, sleeping bags, matts by charity organizations	Environmental protection workshops, games	-Adoption of trees - Green" police

CONCLUSIONS

The results of this investigation show that festivals mediating the elements of sustainability have already appeared in Hungary and the progress of the place and role of sustainability in event organization is applied in the country in an increasing extent serving as good examples for the non-sustainable events as well. Most of the detected actions can be found on the field of environmental protection: all the studied festivals take care to alleviate the environmental impact of transportation with their own means: with a bicycle-friendly approach (Sziget Festival), incentives to use public transportation (Szeged Youth Days), or running their own bus service (Valley of Arts). The initiation of reusable cups, the use of biodegradable cutlery and plates have also appeared in all cases, as well as composting and selective garbage collection. The special attention paid to the formation of the attitude of festival visitors is also a common element.

In terms of socio-cultural sustainability, the Valley of Arts is perhaps the festival where the strongest connection with the locals, the presentation and embracing of the local culture is most pronounced. This can be due to the special nature of the festival, the fact that the festival venue takes place in the small gardens and courtyards of the villages. When examining the steps of festivals regarding sustainability by Bodnár's approach (2016), it can be stated, that the analysed events embrace all categories and so several demonstrated good examples are initiated. In case of these emblematic festivals, both the organizers and the visitors can, and also have to, take their share in the efforts towards sustainability (Table 2).

The basic limitation of this research is that a limited number – but representative – of case studies were chosen for research, but since they served as good practices, the authors believe that the research objectives could be achieved, however a greater number of festivals should be evaluated in the future research. Of course, further development in the application of sustainable aspects in festival organizing (supply) and in consumer behaviour (demand) is still needed, nevertheless the initiatives and measures of the analysed festivals are promising and offer a positive vision in order to achieve a more responsible and sustainable festival market in the Hungarian cultural and tourism sector.

Acknowledgement

"We acknowledge the financial support of Széchenyi 2020 under the EFOP-3.6.1-16-2016-00015"

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Article history: Received: 12.01.2022 Revised: 15.04.2022 Accepted: 12.05.2022 Available online: 14.06.2022

GeoJournal of Tourism and Geosites
ISSN 2065-1198, E-ISSN 2065-0817

Year XV, vol. 41, no. 2, 2022, p.597-605
DOI 10.30892/gtg.41234-868

OPPORTUNITIES TO USE MOBILE GIS APPLICATIONS IN THE FORMATION OF TOURIST AND LOCAL LORE COMPETENCIES IN STUDENTS: CASE STUDY IN ALMATY, KAZAKHSTAN

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Citation: Issakov Y., Laiskhanov S., Mazbayev O., Ussenov N., Zheldibayev A., Kamelkhan G., & Dávid, L.D. (2022). OPPORTUNITIES TO USE MOBILE GIS APPLICATIONS IN THE FORMATION OF TOURIST AND LOCAL LORE COMPETENCIES IN STUDENTS: CASE STUDY IN ALMATY, KAZAKHSTAN. *GeoJournal of Tourism and Geosites*, 41(2), 597–605. https://doi.org/10.30892/gtg.41234-868

Abstract: Since the use of mobile GIS-applications in the formation of tourist and local lore competencies of students affects the knowledge and professional competence of future teachers, it is very important to first determine the attitude of teachers and professors to the use of mobile GIS-applications and assess the level of use of mobile applications by students. Therefore, this article provides for the possibility of using mobile GIS applications in the organization of tourist and local lore activities of students of the educational program "Geography". The effectiveness of organizing tourist and local lore events using mobile GIS applications was determined by conducting interviews and questionnaires. The survey consisted of two parts, and a total of 72 students took part in it voluntarily. In the course of the study, we studied the formation of tourist and local lore competencies from mobile GIS applications as a result of the study: 1) "Road navigation" from mobile GIS applications - 2GIS (79.1%); 2) "For viewing and studying" from mobile applications - ArcGIS QuickCapture (56.9%); 3) Google planet Earth "Virtual globe" (52.8%); 4) based on the mobile applications "Cartography and Navigation", we determined the efficiency of using the GIS4MOBILE-x (41.7%) and 5) the City bus for "GPS monitoring" (100%). In this regard, we are confident that the use of these mobile applications will be effective in organizing tourist and local lore events. The use of these technologies in teaching makes it possible to update educational approaches, introduce new pedagogical technologies and form competencies.

Key words: geography, mobile GIS, tourism, local lore, student, competence

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INTRODUCTION

Over the past decade, the world-class smartphone industry has grown rapidly and has become one of the most affordable products on the consumer market. The development of smartphones and their ability to perform many functions contributed to the emergence of mobile GIS applications and the growth of their users (Rickles et al., 2017). Currently, there is a tendency to use mobile GIS applications in education. The advantages of using mobile GIS in educational programs, especially in higher education institutions (universities), have been proven in many studies (Chatel and Falk, 2017; Trigueros, 2018; Turan et al., 2018). Modern mobile GIS applications allow you to develop skills in organizing tourist and local lore activities. Tourist and local lore skills are the knowledge of the activity of future teachers in the process of organizing excursions, trips, hikes and expeditions, studying the features of the native land and its personal

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practical experience, the formation of a personality. The increase in academic research aimed at teaching tourist and local lore activities using mobile GIS applications proves the usefulness of this technology (Whalley and Rewhorn, 2016).

University teachers will be able to include tourist and local lore activities organized using mobile GIS applications in the educational programs of geography, history, and tourism. In addition, with the help of many mobile GIS applications, Bloom is able to achieve several levels of taxonomy (Zwartjes, 2019). Students will be able to expand their knowledge, understanding of geospatial ideas and processes and technology for organizing tourist and local lore activities using virtual Globes such as Google Earth, ArcGIS Earth, 3D Earth. It also allows you to organize tourist and local lore activities, determine the route, study the features of your native land, and use the accumulated material in tourism, local lore, and pedagogical activities (Patterson, 2007). Mobile GIS applications for the formation of skills in organizing tourist and local lore activities (Google Maps, Maps.me, Yandex map, 2GIS, Yandex.Navigator, GIS Surveyor, Locus GIS, GIS Mapper, MapltFast, Mapit GIS, ArcGIS QuickCapture, Land Map, Google Earth, ArcGIS Earth, 3D Earth, GPS Fields Area Measure, UTM Geo Map, Compass 54/55, P.L.A.N.I.T. Radar aircraft: GIS4Mobile-X, Satellite Tracker – satellites, CityBus, live aircraft). Scientists who conducted research on the use of these applications in geographical education and tourist and local lore, Allen (2007), Armstrong and Bennett (2005), Michael and Hof (2013), Drach et al. (2016), Zablotsky (2014), Lee (2020), Stenger (2017), Yap (2016), Carbonell and Bermejo (2017), Huang and Chen (2018), McNamee and Bogert, (2018) the works are valuable. An analytical review of research on the use of mobile GIS applications by future teachers showed that, in accordance with the specifics of the professional direction of professional activity, it was clarified that there are geographers, historians and tourism specialists who carry out tourist and local lore work with students.

The concepts of native land, tourism and local lore, their relationship, forms and functions of behavior have been considered in detail in the research of many geographers Ayzhan et al. (2021), Hevko (2020), Nurbol et al. (2022), Zaporozhets (2015) the organization of tourist and local lore activities and the possibility of using GIS mobile applications in geographical education have not yet been systematically considered. This is becoming one of the main issues of training specialists, which contributes to improving the effectiveness of the educational process and ensures the effective creation of a training system. In particular, an urgent problem is the formation of tourist and local lore competencies of future geography teachers of the Republic of Kazakhstan (RK). The state program for the development of the tourism industry of the Republic of Kazakhstan for 2019-2025 states that "the level of qualification of teachers and specialists familiar with technologies of the tourist and local lore direction is insufficient. The need for professional development of teachers of the tourist and local lore direction is 69.2%" (Resolution of the Government of the Republic of Kazakhstan dated May 31, 2019), which indicates the complexity of the problem. Also, despite international studies showing a positive attitude of future geography teachers to the organization of tourist and local lore activities (for example, Mazbayev et al., 2020; Pecelj et al., 2018), the status of tourist and local history studies in the educational programs of higher educational institutions of the Republic of Kazakhstan is low (Azhayev et al., 2020; Issakov et al., 2021). Scientists who studied the organization of tourist and local lore activities Iskander (2016), Braslavska and Roghi (2019), Demeuov et al. (2020) believe that the tourist and local lore competencies of future geography teachers should be clearly structured. Therefore, for the structuring of tourist and local lore competencies, it is important to determine the component composition of the studied phenomenon. Thus, when organizing tourist and local lore events with the widespread use of mobile GIS applications, the Geoinformation knowledge and tourist and local lore competence of future teachers will increase and will be useful for interested parties.

The purpose of this study was to determine the effectiveness of using mobile GIS applications in the formation of tourist and local lore competencies of students of educational programs "Geography" in higher educational institutions of Almaty, Kazakhstan. Abai Kazakh National Pedagogical University and Kazakh National Women's Teacher Training University, located in Almaty with educational programs "Geography", were chosen as the object of research. Tourist and local lore skills are primarily associated with a high level of self-improvement of the individual and individual type of activity, which is formed initially during listening to lectures at the University, and then developed through the use of GIS programs during the internship. Therefore, it is very important to determine the possibility of using mobile GIS applications in the organization of tourist and local lore activities of future geography teachers. This study is based mainly on a reliable network of studies conducted in English-and Russian-speaking countries. As it became known to the authors, studies using mobile GIS applications in the organization of tourist and local lore activities in the educational programs of the Republic of Kazakhstan "Geography" have not yet been published. Therefore, future geography teachers are trying to contribute to the literature by offering conclusions to determine the effectiveness of using mobile GIS applications in the formation of tourist and local lore skills.

METHODS

1. Component composition of the formation of tourist and local lore competencies

Analyzing the views of scientists on the organization of tourist and local lore activities of students of the educational program "Geography" in higher educational institutions of the Republic of Kazakhstan, we believe that it is necessary to clearly structure the tourist and local lore competence of future geography teachers. Therefore, in order to identify effective ways of structuring, we determined the component composition of the studied phenomenon (motivational and emotional-value; active-cognitive and subject-professional acquisition of new knowledge; self-development and research competence). We will also evaluate the possibility and effectiveness of organizing tourist and local lore activities of future geography teachers using mobile GIS applications on the basis of theoretical analysis, concretization, generalization of components that form tourist and local lore competencies. In particular, the search for tourist and local lore objects, obtaining brief information about tourist and local lore objects, indicating the route of delivery to the address by car, bus, taxi, bicycle and walking, indicating traffic jams, marking tourist and local lore objects, determining the location of the object, measuring distances, using GPS trackers – we will evaluate the possibilities of drawing a local lore route, displaying several thematic maps of the world at different scales in 3D format using web views and various services, entering and viewing individual files in KML or KMZ formats on the globe, marking, orientation with compus, measuring azimuth angle, measuring the height of the Earth, tracking moving objects with artificial Earth satellite with GPS sensors, buses, trains, etc. We will also consider the formation of the future geography teacher's mental abilities, deep knowledge in the field of Tourism and local lore, preparation for research activities, the ability to develop professionally in research practice in the field of Tourism and local lore, and the skills of selecting or constructing a pedagogical algorithm for their implementation.

2. Interview

The effectiveness of organizing tourist and local lore activities of students of educational programs "Geography" using mobile GIS applications was determined by conducting interviews and questionnaires. In order to determine the ratio of students of the educational programs "Geography" to the effectiveness of organizing tourist and local lore activities using mobile GIS applications, we interviewed the faculty and professors of the Abai Kazakh National Pedagogical University (KazNPU) and the Kazakh National Women's Teacher Training University (KNWTTU) located in Almaty. 20 teachers from two universities took part in the interview. It was attended by 14 teachers of KazNPU and 6 teachers of KNWTTU. During the conversation, students of the educational programs "Geography" discussed the possibility of using mobile applications in the organization of tourist and local lore events: «Road navigation» (Google Maps, Maps.me, Yandex maps, 2GIS, Yandex.Navigator), for «Review and study» (GIS Surveyor, Locus GIS, GIS Mapper, MapltFast, Mapit GIS, ArcGIS QuickCapture, Land Map), «Virtual globes» (Google Earth, ArcGIS Earth, 3D Earth), «Map and navigation» (GPS Fields Area Measure, UTM Geo Map, Компас 54/55, P.L.A.N.I.T., GIS4Mobile-X) and for GPS tracking (Satellite Tracker - Satellites, CityBus, Planes Live: Aircraft Radar).

3. Survey

According to the plan, the questionnaire was taken secretly from students of 3-4 courses of the educational program "Geography" of KazNPU and KNWTTU. The survey consisted of two parts, and 72 students took part in it voluntarily. It was attended by 37 students of the 3rd year of KazNPU (26 girls, 11 boys) and 13 students of the 4th year (10 girls, 3 Boys) (a total of 40 students). Also, 17 students of the 3rd year of KNWTTU and 15 girls of the 4th year (a total of 32 students) took part. In the first part of the questionnaire, information was obtained about the name of the university, course, age, gender. As a result, it turned out that the age of students is between 18 and 20 years. Of these, 32.4% are 18 years old, 26.5% are 19 years old, and 20.6% are 20 years old or older. In total, 92.3% of students are girls. In the second part of the survey, 16 questions were asked, aimed at identifying students ' knowledge and skills, views on local lore, the level and motivation of using mobile GIS applications, its main disadvantages and advantages, as well as effective mobile applications (Figure 4; Table 2). The survey questions were evaluated as yes or no.

RESULTS

1. Formation of tourist and local lore competencies

As a result of the study, the problem of preparing future geography teachers for tourist and local lore work, we identified the methodological system for conducting tourist and local lore studies, the scope of application of local lore information and the competence components of Tourism and local lore, analyzing the concepts of native land, tourism and local lore, their relationship, forms and functions of behavior. We also noted the dominance of the traditional approach in the preparation of future geography teachers for tourist and local lore work. Due to the weak connection between individual professional disciplines and practices of the tourist and local lore direction, it turned out that there is no teamwork. It is proved that the motivational and value relationship in the formation of tourist and local lore competencies of future geography teachers allows self-development in the organization of tourist and local lore work and the organization of research work with students. Taking into account the views of scientists on the tourist and local lore competence of future geography teachers, we determined the capabilities and effectiveness of all components based on the original structure of the formation of tourist and local lore competencies. They are as follows:

1.1 Motivational and emotional-value component

In the tourist and local lore Service, emotions are considered as a factor in assessing reality, depending on how much the future geography teacher can realize himself. The emotional state of a geographer student affects both external and internal motives of educational activity. In the organization of tourist and local lore work of students, confidence, surprise, delight, doubt, curiosity, etc.we consider emotions to be positive, but all of them stimulate action. The identified motives form complexes of internal and external incentives for the future professional activity of geographer students, in particular, in tourist and local lore work.The emotional appeal of tourist and local lore work allows us to develop creative thinking as a stimulus for knowledge and innovation in the surrounding known objects and phenomena. Interest in tourism and local lore is of great importance for geography students. Interest in studying the peculiarities of the native land is an internal positive emotion that contributes to a deeper perception and understanding of tourist and local lore information. Curiosity, propensity to learn are integral indicators of the emotional and value competence of future geography teachers of tourist and local lore competence. Therefore, we emphasize that professional experience is the defining values for the future geography teacher: education, reliability, fairness, self-esteem, tolerance, creativity, love for children.

1.2 Active-cognitive and professional component of obtaining new knowledge

The active and cognitive component implies the acquisition of new experience of tourist and local lore work, scientific knowledge and skills, the result of which is personal development and self - improvement. Pedagogical dictionaries explain activity as a measure of purposeful, systematic transformation of the environment and oneself based on the ability of a person to conscious work and social activity, mastering the achievements of material and spiritual culture. Activity manifests itself in creativity, communication. An integral characteristic of activity is an active life position of the individual, which is expressed in his principled, consistent defense of his views, leadership, efficiency, and psychological adaptation to action. Expressing the desire of geographer students to engage in cognitive activities, their actions are not only a condition, but also a means of achieving the goal of tourist and local lore work. Therefore, cognitive activity is a necessary condition for the self-development of the individual. This is an independent work of the student in the formation and development of spiritual, mental, physical and other abilities and inclinations. The use of pedagogical technologies in tourist and local lore work of geography teachers contributes to the development of their cognitive activity and professional interests. Therefore, cognitive interest appears before us as the preferred direction of a person in the field of knowledge. Thus, the active cognitive component includes the development of cognitive activity in future geography teachers, which contributes to increasing students ' motivation to learn information about the environment. Understanding the cognitive need and the purpose of cognitive activity determines the purpose of tourist and local lore work of future geography teachers. This is accompanied by the skills of moral and emotional self-regulation, tolerance and self-control in the conditions of non-standard walking.

1.3 Component of self-development and research competence

The result of the formation of the research component is the research skills of students, which we combined into several groups:

- ability to plan tourist and local lore work (defining educational tasks depending on the purpose of local history research; designing the final result of work for six months or a year; determining ways to achieve results; planning stages and tools for studying local knowledge; planning individual work with students, club work);
- information skills (selection of the necessary information and its creative processing; presentation of the material in a logical, accessible, figurative, expressive form; stimulating students 'interest in local lore information; highlighting the main and secondary objects; presenting the material within the framework of a problematic approach that encourages students to discuss; taking into account the peculiarities of assimilation, perception, understanding of information about their native land, promoting the development of students' cognitive activity in finding, processing and mastering tourist and local lore information);
- organizational and managerial skills (organization of the life of students on the hike, coordination of their activities with the activities of the tourist group, formation of a sense of cooperation with colleagues and students, participation in joint activities; creating conditions for success for each student; clarity of interaction and perception of the individual, purposeful influence on the student, reflection of an individual style of communication);
- ability to analyze and self-analyze (understand the team and each student; diagnose the success and level of knowledge of students; and adequately assess the creative approach of students to the tasks of tourist research; analyze the experience of other teachers in order to use effective forms, methods and approaches in the practice of tourist and local lore work; justify new pedagogical technologies based on the analysis of the achieved results and demonstrate their effectiveness; teaching students to analyze and self-analyze their local lore and tourist work). Thus, the formation of the research component provided for the acquisition of experience of creative activity in the form of effective decision-making skills in non-standard conditions of a tourist trip, the results of which are fixed in the form of knowledge in the field of Tourism and local lore. In the study, we identified the components of the formation of tourist and local lore competencies of geographer students: "motivational-emotional-value", "active-cognitive and subject-professional acquisition of new knowledge" and "self-development and research competence". Systematic analysis of students, the position of competence, scientific, profile, practice-oriented positions and pedagogical conditions, forms tourist and local lore competencies.

2. Opportunities for students to use mobile GIS applications

As a result of the study, it was proved that the analysis of the content of the concepts "region", "native land", "local lore", "tourism", "local lore and tourist activity", "training of future geography teachers" using mobile GIS applications allows us to determine the direction of training future geography teachers for tourist and local lore work, study the features of the native land and use the accumulated material in local lore and tourism, teaching activities. After all, in the last decade, in the identification of tourist and local lore objects and the passage of tourist routes, smartphones have come to the fore among many categories of gadgets that are firmly embedded and used in the life of every person. In addition, modern smartphones perform many functions in the process of tourist and local lore, such as photo and video shooting, instant messages and data exchange, making and receiving calls, determining the location and route of tourist and local lore objects with an accuracy of up to several meters, receiving various information with constant access to the internet and much more.

In this regard, there is a tendency to use mobile GIS applications in the organization of tourist and local lore activities at the world level (Lambrinos and Asiklari, 2014). Due to the constant expansion and intensive dynamic development of cities, the ability of a person to control changes in the environment has decreased. In this case, mobile GIS applications help, which allow you to quickly navigate and navigate the terrain of unfamiliar places, and contain complete, accurate, geo – information about geographical, tourist and local lore objects. Currently, iOS, which can be used in organizing tourist and local lore activities, is; Microsoft Windows; by reviewing the Mac OS X (iTunes) operating systems and mobile GIS applications "App Store" and "Google Play" for the Android operating system, we found that there are about 250 GIS applications in Google Play and about 150 in the App Store. Among them, information about some applications that can be downloaded for free is given in the Lower Table (Table 1).

As we have already noted, there are quite a lot of types of mobile GIS applications that can be used in organizing tourist and local lore activities. Future geography teachers will be able to download and use them on their smartphones when preparing for tourist and local lore work. We have grouped GIS applications in smartphone app stores based on their functional features:

1) Road navigation mobile apps (Google Maps, Maps.me, Yandex maps, 2GIS, Yandex.Navigator) - search for an address or tourist and local lore objects; get brief information about tourist and local lore objects, show the route of delivery to the address by car, bus, taxi, bicycle and walking, show traffic jams, mark tourist and local lore objects, determine the cordinate of the object, etc.can perform services online and offline.

2) Mobile applications for review and study (GIS Surveyor, Locus GIS, GIS Mapper, MapltFast, Mapit GIS, ArcGIS QuickCapture, Land Map) it can provide services for marking observation points of surface surveys, entering data, calculating the area, measuring distances, drawing a tourist and local lore route using GPS trackers, etc.

Table 1. Free download options for GIS applications in the App Store and Google Play mobile app stores

+	Google Play	App Store
Google Maps	+	+
Maps.me	+	+
Yandex Maps	+	+
2GIS)	+	+
Yandex. Navigator	+	+
GIS Surveyor	+	-
Locus GIS	+	-
GIS Mapper	+	-
MapltFast	+	-
Mapit GIS	+	-
ArcGIS QuickCapture	+	+
Land Map	+	+
Google Earth	+	+
ArcGIS Earth	+	+
3D Earth	+	+
GPS Fields Area Measure	+	+
UTM Geo Map	+	-
Компас 54/55	+	+
P.L.A.N.I.T.	-	+
GIS4Mobile-X	+	+
Satellite Tracker - Satellites	+	+
CityBus	+	+
Planes Live: Aircraft Radar	+	-

3) Virtual Globes (Google Earth, ArcGIS Earth, 3D Earth) web – displays several thematic maps of the world on different scales in 3D format, allows you to insert and view individual files in KML or KMZ formats into the globe, put signs, view tourist and local lore objects, etc.

4) Mobile cartographic and navigation applications (GPS Fields Area Measure, UTM Geo Map, Компас 54/55, P.L.A.N.I.T., GIS4Mobile-X) it can perform functions such as determining the location of tourist and local lore objects, registering coordinates, measuring the area and distance, orientation with compus, measuring the angle of Azimuth, measuring the height of the Earth, drawing contours, or some of them.

5) Mobile apps for GPS tracking (Satellite Tracker - Satellite (in rus, Satellite Tracker – Спутники), CityBus, Planes Live: Aircraft Radar (in rus, Самолеты Live: Радар самолетов)) GPS sensors are installed on artificial Earth satellites, buses, trains, etc.designed to track moving objects.

Using mobile GIS apps, we noticed the following advantages:

- ability to access spatial and attribute GIS data at any time and anywhere;
- ability to determine the location of a user or object in space using GPS sensors and display it on a digital map;
- ability to work in places where there is no internet connection (offline mode), and then sync changes with the database;
- ability to perform work such as data processing, measurement, analysis, and transmission.

2.1 Survey results

In addition, at the beginning of the study, we interviewed the faculty and professors of the Abai Kazakh National Pedagogical University and the Kazakh National Women's Teacher Training University, located in Almaty, aimed at determining the ratio of students of the educational programs "Geography" to the effectiveness of organizing tourist and local lore activities using mobile GIS applications. 20 teachers from two universities took part in the interview. There were 14 teachers from KazNPU and 6 teachers from KNWTTU. In inervu, route navigation (Google Maps, Maps.me , Yandex map, 2GIS, Yandex) for viewing and research (GIS Surveyor, Locus GIS, GIS Mapper, MapltFast, Mapit GIS, ArcGIS QuickCapture, Earth map), virtual Globes (Google Earth, ArcGIS Earth, 3D Earth), cartographic and navigation (GPS, UTM Geo Map, Compass 54/55, P. L. A. N. I. T. Gis4mobile-X) and mobile GPS tracking applications (satellite tracker – satellites, city bus, live aircraft: radar aircraft) the possibility of using mobile applications in the organization of educational programs and local lore events for students of tourist orientation was considered. The results of the interview showed a split in opinions. Indeed, during the interview, there were teachers and people who doubted that mobile GIS applications would be effective in organizing tourist and local lore events, as well as those who believed that the result would be higher. The reason for their skepticism was due to the density and complexity of mastering programs for using mobile GIS applications. However, the number of supporters who believe that the use of mobile GIS applications in the organization of tourist and local lore events allows students to develop competence components "for the acquisition of new active–cognitive and subject-professional knowledge" prevailed. You can see in this video below (Figure 1). During the interview, there were supporters of the use of mobile GIS applications in the organization of tourist and local lore activities (70%), those who doubted it (20 %) and abstained (10%). Of these, 72% of KazNPU teachers supported, 21% expressed doubts and 7% abstained. At the same time, 67% of the

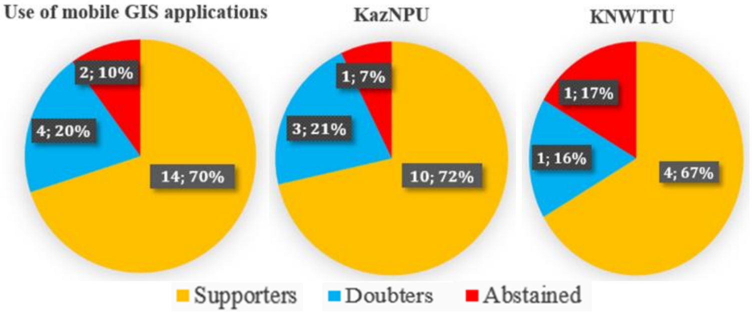

Figure 1. Results of the interview on the use of mobile GIS applications in the organization of tourist and local lore activities

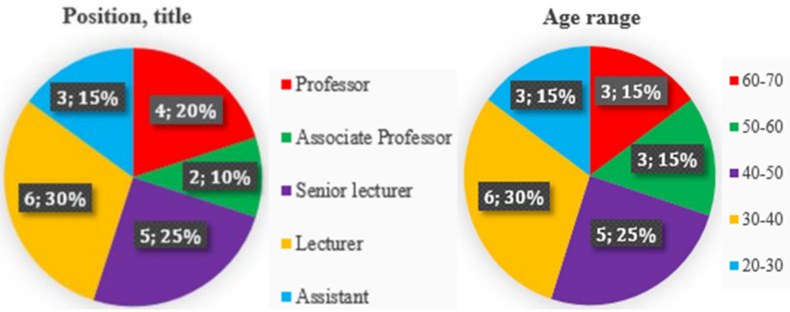

Figure 2. Position and age characteristics of the teaching staff of KazNPU and KNWTTU

teaching staff of KNWTTU supported, 16% expressed doubts and 17% abstained. In this regard, we found that the teaching staff of both universities supports the issue raised by us. Also, the degree and age of the teaching staff of both universities showed that they have the opportunity to master and use new information technologies in training (Figure 2). Analyzing the results of the interview, we came to the conclusion that in order to use mobile GIS applications in the organization of tourist and local lore activities, it is necessary to determine the level and motivation of future geography teachers to use mobile applications. After all, in the organization of tourist and local lore activities, future geography teachers should be able to: search for objects, get brief information about objects, determine the route to get to the address in the car, bus, taxi, bicycle and walking, determine traffic jams, mark tourist and local lore objects, determine the cordinate of the object and measure distances, visual analysis and marking and drawing objects. Therefore, it was important to determine the current state of Use and mastering of mobile GIS applications by students and assess the possibility of their use in the organization of tourist and local lore activities.

According to the plan, the questionnaire was taken secretly from students of 3-4 courses of the educational program "Geography" of KazNPU and KNWTTU. The survey consisted of two parts, and 72 students took part in it voluntarily. It was attended by 37 students of the 3rd year of KazNPU (26 girls, 11 boys) and 13 students of the 4th year (10 girls, 3 boys) (a total of 40 students). Also, 17 students of the 3rd year of KNWTTU and 15 girls of the 4th year (a total of 32 students) took part. In the first part of the questionnaire, information was obtained about the name of the university, course, age, gender. As a result, it turned out that the age of students is between 18 and 20 years. Of these, 32.4% are 18 years old, 26.5% are 19 years old, and 20.6% are 20 years old or older. In total, 92.3% of students are girls. In the second part of the survey, 16 questions were asked, aimed at identifying students ' knowledge and skills, views on local lore, the level and motivation of using mobile GIS applications, its main disadvantages and advantages, as well as effective mobile applications (Table 2). The survey participants and the results of the survey were shown in the table below (Table 2).

Table 2. Results of the 7th and 11th survey questions

Group	Name of the mobile application	Number of students using the mobile application, total 72 students		Percentage %
		KazNPU 40 student	KNWTTU 32 student	
Question 7. Which of the mobile GIS applications "Road navigation" did you use the most when visiting tourist and local lore objects?	Google Maps	4	3	9.7
	Maps.me	1	1	2.8
	Yandex Maps	2	1	4.2
	2GIS	31	26	79.1
	Yandex. Navigator	2	1	4.2
Question 8. Which of the mobile GIS apps for "Review and study" have you used the most during the learning process or practice?	GIS Surveyor	2	3	6.9
	Locus GIS	3	1	5.6
	GIS Mapper	1	2	4.2
	MapltFast	1	1	2.8
	Mapit GIS	4	3	9.7
	ArcGIS QuickCapture	23	18	56.9
	Land Map	6	4	13.9
Question 9. Which of the "Virtual Globes" do you use the most?	Google Earth	18	20	52.8
	ArcGIS Earth	9	7	22.2
	3D Earth	13	5	25
Question 10. Have you tried using mobile GIS applications "Cartographic and navigation?" Which one have you seen?	GPS Fields Area Measure	14	11	34.7
	UTM Geo Map	5	1	8.3
	Compass 54/55	3	4	9.7
	P.L.A.N.I.T.	1	3	5.6
	GIS4Mobile-X	17	13	41.7
Question 11. Have you tried mobile GIS apps for GPS tracking?	Satellite Tracker–(Satellite)	-	-	-
	City Bus	40	32	100
	Planes Live: Aircraft Radar	-	-	-

Thus, analyzing the results of student surveys, the results showed 2GIS (79.1%) from the mobile GIS applications "road navigation", ArcGIS QuickCapture-(56.9%) from the mobile applications "review and research", Google Earth from the virtual globe (52.8%), GIS4Mobile – X (41.7%) from the mobile applications "cartography and navigation" and city Bus for GPS monitoring (100%). We also received a restrained answer to questions 12-16 of the questionnaire: "what mobile GIS applications, in your opinion, will be useful for organizing tourist and local lore events? The answer to the question" 2GIS " was 37%, city Bus - 26%, Google Earth - 19%, 3D Earth - 13% and Google Maps - 5%. Well, "do you have the opportunity to learn Mobile GIS applications?" and "do you want Mobile GIS applications to be taught while reading"? we received the answer "yes" from the student "64%" to two questions. In addition, the advantages of using mobile GIS applications in the organization of tourist and local lore events: with the help of the mobile application, students can identify the necessary tourist sites and regions, where you can specify, identify and receive accurate information about them, make a route in advance and receive self-development and research, motivational, emotional-value, active-cognitive and subject-professional knowledge. To the disadvantage: given the large territory of Kazakhstan, the constant need for the Internet to use mobile applications indicates that the network is not always good everywhere. Unfortunately, we cannot deny such facts. However, students of Kazakhstan are not deprived of the innovations and new innovative technologies that are taking place in the world. Students of the university will be able to use the ability to draw a tourist and local lore route with the help of GPS trackers, display thematic maps in 3D format at different scales with the use of web views and various services, enter and view individual files in KML or KMZ formats on the globe, put signs, measure the height of the Earth, track moving objects with artificial satellite of the earth with GPS sensors, buses, trains, etc.

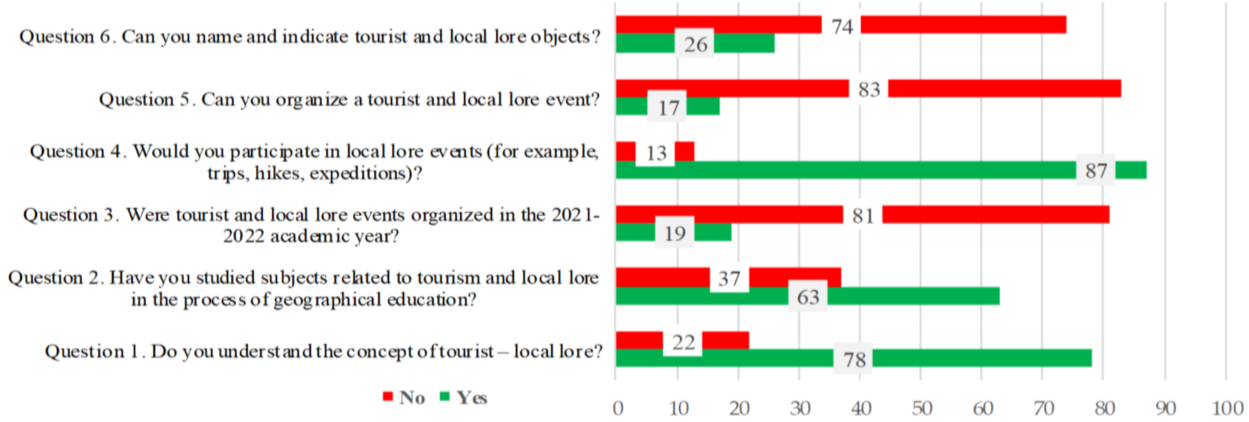

Figure 3. Results of 1-6 survey questions, %

DISCUSSION

In this study, we identified the most effective types of mobile GIS applications that can be used in the organization of tourist and local lore activities of students of educational programs "Geography" in higher educational institutions of the Republic of Kazakhstan, Almaty. Also, analyzing the views of scientists on the organization of tourist and local lore activities, we have clearly structured the tourist and local lore competencies of future geography teachers. Structure motivational and emotional value; active cognitive and subject-professional assimilation of new knowledge; includes components of self-development and research competence. The results of the study are unique. After all, we have identified the possibility of forming components aimed at mastering the knowledge and skills of Tourism and local lore, developing students ' creative abilities through the use of mobile GIS applications for students of educational programs "Geography" in the organization of tourist and local lore activities. This was achieved thanks to the selfless efforts of the research team. Formation of the emotional and value component of tourist and local lore competence - expressed the personal significant and valuable ideals, beliefs, views of the future geography teacher, local lore competence, his position in the organization and conduct of tourist and local lore work. This is because emotions play an important role in the work of geography students, as they concentrate a person's imagination and direct it to action. A positive emotional state during tourism and local lore classes, the presence of a source of emotional satisfaction contribute to the formation of tourist and local lore competencies of geographer students. The creator of the theory of emotions E. Ilyin (2001) distinguishes between negative and positive emotions. Negative emotions are excitement, anxiety, fear, hopelessness, resentment, frustration, anger, sadness, etc.and positive emotions are pleasure, joy, fun, surprise, curiosity, sense of humor, confidence, etc.

This allows you to monitor the tourist and local lore work of geography students. We also considered cognitive activity in tourist and local lore work as the ability to acquire knowledge and research skills in the field of Tourism and local lore, as a personal trait that combines important qualitative characteristics, as a manifestation of purposeful cognitive activities of students to study the territory of their native land. Therefore, in order to correctly formulate the goal and choose ways to achieve results in the formation of tourist and local lore competencies, geographer students must master rational methods of thinking activity. Psychological and pedagogical assessment is carried out by Slastenin (2002) emphasizes the development of mental activity, the gradual formation of mental actions. These postulates are necessary for future geography teachers to conduct tourist and local lore work. Developing the ability of geographer students to think independently, we use cognitive tasks to compare, establish logical connections, and work with local rules of tourist organizations. Melnyk (2019) on the component of self-development and research competence draws attention to the contradictory nature of internal and external factors of research activity of students: understanding this contradiction and the desire to overcome it becomes the driving force for personal development as a whole. Focus on the research component in the tourist and local lore competence of future geography teachers Mukhtar et al. (2016) it is confirmed by the opinion that "the research activity of students has inexhaustible, not to the end realized opportunities for the formation of a creative and search position of the individual". The organization of tourist and local lore activities in geographical education using mobile GIS applications will allow updating educational approaches, introducing pedagogical technologies (Brooks, 2018; Sinha, 2017), as well as modernizing tourist and local lore work of future geography teachers, developing tourism and local lore as an effective tool for the formation of a professional, training future geography teachers as applicants, researchers, discoverers of the peculiarities of the native land. The organization of tourist and local lore activities using mobile GIS applications provides a clear context for geographical education in the region and helps future geography teachers to better understand natural and social phenomena and processes (Xiaoling et al., 2017). Therefore, it will be effective to use mobile GIS applications on smartphones and tablets in the process of continuous training and field work. An example of this is the high demand of the Survey123 for ArcGIS software complex in geographical education of tourist and local lore objects for students of Tver State University in Russia (Midorenko and Zherenkov, 2020). Currently, Mobile GIS applications integrated with GIS platforms such as ArcGIS Online have a great opportunity to be used in the organization of tourist and local lore activities of future geography teachers and in geographical Education (Sebastian and Miguel, 2017). With their help, you can perform the following sequence of works (Figure 4). Formation of the motivation of the future geography teacher to organize tourist and local lore activities using mobile GIS applications, the importance of personal motives for improving the value of his mobile GIS applications and the quality of training in tourist and local lore, the value attitude of the geographer student to conducting scientific research, the ability to take a creative approach to solving educational problems and improve the educational process. Therefore, it is necessary to combine the content and motivational capabilities of the individual, which implies not only the formation of the ability to independently master knowledge and methods of action using mobile GIS applications, but also the consolidation of cognitive needs and internal views that stimulate tourist and local lore work. Therefore, the use of mobile GIS applications in Educational Research in the context of hiking is effective for the current level of Organization of tourist and local lore work. This is because cognitive motivation as a driving force for educational activities in the field of Tourism and local lore is necessary to emphasize the expediency of acquiring new knowledge and to develop the ability to study the native land and strengthen self-improvement skills.

Figure 4. The possibility of using mobile GIS applications integrated with ArcGIS Online platforms in geographic education for students

CONCLUSIONS

Now in the world, the smartphone industry is rapidly developing and is available in the consumer market. Especially with the growing number of users of mobile GIS applications, smartphones are performing many functions. In this regard, the role of using mobile GIS applications in education is increasing and is becoming more useful for students of Higher Education Institutions (Universities). University students in tourist and local lore activities from the mobile GIS applications" road-navigation" 2GIS; from the mobile applications "review and study"ArcGIS QuickCapture; from the "virtual globe" Google Earth; The use of GIS4Mobile-X and City Bus mobile applications for GPS tracking will be effective from mobile applications "cartographic and navigation". After all, as a result of studying the issue of preparing future geography teachers for tourist and local lore work on the basis of a competency-based approach, we determined: the methodological system for conducting tourist and local lore studies, the scope of application of local lore information and the competence components of Tourism and local lore, analyzing the concepts of native land, tourism and local lore, their relationship, forms and functions of behavior. We also noted the dominance of the traditional approach in the preparation of future geography teachers for tourist and local lore work. Due to the weak connection between individual professional disciplines and practices of the tourist and local lore direction, it turned out that there is no teamwork. It is proved that the motivational and value relationship in the formation of tourist and local lore competencies of future geography teachers allows self-development in the organization of tourist and local lore work and the organization of research work with students.

It was determined that the components of the formation of tourist and local lore competence of future geography teachers and its performance indicators are professional experience, which were the defining values necessary for conducting tourist and local lore work-education, reliability, fairness, self - esteem, tolerance, creativity, interest in work. The components of the structure of training future geography teachers for tourist and local lore work based on a competency-based approach were also known. The effectiveness of organizing tourist and local lore activities of future teachers using mobile GIS applications was evaluated. This study is based mainly on a reliable network of studies conducted in English and Russian – speaking countries and provides conclusions for determining the effectiveness of using mobile GIS applications in the organization of tourist and local lore activities in educational programs "Geography".

Funding: This study is funded by the Abai Kazakh National Pedagogical University within the framework of the project "Organization of local lore activities by developing a structural model for the formation of tourist and local lore competencies of future geography teachers" (contract No 4, dated 11.02.2022).

Acknowledgments: We would like to express our gratitude to the faculty and students of KazNPU and KNWTTU for their participation in the interview and questionnaire and their contribution to our research.

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Article history: Received: 14.02.2022 Revised: 18.04.2022 Accepted: 16.05.2022 Available online: 14.06.2022

GeoJournal of Tourism and Geosites
ISSN 2065-1198, E-ISSN 2065-0817

Year XV, vol. 41, no. 2, 2022, p.606-613
DOI 10.30892/gtg.41235-869

DO TOURIST ARRIVALS IN BANGLADESH DEPEND ON SEASONALITY IN HUMIDITY? A SARIMA AND SANCOVA APPROACH

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Citation: Hossen, S.M., Ismail, M.T., Tabash, M.I., & Anagreh, S. (2022). DO TOURIST ARRIVALS IN BANGLADESH DEPEND ON SEASONALITY IN HUMIDITY? A SARIMA AND SANCOVA APPROACH. *GeoJournal of Tourism and Geosites*, 41(2), 606–613. https://doi.org/10.30892/gtg.41235-869

Abstract: Humidity is one of the most significant climate factors influencing destination decisions and the distribution pattern of vacationers during various seasons. This variable influences the benefit of day-to-day travel industry activities and keeps up the destination competitiveness. In this paper, the univariate Seasonal Autoregressive Integrated Moving Average (SARIMA) model has been applied to conjecture month-to-month humidity for Bangladesh mainstream tourist spots up to the year 2025. Later, the influence of humidity on tourist arrival that contributes to the national economy was also assessed using the Seasonal Analysis of Covariance (SANCOVA) model. Our findings indicate that the Bangladesh tourism industry is more vulnerable to seasonal variation, and this seasonality has a 72% effect on tourist arrival and a 58% effect on overall humidity. The findings suggest that if per unit humidity in seasonality increases, then the tourism industry income will increase by approximately 59.463 thousand Taka (Bangladesh currency) in every season.

Key words: seasonality, humidity, SARIMA, SANCOVA model, Bangladesh

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INTRODUCTION

The travel industry assumes an undeniably significant role in the economy. Key factors that impact touristic exercises incorporate climate, famous attractions, and policy-driven issues (Salata et al., 2017). Europe has appreciated the long haul of the travel industry development, yet its presentation concerning the end of the week the travel industry fluctuates among its member countries (Maráková et al., 2016). Tourism is a vital industry for developing countries since it promotes quite a lot to their GDP. Bangladesh is a very well industrialized country and popular as a tourist destination (Lim and Giouvris, 2017). In 2013 the number of arrivals was 277596, while in 2017 this number increased by 778143. Because of the expanding trend, it is significant to conjecture the number of visitor appearances with exactness since it will profit from the immediate and circuitous exercises that identified with the tourism industry. Along these lines, the legislature or related organization and offices could utilize the projected figure to make an improvement situation, for example, preservation of natural resources and to produce appealing open doors for foreign investors.

In Bangladesh in 2018, the travel and tourism industry grew 11.6% and contributed 4.4% of the country's total economic output. Bangladesh ranks in 11th position in the world's 20 fastest growing countries in terms of travel and tourism; by 2029 travel and tourism are forecast to constitute 6.1% of Bangladesh's GDP (WTTC, 2019).

Bangladesh has a tropical monsoon climate described by wide seasonal varieties in precipitation, high temperature, and high humidity. Three seasons are commonly perceived: a hot, muggy summer from March to June; a hot, humid, and rainy monsoon season from June to October; and a warm-hot, dry winter from November to February. These weather conditions have attracted the researcher to examine climatology data such as rainfall, maximum and minimum temperature for some Bangladesh stations using the ARIMA model. However, as far as the author's knowledge, humidity forecasts for Bangladesh tourist areas have not been done yet. Thus, in this study, we will empirically examine the impact of humidity on tourist arrival and the effect on Bangladesh's national economy to fill up the research gap.

By providing monthly humidity data on popular tourist spots the Bangladesh Agricultural Research Council (BARC) and the Bangladesh Meteorological Department (BMD) helped to conduct this study. Then this study applies the seasonal ARIMA model using the Box-Jenkins method to build a forecasting model for the month-to-month humidity data of

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popular tourist spots in Bangladesh. Furthermore, this study also proposes the SANCOVA model to evaluate the effect of seasonality on the national economy in Bangladesh. The followings are the main contribution of this study:

1. To identify the association between seasonal variation in humidity and the tourism industry in Bangladesh.
2. To construct an appropriate SARIMA model for the humidity on the seven tourist stations and examines the effect of seasonality on the national economy in Bangladesh by SANCOVA model.
3. To obtain the parameters of the required model and use diagnostic tests to determine model accuracy.

The outline of the paper is as follows. Section 2 highlight the literature review and Section 3 provides details about the Materials and Methods used in the study. Section 4 presents the results of the study with a relevant discussion. Finally, we present the conclusion with implications in Section 5.

LITERATURE REVIEW

It was discovered that a favorable climate (summer and winter) for a given product and certain assets that would attract vacationers could influence demand or appearances in traveler destinations (Akhtar et al., 2019). A study also found a correlation among climatic variables such as temperature, humidity, and wind speed with human entertaining in open places for their comfort (Dillimono, 2015). Human wellbeing depends to some extent on the physiological and mental responses of the body to local climatic conditions – the way toward adjusting to new conditions when traveling can influence these responses (Katerusha and Matzarakis, 2015; Csete and Szécsi, 2015). In the present day, the travel industry (with brisk exchanges to distant destinations with an alternate climate as for the typical local conditions) agreements with visitors to adjust the new atmosphere which their body can absorb physically and psychologically through a temporary lived time (Hanna et al., 2016; Matzarakis et al., 2010; Salata et al., 2016). For outdoor comfort during spring, higher temperatures and meteorological pressures positively correlate with entertaining (Keller et al., 2005). However, higher temperatures bring about more negative attitudes surpassing comfort during the summer.

Seasonal changes have an impact on the relationship between climatic variables and variability in attitude. Shorter hours of sunshine may lead to negative feelings during seasonal changes (Beecher et al., 2016). Bangladesh is bestowed with immense natural beauty. Its captivating historical and natural attractions have drawn many travelers from far and wide throughout the ages. The Country additionally flaunts a rich social inheritance. More than 2,000 years of its checkered history, numerous distinguished administrations of lords and sultans have administered and vanished, leaving their imprints looking like radiant urban communities and landmarks the forsaken remnants of a considerable lot of these destinations are as yet noticeable in numerous spots all through the nation. In the north of the country, such sites incorporate Puthia, the temple city in the Rajshahi division; Mahasthangarh, the most ancient archeological site, in Bogra district; Paharpur, the religious community of Buddhist in Naogaon district; and Kantaji, the ornamental, stoneware of Hindu religion, in Dinajpur district. Sandy sea beaches with natural and hilly areas, including tribal with their engaging cultural activities in the Chittagong Hill Tracts, highlight Bangladesh south-east. The Cox’s Bazar, a prominent and the longest sandy sea beach globally, is the key choice for tourists observing sunset in the southeast part.

South-west Bangladesh flaunts the world's biggest mangrove forest, Sundarbans, just as royal Bengal tigers and mottled deer in the Khulna locale. The verifiably significant Sixty Dome Mosque in the city of Bagerhat is another Famous site. In the Bangladesh north-eastern part, the land cover with a green carpet of enchanting tea gardens on little slants with glamorous water flow in the Sylhet division. Forests with natural beauty and stone bath water flow, as a transient feathered creature in the haor (wetlands) regions during winter. The Ministry of Tourism structures national approaches for the advancement and promotion of the travel industry and keeps up the Beautiful Bangladesh crusade. The Bangladesh Government has formed a Tourist Police unit to secure local and foreign tourists more readily and take care of the usual attractions and natural life in significant tourist destinations. Therefore, we aimed to ascertain the impact of humidity for the tourists to discover Bangladesh. Mainly we focus on the effect of humidity asses by using SARIMA and SANCOVA models on seven attractive tourist destinations in Bangladesh.

MATERIALS AND METHODS

Data collection

Three main seasons split the year of Bangladesh climate: a wet or monsoon season, which lasts from May to October; a cooler season between October and February; and the dry season from March to May. The cool season is the best time to travel in the country from comfort. The monsoon season typically carries hefty rainfall at that time, making travel in certain areas impossible. This study uses monthly humidity data for the following locations in Bangladesh: Dhaka (the capital city), the south-eastern zone (Chittagong, Cox’s Bazar, and Rangamati), the south-western region (Khulna), the northern part (Rajshahi), and the north-eastern area (Sylhet). The study will examine the relationship between changes in the climate and the tourism business. Figure 2 shows the framework of the study.

It is impossible to use primary data because it would take much time and sophisticated equipment support, which is lacking. Thus, secondary data are used in the study. Other covariates may be included in the model building process. Even the secondary sources could not provide the data for all the years of the last three decades for all the meteorological stations. We composed secondary humidity data from the BBS (Bangladesh Bureau of Statistics), the BARC (Bangladesh Agricultural Research Council) and the BMD (Bangladesh Meteorological Department). At the very beginning, we examined the data to sort out missing values. Stations that contain missing values of more than 2% were not considered. After finishing data screening, the above seven tourist spots with enduring data (more than 40 years) were used for the present study. Therefore, humidity data from January 1972 to December 2017 for those spots were utilized in this study.

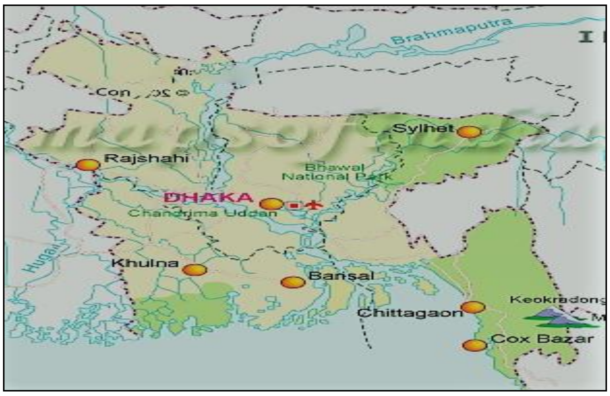

Figure 1. Map of Bangladesh with selected tourist stations (Source: www.pinterest.com)

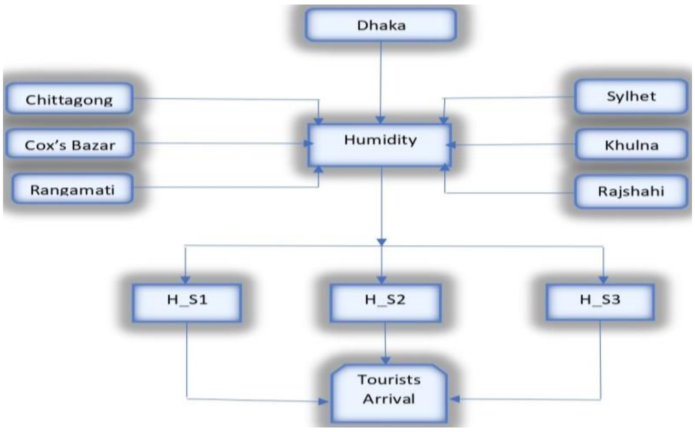

Figure 2. Framework of the study

Reasons for using SARIMA Model

Humidity is one of the most significant climate factors influencing the decision of destination and the distribution pattern of vacationers during various seasons. This variable influences not just the benefit of day-to-day travel industry activities yet additionally the arranging and structure of the travel industry facilities to keep up destination competitiveness later. Thusly, having an early sign of conceivable future humidity levels could assume a noteworthy role in planning the tourism industry. Seasonality is not a simple concept easily discussed by broad policy objectives (Connell et al., 2015). Explicitly modeling seasonality in a time series appears preferable for at least three reasons.

First, in many situations, the seasonal fluctuations and forecasts thereof are of interest. For example, in marketing and tourism applications, forecasts of possible changes in seasonality can be beneficial, in addition to forecasts of the long-run trend. Similarly, information on the nature of seasonal movements in variables such as production, investment, and inventory building may be of interest, both for individual firms and policymakers (Robert et al., 1998). Second, seasonal adjustment procedures are essential to analyze the resulting seasonally adjusted series. Third, this seasonal component is overlooked and needs to be projected from the data. It has been well documented that this may distort other time series features, including trends, structural breaks, and nonlinearity. Previously, ARIMA models were not used to predict climatic variables except particularly in various scientific and engineering applications. However, this model was recently applied in the sea surface temperature (SST) data to forecast in the Baltic Sea up to the year 2050 (Baker-Austin et al., 2013). Recently, studies of climatic variables with different weather station data were also examined to compare temperature and rainfall trends in some parts of the world (Zhang et al., 2008).

The SARIMA Model

In the process of Autoregressive (AR), the present observation y_t of arranging *p* made by a weighted normal of past perceptions of *p* periods with parameters $\emptyset_1, \emptyset_2, \cdots, \emptyset_p$ and arbitrary unsettling influence in the current period. This procedure signifies as AR (*p*) and can be composed within the frame of the equation (Rahmatullah and Imon, 2017) is,

$$y_t = c + \emptyset_1 y_{t-1} + \emptyset_2 y_{t-2} + \cdots + \emptyset_p y_{t-p} + \varepsilon_t.$$

Similarly, in the process of Moving Average (MA), the present observation y_t of order *q* produced a weighted average previous q period of random disturbance with parameters $\theta_1, \theta_2, \cdots, \theta_q$. This procedure signifies as MA (*q*) and can be written in the form of the equation is, $y_t = \mu + \varepsilon_t + \theta_1 \varepsilon_{t-2} + \cdots + \theta_q \varepsilon_{t-q}$

Where c and μ are steady $\varepsilon_t$expected a typical arbitrary variable containing mean 0 and variance σ_ε^2. To indicate this MA process order, we use the system MA(*q*) analogous to the AR case. The mean of the MA (*q*) process is assumed to be 0, $E[t] = 0$. With moving average error terms, the Autoregressive (AR) structures can be written in the equation form is,

$$y_t = c + \emptyset_1 y_{t-1} + \emptyset_2 y_{t-2} + \cdots + \emptyset_p y_{t-p} + \varepsilon_t + \theta_1 \varepsilon_{t-1} + \theta_2 \varepsilon_{t-2} + \cdots + \theta_q \varepsilon_{t-q}$$

The process mentioned above is defined by ARMA (*p*, *q*) and called an Autoregressive Moving Average (ARMA) process of order (*p*, *q*). The Autoregressive Integrated Moving Average (ARIMA) process is broadly utilized in econometric time series modeling. This model states that the data used is stationary. However, many of the econometric time series data are nonstationary and need integration to become stationary. If a time series is integrated of order one i.e.,$\mathrm{I}(1)$, its first differences are $\mathrm{I}(0)$, i.e., stationary. Similarly, if a time series is$\mathrm{I}(2)$ its second difference is $\mathrm{I}(0)$. In general, if a time series is $\mathrm{I}(d)$, then after differencing its d times, we get a $\mathrm{I}(0)$ series. Consequently, the difference of d times and applying the $\mathrm{ARIMA}(p, q)$ model in it, then the model will be $\mathrm{ARIMA}(p, d, q)$. Therefore, the $\mathrm{ARIMA}(p, d, q)$ process can be composed as

$$\Delta^d y_t = \emptyset_1 \Delta^d y_{t-1} + \cdots + \emptyset_p \Delta^d y_{t-p} + \varepsilon_t + \theta_1 \varepsilon_{t-1} + \cdots + \theta_q \varepsilon_{t-q}$$

Where, c and μ are constant ε_t is assumed to be a normal random variable with 0 mean and variance $\sigma_\varepsilon^{\ 2}$

p = total autoregressive terms and q = total moving average terms; d = total differencing;

$\varepsilon_{t-1}, \varepsilon_{t-2}, \cdots, \varepsilon_{t-q}$ = errors/blunders in past periods; $\Delta y_t = y_t - y_{t-1}$, Δ^d indicates the d th difference of y_t and $\Delta y_{t-1} = y_{t-1} - y_{t-2}$ are the primary contrasts of y_t and so on.

In case the data shows up solid regular design, this demonstrates a high relationship among the values observed during the same season in progressive a long time. Therefore, for building an appropriate model for forecasting monthly humidity, we applied a seasonal ARIMA model, proposed by Box, et al. (2019). The non-seasonal part is (*p*, *d*, *q*) and the seasonal part is (*P*, *D*, *Q*) then the model can be described as SARIMA (p, d, q) * (P, D, Q)s which can be written in the equation form as,

$$\phi_p(L)\phi_p{}^S(L^S)(1-L^S)^D(1-L)^d y_t = \theta_q(L)\theta_q{}^S(L^S)\varepsilon_t$$

Where, $\phi_p(L), \theta_q(L)$ are AR and MA polynomials, s is the seasonal period,

$$\emptyset_p^S(L^S) = 1 - \emptyset_1^S L^S - \emptyset_p^S L^{SP} \qquad \theta_q^S(L^S) = 1 + \theta_q^S L^S + \cdots + \theta_q^S L^{SQ}$$

and D is the number of times the regular contrast administrator difference operator $(1 - L^S)$ is connected.

The SANCOVA model

Analysis of covariance or ANCOVA model is defined as the regression model containing the quantitative and subjective factors together. This model is the enlargement of ANOVA model. The procedure mentioned above gives measurably controlling impact of quantitative regress control factors. So, an adjusted ANCOVA model was proposed to decide the effect of diverse seasons on visitor entry, named SANCOVA model. Over other regression models, the noteworthy preference of this model is to degree the relationship and fractional impact of the autonomous variable and compare the subjective impact of the autonomous variable. To begin with, we isolated the humidity data into three successive seasons, to be specific winter/cool, summer/dry, and rainy/wet seasons.

Within the particular season, it contains the average of the normal humidity of seven visitor spots. The present research considers only four variables because of the restrictions of information accessibility. These four variables are utilized to find the relationship between tourist arrival and seasonal effect where the visitor entry is the subordinate (endogenous) variable. On the other hand, seasons are considered autonomous (exogenous) factors. We replace dummy variables for three seasons to discover the seasonal impact on visitor entry. So, SANCOVA model is considered in the present analysis. Subsequently, our considered seasonal ANCOVA model is as follows.

$$\begin{aligned} Tourists_{it} = {} & \beta_0 + \beta_1 AVG(D + C + Cox + Ran + K + Raj + S)\sum_{i=1}^{n} Wet(June - October) \\ & + \beta_2 AVG(D + C + Cox + Ran + K + +Raj + S)\sum_{i=1}^{n} Cool(November - February) + \beta_3 AVG(D + C \\ & + Cox + Ran + K + Raj + S)\sum_{i=1}^{n} Dry(March - May) + u_{it} \quad \ldots(1) \end{aligned}$$

$$Y_t = \beta_0 + \beta_1 S_1 + \beta_2 S_2 + \beta_3 S_3 + u_t \quad \ldots(2)$$

Where, Y_t = Tourist arrival
β_0 = Intercept,
β_1 = coefficient of Season 1/Wet humidity,
β_2 = coefficient of Season 2/Cool humidity,
β_3 = coefficient of Season 3/Dry humidity,
u_t = error terms

AVG = Average
D = Dhaka, Raj = Rajshahi,
C = Chittagong, S = Sylhet,
Cox = Cox's Bazar, S_1 = Wet season,
Ran = Rangamati, S_2 = Cool season,
K = Khulna, S_3 = Dry season,

From equation (2) our desire SANCOVA model is,

$Y_t = \beta_0 + \beta_1 D_1 + \beta_2 D_2 + \beta_3 D_3 + u_t \quad \ldots(3)$ Where, Y_t = Tourist arrival; β_0 = Intercept

$D_1 = \left.\begin{matrix} 1, \text{When wet Season} \\ 0, \quad \text{Otherwise} \end{matrix}\right\}$; $D_2 = \left.\begin{matrix} 1, \text{ when cool Season} \\ 0, \quad \text{otherwise} \end{matrix}\right\}$; $D_3 = \left.\begin{matrix} 1, \text{when dry Season} \\ 0, \quad \text{Otherwise} \end{matrix}\right\}$; u_t = error terms

D_1, D_2, D_3 are reference categories.

RESULTS

There are four consecutive steps for developing a SARIMA model similar to an ARIMA model. They are identification, estimation, diagnostic checking, and the last step is forecasting.

Model Identification

In the beginning, we must check whether the data is stationary or not and have to confirm any seasonality that exists in the data set or not. For this checking line graph analysis, correlogram, and unit root test are utilized. The most popular and frequently used test method for testing the unit root in a parametric framework is the Dickey-Fuller (DF) test.

If the data set does not contain any trend and the disturbance terms are autocorrelated, it is not possible to apply the Dickey-Fuller test. Therefore, we can employ the Kwiatkowski-Philips-Schmidt-Shin (KPSS) and Phillips-Perron (PP) tests for stationarity. Table 1 represents the outcomes of stationarity for diverse stations. ACF and PACF were utilized to distinguish the finest Autoregressive Integrated Moving Average (ARIMA) model. The number of Moving Average (MA) and the number of Autoregressive (AR) coefficients of an ARIMA model can be assessed by autocorrelation function (ACF) and the partial autocorrelation function (PACF) respectively.

Modeling and Diagnostic Check

For the presence of seasonality, we build a Seasonal Autoregressive Integrated Moving Average (SARIMA) model for

monthly humidity for Chittagong, Cox's Bazar, Rangamati, Dhaka, Sylhet, Khulna, and Rajshahi. This SARIMA model was built with the assistance of the Box-Jenkins (1976) model building strategy and the altered by Box et al. (2019). Here for model identification, we take the primary normal or seasonal distinction. Utilizing some diagnostic checking, such as residual diagnostics and stability tests we check the finest SARIMA model. The model with the lowest mean square error is selected as the leading model for forecasting. Different SARIMA models for different tourist stations have appeared in Table 2.
To illustrate the step, we consider Dhaka as an example where Figure 3 & 4 represent the ACF and PACF plots of this spot.

Table 1. Different test result for stationary

	Unit Root test							
Sampling Station	ADF	P-value	DF-GLS	Phillips-Perron test statistic	Bandwidth: using Bartlett kernel	P-value	KPSS test statistic	Bandwidth: using Bartlett kernel
Chittagong	-4.521679	0.0002	-0.876578	-6.810700	36	0.0000	0.095268	21
Cox's Bazar	-4.517176	0.0002	-0.551395	-6.755709	41	0.0000	0.101508	29
Rangamati	-4.662948	0.0001	-1.578012	-6.387226	56	0.0000	0.190154	28
Dhaka	-3.000544	0.0355	-1.055700	-6.755338	35	0.0000	1.361047	20
Sylhet	-4.516995	0.0002	-0.208896	-7.184778	37	0.0000	0.200832	27
Khulna	-4.073486	0.0012	-0.833450	-7.021207	35	0.0000	1.203526	10
Rajshahi	-3.269662	0.0168	-2.052435	-7.802133	45	0.0000	1.702987	17

Table 2. Diverse SARIMA model for distinctive tourists' station

Model Fit statistics							
Station	Model	R-squared	RMSE	MAE	MAPE	Jarque -Bera	P-value
Chittagong	SARIMA(1,0,1)x(0,1,1)12	0.469278	0.471108	0.352563	74.25059	13.83105	0.000992
Cox's Bazar	SARIMA(1,0,1)x(0,1,1)12	0.475741	0.354825	0.275385	85.91686	7994.551	0.000000
Rangamati	SARIMA(2,0,2)x(0,1,1)12	0.529370	0.416703	0.305764	70.75213	135.4576	0.000000
Dhaka	SARIMA(0,1,2)x(0,1,1)12	0.646413	0.439335	0.354176	97.30819	7.80214	0.020221
Sylhet	SARIMA(2,0,2)x(2,1,2)12	0.995846	0.446867	0.350847	305.8018	22.83370	0.000011
Khulna	SARIMA(2,0,1)x(0,2,2)12 with constant	0.600524	0.447657	0.352476	107.3293	27.30440	0.000001
Rajshahi	SARIMA(1,1,1)x(0,1,1)12	0.650216	0.343145	0.272857	248.8742	215.5317	0.000000

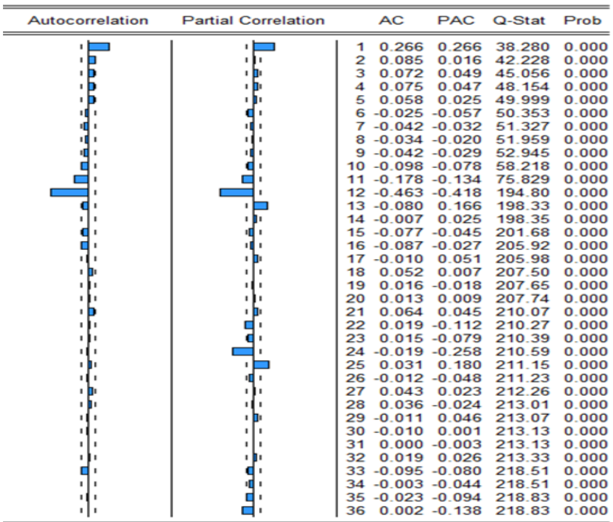

Figure 3. The time series plot of humidity for Dhaka is shown with ACF and PACF plots before regular difference

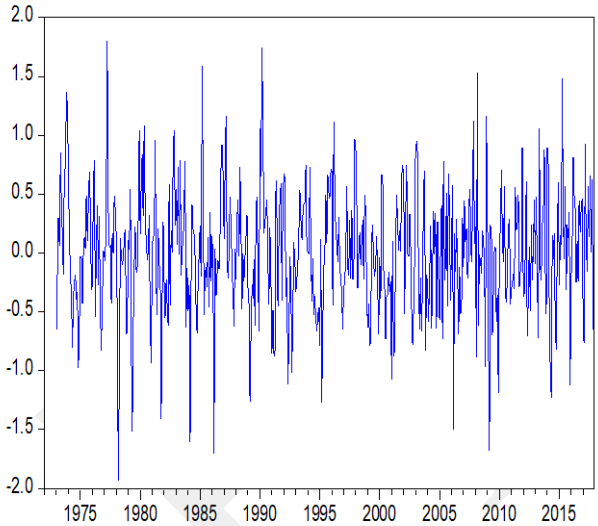

Figure 4. The seasonal difference of series after taking the seasonal difference

For model identification, consideration of seasonal differences is necessary. In time-series data, seasonal difference means the series which fluctuates from one season to another. In this study, we used the month-to-month information where in a season here are 12 periods, the regular distinction of y at period t is $y_t - y_{t-12}$, which is signified by $\nabla_{12} y_t$ where $\nabla_{12} y_t = y_t - y_{t-12}$.

From the above Figure 5, we appear that the regular differenced arrangement appears to be stationary. Presently we asses Seasonal Autocorrelation (SAC) and Seasonal Partial Autocorrelation (SPAC) of $\nabla_{12} y_t$ at distinctive lags.

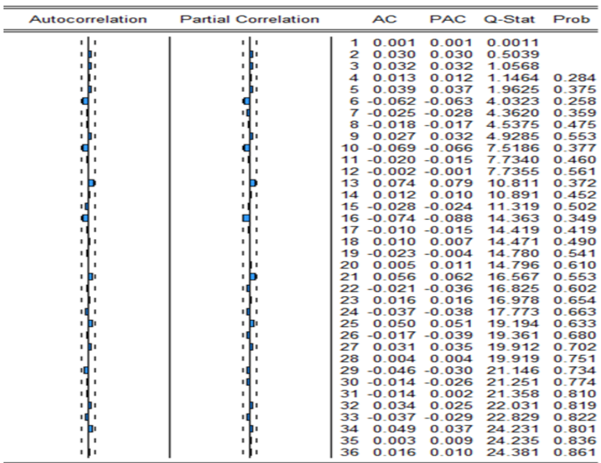

Figure 5. The time series plot of humidity for Dhaka is shown with ACF and PACF plots after taking the first difference

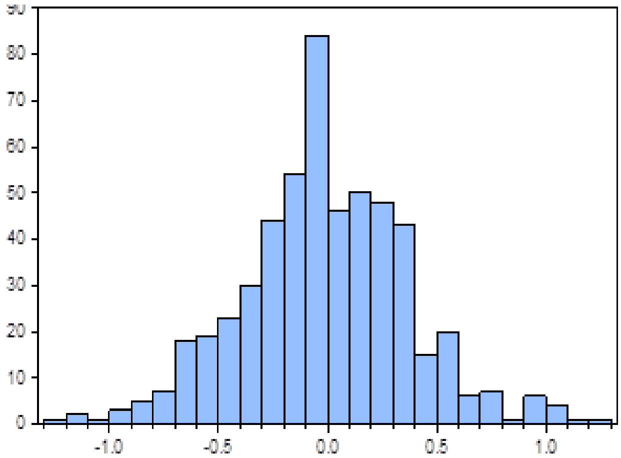

Figure 6. Histogram and Normality test for SARIMA $(0,1,2)(0,1,1)_{12}$ model

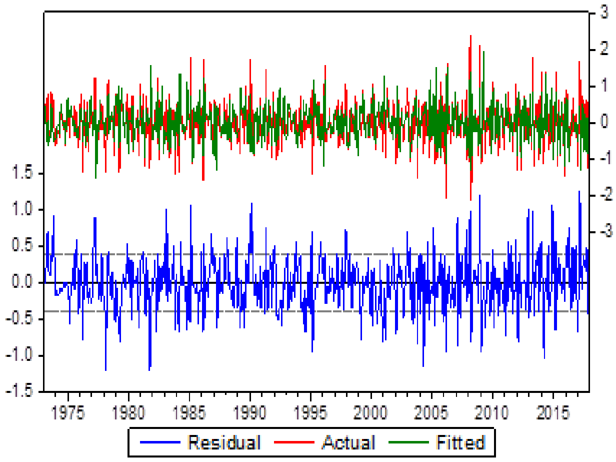

Figure 7. Actual fitted and residual plot for SARIMA $(0,1,2)(0,1,1)_{12}$ model

Figure 6 presents the results of the correlogram Q-statistics analysis. The autocorrelation and Q-test come about for distinctive lags recommend that there's no autocorrelation within the residual. Hence, we can decide that the selected model is fully specified. Now let us consider the Histogram and Normality test results presented in Figure 7 for checking the normality of the data set. From this, we can make sure that the residuals are distributed normally or not.

The Histogram and Jarque-Bera test (which appeared in Table 2) shows that the residual is distributed normally, signifying the full model specification. Figure 6 represents the actual, fitted, and residual plots that indicate the fitted model pattern. Moreover, when we examined the outline checking through a standardized residual plot for the SARIMA $(0,1,2)(0,1,1)_{12}$ model, the findings reveal that residuals are not serially correlated and distributed normally. Thus this result indicates that the above model is a good model and correctly fitted.

Estimation of Classical Linear Regression (CLRM) model

In the second empirical study of evaluating the effect of seasonal impact on visitor entry, the results of Table 3 show the sesonal effect on tourists arrival. The numerous coefficients of determination (R^2) are 0.72, which proposed that the autonomous variable explained the subordinate variable by 72% of the whole variety. This suggests that seasonality encompasses a 72% impact on traveler entry in Bangladesh.

Table 3. Seasonal effect on tourists' arrival

Model	Standardized Coefficients	t statistic	P-value	R	R^2
Wet Season	0.466	0.701	0.611	0.850	0.723
Cool Season	1.007	1.609	0.354		
Dry Season	-0.380	-0.593	0.659		

Results of SANCOVA model

Assessing the effect of regular impact on traveler entry. The results of Table 4 show the impact of seasonal effect on annualy humidity and tourists while Table 5 shows the results of Seasonal effect on annual Humidity by a log-linear model. Considering Winter season as the reference category as in equation 3, the intercept value is approximately 1315.502 thousand taka, representing the mean income in winter season from tourist arrival. β_2 indicates the mean income of summer season is lower about 107.630 thousand taka to the mean income of winter season is about 1315.502 thousand taka. β_3 suggests that the mean income within Wet/Rainy season is lower about 729.94 thousand taka, than the mean income of about 1315.502 thousand taka. Again, from equation 3, but now transform all variables to natural log, the intercept value β_0 represents the reference category mean income. Subsequently, the value of the intercept term of the regression model is about -3.344. Taking the antilog of 3.344, we find 0.035295494, which represents the mean income within the winter season from tourist arrival. β_2 represents the results of mean income in summer season. Here β_2 is higher about 0.026 to the mean income of about 6.087 thousand taka for the reference category, Winter season. Taking antilog {(-3.344+0.004)= -3.34}. we obtained 0.035436959. Thus, the income in the summer season is higher by about 0.4 % than in the Winter season. β_3 gives the results of income in Wet/Rainy season. Here β_3 is equal to the mean income -3.344 thousand taka for the reference category, Winter season. Thus, the income in the rainy season is equal to the Winter season.

DISCUSSIONS

Table 4. Seasonal effect on annual Humidity

Reference category	R	R^2	β_0	β_1	β_2	β_3	Humidity	Tourists
Winter Season	0.764	0.584	1315.502		-107.630	-729.94	59.463	0.008
Summer Season	0.764	0.584	1207.872	107.630		-622.31	59.463	0.008
Wet Season	0.764	0.584	585.565	729.94	622.31		59.463	0.008

For SARIMA model, forecasting in time series analysis has gotten to be fundamental devices in various applications in meteorology and other natural ranges to get it marvels such as humidity, temperature, and rainfall. To appear the forecasting behavior of Dhaka humidity change in Bangladesh, we fit an, appropriate model and then produced forecasts based on the fitted model. From Figure 3 it is observed that with exponential decay the AR and MA move in inverse. Both ACF and PACF appear a quick decay belonging all the spikes are in standard blunder bounce, after taking the primary contrast. Therefore, with seasonality the series gets to be stationary representing an ARIMA model. For the monthly humidity data of Dhaka, the SARIMA (0,1,2) (0,1,1) model was fitted, and we appraise the parameters of this model. Then utilizing residual diagnostics and a stability test, we check the legitimacy of the model. To identify the type of residuals a typical likelihood plot and the Jarque-Bera test was utilized. At that point, we forecast up to the year 2025 as shown in Table 6.

Table 5. Seasonal effect on annual Humidity by a log-linear model

Reference category	R	R^2	β_0	β_1	β_2	β_3	Humidity	Tourists	Season
Winter Season	0.963	0.93	-3.344		0.004	0.000	2.336	0.141	0.035
Summer Season	0.963	0.93	-3.350	-0.003		-0.004	2.341	0.144	0.032
Wet Season	0.963	0.93	-3.343	0.000	0.004		2.336	0.141	0.035

Table 6. Forecasted values up to the year 2025 for Dhaka

Forecasting of monthly humidity for Dhaka area from 2019 to 2025							
		2020:01	-0.727011	**2022:01**	-0.739779	**2024:01**	-0.752548
		2020:02	-1.738249	**2022:02**	-1.751017	**2024:02**	-1.763786
		2020:03	-1.919477	**2022:03**	-1.932246	**2024:03**	-1.945014
		2020:04	-0.830389	**2022:04**	-0.843158	**2024:04**	-0.855927
		2020:05	-0.142563	**2022:05**	-0.155331	**2024:05**	-0.168100
		2020:06	0.553254	**2022:06**	0.540486	**2024:06**	0.527717
		2020:07	0.768589	**2022:07**	0.755820	**2024:07**	0.743051
		2020:08	0.713121	**2022:08**	0.700352	**2024:08**	0.687583
		2020:09	0.699614	**2022:09**	0.686845	**2024:09**	0.674076
		2020:10	0.168331	**2022:10**	0.155563	**2024:10**	0.142794
Year	**Standardized value (Z_i)**	**2020:11**	-0.563242	**2022:11**	-0.576011	**2024:11**	-0.588779
		2020:12	-0.327412	**2022:12**	-0.340181	**2024:12**	-0.352949
2019:01	-0.720626	**2021:01**	-0.733395	**2023:01**	-0.746164	**2025:01**	-0.758932
2019:02	-1.731864	**2021:02**	-1.744633	**2023:02**	-1.757402	**2025:02**	-1.770170
2019:03	-1.913093	**2021:03**	-1.925861	**2023:03**	-1.938630	**2025:03**	-1.951399
2019:04	-0.824005	**2021:04**	-0.836774	**2023:04**	-0.849542	**2025:04**	-0.862311
2019:05	-0.136178	**2021:05**	-0.148947	**2023:05**	-0.161716	**2025:05**	-0.174484
2019:06	0.559638	**2021:06**	0.546870	**2023:06**	0.534101	**2025:06**	0.521333
2019:07	0.774973	**2021:07**	0.762204	**2023:07**	0.749436	**2025:07**	0.736667
2019:08	0.719505	**2021:08**	0.706736	**2023:08**	0.693968	**2025:08**	0.681199
2019:09	0.705998	**2021:09**	0.693229	**2023:09**	0.680461	**2025:09**	0.667692
2019:10	0.174716	**2021:10**	0.161947	**2023:10**	0.149178	**2025:10**	0.136410
2019:11	-0.556858	**2021:11**	-0.569626	**2023:11**	-0.582395	**2025:11**	-0.595164
2019:12	-0.321028	**2021:12**	-0.333796	**2023:12**	-0.346565	**2025:12**	-0.359334

$X_i = Z_i\sigma + \mu$

Where, μ=74.58983, σ = 8.207461

Similarly, observing ACF and PACF for monthly humidity of Chittagong, Cox's Bazar, Khulna, Rajshahi, Rangamati, and Sylhet we have fitted SARIMA $(1, 0, 1)(0, 1, 1)_{12}$, SARIMA$(1, 0, 1)(0, 1, 1)_{12}$, SARIMA $(2, 0, 1)(0, 2)_{12}$ with a constant parameter, SARIMA $(1, 1, 1)(0, 1, 2)_{12}$, SARIMA$(2, 0, 2)(0, 1, 1)_{12}$, and SARIMA $(2, 0, 2)(2,1, 2)_{12}$ model sequentially and after that estimate the parameters of these models. After distinguishing the foremost appropriate model, the legitimacy of these models was checked by utilizing residual diagnostics and a stability test. After that normal probability plot and Jarque-Bera test were utilized for checking the typicality of residuals. At this point, we forecast humidity for the tourist stations of Bangladesh to 2025. From the above Figure 8, there is a seasonal effect on humidity. From June, humidity starts increasing, and from November, it starts decreasing. July (wet season) has the highest humidity and March (dry season) has the lowest humidity. The highest increase in Cox's Bazar and decrease of humidity in Dhaka and Rangamati district. The capital Dhaka consists of the lowest increase of humidity and the lowest decrease in the Khulna and Rajshahi district. The above results indicate that winter and dry seasons are better to visit Bangladesh under low humidity. However, travelers who love the rainy season can visit Bangladesh under high humidity, which does not affect traveling. These results also suggest that visitors belonging to high humidity countries can discover Bangladesh all year round, and visitors from low humidity countries can discover it in the rainy season. This forecast will help travelers from all around the world to plan a suitable time to visit Bangladesh. For SANCOVA model, for all reference categories, the numerous coefficients of determination (R^2) are 0.584. This result proposes the autonomous variable clarified the subordinate variable by 58% of the full variety. That represents the regularity in humidity incorporate a 58% impact on tourist's arrival. The outcome of this analysis also suggests that if per unit humidity in seasonality increases, tourism industry income will increase by approximately 59.463 thousand taka in every season. For Log-linear SANCOVA model, for all reference categories, the multiple coefficients of determination (R^2) are 0.93. Which illuminate that the dependent variable explained by an independent variable about 93% of the total variation. Subsequently, seasonality in humidity has a 93% effect on Income from visitor entry in Bangladesh. This result also suggests that if per unit humidity in seasonality increases, then tourism

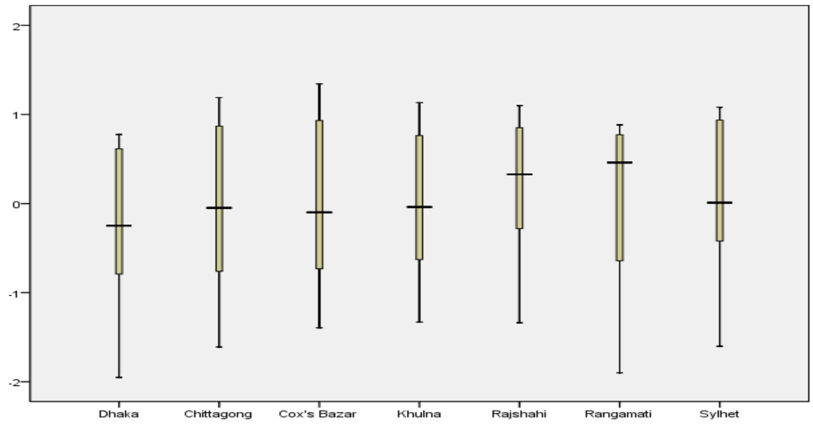

Figure 8. Forecasted humidity comparison between different tourist stations

industry income will increase approximately antilog (2.336) = 10.3397943 thousand taka in every season. This result also suggests that tourist arrival in Bangladesh is influenced by approximate antilog (0.141) =1.15 % of humidity in seasonality.

CONCLUSION AND IMPLICATIONS

Forecasting humidity is troublesome in Bangladesh because of its nonlinear trend and the spatial-temporal variety of the information. Nevertheless, the humidity forecast is vital for effective urban-like developing countries. In this paper, humidity forecasting is utilizing the SARIMA modeling method. The significant R-squared value is 0.995846, and the minimum value is 0.469278 were noticeable for Sylhet and Chittagong station, respectively. Two stations show an R-squared value below 0.60, and the rest three stations containing an R-squared value of more than 0.60, which suggests the SARIMA models developed for popular tourist spots in the current investigation are sensibly well fitted. Subsequently, for the nationwide humidity forecasting, these SARIMA models can play an important role in decision making. Findings of this analysis indicate that seasonality has a 72% effect on tourists' arrival that contains 58% impact on Bangladesh's national economy which signifies tourism industry of Bangladesh is more susceptible to regular variety. Findings also revealed that the tourist arrival in Bangladesh was influenced by approximately 1.15 % of humidity in seasonality. Therefore, we can attain a decision that in the situation of assessing the regular impact on the national economy, our proposed SANCOVA model is superior to any other regression model. Finally, we have concluded that the tourist's arrival in Bangladesh is increasing day by day. The weather and climatic condition of our country are good for tourism. As the no. of tourist's arrival is increasing so the income from tourism is also increasing which contributes to our GDP. From this analysis, the tourism demand is responsive to climate change as well as seasonality in humidity. Since tourist's arrival are depends on seasonality then we can also decide that the GDP of our country is positively related to seasonality. In conclusion, the findings suggest that further intensive studies can be carried out using more climatic parameters such as temperature, rainfall, wind speed and direction, wind pressure, solar radiation of specific regions of a country, and their impacts on the national economy. Studies could also examine the impact of these climatic variables on tourist arrivals, crop production, and food security. Therefore, tourism stakeholders can apply our proposed modified ANCOVA modeling named SANCOVA model, in exponents for policymaking, recommend adaptation and justification, and be inventors of any subsequent policy arrangements. Furthermore, in developing different tourism industries, the finding has a significant role that may add to economic recovery for overall economic growth.

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Article history: Received: 23.12.2021 Revised: 19.04.2022 Accepted: 17.05.2022 Available online: 14.06.2022

GeoJournal of Tourism and Geosites
ISSN 2065-1198, E-ISSN 2065-0817

Year XV, vol. 41, no. 2, 2022, p.614-620
DOI 10.30892/gtg.41236-870

FACTORS OF POST-COVID RECOVERY OF THE INTERNATIONAL HEALTH & MEDICAL TOURISM (HMT): TERRITORIAL POTENTIAL VS STATE SUPPORT EFFICIENCY

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Citation: Ushakov D., & Vasyuta, E. (2022). FACTORS OF POST-COVID RECOVERY OF THE INTERNATIONAL HEALTH & MEDICAL TOURISM (HMT): TERRITORIAL POTENTIAL VS STATE SUPPORT EFFICIENCY. *GeoJournal of Tourism and Geosites*, 41(2), 614–620. https://doi.org/10.30892/gtg.41236-870

Abstract: To analyze the dependence between the dynamics of post-COVID recovery of the Health & Medical Tourism (HMT) from the factors of a territorial destination positioning and efficiency of the state support measures in the sector, and on the basis of such an analysis to offer the new principles of anti-crisis sectoral strategizing under the current conditions. The study is based on the application results of several international methodologies of the HMT potential assessment in the selected countries of the world as well as the results concerning the efficiency of state support measures under current conditions. A comparative analysis of the obtained results with the actual dynamics of HMT recovery (as per the statistics of the international tourism-related organizations) has been carried out. Forecasting tools are considered within the frameworks of crisis typology for the world tourism industry overall and for HMT in particular. Determining dynamics of the tourism sector recovery is proven here, primarily through the efficiency measures of state support. On these grounds, new principles of national strategizing of HMT are outlined, taking into account probability degrees of the three types of sectoral recovery during the post-COVID period. Key directions of state support for health and medical tourism are offered by the authors, taking into consideration high probability of the W-shaped scenario of recovery as well as tools of state promotion of HMT development which take into account the interests of local population in the recipient regions along with those of foreign visitors.

Key words: health & medical tourism (HMT), pandemic, state support, sectoral recovery

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INTRODUCTION

Back in 2019 the market of medical tourism was evaluated to be around 100 bln USD. Thanks to popularization of various medical services and rapid development of radically new methods of treatment, this subsector has been developing with a truly amazing rate. It was then expected that by 2021 the share of this market would go above 125 mln. In reality, its growth is now at the level of 107 bln (How the pandemic changed tourism and what awaits us in 2021, 2021), however, it is already anticipated that by 2026 it will indeed reach the threshold of 180 bln USD. The coronavirus pandemic with its nearly total closure of all borders has put almost all international tourist travels on hold. Same has been applicable to internal tourism as well, though to a slightly lesser degree. For this reason, during 2020 the market of health and medical tourism has shrinked by at least one third. According to some forecasts, its prepandemic size can be again achieved by 2023 only.

At the same time, structural analysis of such unprecedented shrinkages of all international tourist travels during 2020 also reveals a curious trend: the number of foreign patients in healthcare institutions has decreased by 24%, while the number of other tourists (those travelling with leisure and/or sightseeing purposes) decreased by as much as 70% (Global Spa Services Market Report 2020 by Key Players, Types, Applications, Countries, Market Size, Forecast to 2026 (Based on 2020 COVID-19 Worldwide Spread), 2020). In other words, the decrease in medical tourism volumes is at least 2.8 times less than in any other types of tourism. Further on, in 2021 already, as compared to more traditional types of travels, medical and health-related tourism has demonstrated much more promising recovery trends. On the one hand, this can be logically explained by the highly specific demand for the medical tourism services. On the other, many tourism-oriented countries have demonstrated great interest and initiatives in supporting the potential (natural, recreational and infrastructural potentials in particular) of their national health & medical tourism sectors. State measures taken as applied to this subsector were not only actively implemented during the pandemic already, but also proved to be highly efficient.

Recovery of the health and medical tourism industry has been predetermined by the influence of the local natural and infrastructural potential as well as by the efficiency of the state support measures implemented in the course of this recovery. Evaluation of these impacts is the central area of our research study below.

Research objective: stemming from the comparative analysis of the recovery indicators in the field of health & medical tourism, local natural and infrastructural potential and efficiency of state support as regards to HMT, to determine the principles of further strategizing of the sectoral recovery, taking into account several possible scenarios.

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Research tasks*:*

- to provide own definition of HMT within the overall structure of international tourism and global healthcare systems;
- to evaluate natural and infrastructural potentials for further development of the national HMT systems;
- to analyze the interrelation between the already achieved indicators of HMT development, the formed models of co-integration within the HMT sector (with the medical and tourism sectors accordingly) and the dynamics of sectoral recovery during 2020-2021;
- to describe and classify the key measures of state support taken in relation to HMT sector in the selected countries across the world; to evaluate their efficiency through comparison with recovery dynamics indicators as of 2021.

In the course of our research we will be verifying the following *hypotheses:*

1. Dynamics of HMT recovery during 2021 is in low dependence from the prepandemic indicators of competitiveness achieved by the national natural & infrastructural potential.
2. Measures of state support in relation to HMT are the most important determinant of the sectoral recovery dynamics during 2021, as compared to the natural/infrastructural potential of the sectoral development.

LITERATURE REVIEW

Our study rests on the categorial definitions of health & medical tourism as considered by (Hall and Cooper, 2008) and also (Carrera and Bridge, 2010), despite the fact that the former was somewhat overemphasizing the economic sources of HMT development during the industrial era, while the latter were considering HMT from the medical/healthcare standpoint primarily. Freire et al., 2012, determined medical tourism as a patient's travel with the purpose of treatment and/or with the purposes of illness prevention outside the usual place of residence. At this, duration of such a travel might be from one day to as long as one year. Such a view on HMT is very much different from the definition of traditional tourism (see (Loh Chung-Ping, 2013; Boguszewicz-Kreft et al., 2020) for example). On the other hand (Rosensweig, 2007), including also the people accompanying patients in the course of medical tourism, defined medical tourism exclusively as the use of services that are improving health and overall well-being of people. The UN WTO defines medical tourism as the mechanism of services provision by medical institutions in their close relation with the use of natural resources (Freire, 2012). A detailed definition of HMT as part of overall tourism activities has been offered by (Herrick, 2007).

According to this author, the primary goal of HMT is in providing/getting the whole range of healthcare, rehabilitation, prevention and recreational services in places different from the place of permanent residence, provided these places have all necessary resources for such services provision. The UN Economic and Social Commission for Asia and the Pacific has defined health and medical tourism as an international phenomenon describing travelers' movement outside their region of residence with the aim of getting medical servicing, unavailable in a country of their permanent residence due to high costs (Cortez, 2008; Zhong et al., 2021). According to Carrera and Bridge, 2010, HMT is a special type of health resort treatment. This author has been studying organization of population rehabilitation from the standpoint of travel technology. It would be also appropriate to mention here the necessity to distinguish health and medical tourism from spa and wellness tourism. The latter concept is getting increasingly popular nowadays, in nearly all the countries across the globe.

In our view, HMT is not just a concept of spiritual and physical rehabilitation on the basis of natural (water treatment, healthy food, etc.) and non-invasive factors, but rather the continuation of this concept by means of the invasive factors of rehabilitation with the help of medical infrastructure, pharmaceutical tools and various medical protocols. Even under the conditions of economic and financial crises, health and medical tourism has been a powerful driving engine in the development of various regions. Health is not the end goal in itself, it is also one of the major preconditions for economic development of regions and countries. Thus, health and medical tourism is a vitally important component of healthcare economy. On the one hand, HMT makes adjustments in the very concept of healthcare economy; on the other, it offers new ways of territorial inequality in the development of healthcare overall. The phenomenon of health and medical tourism links healthcare sector with other branches of a national economy, thus, it contributes to formation, distribution and fair use of material, labour and financial resources within the healthcare sector overall.

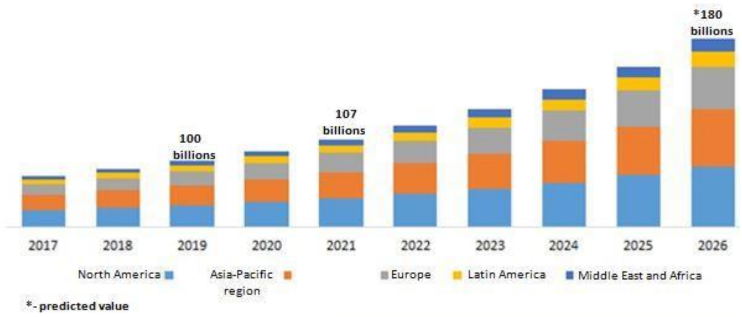

Figure 1. The volume of medical tourism market, 2017 to 2021 and the forecast till 2027 (Global Spa Market 2021-2025, 2021)

Table 1. Changes in MTI values of top 5 countries, 2014 to 2021(Source: GVR Report cover Medical Tourism Market Size, Share & Trends Report Analysis Report By Country, 2021)

Countries	2014-2015		2016-2017		2020-2021	
	Index value	Rank	Index value	Rank	Index value	Rank
Canada	76.9	1	76.62	1	76.47	1
Singapore	74	4	73.56	4	76.43	2
Japan	67.6	13	68.0	12	74.23	3
Spain	67.64	12	68.29	11	72.93	4
UK	74.8	2	74.87	2	71.92	5

Methodology of national potential evaluation for HMT development

One of the key tools used for measuring the international level of medical tourism development as well as its costs is Medical Tourism Index (MTI), calculated and presented by the Medical Tourism Association (Medical Tourism Statistics and Facts, 2020). This index is based on 34 criteria that are divided into three groups of factors: quality of medical services; state of tourism infrastructure; external factors, influencing tourism development in a particular country (Tables 1 and 2).

According to the data presented in Tables 1 and 2, the absolute leader among all the countries in the considered period is (and has been) Canada, however, the indicators of this country are somewhat going down. Stemming from the classification of destinations as suggested by the World Tourism Organization and Medical Tourism Association, we may conclude that there exist the following megadestinations in medical tourism of the corresponding MTI index are given in brackets): Americas (64), Arab region (63.2), African region (57), European region (63.5), Middle and Central East (63.4) and Asian region (57.4). Noteworthy here, when calculating the index values, MTI is focused primarily on the accompanying services that do not have direct impact on the quality of medical assistance provision.Thus, it would be expedient to analyze the overall quality of the world healthcare systems, stemming from the country values of the Health Care Index (Table 3 for details).

Table 2. Medical tourism index (MTI) subindices for the selected top countries (Source: Medical Tourism Index 2020-2021, 2020)

Countries	Country's overall rank	Rank value: MTI= ($SMTI_1$+ $SMTI_2$+ $SMTI_3$)/3	SMTIs			Annual number of tourists, in mln
			Quality of facilities and services, $SMTI_1$	Medical tourism indutry, $SMTI_2$	Destination environment, $SMTI_3$	
Canada	1	76.47	78.62	74.05	76.74	17
Singapore	2	76.43	73.37	70.25	85.67	31
Japan	3	74.23	71.28	72.81	78.06	16
Spain	4	72.93	70.09	74.36	74.34	24
UK	5	71.92	77.3	70.38	68.08	12

Table 3. Ranking of the selected countries in the Health Care Index 2020 (Source: Best Healthcare in the World 2020, 2021)

Rank	Country	Index value (on the 100-point scale)
1	Taiwan	86.39
2	South Korea	82.34
3	France	80.99
4	Japan	80.68
5	Denmark	70.96
6	Spain	78.8
7	Austria	78.4
8	Thailand	78.08
9	Australia	77.71
10	Finland	76.4

Table 4. Global Health Security Index of the selected countries, as of 2020 (Source: GHS index: Global Health Security index, 2021)

Rank	Country	Index value (on the 100-point scale)
1	USA	83.9
2	UK	78
3	Netherlands	75.8
4	Australia	75.8
5	Canada	75.1
6	Thailand	73.2
7	Sweden	72
8	Denmark	70.4
9	South Korea	70.2
10	Finland	68.7

However, values of this Index are not entirely objective and unbiased since quality of medical assistance should be determined taking into account a wider circle of various accompanying factors: the process of medical treatment itself; accessibility of medical services; efficiency of these servicing administering; results demonstrated by the healthcare system overall. More informative might be the Global Health Security Index that is being prepared by the John Hopkins Center for Health Security. This index allows evaluating the global potential of health security and also assesses the level of healthcare systems development as well as the level of population health across the countries, following six key criteria, 34 indicators and 85 subindicators (Health care system index: Countries compared, 2021). See Table 4 for the 2021 data on the selected countries. It is worth mentioning here that among the 20 leading countries of this ranking, 15 are European ones, two more are North American, and three more are located in Asia. Interestingly, Thailand is ahead of all Scandinavian countries. The total average index is 40.2; the average index value of the developed countries would be 51 though.

At the same time, data on this index alone won't be sufficient for a comprehensive evaluation of the medical tourism development across the countries. Primarily because this index is hardly evaluating security/safety of healthcare systems, especially when it comes to a country's potential reaction to global epidemiological challenges. More specifically, this index does not provide sufficient data on how national healthcare may protect foreign patients that travel to a certain destination and do not reside there permanently. We may take the still ongoing COVID-19 pandemic as an example. In its context, this index above has not been able to predict the number of COVID-related deaths by countries. More specifically, some countries with rather low rankings had lower mortality rates, while other countries, with much higher index values, have demonstrated extremely high rates of COVID-related deaths. Therefore, it would be expedient to not simply analyze the current conditions of healthcare and medical tourism overall using the index-based indicators, but rather to apply the economic models of health and medical tourism functioning.

Model #1. Direct or actual medical tourism. This model has been one of the earliest and it can be presented as a system of connections showing the interaction between patients on the one side and representatives of a foreign medical institutions on the other. No intermediary parties involved.

Model #2. Medical tourism organized with the involvement of intermediary parties (internal or foreign ones). This model is widely popular in such countries as Israel, India, Lithuania, China, Poland, and South Korea. It would be important to note here that the cost of health and medical services provided to foreign citizens would always be higher than the prices known to local population (and not only because some of the related services may be covered by local insurance companies).

Model #3. Medical tourism as a component in state healthcare policy. This assumes significant interest and motivation demonstrated by national and international insurance companies which, in their turn, are expected to develop partner relations with foreign providers of health and medical services. This model is actively used in the USA, Canada, UK and some of European countries. For example, the UK insurance companies often try to develop partner relations with the clinics based in Hungary, Lithuania, and Czech Republic, primarily because of lower costs of services in these countries and their relative proximity to Great Britain (Global Wellness Economy monitor and Wellness Institute, 2021). Similar mechanisms are also used by various clinics based in Poland, Hungary, South Korea and the UAE, as these clinics are striving to become included into the global network of medical tourism (Global Innovation Index INSEAD, 2020).

Model #4. Outsourced medical tourism. This model is based on the partnership between the suppliers of medical services from the regions supplying tourists on the one side and the suppliers of health and medical services at foreign destinations on the other (clinics, diagnostics centers, freelancing medical staff, etc.). This mechanism of cooperation assumes mutual exchange of treatment protocols and other means of professional consulting, aimed to increase qualifications while using telemedicine to the widest extent possible. Close, trustworthy relations between partners are an integral part of this model. The model is relatively widely spread in the USA and also in Germany, it now has promising prospects for expansion on other countries as well. After analyzing these several economic models of medical tourism organization, we have concluded that this subsector can be presented as a complex, multilevel system, in which medical tourist is the key indicator and the key assessment criteria, as the medical tourist may reveal the essence and the contents of medical tourism, thus making it possible to single out medical tourism from all the other types of tourism. Thus, after studying various indicators, indices and satisfaction criteria in regard to quality of health and medical services in the context of medical tourism development we have concluded that combining such its aspects as quality, security and risks may help us with restoring the overall picture of how tourists-patients perceive medical destinations in tourism. This overall picture consists of general but rather subjective indicators of consumer satisfaction, directly related to this specific type of tourism.

Table 5. Dynamics of HMT recovery in the selected countries (2020-2021), grouped by their territorial potential

Mo-del	Examples of the countries	MTI ranking	Global Health Security Index ranking	Dynamics of HMT recovery, as % of GDP
1	Czech Rep.	68.32	52.0	5.3
	Egypt	64.81	39.9	3.1
	Greece	63.45	53.8	4.4
2	Israel	70.78	47.3	4.7
	India	69.80	46.5	2.6
	China	63.47	48.2	2.5
3	UK	71.92	77.9	1.3
	Hungary	65.69	54.0	2.4
	Poland	64.1	55.4	1.7
4	Singapore	76.43	58.7	5.2
	Germany	69.29	66.0	4.9
	South Korea	68.81	70.2	0.85

In its turn, qualitative analysis of individual needs and consumer impressions as related to this specific type of tourists predetermined the search for new ways and methods in presenting and providing medical and all accompanying services. This, in turn, leads us to construction of the models mentioned above, while these models later on can be used for the purposes of long-term planning of all activities within health and medical tourism, as applied to both separate healthcare systems and the world market of medical tourism overall. Thus, after analyzing the models of HMT functioning in the selected countries of the world as well as the results of territorial potential evaluation, we can now compare them with the current dynamics of HMT recovery (2020-2021), Table 5. At this point, we may conclude that the indicators in question have rather weak correlation with each other. It is clearly visible that the higher the countries' indices in the global rankings of healthcare and medical tourism — the lower the rates of their recovery (as % ratio to GDP). Thus, data presented in Table 5 confirms our hypothesis 2.

Best foreign practices in the field of state support provided to HMT during the pandemic

Evaluation of measures taken for gradual recovery of the international HMT and already implemented in some of the studied countries allows us to conclude that the most popular ones concern tax preferences, namely: lower taxation rates, tax holidays, tax credits and so on. Thus, in Brazil the National Development Bank has opened a credit line on circulating capital for those operating in health and medical tourism and also for the related small and mid-sized enterprises (Kangas, 2010; Matei et al., 2021). Financial measures in France include the mechanism of changing the booking system: tourism companies have been able to switch from full compensation of a booking (which means immediate outflow of money from the country) to the option of a credit on the equivalent amount (Medical Tourism Market Size, Industry Report, 2020-2027, 2020).

However, we need to note that most of the implemented measures were immediate in their nature, they have served to support local tourism businesses during the COVID pandemic. Also, they mostly concerned small and mid-sized enterprises and were not entirely comprehensive (not covering the whole sector as such), even though this would have been appropriate for further development of a crisis management strategy for the whole sector. In some countries, attention has been mostly focused on the implementation of measures that concern consumer protection and also labour protection for those working in the HMT sector. Thus, Japan's Tourism Agency has announced it would allocate 33 mln USD to increase the attractiveness of various health and medical destinations in the country, primarily by means of providing timely, exact and full info on the current epidemiological situation in particular areas (How Attractive Is Your Destination for Medical Tourism?, 2019). China has cancelled annual tax payments for the tourism sector altogether, also extending the accreditation deadlines as well as the deadlines on renewals of professional certificates in tourism. The local ministry for culture, tourism and healthcare has selected almost 400 infrastructural projects from the HMT sector to be financed directly from the state budget. Spain has introduced a special certificate which now serves as a quality seal for various healthcare, medical and tourist services provided to tourists with all necessary sanitary and anti-epidemic measures being taken.

Coordination measures have proven to be no less important, as their key goal is timely reaction to the quickly changing situation in the sector. For example, the government of Australia is now actively working on the development of its 2030 Strategy which is aimed at the tourism sector recovery and its higher attractiveness as a health and medical tourism destination. Analyzing the official UN WTO data on the crisis measures taken by various countries, we may conclude that the majority of these countries are spending really a lot on these crisis recovery activities (Figure 2).

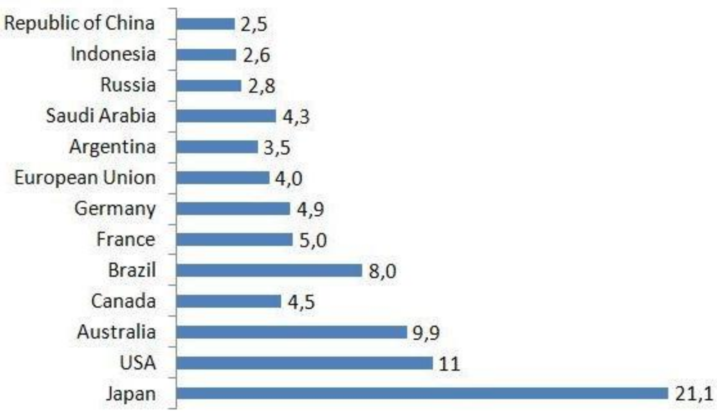

Figure 2. Anti-crisis spending in the selected countries, as share of GDP (Source: Value of COVID-19 fiscal stimulus packages in G20 countries as of May 2020, as a share of GDP, 2021)

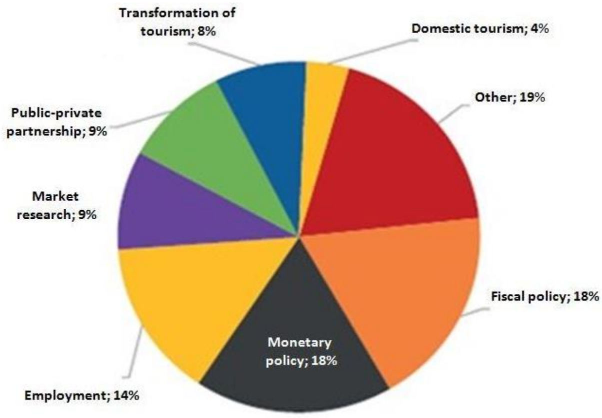

Figure 3. Measures taken by countries to mitigate the consequences of crisis and promote tourism and travel recovery

Also, we need to mention here that majority of these countries tend to choose the tools within their monetary and fiscal policies, some measures also concern labour policy and employment issues (Figure 3). Therefore, after analyzing international experience in the field of anti-crisis & recovery measures in tourism, we can detect a correlation between the range of actions taken and the dynamics of HMT sector recovery during 2020-2021 (Table 6). Thus, we may conclude that the growth rates of state spending on tourism are at times higher than the growth of tourism's actual contribution to the GDP of these countries. However, the higher the spending on tourism recovery, the higher the rate of HMT recovery in the country.

Table 6. Dynamics of HMT recovery (2020-2021) in the selected countries, with outlined priorities in state support measures (compiled by the authors)

Prioritized measured within state support provided to tourism	Examples of the countries	Explanation of measures contents	Growth of state spending on HMT support, in %	Dynamics of HMT recovery, in %
financial assistance (subsidies, grants, zero-interest credits, etc.) for all HMT subjects	South Korea	tourism companies working in the HMT sector have been able to get credits on preferential conditions, in the total amount of 8 ln USD, with the decreased interest rate of 1%(Fantozzi, 2021)	0.85	2.4
	Portugal	the agency Turismo de Portugal introduced a support line with the funding in the amount of 60 mln EUR for all tourism microenterprises that have found themselves in distress	0.96	1.3
subsiding the spending for all employees of the healthcare sector	UK	tangible support for healthcare destinations; measures taken to maintain the sufficient number of medical personnel; revised marketing of local HMT territories	1.3	3.2
introduction of tax preferences (tax holidays, preferences, deadline extensions)	Germany	all medical tourism companies as well as spa & wellness centers got the right for tax payments extension until the end of 2020	4.9	5.5
closer interaction with communication and marketing agencies	Australia	revised conditions for tourism booking cancelations	6.0	9,9
creation of brand new tourism products to promote HMT services better	Turkey	anti-crisis management trainings	5.9	6.9
	France	supporting internal HMT tourism	5.0	4.7
	Columbia	dedicated chats for monitoring the situation in tourism and an online platform where business reps could find answers to their questions	4.0	4.7
using tourism infrastructure to fight COVID-19	USA	hospitality sector providing accommodation for medical staff and other servants directly involved in fighting the pandemic	4.3	5.3
	Canada	Hotel Association of Canada offered 6 thousand rooms in its hotels for 20 municipalities' needs while fighting COVID-19	5.2	4.4

Data presented in Table 6 confirms our initial hypothesis 2, also proving the following:

- the state is playing a serious role in converting HMT into a highly developed and no less highly profitable sector of a national economy;

- public spending on tourism tends to have positive influence on the implementation of anti-crisis measures and also on the growth of tourism contribution to GDP;
- full recovery of the HMT subsector would not entirely possible without the implementation of comprehensive measures of state support;
- in the majority of the investigated countries policies aimed at development and promotion of HMT seem to be rather efficient.

CONCLUSIONS & RECOMMENDATIONS

The analysis carried out above demonstrates that nearly all contemporary states across the world are now taking large-scale and comprehensive measures aimed to support health & medical tourism as a top-priority sector of the economy.

States measures aimed at economic recovery overall allow us to determine the current recovery scenarios which, in their turn, predetermine the potential trajectories of the HMT recovery in particular:

In case of a V-shaped recovery model, the sector would be suffering from a drastic (however short-term) decline. This sudden crisis situation would be then followed by a similarly rapid recovery.

U-shaped type of a recovery scenario is much more long-term and gradual, it does not have a drastic crisis period and it also assumes a relatively slow comeback to the growth trend.

In case of a W-shaped scenario the tourism sector falls into a recession. After it, there would be a short-term period of growth, followed by another round of recession. The scenario finishes with the final recovery stage.

It would be appropriate to project these types of recovery scenarios on the current context of the ongoing crisis in health & medical tourism (Table 7).

Table 7. Specific features of recovery scenario models in tourism (compiled by the authors)

Parameters	HMT recovery scenarios		
	V-shaped	U-shaped	W-shaped
COVID-19 pandemic influences	Moderate and controlled growth in the disease numbers	Gradual growth of the COVID statistics	Frequent spikes in the statistics
Changes in consumer preferences	Consumer trust restores quite quickly; changes in consumer preferences are minor and/or barely traceable	Consumer trust is restoring very slowly	Consumer trust is highly unstable, primarily because of the new waves effect. Security/safety fears are growing all the time
State regulation and support	Since the pandemic rates are managed quite efficiently, recovery measures are quite soft in their nature	Border opening is very gradual; state support is needed on a permanent basis	Quarantine measures are becoming less strict gradually, but comprehensive state support is still acutely needed
Probability of this scenario model realization	Low	Average	High

As a result, if we compare the measures taken by now and the current trends being already formed with the purely theoretical types of recovery scenarios, we may forecast the probabilities of these scenarios realization in the HMT subsector. Obviously, realization of the V-shaped recovery scenario is the least probable, considering the prolonged spread of the pandemic and the yet another wave of growth in COVID cases. Relatively low probability also has the U-shaped recovery scenario, primarily because consumer trust cannot be that quickly restored without profound state support.

Taking into account the current conditions, the most probable seems to be the W-shaped recovery scenario which assumes short periods of growth between the new waves of the pandemic. Nowadays probability of these scenarios is predetermined not only by the coronavirus statistics but also by the actions taken on the state/regional level. New trends in consumer behavior and consumer preferences are also highly dependent on these state actions.

Generalizing international experience in providing such state support, we would like to put forward the following recommendations on the recovery of global health & medical tourism:

- participation in the development and further use of the sectoral protocols on labour safety and general safety should be more active and more comprehensive in terms of representation;
- express-testing among medical and hospitality staff of all levels can be and should be used more widely;
- the already available software and other IT products could be used for more timely and efficient response to the quickly changing epidemiological situation in the regions. Moreover, SaaS products can be used in selection of the currently safest medical tourism destinations;
- state support for the tourism sector in the form of tax preferences should be prolonged as such measures tend to stimulate liquidity growth.

Therefore, recovery of the tourism sector overall shall include the following groups of measures:

- measures related to the revision and correction of tax payments and other related fees that are directly and indirectly influencing the HMT sector;
- measures on the provision of better accessibility of the internal health & medical tourism, namely, through organization of various events promoting its development (fairs, conferences and similar events, both online and offline);
- measures on timely prevention of capital outflow due to rescheduling of tourist trips planned earlier (provision of credits and vouchers for the full amount paid instead of standard refund/reimbursement);

- measures related to prolongation of the existing liability insurance contracts for the participants of the HMT market so that to prevent at least some of the probable cases of bankruptcy. Such measures would also enable relatively quick and full compensations to tourists for the cancelled trips.

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Article history: Received: 15.11.2021 Revised: 20.04.2022 Accepted: 18.05.2022 Available online: 14.06.2022

GeoJournal of Tourism and Geosites
ISSN 2065-1198, E-ISSN 2065-0817

Year XV, vol. 41, no. 2, 2022, p.621-627
DOI 10.30892/gtg.41237-871

TRADITIONAL VALUE OF USING CAVE WATER FOR SUSTAINABLE ECOTOURISM IN WAKATOBI REGENCY, INDONESIA

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Citation: Marlina, Sumarmi, Astina, I.K., & Utomo, D.H. (2022). TRADITIONAL VALUE OF USING CAVE WATER FOR SUSTAINABLE ECOTOURISM IN WAKATOBI REGENCY, INDONESIA. *GeoJournal of Tourism and Geosites*, 41(2), 621–627. https://doi.org/10.30892/gtg.41237-871

Abstract: Traditional beliefs based on religion have served as a direction for people's lives in interpreting life. Life guidelines received from good education might represent wise methods of dealing with nature. This study aimed: (1) to examine the tradition of using cave water in the Mandati and Wanci tribes, (2) to examine the traditional value and meaning to develop sustainable ecotourism. The research used a qualitative descriptive method with an ethnographic approach to explain facts, meanings, and traditional values of using cave water. Data were obtained through participant observation, in-depth interviews, documentation, and literature study. Data were analyzed using triangulation. Informants were selected from various groups: traditional leaders, government, community leaders. The reseach revealed that there are four traditions that use water go for traditional purposes, namely: (1) *Ufe Karia Mbo'u Mbo'u,* (2) *Ufe Karia Ntooge/Hoporuku,* (3) *Ufe Heraha Kuni*, and (4) *Ufe Kafi* (Wedding traditional water). The tribes believed that cave water was highly beneficial for healing, bringing blessings and health, fortune, and for the soul. The cave water is specifically used for Ufe Karia, which symbolizes native behavior in keeping the cave's culture, rituals, and water resources. The community used this tradition to purify, protect and baptize Wakatobi children in preparation for adulthood. Moreover, the wisdom in this tradition aimed to support ecotourism in Wakatobi Regency.

Key words: ecotourism, tradition, conservation, traditional value, cave water management

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INTRODUCTION

Tourism increases can have a major impact on state revenue. Tourism is one of the sectors that contributes greatly to the development of the country (Hadmoko et al., 2021). Indonesia's position as a member of the world's coral triangle provides a strategic advantage for growing local tourism. There are six countries in the Coral Triangle: Indonesia, Malaysia, Papua New Guinea, Philippines, Solomon Islands and Timor Leste. Marine Protect Areas (MPAs) are established at the national and local levels to protect the coral triangle area. More than 1,900 MPAs cover 200,881 Km². (1.6% of the exclusive economic zone for this area). Protected areas include critical maritime habitats and ecosystems, with a heavy emphasis on preserving and strengthening the quality of coastal fisheries and as the region's primary food and economic. Wakatobi National Park is both a tourism development area and a protected region due to its location in the middle of the world's coral triangle.

Conservation and tourism are two linked aspects of Wakatobi's area (Al Dilwan et al., 2019). Currently, Wakatobi is one of the top 10 priority destinations Indosesia (Kurniawati et al., 2020). Conservation is a strategy to preserve the environment, and tourism is a strategy for economic advantage. UNESCO (2012) established Wakatobi as a national park and biosphere reserve in Indonesia. Wakatobi National Park is inhabited by various types of marine life. According to WWF (2012), 396 hard coral species and 942 reef fish species were found. This species diversity is the largest in the world, exceeding the number of coral species found in the Caribbean and Red Sea.Besides the marine potential, Wakatobi Regency is interesting to research for another reason, namely the presence of cave waters distributed throughout each island. Given the potential and carrying capacity of cave water resources, further studies on water conservation need to be discussed. The existing cave water is a raw water source to meet the community's domestic water needs example Kontamale Cave water (Agusman, 2017). The use of the cave water area is also related to traditions that are very closely related to the culture and religion of the surrounding community. Many studies on water conservation based on community traditions have been carried out, such as Water resources in Kampung Kuta are used to meet daily needs and for Nyipuh traditional rituals in the Sacred Forest (Hilman and Hendriawan, 2018) the pamali culture in the Reban Bela Traditional Forest is proven to preserve the ecosystem so that

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water resources can be well maintained; local wisdom from the pamali culture has succeeded in maintaining the sustainability of forests and water resources in Lenek Daya Village (Reza and Hidayati, 2017).

Another example is the Beelah Blumbang Tradition on Mount Ungaran, which functions to protect water resources (Wiyatasari and Lathifah, 2019). In Wakatobi, the tradition that is carried out on a large scale is the Karia Tradition. Karia is a tradition carried out by the local community to fulfill the religious requirements of each child based on customary values (Mobiarto, 2019). The Wanci and Liya tribes believe that maintaining the Karia tradition is in accordance with Islamic values. Based on research it is known the Wanci and Mandati tribes carry out a long procession that can last up to three days. The Wakatobi people view this practice as a unique cultural identity as well as a religious identity.

The fact that the researchers found that the Karia tradition is currently the cultural identity of the local community with the main process of the Karia tradition is Hoporuku, namely preparing bathing water taken from the Lesa'a cave and the Lia Bete cave taken based on customary provisions, being the main impetus for this research. The method of utilizing cave water for traditional purposes illustrates the environmental care behavior of the community in utilizing natural resources so that the preservation of the cave water area can be maintained. In addition, the transfer of area functions based on traditional values will support ecotourism in Wakatobi Regency.

LITERATURE REVIEW

Ecotourism is a presentation of natural and cultural attractions which emphasize teaching and education, not only as a business trip package from one area to another. Therefore, the main goal of ecotourism is to improve the local economy and sustainability. Hijriati and Mardiana (2015) revealed that ecotourism is a tourism trip responsible for environmental sustainability and the welfare of the local community. Ecotourism is a tourism practice that prioritizes sustainability and aims to provide economic benefit for the environment (Purnomo et al., 2020). Sustainable Tourism should therefore be carefully designed to benefit the local community, respect the local culture, and protect t he natural resources (Joseph et al., 2021). Aulia and Dharmawan (2010) stated that tourism is an economic sector that needs more attention to be developed.

Discussions about ecotourism have begun to develop in recent years. The concept has main characteristics, namely, (1) nature-based ecotourism, (2) learning and education-centered experiences, and (3) ecotourism projects must prioritize environmental sustainability, nature-based social interaction (Walter, 2013). The composition of ecotourism products generally offers the potential of nature and community culture. Culture influences the management of tourism (Waridin and Astawa, 2021). Natural Heritage (Natural Heritage) and Cultural Heritage (Cultural Heritage) makes an area of economical and strategic value for trade and tourism (Sukmawan et al., 2021). Conservation and sustainability are referred to as the main characteristics of ecotourism. Confirms Mattiro (2021) ecotourism cannot be separated by conservation.

Ecotourism qualities such as socio-culture, community traditions, environmental potential, history, and local economics are needed to accomplish ecotourism objectives. Haryanto (2014) stated that culture, history, and nature are the main characteristics of the ecotourism development model. Education is a critical component of ecotourism and can be accomplished by explaining the local community's culture. The process of interpreting cultural values and local wisdom is believed to support ecotourism management (Marlina et al., 2020). Local wisdom is a manifestation of human wisdom toward nature. Local wisdom is a form of environmental wisdom passed down through generations in a particular location or area (Sumarmi et al., 2020). Local wisdom can take the form of community traditions. Tradition is defined as the community's customs, habits, and culture in which there are good values that reflect the community's behavior in action. The interaction with the environment is influenced by local wisdom in certain area. The tradition's values include not only social and religious life but also human wisdom in relation to nature, such as forest conservation based on the norms given down by previous generations for the wellbeing of life (Sahlan, 2012). Water conservation is accomplished through tradition as a way of expressing gratitude to God Almighty for the blessings of water that have been given upon and passed down from generation to generation (Sudarmadji et al., 2017). Community traditions can be carried out because of a strong belief system and religion that is strengthened by the support of community culture. Local wisdom based on religious values can transfer the nation values as a heritage. This study aimed to cover the traditional values in using cave water resources for sustainable ecotourism management in Wakatobi Regency. Wakatobi Regency, as one of Indonesia's primary tourism destinations, is aggressively optimizing tourism development. Development cannot be based on marine potential without considering the potential of other potentials, particularly the distribution of cave water that the community uses. Sumarmi, 2018 emphasized that the water source must be preserved. The community has used the cave's water resources to fulfill daily needs such as washing, drinking water, and public bathing areas. Moreover, the cave is used for traditional purposes, such as *ufe karia/ufe mbansa*. Implementing *ufe karia/ufe mbansa* is needed to maximize the ecotourism purposes.

METHOD

This study used a qualitative approach with ethnographic methods to explain the traditional values in using cave water for Watakobi tribes. Spradley (2007) stated that the ethnographic method is used to describe a culture. According to Bronislaw Malinowski (Spradley, 2007), ethnography's objective is to understand the locals' point of view, their relationship to life, and to gain their perspective on the world. This study uses ethnographic methods to explain the facts, meanings, and values of the *Ufe Karia* tradition in traditional processions and the behavior of local tribes.

The tradition was carried out by the Wanci and Mandati tribes in the Wakatobi regency. The ethnographic method used in this study refers to Spradley (2007), known as a step-by-step analysis, in which analysis begins with data collection and continues gradually until the study's finish. The researcher determines the end of the research entirely since ideal research results cannot accurately reflect the culture in the research region as a whole and complete.

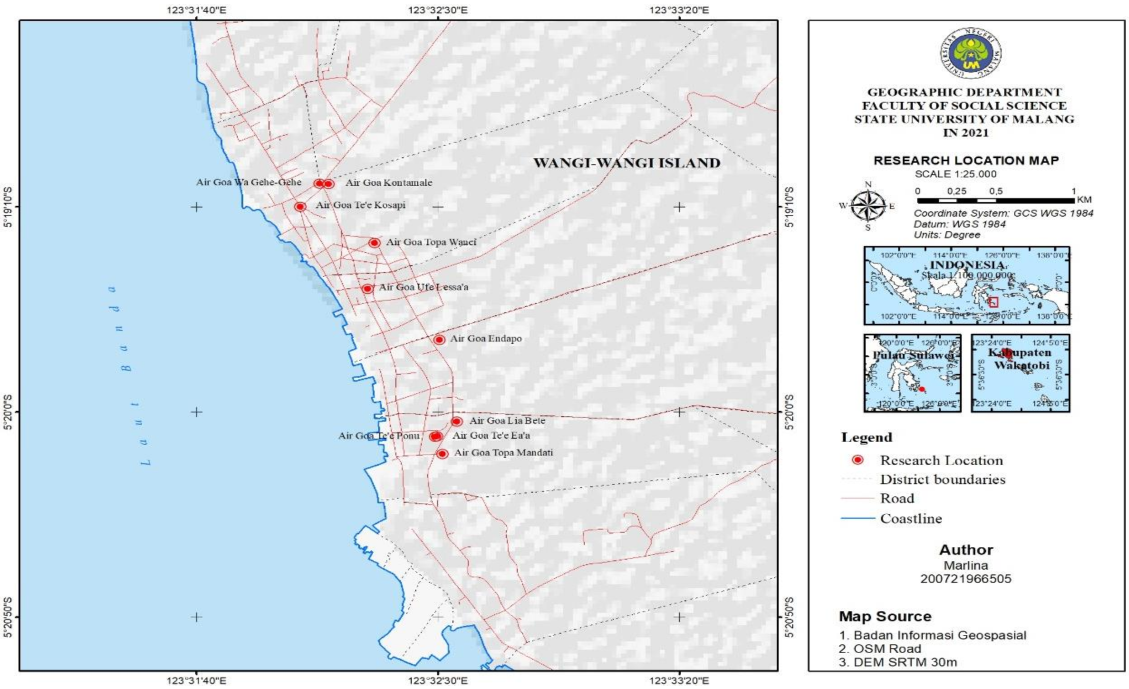

Figure 1. Map of Research Locations (Distribution of Cave Water in Wangi-Wangi Island)

This research was conducted in 10 cave water points in strategic urban areas in 2 sub-districts: Wangi-Wangi District and Wangi-Wangi Selatan District. Wangi-Wangi Island is located at an altitude of 0-200 meters above sea level, with a relatively flat land surface. Wangi-Wangi Island is a low-lying coastal area with an altitude of 0-200 meters above sea level. The land use of Wangi-Wangi Island is quite varied, consisting of shrubs, forests, airport areas, gardens, mangroves, grasslands, settlements, and fields. The following is a map of the research location (BPS, 2020).

Data sources in this study included oral data sources and written data sources. Oral data were obtained from actors in the tradition of using cave water, while the written data were obtained from documents owned by the government in the research area. Oral data was collected from actors involved in the tradition of cave water use, while written data was collected through government records in the research area. The informants consisted of various groups, namely the government, community, and traditional leaders with in-depth knowledge of the tradition. The informants included representatives from various sectors, including the government, the community, and traditional leaders with extensive understanding of the tradition. Spradley (2007) identified five minimum requirements for selecting informants: the informant has an extensive understanding of the tradition; directly involved in the cultural events under study; know in detail about the cultural atmosphere; have sufficient time to participate in research; be able to describe events in a scientific manner.

RESULTS AND DISCUSSION

A. Cave water and traditional tradition

Each group uses natural resources differently; some use them traditionally, while others use technology to support their daily needs, including religious requirements and traditions. Individuals can use the potential of nature in a variety of ways to contribute to the community's socio-economic wellbeing. Economic activities by individuals can develop adaptation patterns to the environment (Marlina et al., 2021). The research results found that several traditions were related to cave water in Wakatobi Regency, Indonesia. This study was conducted on two tribe groups: Wanci and Mandati tribes in Wangi-Wangi Island, Wakatobi Regency. Each tribe uses the water surrounding caves to fill the traditional processions. The Wanci tribe used the Lesa'a cave water, while the Mandati tribe used the Lia Bete cave water.

Table 1. Use of cave water for traditional processions (Source: of research, 2021)

No	The Water Needs	Needs and Objectives	Description
1	*Ufe Karia Mbo'u Mbo'u* (Small Karia traditional process)	Traditional leaders bathe girls between the ages of 2 and 5 years.	Generally, it is done for girls at the age of 3 because toddlers are incapable of comprehending all of the traditional processions. The objective is to avoid *Ambanga* (public humiliation) and *Paganda* (telling to others).
2	*Ufe Karia Ntooge/Hoporuku* (Big Karia traditional process)	Traditional leaders bathe boys and girls between the ages of 5 and 12 years.	The procession at this point is critical because the child has been recognized as a Muslim.
3	*Ufe Heraha Kuni*	Traditional elders bathe girls who have had menstruation.	The procession at this stage aims to explain the girls who experienced the menstruation process using turmeric (*Kuni*).
4	*Ufe Kafi* (Wedding traditional process)	Traditional leaders bathe the prospective bride and groom before the wedding day.	The traditional leader bathes the bride and groom before the wedding day to purify and prepare them for life in a household.

The use of cave water is carried out to fulfill various mandatory requirements for the tradition. The study found four mandatory traditions that use cave water: (1) *Ufe Karia Mbo'u Mbo'u*, (2) *Ufe Karia Ntooge/Hoporuku*, (3) *Ufe Heraha*

Kuni, and (4) *Ufe Kafi* (wedding tradition). There are no notable changes in the use of cave water for Wanci and Mandati tribes, but the only distinction is that the traditional procession is prepared and commanded. The Karia tradition is still carried out by the community every year. The use of cave water for traditional processions is shown in the following Table 1.

The use of cave water in Ufe karia is defined as a tradition procession to baptize young children based on Islamic values. This procession was carried out in the months of Shawwal, Zulhijah, Safar, and Sa'ban in the Hijri year (Islamic Year). Using cave water was the initial event of the procession series that needed to follow. Local people are called *Ufe* (water) and *Karia* (baptize). Table 1 shows four traditional events that used cave water for blessing. The complete implementation of Karia is given to a young girl three times: a toddler (2-5 years old), teenager (5-12 years old), and after having the first menstruation. Meanwhile, a young boy only performed *Karia Nto'oge/Hoporuku* procession at 5-12 years old. The procession served as a symbol that the child was ready to grow up. An interview with the traditional leader stated: *"Suru tokaria'e na ana mbou'u fofine mina karia mbou'o mbou'o apa no karia nto'oge, daimo no dahani ngkaramano kua no tooge mo, no dahani emo na jao kene leama, no dahani emo na pake leama fana diajara ako nu nabi ke rasul, fana ajara ako nu mansuana, kene fanaumpa nu ajara agama ako no salama di junia kene akherati"* (Interview with Traditional Leaders, 2021). "*The main reason that a girl must participate in Karia from childhood to adulthood is to know responsibility as an adult, know the difference between good and bad, know to behave probability based on Islamic values to live safely*." (Interview with Traditional Leaders, 2021).

The procession expected that every child could behave according to religious values, following the local norms to live safely. Each Karia Process is closely related to Islamic values. Karia tradition has meaning: 1) commemorating the process of mass conversion to Islam, 2) the life-span of an individual towards maturity, 3) restore community harmony by maintaining contact with relatives and family.

B. Traditional procession in using cave water

The use of cave water for various traditional purposes, especially the Karia Tradition, passes through three stages as follows:

1. Preparation Stage

Before carrying out the Karia traditional ceremony, a meeting is held between traditional leaders, religious leaders, local government, and community leaders. The meeting is held in *Sombonga/Hu'u*, the community leader house who considered economically capable of custom with the royal title "*Ode*" to lead the implementation of customs. The meeting discussed the requirements of ceremonies, date and place, and costs needed for the ceremonies.

Figure 2. The preparation stage for the Karia Tradition (Source: of research, 2021)

Additionally, the parents of Karia participants needed to provide *Kamondo* (preparation) and are ready to do *Paapadangku* (banging the head on a coconut). The *Kamondo* (preparations) must provide: 1) 8 chicken eggs for the children from Ode (royal families) and 4 chicken eggs for the children from Mbaradika (ordinary families), then stored on a white plate containing plenty of rice, 2) 80,000 rupiah in coins for each participant, 3) 4 pieces of corn, 4) 1 coconut wrapped with cotton yarn, 5) 3, 5, to 7 betel nuts, 6) Lifo (various types of traditional food), and 7) Toba and some money in a plate. The most important requirement in this stage is *Ufe Karia* from the cave water. In Mandati tribe, the water from Lia Bete cave is taken by a child with criteria: 1) boys or girls, 2) physically and mentally healthy, and 3) have a complete family. The water was taken secretly (Kanalako/Impi). The process including: 1) prepare the dish in a piece of betel leaf equipped with gambier, tobacco, lime, and areca nut placed on a banana leaf as a plate, 2) place the dish on a rock around the cave water, 3) after the water is filled then the child brings water to the Karia procession is carried out. Some taboo said to bring the water quietly and do not answer any questions. The interview with the traditional leader stated: *"Ara to impi te ufe, to bafa emo kene hanganto sa, maka toala di safengka moana, ara to faliako sa mbisa no ema kita te emai bara nto balo'e. Suru toala impi'e na ufe bara ako to gogo, kene to tauko'e te toba akonte bolosi nu ufe mondo dialanto. Ma'ana no iso kua te sukurunto kua Moori akonte ufe ana mbeaka no mose-mosenga"* Interview with Traditional Leaders, 2021). *"If you take water, you must secretly bring food and then take it on the right side, then if you are on your way home you are not allowed to answer even if someone asks you a question. Why take water secretly* *so as not to make a fuss, and bring food to replace the cave water that we take. The meaning of the procession is proof of gratitude to God because the cave water given never dries up"* (Interview with Traditional Leaders, 2021).

Although the criteria are the same as the Mandati tribe, the Wanci tribe carried out different processes. The Wanci tribe takes Lesa'a cave water by throwing coins into the cave water, filling the kettle, and finishing. This represented as the price for water taken. The community recognizes that cave water is God's creation, and thus we should not misbehave, such as yelling and shouting. The interview with the traditional leader stated: *"Te ufe karia ana to kanalakomo di ufe Lesa'a toka totompa ako lagi te doe, ako te sarati nu ufe di alanto. Suruntu tompa ako te ufe ako kua todahaani ngkaramanto te ufe ana mina di Moori, jari bara to gogo, bara to homo-homo ako daimo uka te ufe dialanto ana no jari hekombi, no jari joa ako to seha-seha"* (Interview with Traditional Leaders, 2021). "*We take water secretly in the Lesa'a cave water but first throw coins into the cave water as required for the water we take. We pay for water because we are aware that the water is God's creation, so we must not make noise, cannot yelling, so that the water will always stay healthy."* (Interview with Traditional Leaders, 2021). Utilization of Lesa'a cave water as a fulfillment of the mandatory requirements for belief in the efficacy of cave water as a healer and repellent to evil. The Lesa'a cave water is used as a healer or repellent from evil. Lesa'a refers to "soul freedom" or "soul openness." Individuals can heal from all diseases and maintain good health by drinking and bathing in cave water. The community believes that sustaining cave water is necessary and that water can also be beneficial for the community if the water is always clean.

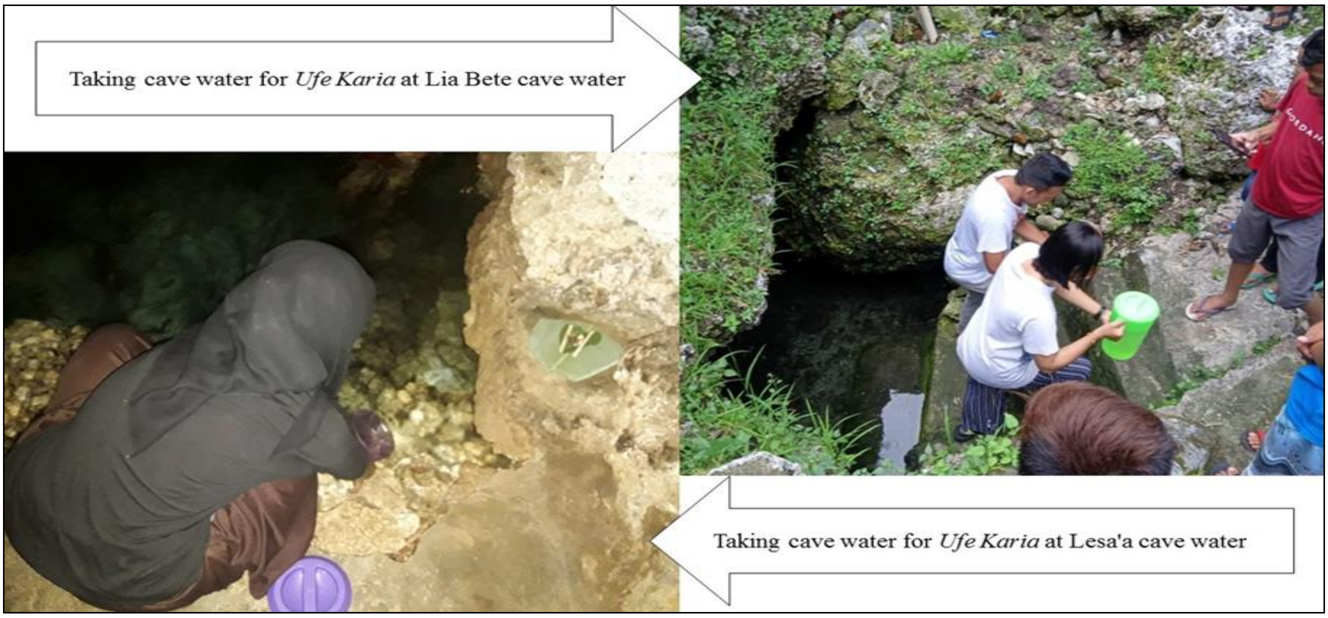

Figure 3. The procession of taking cave water for Karia tradition (Source: of research, 2021)

Figure 4. The Bathing Procession with *Ufe Karia* by Traditional Leaders (Source: of research, 2021)

Figure 5. Procession of Advising Karia Participants by Traditional Leaders (Source: of research, 2021)

2. Implementation Stage (*Hoporuku*)

Hoporuku begins by calling the name of each child, then is bathed from right to left while rubbing the whole body and drinking water three times, then directed to say the shahada following Islamic values.

The child received advice (*Ndou-Ndou*) from parents, traditional leaders, and religious leaders about having good behavior following Islamic values called "*Pake Leama*". It taught children the attitudes towards parents, fellow friends, teachers, the environment, and God according to the Qur'an and Al-Hadith.

3. Karia Celebration Stage

The final stage of the Karia Tradition procession is the coronation of participants by bringing the children to parade around the village led by traditional leaders (*Sara Hu'u*) and religious leaders (*Sara Hukumu*). The community rejoices over the process and is grateful because the child is ready to live in society.

C. The traditional value of using cave water for sustainable ecotourism

The long process that each child goes through is led by traditional leaders (*Sara Hu'u*) and religious leaders (*Sara Hukumu*). Each process contained the values of the good of life. The values contained in the tradition are as follows:

1. Religious values are absolute and eternal spiritual values based on human faith and trust. The tradition of *Ufe Karia* remains to exist because of the mass commemorate of Muslims. Also, the Karia tradition teaches to behave following religious values.
2. The value of collaboration is manifested in individual behavior or actions to do something for the common interest or to a particular individual. It can be seen in the Karia tradition during the preparation process by the local community, such as: set up tents, arrange chairs, cook for 3 days, and others.
3. The Karia traditional process will unite families. The family values can be seen in the *Hopoboka* activities, such as: bringing some money, rice, eggs, or others and then giving to Karia participants, also in the *Kontamanga*, such as: cleaning Karia participants houses, setting up tents, and arranging chairs, cooking for 3 days to prepare the traditional process. This event can unite different levels of families and reduce ceremony costs.
4. Traditional leaders are well knowledgeable about the customs and serve as a model for society. Therefore, all activities carried out by traditional leaders can help the community in understanding customs values. The leader must ensure that each activity or deed is viewed positively by the community, including participating in all cultural activities.

Regular community life based on religious beliefs, traditional norms, and the good life principles can serve as a guide and reference point for social life. The primary purpose of the Karia tradition is to teach religious values and kindness to children from an early age. Quality life can reflect human behavior towards nature. Good environmental quality is also a reflection of the quality of life. Geertz (1973) revealed that many belief systems in society influence how people behave, including environmental behavior. The primary factor contributing to decreasing environmental quality is human activity's exploitation of nature. According to Sasmito (2015) environmental damage is increasing due to overexploitation of nature and unsustainable industrialization. The importance of cave water for society teaches humans to respect nature and recognize that God created natural resources to meet human needs and that humans are responsible for conservation. Conservative values in the tradition of using cave water can be seen based on table 2 below:

Table 2. Traditional value of using cave water for conservation (Source: of research, 2021)

Ufe Karia Tradition	Values and Interpretation
Prohibited activities: The following activities are prohibited: littering, creating noise, cursing, collecting water, and conducting immoral behaviors.	Ecological value, which includes a restriction on damaging cave water.
Allowed activities: Water is taken for traditional and customary uses, water is taken for medicinal purposes, the environment is cleaned, and the water is kept clean.	- The procedure for extracting water from the cave demonstrates the importance of balance, which encompasses the concept of living in harmony with nature. - Through non-destructive operations, the value of sustainability is maintained for the cleanliness of cave water. - The importance of mutual cooperation, water collection, and use in the Karia traditional procession.
Activities to do: Required to conduct actions such as securing and protecting cave water resource locations and creating social and cultural infrastructure for cave water ecotourism in Wakatobi Regency.	- Ecological value, which includes the prohibition on maintaining always-clean and sustainable cave water. - The value of sustainability indicates that water resources can remain sustainable for the growth of ecotourism in Wakatobi with careful use.

Based on the overall results, the use of cave water for the needs of the Karia tradition is a real effort for the development of ecotourism in the Wakatobi Regency. The values of the goodness of life in the community and conservative values are clear evidence that cave water does not only have natural beauty besides that it is water that supports traditional completeness. The values in the tradition contain teachings about the importance of preserving water resources. For the community, cave water contains blessings from God. The community believes the water of the cave to purify and heal and even cure disease. The strong public trust in the water content of the cave has shaped conservative behavior in its use. Used as customary water to fulfill customary requirements in the mandatory tradition is a symbol of public awareness for water conservation.

CONCLUSION

Cave water for indigenous peoples is not merely raw water to meet their needs, but more than that, cave water is closely related to community traditions. Utilizing cave water for traditional water needs in the Karia tradition is a water conservation practice. Values in the use of cave water is an effort to preserve the environment and culture.

Very meaningful Karia tradition is a form of true ecotourism implementation Based on the results of this study, it is possible to maintain the significance and value of tradition to develop sustainable ecotourism in Wakatobi Regency. It is not difficult to sell tourism products with ecotourism features (natural potential, traditions, and community culture with educational and instructional values) to maximize ecotourism.

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Article history: Received: 18.11.2021 Revised: 22.04.2022 Accepted: 20.05.2022 Available online: 23.06.2022

GeoJournal of Tourism and Geosites

Year XV, no. 2, vol. 41, 2022

ISSN 2065-1198
E-ISSN 2065-0817