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SHIFTING OF LAND USE IN SUSTAINABLE TOURISM: A LOCAL CULTURAL APPROACH IN INDONESIA

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Abstract: Tourism becomes a hotly discussed topic because it has a significant impact on the economy, social, and culture. This study analyzes changes in yard land use to support sustainable tourism based on local culture, namely the culture of harmony. This research was conducted through two approaches. The first was carried out qualitatively to see changes in depth in the use of Ubud community yards. The second is done quantitatively with the help of statistics to determine the impact of these changes. Data were collected through in-depth interviews with people who own land changes and through questionnaires. The selection of informants was based on recommendations from the traditional village leadership using the snowballing method. A total of 38 land owners have filled out the questionnaire correctly. The results of the qualitative research explained that most land-use changes were in palemahan 0r teba, which were initially used as a breeding place, remove dirt, and gardening functioned as a place to stay for tourists. The quantitative results explain that land changes based on a culture of harmony have a positive impact on the economy, social, culture, and environment. The results of this study support the development of sustainable tourism which is an important issue in today's era.

Key words: land, culture, sustainable tourism, Ubud

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INTRODUCTION

Sustainable tourism is an issue that is very interesting and is still being debated today. Various impacts of climate change on tourism practices are increasing (Becken and Hay, 2007; Gössling and Scott, 2008) and sustainability is also increasingly important in running a tourism business (Font and Harris, 2004; Murphy and Price, 2005; Swarbrooke, 1998; Weaver, 2006). Sustainable tourism includes environmental, economic and socio-cultural responsibilities (Kapera, 2018). These three responsibilities are the basis for building green tourism, requiring all tourism industry players such as tourists, companies, communities, and government to be actively involved (Sadguna et al., 2020; Astawa, 2018e; Liu et al.,2017). The involvement of stakeholders in various countries in implementing the green concept is still diverse. This is influenced by several factors, such as various economic, socio-cultural, political and security factors (Mika, 2015).

The results of the study provide an explanation that socio-cultural factors are very important in developing destination areas that have cultural orientation (Mika, 2015; Astawa et al., 2018a) and other factors such as economic factors and environmental factors are also taken into account in sustainable tourism (Schönborn et al., 2019). Several countries view the tourism industry as a good way to increase the economy and job vacancies (WTO, 2016). However, many also sacrifice natural, site or cultural resources for the benefit of tourists (Blancas et al., 2018). This negative impact encourages the issue of sustainability is very important to do so that the target of tourist satisfaction does not sacrifice existing resources and culture. Indonesia is a developing country that has famous tourist attractions in the world such as Ubud, where culture is the cornerstone of tourism. When culture is recognized as a product in the tourism industry, it will raise new challenges from all organizations involved in the tourism industry (Bradley, 2018). The vision and mission of the organization or company management must adapt to the existing environment and culture (Piketty, 2014). The adjustment of local culture into organizational culture is a new challenge that must be considered because there will be friction between internal and external interests related to existing cultural values so that sustainable tourism goals cannot be achieved (Agyeiwaah et al., 2017).

Culture influences management practice (Rajiani and Pyplacz, 2018). The core element in culture is the value in which the relationship between humans in a society is always influenced by the values that are part of the collective program of people's minds (Hofstede, 2007; Ranasinghe, 2019; Wróblewski and Kasperek, 2019). In Ubud, the foundation of shared beliefs and values is the Tri Hita Karana (three causes of happiness/THK) philosophy which transcends all aspects of life, including business and governance. THK philosophy profoundly influences social values, attitudes, and norms in the Ubud tourism system and its deep relationship with the natural environment which is deeply rooted in this belief system (Rahmawati et al., 2019; Sukawati and Astawa, 2017). The belief system of the people of Ubud related to the natural environment or residential land is divided into three parts, namely the main part, the middle part, and the back part or refers to the *asta kosali* culture or building layout, where the building for worshiping God is placed at the top (upstream), then followed by a building for mutual or middle interaction, and finally or tebe used for a garden, pen, and garbage disposal

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(Rahmawati et al., 2019; Sukawati and Astawa, 2017). The results of the data show that in Ubud, the average household has three or four rooms for rent to guests (Sukawati and Astawa, 2017). Based on this phenomenon, this study analyzes changes in the use of community yards for sustainable tourism purposes in which there are cultural values that must be preserved. This research model has not been widely used and most of the approaches are economic (Rahmawati et al., 2019).

MATERIALS AND METHODS

This study uses two approaches, namely qualitative and quantitative (Creswell and Clark, 2017; Astawa et al., 2019d). In the qualitative stage, an in-depth interview was conducted with the owner of the yards who had changed in Ubud. Prior to the interview, a letter was first sent via email and post which contained a discussion regarding the concept of changing the use of the yard that had been developed based on the Astakosali culture (Astawa et al., 2018a). A total of nine people who were representatives of each community as informants had provided a detailed and clear view of the changes in yard use and the average interview length was 65 minutes. The selection of these nine informants was based on recommendations from Bendesa. The data collected is compared with existing theories (Glaser and Strauss, 2017) and coding was done using Miles and Huberman (1994). Qualitative results are used to make a questionnaire with five Likert scales which consists of three aspects, namely aspects of God, aspects of human, and natural aspects (Astawa et al., 2018a) and have been tested to determine the validity and reliability of 30 household heads and the results are valid and reliable.

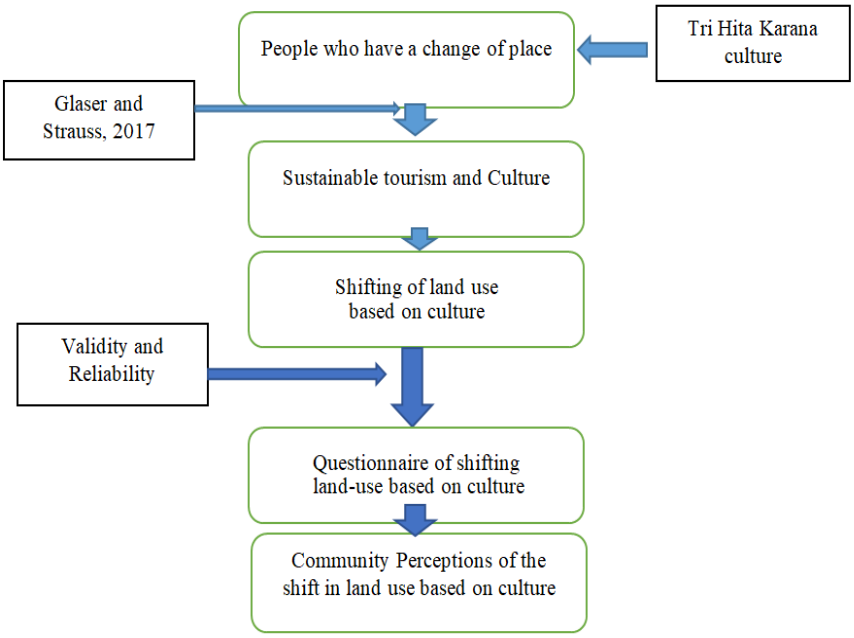

Figure 1. Methodology Design (Source: Creswell and Clark, 2017; Astawa et al., 2019d)

The quantitative stage is carried out starting with sending a questionnaire via email and post to the head of the household whose data is provided by the tourist village as many as 82 people. The collected data will be analyzed with descriptive statistics (Sugiyono, 2010).

RESULTS DISCUSSIONS

The reality of the use of Balinese customary land, as reported by the national news site vivanews.co.id, states that in 2012 the conversion of land in Bali reached 3,400 hectares. This means that the average land use conversion on the Island of the Gods is more than 3 hectares per day. Conversion of land functions cannot easily be prevented, especially in private land ownership, but the same phenomenon also occurs with customary land, even though it is still under the control of Pakraman village.

But this reality then puts the hope of maintaining Balinese land in general in the Pakraman village community organization through its original authority with autonomy which can manage its own household. To be able to describe the use of customary lands in Bali based on the results of research in areas where development dynamics are rapidly developing and the impact of tourism is very strong, namely in the village of Pakraman Ubud and the village of Pakraman Jimbaran. There are differences in these areas, the main picture is in tourist areas, the use of customary land in tourism destination areas seems to have shifted its function, like in the village of Pakraman Padang Tegal Ubud, Gianyar.

Local customary lands have experienced a shift in function, which was originally intended for boarding houses, the village yard land has been widely used as well as places for tourism support businesses such as homestays, art shops, cafes, and others. The results of qualitative research on land shift seen from culture can be explained in the Table 1.

Based on the explanation in table 1 that the sanctity of a place of worship towards God is still well preserved, and gives the belief that what is in this world is a creation, so that gratitude is manifested in preserving the values and functions of buildings in accordance with the legacy of their ancestors. The belief in the greatness of God gives the people of Ubud the strength to innovate in maintaining tourism that is integrated with religion. Maintaining cultural values that still maintain harmonization of the relationship with God, harmonization with humans through the provision of a place that is located in the middle, and harmonization with nature utilizing Tebe space are very much in line with sustainable tourism (Astawa et al., 2019d). The most changes in land use were in palemahan tebe, where it was initially used as a breeding place, throw dirt, and gardening functioned as a place to stay for tourists which are arranged like a villa that blends with nature. The concept of this building is in line with sustainable tourism which supports the creation of a beautiful environment (Kimbu and Tichaawa, 2018). This concept is an innovation in developing a community-based tourism concept to maintain business sustainability (Putri et al., 2020; Sumarmi et al., 2020). The results of distributing questionnaires to tourism village managers show that 66% of tourism village managers have a bachelor's education and the rest have high school education. The average length of serving as head of the tourism village management is 3 years and has an average age of 47 years as much as 75% and the rest of the age is 48 years and over. Judging from the education of the managers, it is very adequate in carrying out the concept of management in the village and is also supported by a very productive age, so that the concept of developing yards in tourist villages has the opportunity to run well.

Table 1. The meaning of land use from cultural concepts

Informant	Divinity/Parahyangan (Upstream)	Human/Pawongan (Middle)	Nature/Pelemahan (Tebe)
Informant.1	The shrine for the ancestors is still the same as before	Place of communication with family	The garbage dump has been managed by the village
Informant.2	Our family temple is well maintained and ceremonies are carried out regularly	Maintain communication with family and outsiders	The cost of land and the demand for guest accommodation is increasing, so I use it for rooms
Informant.3	Do not dare to dismantle despite many requests from guests	Guests who stay with us interact in the central Bale	No longer have *tebe* like before, I pack it like a villa for guests
Informant.4	Ancestral legacy in the form of *merajan* (family prayer place) still remains	Humans need space to communicate and eat together	I have arranged the slum *Tebe* into a beautiful garden
Informant.5	I keep a sacred place well	This place is often referred to as *menyame beraye* (for relatives who come to the house)	*Tebe* still exists but a little area in the form of a garden, it is no longer for throwing garbage
Informant.6	Everyone is afraid to change the layout of the family prayer place because it is following the culture of Ubud people	Intent interaction between guests and household members	Used for buildings such as villas
Informant.7	Humans are born because of God and we should respect and worship Him through the family temple	The concept of siblings occurs in the middle area	I made a bungalow for the *tebe* land
Informant.8	The concept of culture in upstream Bali can mean a head that should be guarded and a sanctified place	Fostering human relationships requires a presentative place	Tebe becomes the belle now in Ubud for making dollars
Informant.9	The concept of cultural values regarding parahyangan is a sacred area	Humans who are born as social humans need a place of interaction	The concept of slum and dirty has now changed its function as a residence
Conclusion	- A sacred place - There is no change in function - Well taken care of - Trust and belief in the greatness of God	- A place to communicate with fellow humans - Having a relationship - Serving guest - Maintaining a relationship	- A place for guests to stay - As a garden - Villa or bungalow - The impression is rundown and dirty does not exist

Higher education has a deeper ability to solve various problems (Dwi Atmanti, 2005). Activities related to the use of the yard which consist of activities for divinity, for living quarters, for guest houses, and for gardens. This condition is explained by the perception that has an average value of 4.52 and is close to 5 (Table 2) which means agreeing that the activity is carried out in activities to maintain culture and support tourism. The condition that gets high support is the room activity for guests because in the village of Ubud it is synonymous with the most featured homestays. This response is the same as various previous studies where guests feel happy to stay in people's homes (Astawa, 2018e; Astawa et al., 2018a).

Table 2. Palemahan Perception (Source: Processed primary data, 2020)

Variable	Question Items	SD 1	D 2	A 3	AG 4	SA 5	Amount (wght x freq)	Average
Palemahan	Divine activities			5	20	57	380	4.63
	Humanitarian Activities			5	40	37	360	4.39
	Guest room			2	30	50	376	4.59
	Manure and Gardens			6	30	46	368	4.49
	Average							**4.52**

Note: SD (strongly disagree); D (disagree); A (average); AG (agree); SA (strongly agree); wght (weight); Freq (frequency)

Table 3. Parahyangan Perception (Source: Processed data, 2020)

Variable	Question Items	SD 1	D 2	A 3	AG 4	SA 5	Amount (wght x freq)	Average
Parahyangan	Community activities in believing in God (prayer)				25	57	385	4.70
	Interacting with the community with cultural performances				45	37	365	4.45
	Introducing nature conservation through religious rituals				32	50	378	4.61
	Average							**4.59**

Note: SD (strongly disagree); D (disagree); A (average); AG (agree); SA (strongly agree); wght (weight); Freq (frequency)

Table. 4 Pawongan Perception (Source: processed data, 2020)

Variable	Question Items	SD 1	D 2	A 3	AG 4	SA 5	Amount (wght x freq)	Average
Pawongan	Accepting guests			5	10	67	390	4.76
	Means of Communication			5	30	47	370	4.51
	Keeping the relationship			2	10	70	396	4.83
	Social interaction			6	20	56	378	4.61
	Average							**4.63**

Note: SD (strongly disagree); D (disagree); A (average); AG (agree); SA (strongly agree); wght (weight); Freq (frequency)

The cultural perception of the respondents' Parahyangan aspect gave the highest support of 4.70 (Table 3) from the existing indicators. This reflects how strong the belief in the values of believing in God which is shown by various rituals and cultural activities. This condition strengthens that tourism in Ubud is cultural tourism or has strong cultural roots. THK culture has an important role in building an order of life because it is integrated into religious activities and can affect the performance of organizations involved in the tourism industry (Astawa, 2013c; Astawa and Sudika, 2014; Astawa et al., 2016f). In Table 4, it is explained that the value of maintaining the relationship is 4.83 which means that the function of the designated place is culturally unchanged as a means of social interaction, it's just that the interaction has an increase in the allocation for guests who live with their families. Every guest who stays overnight is made part of the family so that it will grow a very strong kinship. This concept is one way to maintain relationships with consumers through their cultural values. This activity really supports sustainable tourism without sacrificing the existing culture in building tourism (Astawa et al., 2019d; Romão and Neuts, 2017).

The three cultural variables support the yard change activities that are carried out. These results provide reinforcement for the implementation of sustainable tourism that must contribute to the environment, economy and socio-culture (Romão and Neuts, 2017). The attributes of changes in the developed yard have been developed and include cultural elements in preserving nature and supporting the creation of sustainable tourism. The results of this study provide clarity for tourists and other tourism actors who must pay attention to and participate in preserving the existing culture. The World Tourism Organization (WTO, 2016), now the Nations World Tourism Organization (UNWTO), offers a definition of sustainable tourism development as "meeting the needs of today's tourists and hosting territories while protecting and enhancing opportunities for the future. It is considered to lead to the management of all resources in such a way that economic, social, and aesthetic needs are met while maintaining the integrity of culture, essential ecological processes, biological diversity and life support systems." (Liu et al., 2017; Chávez-Cortés and Maya, 2010). Basically the need to develop and manage these activities for the purpose of not sacrificing their resources, culture, or nature to achieve sustainability (Blancas et al., 2015). Therefore, the concept of sustainable tourism development can not only be considered as a holistically future-oriented system, but also an inward vision that includes all aspects related to the economy, environment, and society, towards achieving its goals (Sharpley, 2000).

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CONCLUSION

The most changes in land use were in palemahan teba which was originally used as a breeding place, disposing of manure, and gardening due to the urgent need for lodging for tourists who want to know more about community life so that the land is used as a place to stay for tourists. Shifting the function of land in general will destroy the existing order of life, but in Ubud, the natural environment is still well preserved, reinforced by local cultural values. The quantitative results explain that land changes based on a culture of harmony have a positive impact on the economy, social, culture and environment. The results of this study support the development of sustainable tourism which is an important issue in today's era.

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DESIGNING TOURISM IDENTITY COMMUNICATION IN SATUN UNESCO GLOBAL GEOPARK

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Abstract: Satun Geopark, located in the south of Thailand, was recently designated as UNESCO Global Geopark in 2018. The geopark is well known for its abundance and variety of Paleozoic fossils with many outstanding geological tourist sites, including specular karst landscapes, stunning caves, and remarkable sea caves. To promote Satun Geopark as tourist destination, its tourism identities must be communicated to wider audiences. This will convey the unique value of local communities to draw attention to new visitors and attract existing ones for a revisit. This research conducted in-depth interviews with community leaders and surveyed on-site signage systems to find out an improvement on tourism identity communication. The design of identity mascot was proposed as a new tool to communicate its identity with visitors in various channels.

Key words: Tourism, Tourism Identity, Identity Communication, Mascots, Satun UNESCO Global Geopark

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INTRODUCTION

Tourism industry plays a very important role to Thailand's economic growth. In 2019, there were 39.80 million foreign tourists visiting the country and generating revenues of 62.29 billion USD, compared to 58.07 billion USD in 2018.[1] Tourism is now becoming an economic instrument that Thai government emphasize on because tourism is important to generate income for country development. Income from the tourism is among the top figures and, the most importance, is distributed directly into the locals. Therefore, local administrations and related government agencies created policies and plans for tourism development and promotion. The key government agency responsible for tourism promotion and support throughout the country since 1960 is the Tourism Authority of Thailand (TAT) (Tourism Authority of Thailand, 2020). One of the major promotion plans initiated by TAT in 2018 was marketing tourism on less-visited minor city, so called *Muang Roung* in Thai language, to spread out the number of tourists according to the potentials of each area (Tourism Authority of Thailand, 2020). The project, named *Muang Roung, must try*, was set up for tourists who truly appreciate the uniqueness of each local area.

Satun province locates in the south of Thailand, on the side of Andaman Sea in the Malay Peninsula. It is a secondary city that is distinguished by its primeval geology, unique ecology, biodiversity, and rich culture. This significant area has been designated as Satun UNESCO Global Geopark recently in 2018 (Thungprue et al., 2015). It is the first UNESCO Global Geopark of Thailand and is located approximately 50 km. north of Malaysia's Langkawi UNESCO Global Geopark, that is the first global geopark in Southeast Asia since 2007 (Mohd Yusof et al., 2019). With the area of 2,597.21 km^2, the geopark covers four districts, namely Thungwa, La-ngu, Manang, and part of Mueang Satun district, as shown in Table 1.

Table 1. List of notable geosites, with number notations as shown in Figure 1
in four districts of Satun Province that constituted Satun UNESCO Global Geopark

District Name	Number of Geosites in Satun Global Geopark	Notable Geosites
Thung Wa	8	2 Stegodon Sea Cave, 6 Tharn Plew Waterfall, 1 Khao Thanan
Manang	4	9 Phu Pha Petch Cave, 12 Chet Khot Cave, 11 Pa Phon Lapies
La-ngu	10	28 Prasat Hin Punyod, 27 Lidi Lek Island, 26 Kho To Ngai Geological Time Boundary
Mueang Satun	6	18 Khai Islet, 17 Hin Ngam Island, 15 Son Bay

It includes one wildlife sanctuary and two national parks, i.e. Khao Banthat Wildlife Sanctuary, Petra Islands National Park and Tarutao National Park, respectively. It consists of 28 geological sites (geosites), as illustrated in Figure 1, and more than 16 tourist attractions. The outstanding point of interest in the geopark is marine-life fossils which were found diversely and continuously in all six geologic periods of Paleozoic Era, dated back to approximately 548 - 250 million years ago. The oldest Trilobite, a group of extinct marine arthropods, in Southeast Asia has also been found in the geopark. In addition, the region is notable for the hierarchy of rock layer system, ancient bacterial in rock-like structures or Stromatolite as well as the world-class beautiful limestone landscape. In addition to karst topology in the area that creates stunning geosites such as caves, sea

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caves and lapies (Ruban, 2018), this area is important in linking ancient sites, multiple cultures including Buddhism and Islam, and the way of life among the local ethnic groups, for example the Mani or Maniq, the Moken and the Urak Lawoi sea gypsies (Thungprue et al., 2015). Community leaders and local government in Satun Province collaboratively promoted the geological areas in Satun from the provincial level to the international level until it was designated Satun UNESCO Global Geopark in 2018. This resulted to more income to the local communities and improved the overall economy of the province. The revenue from tourism in Satun province in 2018 was 9,100 million Baht, increasing 11.41% from 8,168 million Baht in 2017[2]. Satun Province is one of the minor cities that have potential in tourism growth.

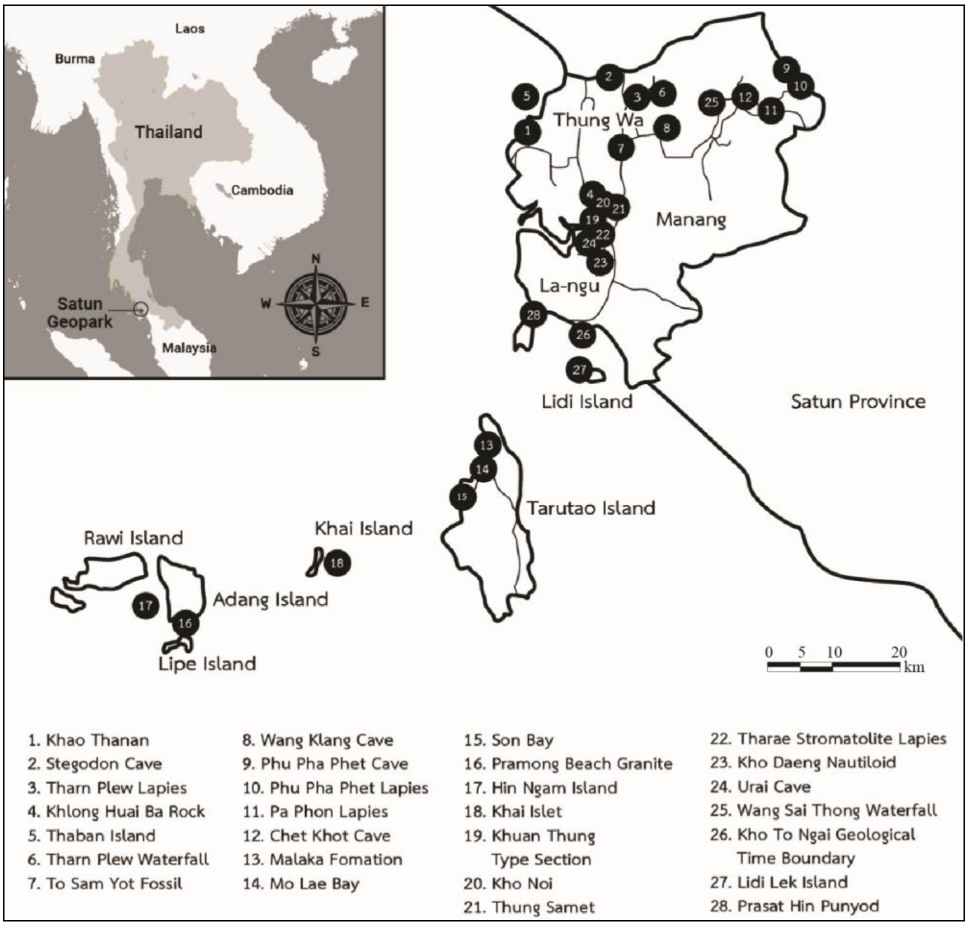

Figure 1. Satun UNESCO Global Geopark locates in Satun Province, The geopark covers four districts, namely Thung Wa, Manang, La-ngu and part of Mueang Satun District

In accordance with *Muang Roung, must try* project, Tourism Council of T hailand (TCT) set up a subcommittee on domestic tourism promotion with its main mission to promote the development of tourist attractions, communities, products for tourists, and tourist routes with identities. TCT is an assembly of private sectors in tourism industry with working groups in each province to work together with TAT in local areas. It helps restore, develop, and conserve tourist attractions in natural, historical, and cultural sites to meet the industry standard. It also helps extract the identity in each community for public presentation and develop communication techniques for storytelling to bring out charms and values of each region. The main goal is to reduce inequalities, create balances in tourism, and distribute income to local communities. One of TCT initiatives in southern provinces, that are situated between Gulf of Thailand on the east and Andaman Sea on the west, is to "lure more tourists from the beach to villages" to reduce overloading in popular tourism areas and create more sustainability for the locals (Worrachaddejchai, 2020). There are various models and approaches to convince and persuade tourists to visit unfamiliar destinations. With trends in ecological tourism, the community-based tourism (CBT), where traveling services are supplied by residents in local community with the benefits of both the community and travelers, is a promising idea to provide sustainability in TAT's second-tier city policy, especially in remote areas with unique natural landscape in Satun Geopark (Strydom et al., 2019) (Stoffelen, 2020). Communication strategy like storytelling or, specifically, geo-storytelling from the locals are excellent resources to motivate and engage visiting to a community (Pera, 2017) (Wolniewicz, 2019) (Górska-zabielska and Zabielski, 2019). In addition, city branding is a marketing strategy that helps position and distinguish a city from its competitors (Soltani et al., 2018) (Mastika and Nimran, 2020). Tourism identity of a region is a key for both strategies to communicate its branding to public.

To maintain the UNESCO Global Geopark status, Satun UNESCO Global Geopark is now preparing for the revalidation process from UNESCO. The process takes place every four years in each Global Geopark to examine its quality and performance (Henriques and Brilha, 2017). Satun UNESCO Global Geopark is about to submit the progress report in 2021 and get full revalidated by UNESCO in 2022. Therefore, the main goal of this research was to search for tourism identities of Satun UNESCO Global Geopark and propose the key findings as well as solutions, in terms of identity communication, to the director of Satun UNESCO Global Geopark for further consideration.

MATERIAL AND METHODS

Identity is a particular feature that makes someone or something stand out or be different from others. Therefore, identity communication means communication processes in which communities can tell themselves *who we are* and, optionally at the same time, tell others *who they are*. Tourism with local identity communicates interesting and distinct

[2] Satun Provincial Office, Thailand

details in community that differs from others. It is one of the popular methods to attract tourists. Shifting behavior and expectations of tourists influence the choice of travel destination in various forms, regardless of the purpose of the tourism. 60% of travelers today think that the travel destination they are interested in must be a destination that indicates their identity (Chantub and Pocharee, 2016). Hence, a tourism identity is so important that most tourists are looking for to experience from a trip. Therefore, all stakeholders must be involved in determining a tourism identity in accordance with their local settings (Dhamabutra, 2019). Identity communication for tourism promotion communicates both inside and outside a community. On the one hand, communicating inside a community creates participation and pride in the community.

On the other hand, communicating outside the community creates the tourist attentions, encourages visitors to visit the community and helps tourists understand the tradition of the community (Chaiala and Ruengroj, 2016). Communication is vital in the development of a community. Tourism communication is the art of communicating to deliver compelling stories to help tourists understand and realize the importance of the community. Additionally, communication among community members led to the exchange of opinions to reflect the community identity more clearly (Chaiala and Ruengroj, 2016). An analysis of identity communication in Satun UNESCO Global Geopark through signboards in tourist sites is the key factor that leads to finding the identity strengths and to communicate and convey them to visitors. Developing the tourist sites in Satun UNESCO Global Geopark allows tourists to access information and obtain knowledge of the area. Identity communication is of importance because improvements of the sites are a part of preparation for revalidation and a progressive assessment of the UNESCO Global Geopark designation. One of the assessment indicators is that the Global Geopark must focus on informative and communicative purposes (Pásková and Zelenka, 2018) (UNESCO, n.d.). It must have easy-to-understand information and communication about the site. If the community and local government develop a signage system with identity communication complying with UNESCO assessment indicators, it will be a major support for the continuation of this area as a UNESCO Global Geopark in a long run. The objectives of this research are to study the signage system presented in geosites of Satun UNESCO Global Geopark and propose methods for identity communication in Satun UNESCO Global Geopark through the signage system. This will benefit in participation and knowledge exchange among researchers in the project and the locals in both governmental and non-governmental agencies. This will lead to creation of knowledge and awareness in natural resource conservation to communicate with visitors in the geopark.

Research Methods

Two approaches of qualitative research were used as main methods to survey the existing signage systems throughout the geopark and search for improvements in better identity communication. One is interviewing with stakeholders in the local area. Another approach is observation and evaluation of the on-site signage systems in all 28 geosites. Note that all interview and on-site data were collected before the outbreak of COVID-19 pandemic in February 2020 and the prevention of inbound tourists entering the country that suddenly ceased the tourism activities for months.

Table 2. List of interview groups in all four districts covering Satun UNESCO Global Geopark

District Name	Interview Group or Individual	Group Activities
Thung Wa	1. Director of Satun Geopark / Chief Executive of Thung Wa Subdistrict Administrative Organization (SAO)	Administration
	2. Deputy Director of Satun Geopark (Tourism Service Division)	Administration
	3. *Mor Khao Mor Khang Ling* (tropical pitcher plants) Group	Tour (general sites)
	4. Stegodon Sea Cave Tour Guides	Geosite Tour
	5. Thung Wa Homestay Godon Community Enterprise	Homestay
	6. Tha-oi Natural Dye Community Enterprise	Natural Dyed Fabric
	7. Thung Wa Community Tourist Community Enterprise	Geosite Tour
Manang	1. Phu Pha Petch Tourism Community Group	Geosite Tour
	2. Phu Pha Petch Cave Tour Guides	Geosite Tour
	3. Deputy Director of Satun Geopark (Conservation and Development Division) / Deputy Chief Administrator of Palm Pattana SAO	Administration
La-ngu	1. Bo Chet Luk Tourism Community Group	Geosite Tour
	2. Prasat Hin Pun Yod Tour Guides	Geosite Tour
	3. Panya Batik Group	Batik Fabric
Mueang Satun	- †	-
† No community group/enterprise in Mueang Satun District. All are private companies which are not in research focus		

First, several in-depth interviews with 13 groups or individuals in four districts, as shown in Table 2, were conducted in 2019. Snowball sampling was used to determine a list of interview groups. Starting from the director of Satun Geopark, an interview subject suggests future subjects from his or her connections. Their opinions, needs, concerns and expectations were asked and later analyzed for the identities of each local geosite. The question topics include:

- General information of interviewed person/group.
- Notable geosite or tourist attraction, both tangible and intangible, in the area & its uniqueness.
- Geographical and physical context in the community.
- Collaboration in the area/community.
- Behavior and needs of target visitors.
- How visitors & the prospects get access to travel information.
- What is the existing means of travel/identity communication? (in terms of form, content, and design)

- Required or improvement of travel/identity information for better communication in Satun UNESCO Global Geopark.

Second, the signage system in each geosite was evaluated as the main on-site communication channel to visitors. The assessment criteria of a signage system include size and number of signs, types and usefulness of information, convenience of information access, site identity, as well as safety and engagement of both Thai and international visitors. In addition to the field data, academic documents, textbooks, magazine and internet articles were examined for best practices in tourism identity communication (Tölkes, 2018) (Ongkrutraksa, 2015) (Calori and Vanden-Eynden, 2015).

Data analysis from interview records and on-site evaluation were done in descriptive analysis. Then, the conclusions were drawn according to the process to find out the identities of Satun UNESCO Global Geopark. Subsequently, the prototype to demonstrate identity communication for the geopark is designed for further consideration from Satun Geopark committee in the preparation for UNESCO revalidation in 2022.

Findings in Tourism identities

Satun UNESCO Global Geopark has a unique identity in its geology of rock formations with fossils of ancient sea creatures as well as world-class beautiful limestone landscape in Andaman shore. This produces a wide range of natural tourism activities such as whitewater rafting, scuba diving, caving, waterfall, and beach excursions.

Each district in Satun UNESCO World Geopark also has different outstanding geological identities as follow:

- Thung Wa District is famous for eco-tourism and adventure traveling sites. The most remarkable geosite is Stegodon Sea Cave. It is a long limestone mountain cave that looks like a tunnel under the mountain. The exceptional findings in the cave are elephant and rhinoceros fossils in the Pleistocene period.
- Manang District contains numerous eco-tourism and adventure tourist sites. An outstanding geosite is Phu Pha Petch Cave. Its remarkable characteristic is a large limestone cave with beautiful stalactites and stalagmites. Inside the cave, fossils of bacteria (Stromatolite) and ancient sea ink (Nautiloid) were found. This is an indicator that the age of limestone area in Phu Pha Petch Cave is in the Ordovician period, or about 450 million years ago.
- La-ngu District is well-known for marine attractions and islands. An outstanding geosite is Prasat Hin Phan Yod. It is a primeval sea in the Paleozoic Era that is more than 540 million years old. In this area, the red sedimentary rocks formed in the Cambrian period and the gray limestones in the Ordovician period also can be found. These two evidences may lead to an assumption that this spot was the earliest ground of the region.
- Mueang Satun District is also well-known for marine attractions and islands. The outstanding geosite is Khai Island Coastal Arch. Here is a midpoint when sailing from Pak Bara Pier to Lipe Island. There is a pointed, steep cliff on the north of the island with a rocky arch on the beach. This location appears in the logo of Satun UNESCO Global Geopark with the theme shades of blue colors. Most of the rocks are sandstones with different cracking directions in their structure. The cracks commonly contain iron oxide which has higher corrosion resistance than underlying sandstones. Therefore, in some areas, a three-dimensional lattice structure of iron oxide was found because the underlying rocks were completely worn off.

Table 3. The summary of sign content in each geosites of Satun UNESCO Global Geopark

District name	Geosite Name	Number of Signs	Types of Signage					Language			QR Code
			Geopark Map & Info	Geosite Map & Info	specific spot info	Quiz	Precautions	TH	EN	CH	
Thung Wa	Stegodon Sea Cave	9	✓	✓	✓			✓			✓
	Khao Thanan	3	✓	✓				✓	✓		
	Tharn Plew Waterfall	3	✓	✓				✓			
	To Sam Yot Fossil	3	✓	✓				✓			
	No signage system: Tharn Plew Lapies, Khlong Huai Ba Rock, Wang Klang Cave, Thaban Island										
Manang	Phu Pha Petch Cave	6	✓	✓	✓	✓	✓	✓	✓		
	Chet Khot Cave	6	✓	✓	✓			✓	✓		
	Phu Pha Petch Lapies	6	✓	✓	✓			✓	✓		
	Pa Phon Lapies	3	✓	✓				✓	✓		
La-ngu	Urai Cave	7	✓	✓	✓	✓		✓	✓		
	KhaoToNgaiGeologicalTimeBoundary	5	✓	✓	✓			✓	✓		
	Khao Noi Rock Succession	**5**	✓	✓	✓			✓	✓		
	Prasat Hin Punyod	4	✓	✓		✓		✓	✓		
	Wang Sai Thong Waterfall	4	✓	✓				✓	✓		✓
	Lidi Lek Island	4	✓	✓			✓	✓	✓		
	Khao Daeng Nautiloid	3	✓	✓				✓	✓		
	Thung Samet	3	✓	✓				✓	✓		
	Tharae Stromatolite Lapies	3	✓	✓				✓	✓		
	No signage system: Khuan Thung Type Section,										
Mueang Satun	Hin Ngam Island	4	✓	✓	✓		✓	✓	✓	✓	
	No on-site survey / Contain signage system: Mo Lae Bay, Son Bay No on-site survey / No signage system: Pramong Beach Granite No signage system: Khai Islet, Malaka Fomation										

Findings in Signage Systems

Satun UNESCO Global Geopark uses a variety of meaningful signs to create awareness among visitors. According to the on-site survey, the signs can be categorized into 4 groups: Satun Geopark map & information, geosite map & information, geosite spot information, and precautions. The signage systems across geosites, especially map and information signs, show the consistency in their sizes, forms, and design layouts. However, there are very few signs to inform visitors about their safety. Even though Satun geopark contains many geosites in islands or coastal locations, a sign showing evacuation route in case of severe storm or tsunami cannot be found in such area.

In terms of content, there are geosite signs that present local information specific to each geosites as well as geopark signs that inform visitors about Satun UNESCO Global Geopark information. Both geopark signs and main geosite signs locates alongside at the site entrance. The content in a geopark sign usually contains an overall geopark map, history and background of Satun UNESCO Global Geopark, and geopark contact information. Similarly, the content in a geosite sign contains a site-specific information like a local map with nearby geosites, distinctive characteristics such as geological rock layers or specific fossils discovered in the area, precautions when entering the site, and geosite contact information. In popular geosites, there are also supplementary signs giving more details at some interesting spots. In addition, these geosites normally offer QR code signs for visitors to view extra contents like video or to visit the main website of Satun UNESCO Global Geopark for more educational contents. Most of the signs are in Thai and English, except in Hin Ngam Island where Chinese language is also included. The summary of sign content is shown in Table 3.

For sign materials, all geosites use thick steel which is durable in tropical monsoon climate in the south of Thailand. Illustrated in Figure 2, signboards come in two dimensions: 1) a large 300 x 200 square centimeters to present an overall map and information of Satun UNESCO Global Geopark and 2) a small 80 x 60 square centimeters to present map and information of a geosite. The number of signs installed on each geosite, as presented in Table 3, varies according to its geological importance and tourism popularity. In terms of design and layout, the signage systems in all geosites were created in the same direction. The design elements that communicate the geopark identities are mainly the logo of Satun UNESCO Global Geopark, the theme color of blue shades and photographs of iconic geosites.

Figure 2. On-site signage system in a geosite normally consists of (left) geopark map & information, (middle) geosite map & information, and (right) geosite spot information

Insights from Community Leaders

According to the interviews with community leaders, the Chief Executive of Thung Wa SAO commented on the development of identity communication for 2022 UNESCO revalidation of the global geopark. He suggested the creation of mascots to communicate geosite identities for tourist awareness. By combining the strengths of each district with storytelling, the mascots may add an extra touch by providing an informal attention and natural persuasion to geopark visitors, especially for kids. Moreover, the Deputy Chief Administrator of Palm Pattana SAO advised to use a variety of communication channels, both on-line and off-line, such as web sites, pamphlets, posters, and banners.

He focused on content management, especially on how to present the content in simple and fun style as well as how to adapt an academic issue to be more enjoyable. This may help tourists understand the content easier. He also mentioned about on-site learning for visitors by using more illustrations or visualizations with suitable levels of language for each tourist group. Additionally, the Deputy Director of Satun Geopark gave an idea on how to digest geological information and use storytelling techniques to motivate and inspire audiences. He also discussed about new technology that supports storytelling to attract tourists to the geosites. For the tourism communities, community enterprises and tour guides, they gave opinions that knowledge in marine fossil classification should be educated to all visitors. With the help of technology to communicate the information, many tourists may realize the value of geological tourism more easily.

DISCUSSIONS

On-site signage system in Satun Geopark provides information of the geosites as well as knowledge in geology in the area. Without signage system, visitors may lose interest in the visiting site and miss a good opportunity to learn from their experience in the actual location. According to our survey, some geosites are still lacking signage system in their area and this may create problems for tourism in a long run. A mascot design as a mean to convey tourism identity is another tool for tourism identity communication. A cartoon character is more universal, less cultural or language barrier, and can be used in a variety of ways (Van Ginhoven, 2019). The existing signage systems can be extended using the mascot without creating a new sign. Moreover, the mascot can be digitalized and expands its usages into cyber world, such as a character in a website, a sticker in messenger application etc. In addition, the mascot may act as the tourism ambassador in souvenirs or collecting. More value can be added to the character and this will benefit the local community in the geosite area. In terms of storytelling, a well-designed cartoon character gives a human touch to audiences, especially to children of any nationality. It is a helpful mean to communicate more difficult information through visual illustrations using the mascot character.

Design of Tourism Identity for Satun UNESCO Global Geopark

From the finding process of tourism identities, data from the in-depth interviews and on-site surveys of signage systems in geosites were analyzed and used as the guideline to design tourism identities for Satun UNESCO Global Geopark. The concept of identity mascots to communicate the unique characteristics of iconic geosites in each district was chosen as brand personality (Satyagraha and Mahatmi, 2018). This group of mascots was designed to convey key identities of the geopark to target visitors and to create identity awareness to draw public attention to the geosites.

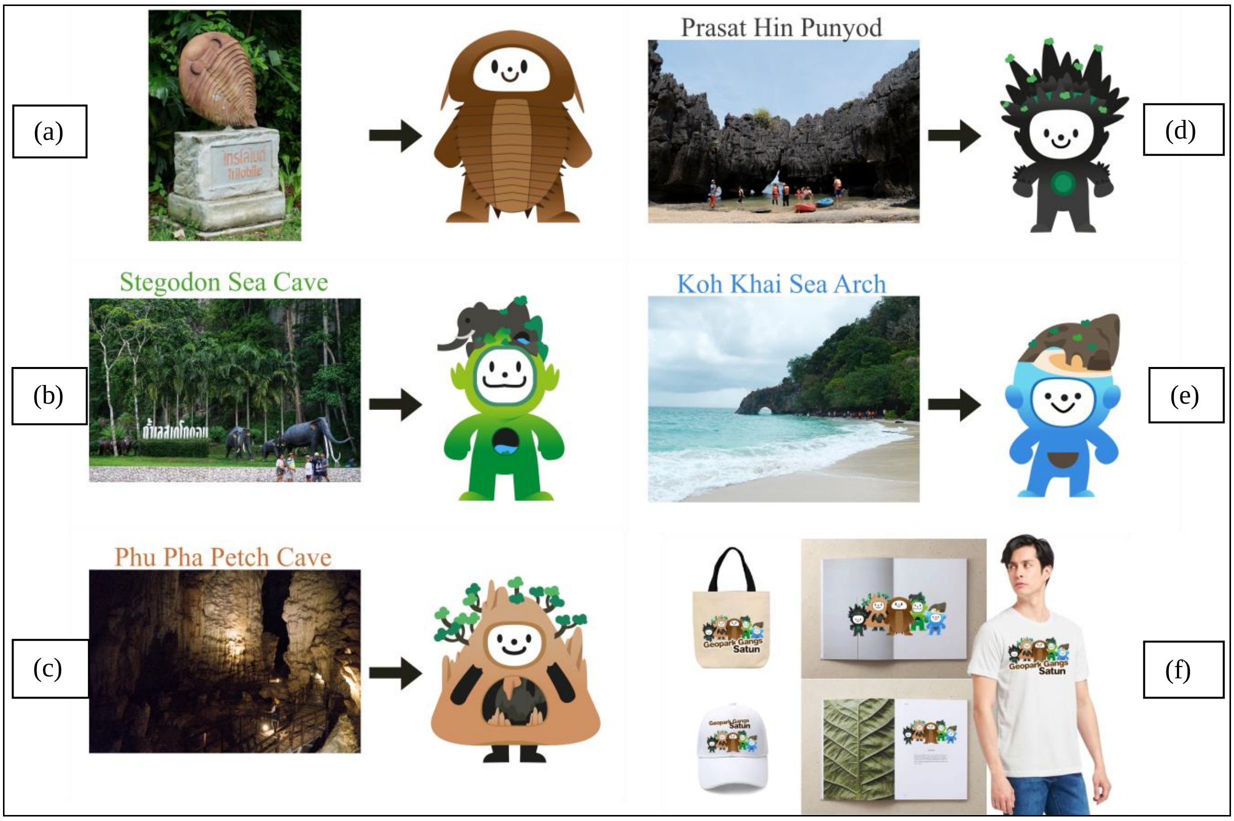

Figure 3. Design of Geopark Gang, a group of five mascots (a – e) representing Satun Geopark identities, and (f) samples of Geopark Gangs merchandise. [photos by NANTAKAT B., May & December 2019]

The character design concept is to mimic unique appearances of the geosite and reduce its details until acquiring only the form that matters. This imitated icon is positioned on the top of the mascot’s head. Each mascot is assigned different colors that is derived from the color tone in the actual location. The coloring differentiates the character’s personality and builds identity awareness to the actual geosite. Under the concept of Geopark Gang, five cartoon characters were created as a group of close friends, each with distinct personalities and appearances. Five members in Geopark Gang consist of one character representing the geoparks itself and the other four characters representing the iconic geosites in each four districts of the geopark. The selection criteria are outstanding characteristics and high potential as tourist attractions. The character design of each mascots comes from the following identities:

- Trilobite (Figure 3a):

The first character represents Satun Geopark as a whole with Trilobite, the very first fossils found in the area and the beginning of Satun Geopark. The mascot body mimics the shape of the Trilobite in brown color.

- Stegodon Sea Cave in Thung Wa District (Figure 3b):

This geosite is renowned as a sea cave with the fossils of elephants found inside. Hence, the Stegodon elephant in dark green is chosen for the storytelling with the backdrop of evergreen forest.

- Phu Pha Petch Cave in Manang District (Figure 3c):

This geosite is famous for beautiful stalactites and stalagmites inside the cave. Therefore, the shape of upside-down stalactites and stalagmites are used in the narrative.

- Prasat Hin Punyod in La-ngu District (Figure 3d):

This geosite features a limestone peak with thousands of castle-like tip as suggested by its name. This feature inspires the design of the mascot’s head with a plenty of long, pointed tips in a dark green tone.

- Koh Khai Sea Arch in Mueang Satun District (Figure 3e):

The design imitates the appearance of corroded stone with penetrating holes, along with the white-sand beach and clear blue sea reflected in the character coloring.

CONCLUSION

Signage system on a tourist site is a communication channel to provide essential information for visitors. It is a common place to communicate identities of the tourist site to create site awareness and draw public attention. Tourism identity is a unique characteristic of a particular tourist site which creates values and appeals to visitors. According to the interviews with community leaders and the surveys of on-site signage system, the analysis leads to the use of identity communication as a tool to promote and publicize the tourism in the community. Using a character mascot to convey the identities of a tourism site is another approach in tourism identity communication. Storytelling through mascot design using tourism identity help create recognition and connection to the tourism site. The communication channels can be expanded through a variety of usages in mascot or character design, ranging from a regular symbol in on-site signage system to digital assets in on-line applications. This will draw more public attention as well as generate income to the community.

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SPECTATORS' UNDERSTANDING OF THE ENVIRONMENTAL IMPACTS OF A SPORT EVENT IN PORT ELIZABETH, SOUTH AFRICA

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Abstract: The main aim of this study was to investigate the spectators understanding of the environmental impact when a sport event is hosted. The study focused on the Town Lodge Business Relay (TLBR) event, an annual event hosted in Port Elizabeth, South Africa. This event entails companies (corporates) entering relay teams, which compete again other teams. A quantitative approach was followed, using non-probability sampling and with spectators completing a self-administered questionnaire. The outcome of the study revealed pertinent demographic details about the spectators and indicated that most of the spectators (respondents) generally understood the environmental impact of sport events.

Key words: environmental impacts, spectators, sustainability, sport events destinations

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INTRODUCTION

The main purpose of this paper is to investigate the spectators' understanding of the environmental impact of sport events in Port Elizabeth (PE), specifically those spectators who attended the Town Lodge Business Night Relay (TLBNR) event. The environment is one of the important tourism resources that needs to be conserved and protected constantly, so as to ensure that future generations can derive the same benefit. Therefore, sporting activities need to be designed in a sustainable manner, so that events do not lead to the degradation of the environment.

At the same time, sporting events can be used to enhance the image of a destination, as well as to improve the attractiveness of the said destination (Higham, 2005; Hemmonsbey and Tichaawa, 2019). In support of the above statement, an improvement in a destination's attractiveness means that a large number of people may visit a destination, which which may result in either postive or negative environmental impacts. The spectors and participants of an event can contribute to several outcomes, such as the preservation of the physical landscape and local heritage, the provision funds for conservation efforts and may even have an impact on climate change, environmental destruction, waste and the over-consumption of natural resources (Barber, 2014). For this reason, it is necessary to plan events so that the negative impacts are mitigated, as best as possible. The significance of this study is that it provides valuable insight into how spectators think about the environment, and how aware of the environment the spectators are to sport events.

This suggest that sport event planners, sport administrators, hosts of sport events, and prospective sponsors of sport events, need to consider the environment where the sport event is held, as resource. Therefore, stakeholders of sport events need to pro-actively plan to ameliorate any possible environmental risks and not only focus on financial and health benefits of an event and participants, respectively. In doing so, they need consider making the destination where the sport event is hosted, more sustainable and appealing to spectators, participants and the host community.

Study Area

The TLBNR is an event that is held annually in the Port Elizabeth, South Africa, using the Nelson Mandela Bay Stadium (NMBS) precinct. The event is held on a course around the stadium, adjoining the neighbourhood over a period of four evenings. This enables the immediate community and others who travel to the event to support their family and loved ones, who participate in the event. The TLBNR is a team-based event for running and walking, where each participant in each of the teams are required to run or walk a 3.5 kilometre lap of the course. This event normally takes place over four days between May and August, as part of relay race. The field work was conducted on each of the four days, when the relay event took place.

LTERATURE REVIEW

Profiling of Spectators at Sport Events

The profiling of spectators (fans) is key in understanding who they are and what the specific needs are. For this reason, it is

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necessary to segment spectators based on a number of variables such as age, gender, education, income, ethicity, amonst other and to design events and resources that would cater for these different segments (Florek et al., 2008; Smith and Stewart 2007; Stander and Van Zyl, 2016; and Kaiser et al., 2019). Jones (2008) also stated that the spectators at sport events consist of a mix of local community and casual spectators, whose sole objective is not necessarily the sporting event itself, but also to enjoy themselves at the host destination. In addition, a study by Achu et al., (2015) revealed that the sport event spectators are generally young (18 to 34 years old) and well educated, with the majority having obtained a diploma or a postgraduate degree.

Due to the differing reasons why male and female spectators travel to a sport event, it has become necessary to profile the spectators, in order to pick up on such differences or similarities where necessary, and to modify event packages accordingly (Smith and Stewart, 2007; Nyikana, 2013). The other reason for this is that managers and marketers need to focus their efforts to optimise their limited resources (Ramukumba, 2016). Therefore, a need exists to segment your spectators, so that your have a better understanding of their origin, their needs and preferences (Stander and Van Zyl, 2016; Kaiser et al., 2019). Furthermore, it is suggested that through market segmentation, a spectator profile can be developed that will enable event organisers to concentrate resources and efforts so that an optimal return on investment can be obtained (Doole and Lowe, 2001).

The Environment as a Resource

For any host region, or destination it is key to ensure that the natural environment is considered as a key resource. Equally important is to ensure that the environment is not degraded as it is a natural resource that contributes to the competitiveness of a destination. This implies that greater attention ought to be accorded to the environment, as the natural environment is one of the resources that not only attracts visitors (athletes and spectators), but also provides the basis in which the activity is practised. It is asserted that the importance of the natural environment demands a greater investigation into the sustainable usage thereof, by both the tourism and the sport sector (Kruger, 2015), as their activities often impact on the environment. Therefore, greater emphasis should be placed so as to ensure that both participation in a sport and recreation activities are conducted in an environmentally sustainable manner.

According to Kruger (2015) natural resources, such as beaches, are key components in tourism development and has the potential to steer sustainable development, by improving resource efficiency. The natural environmental resources serve as a catalyst at a destination, and has the capacity to promote growth. On the other hand, events ought to be supported by municipalities as it has the propensity to boost the local economy (McKay et al., 2019) and by implication, the tourism destination The growth in tourism destinations, in turn, may lead to an increase in pressure being exerted on the environment (Du Plessis, 2010). The author suggests that to counter this pressure, a ‘greener’ form of tourism should be nurtured, to reduce environnmental impacts, by applying sustainable management approaches (Du Plessis, 2010), in activities which are prractised in the environment. Therefore, the need for sporting events to be environmentally friendly is key, so as to reduce the overall impact on the environment. For this reason, it may be necessary to investigate whether spectators understand the importance of the environmental impacts brought about by sports events.

The Relationship between Environment and Sport Events

Sport events are viewed as one of the key activities that are used as a vehicle for the growth and develiopment of many countries. Many factors contribute to the rapid growth and development of a country, or region, sports events are one of the preferred activities (Fourie and Santana-Gallego, 2011 cited in Nyikana, 2013). Higham (2005) believes that sport can be used as tool to enhance the image of a destination, as well as to improve the attractiveness of the destination.

The flipside of this is that the impact of sport may impact on the environment. Therefore, these impacts require appropriate management from the planners and the event organisers. According to Ritchie and Crouch (2003) a destination’s competitiveness is related to the destination’s ability to increase expenditure, while simultaneously facilitating the well-being of destination residents and preserving the natural environment, for future generations. With this definition the sustainable and effective use of an environment is emphasised and it should also be incorporated in sport events. Kruger (2015) states that the availability of resources or the lack thereof may allow or prevent a destination from offering certain products and experiences to visitors (athletes and spectators). Therefore, the lack of resources may lead to an absence of quality environmental space, which may, in turn, inhibit a destination from being attractive and competitive.

Environmental Impact of Sport Events

Globally, events have been recognised as an approach to attract visitors to a destination. It is also widely known that events may have specific impacts on the host destinations. These impacts are likely to recognised when examining at the environmental, social and economic significance of the host destination, where the events are held (Bjelac and Radovanovic, 2003). For the purpose of this paper, the environmental impacts of sport events are the focus of the study. The terrestrial environmental impacts are influences that affect the carrying capacity of the a particular area, the vegetation, its air and water quality, wildlife, and natural phenomena. According to Kiani and Nazari (2019) sporting events leads to increased consumption, energy, the emission of greenhouse gases and also generate waste, which necessitates the need for sustainable management. The discussion below presents both positive and negative environmental impacts of sport t events on host communities. Sports events have the capacity to serve as a catalyst for attracting attention to the natural environment, which helps in preserving some elements of the physical environment and of the local heritage that would otherwise be ignored. Sport events may contribute to urban gentrification (renewal), an improved economy, as well as the ability to enhance the quality of life of locals (Hemmonsbey and Tichaawa, 2019; Achu, 2019). Therefore, sports events have the ability to promote environmental protection in host communities through specific strategies that will decrease carbon emissions, or to minimise water usage, by creating environmental awareness amongst the local population and visitors by adopting specific mitigation initiatives to address environmental concerns. These initiatives are likely to minimise the negative environmental impacts from sport events and reduce the impact on the environment. As a consequence, the environment may be more appealing.

Sport events held in local areas could attract the interests of sponsors to contribute to conserving the host environment. These contributions would maintain the appeal of destinations that depend on the natural environment, which may then result in a higher demand for to visit such destinations (Goeldner and Ritchie, 2012). Therefore, sport organizers and event managers have a responsiblility towards the natural environment by ensuring that the environment is treated in a sustaianble manner.

Hosting sport events in local areas can also contribute to the development of local infrastructure. One of the positive environmental impacts of improved infrastructure relates to new physical development, such as stadia, transport infrastructure, airport capacity and upgrades in water and sewage services, which may not been politically or financially feasible without the event (Dodouras and James 2004; Achu, 2019). Sport events can also serve as a catalyst to creates environmental awareness through the promotion of greening concepts during the event (Achu, 2019). This could contribute to the spectators being environmentally aware and hopefully more environmentally responsible. This would ensure that issues such as excessive water usage and littering during sport events are minimised. Negative impacts on the environment are categorized according to resource usage, namely human behaviour towards the destination environment (Holden, 2009 cited in Kruger, 2015). According to Kepulić et al., (2020) sport events present particular challenges such as waste pollution, air pollution, water pollution and abnormal noise levels. Pollution may be the result of spectators littering and not bagging, or containing their waste, or noise pollution. For example, if spectators use loudhailers, or vuvuzela to cheer on their athletes. Therefore sport event organisers may need to create a greater awareness amongst spectators to be environmentally responsible.

Other negative impacts of sport events may include waste and over-consumption of natural resources during events (Kiani et al., 2019 and Kepulić et al., 2020). Additionally, as some of these events occur in an environment, they may eliminate the amount of open spaces, which then detracts from the appeal of an environment, resulting in an unattractive destination for locals and visitors. In the case of waste and over-consumption of natural resources, this may include excessive water use during the hosting of the event which can result in water shortages at that destination. Sport events can also lead to overcrowding at a host destination. Overcrowding refers to a situation where more people are concentrated in a certain area than is considered acceptable from a safety and health perspective. Overcrowding, or congestion in a host destination can also lead to the damage to the local environment. Overcrowding is often blamed on poor planning, as event managers fail to take into account the environmental impact issues before the event is hosted. Although overcrowding at the host destination is primarily a temporary problem, its impact may be long lasting. During the COVID-19 pandemic, overcrowding is even more critical, since not following the prescribed safety protocols may contribute to the spreading of the virus.

MATERIAL AND METHODS

The research design adopted for this study is descriptive in nature. The descriptive reseach design involves either identifying the characteristics of an observed phenomenon, or exploring possible associations amongst two or more phenomena (Leedy and Ormond, 2015). These authors further explained that descriptive research examines a situation as it is. The reason for using the descriptive research design in this study is because the questions that would dominate in the data collection instrument were closed questions, such as, a five-point Likert-type scale and rating questions.

The data collection method involved the use of self-administered questionnaire using field workers during each of the four evenings that the event took place. The questionnaire was aimed at the respondents' understanding of the environmental impacts of the 2018 Town Lodge Business Night Relay (TLBNR) event. The targeted population for this study were the spectators at the TLBNR event. The targeted population refers to the whole group of individuals or objects in which the researcher is interested and from which he generalises conclusions about the study (Mboyiya, 2017). The targeted population included adults over 18 years old; both males and females. In this case, it was also a filter question, as respondents younger than 18 years of age were excluded from the study. Once respondents confirmed that they were older than 18 years of age, their consent were obtained, allowing them to participate voluntarily in the survey. Since, the spectators did not constitute any vulnerable groups, it was not necessary to obtain ethics clearance for the study from the university at the time that the fieldwork was conducted. The sample included 119 respondents (n=119).

The respondents answered a self-administered questionnaire that was distributed by four (4) fieldworkers at the NMBS precinct, during the time that the event was held on each of the evenings. The self-administered questionnaires contained mostly closed questions. These closed questions included multiple choice, Likert scale type questions, and rating questions. The reason for using these closed questions was because the current study had adopted a quantitative approach.

The value of adopting a quantitative approach is data can be changed into useable statistics and can be used to quantify attitudes and behaviours. Non-probability convenience sampling was used for the study, even though this method poses some limitations, such as the representivity of the sample (Leedy and Ormrod, 2015). Convenience sampling is a non-probability sampling technique where subjects are selected because of their convenient accessibility and proximity to the researcher (Leedy and Ormrod, 2015; Altinay et al., 2016). It enabled the reseacher to collect data during a defined period of time, when the spectators were accessible during the event. The data was captured on Excel, where-after Excel was also used to conduct statistical analyses with a 95% confidence level and a 5% margin of error.

RESULTS AND DISCUSSION

Demographics of Respondents

The majority (71%) of the spectators of the TLBNR resided in Port Elizabeth, with 29% of these respondents (spectators) residing outside of Port Elizabeth in neighbouring towns (Refer to figure 1 below). The possible reason why most of the respondents were from Port Elizabeth is because the TLBNR is a small event and therefore mostly attracts participants from around the Port Elizabeth area. Another reason could be because the TLBNR occured on a week day, in the evening which makes it inconvenient for people who reside outside PE to travel. This meant that the participants either had to travel to their home towns after the event, or sleep over in Port Elizabeth.

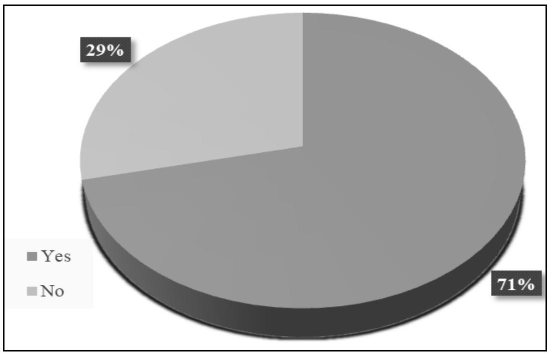

Figure 1. Origin of spectators

The findings of this study with regard to gender revealed that the sample drawn consisted of 56.3 percent being males and 43.7 percent being females.

In similar studies on sports events, such as that of Nyikana (2013), the majority of the respondents were mostly males. Table 1 below indicates that the majority (83.2%) of the respondents were between the ages of 18 and 40 years.

In similar studies on sports events, such as Mboyiya (2017) and Nyikana (2013), the largest proportion of respondents were mostly between the ages of 18 to 35. In addition, Achu et al. (2015) revealed that the sports event spectators were generally young, that is, 18 to 34 years old.

Table 1. Age group of the respondents

Age	N (Count)	Cumulative count	Percent	Cumulative percentage
18-30	54	54	45.4	45.4
31-40	45	99	37.8	83.2
41-50	10	109	8.4	91.6
51-60	7	116	5.9	97.5
61+	3	119	2.5	100
Total	**119**		**100**	

Table 2. Cross tabulating age and environmental awareness

Environmental awareness	Age					
	18-30	**31-40**	**41-50**	**51-60**	**61+**	**Row total**
No	0	2	3	3	1	9
Total %	0.0%	1.7%	2.5%	2.5%	0.8%	7.5%
To a little extent	14	5	2	1	0	22
Total %	11.8%	4.2%	1.7%	0.8%	0.0%	18.5%
To a large extent	40	38	5	3	2	88
Total %	33.6%	31.9%	4.2%	2.5%	1.7%	73.9%
Total	54	45	10	7	3	119
Total %	45.4%	37.8%	8.4%	5.9%	2.5%	100%

Age and environmental awareness

With reference to Table 2 below, the younger respondents, namely those between the ages of 18 and 40 years, were too a large extent environmentally aware (65.5%), compared to the respondents who were 41 and older (8.4%). In general, the majority (73.9%) of the respondents were to a large extent environmentally aware. This bodes well for the city of Port Elizabeth and sporting events, as it infers that spectators to sporting events have a high environmental awareness. Therefore, sport event planners and administrators need to capitalize on this, and ensure that sport events consider the environmental awareness of their spectators, so as to ensure that the event meets the expectation of the spectators.

Level of education of the respondents

Table 3 below shows that about 43.7% of respondents had university education. This was followed by those with high school education (29.4%) and those with a college education (24.4%). Therefore, the majority (68.1%) of the spectators had a post-school education. The reason for this was that the TLBNR is mostly supported by companies (corporates), with most of the spectators possibly being employed by those participating companies. In support of the above, Achu et al. (2015) revealed that sport events are generally attended by well educated people, with the majority having attained a diploma or postgraduate degree.

Table 3. Highest level of education of the respondents

Education level	N (Count)	Cumulative count	Percent	Cumulative percentage
Primary school	3	3	2.5	2.5
High school	35	38	29.4	31.9
College	29	67	24.4	56.3
University	52	119	43.7	100
Total	**119**		**100**	

Table 4. Cross-tabulation of level of education and environmental awarenes

Environmental awareness	Level of education				
	Primary school	**High school**	**College**	**University**	**Row total**
No	2	4	0	0	6
Total %	1.7%	3.4%	0.0%	0.0%	5.1%
To a little extent	1	11	10	15	37
Total %	0.8%	9.2%	8.4%	12.6%	31%
To a large extent	0	20	19	37	76
Total %	0.0%	16.8%	16%	31.1%	63.9%
Total	3	35	29	52	119
Total %	2.5%	29.4%	24.4%	43.7%	100.0%

Level of education and environmental awareness

The majority of respondents (63.9%) were to a large extent environmentally aware, while 36.1% had little, or no environmental awareness. At the same time, those respondents with a university qualification, were to a large extent environmentally aware. From this, it can be inferred that as the level of education increased, the more environmentally aware respondents would become.

Environmental intepretation

In this section the findings regarding how the spectators interpreted concepts related to the environment. A 5-point Likert scale was used to measure the responses of the spectators, based on the the following categories: strongly agree (SA), agree (A), neutral (N), disagree (D) or strongly disagree (SD). For the purpose of this analyses and reporting, the percentages for categories strongly agree and agree have been combined, as well as the percentages for the categories of disagree and strongly disagree, so as to present a clearer picture.

Table 5. Environmental interpretation

Statements	SA	A	N	D	SD	Std Dev	Cronb Alpha
An environment involves the natural and built surroundings at a destination (e.g. open space)	35.3	37.8	12.6	2.5	11.8	1.3	0.76
I am satisfied with the current environmental state of this area	29.4	32.8	20.2	10.9	6.7	1.2	
The conservation and preservation practices are important actions to protect the environment	31.9	35.3	15.1	7.6	10.1	1.3	
Keeping the quality of environment high can contribute in the competitiveness of a destination	10.9	31.9	39.5	15.2	2.5	1.0	
The quality of the environment is essential to the tourism industry	17.7	32.8	23.5	19.3	6.7	1.2	
The natural environment can be a source of attracting visitors in host communities	25.2	29.4	23.5	16.0	5.9	1.2	
The growth in tourism destinations can lead to an increase in pressure on the environment	19.3	31.1	21.9	16.8	10.9	1.3	
Events in the environment can threaten the natural resources	14.3	21.0	30.3	23.5	10.9	1.2	
Littering and the carbon emissions are examples of adverse environmental problems	18.5	35.3	23.5	10.1	12.6	1.3	

The overwhelming majorty (73.1%) of the respondents (spectators) agreed that the "environment involves the natural and built surroundings at a destination". The spectators were accutely aware what the environment is made up of.

Most (62.2%) of the spectators indicated that they were "satisfied with the current environemtal state of the area", where the event was held. From this, it can be deduced that the immediate surroundings were the event was held was generally clean and free of any visible pollution, such as, littering. Refer to table 5. The majority (67.2%) of the spectators were of the view that "conservation and preservation practices are important actions to protect the environment". Whilst this statement assumed that spectators knew the difference between conservation and preservation, the spectators were clear that actions, or strategies were needed to protect the environment. Refer to table 5. About 42.8% were of the view that "keeping the quality of environment high can contribute in the competitiveness of a destination". Therefore, the respondents were reasonably clear that the competitiveness of a destination is linked to the quality of the environment. Refer to table 5.

Just over 50% (50.5%) of the respondents believed that "the quality of the environment is essential to the tourism industry", whilst 54.6% of the respondents were of the view that "the natural environment can be a source of attracting visitors in host communities". Both these statements suggest that the respondents have some understanding of the role that the environment plays in the tourism industry and specifically in attracting visitors. Refer to table 5.

When examining the two statements "the growth in tourism destinations can lead to an increase in pressure on the environment" and "events in the environment can threaten the natural resources" it is apparent that the respondents are aware that growth and events can impact on the environment and natural resources. Refer to table 5.

It is noted 53.8% of the spectators were of the view that "littering and carbon emissions are examples of adverse environmental problems". The general outcome of the responses, provides an indication that the respondents (spectators) have clear views of what the environment constitutes and how it is influenced, and the role the environment plays. Refer to table 5.

To measure the reliability or internal consistency of the statements in the previous question (Table 5), Cronbach's alpha was used measure the internal. The Cronbach's alpha is one way of measuring the strength of that consistency and in this instance was α=0.76, meaning that the internal reliability was good.

Understanding of environmental impacts of sport events

This section presents the understanding of respondents (spectators) about the environmental impacts of sport events. The data in Table 6 showed that a large number of the respondents (94.1%) agreed with the statement that "sports events contributed to an improved local environment, e.g. by providing funds or investments to improve an environment". This view is also supported by Gaffney (2010) as cited in Nyakana (2013). In this regard, it is likely that the sport event contributed to a hype in the immediate vicinity of the event. As a result, the local municipality and stakeholders may have invested some time and money in making sure that the vicinity is maintained and cleaned for the participants, spectators and residents. A large majority (87.4%) of the respondents were of the view that "sport events contribute to developing local infrastructure". However, since the event is held in the Nelson Mandela Bay stadium precinct, it is quite likely that the respondents were referring to the funds or investments that were made to enhance the physical and aesthetic appeal of the stadium precinct in general. The physical enhancement may also have led to a hightened environmental awareness of the spectators. Refer to table 6. In addition, the majority of the respondents (79%) also agreed to the statement similar to the one above, indicating that "sports events could provide environmental education programmes to create awareness about the importance of the environment". The environmental education programmes referred to here is likely to be strategies, or promotional campaigns that the local municipality or event organiser adopted during the hosting of the event, for example, reducing littering by using the garbage bins provided. Refer to table 6. The findings of the study showed that a majority of respondents (89.4%) agreed with the statement that "sports events attract criticism about the environment, after event". This may be due to insufficient garbage bins, noise pollution, or macro-related issues, such as climate change. In support of this, Nyikana (2013) stated that sports events can attract criticism for their perceived negative impact, such as their major contribution towards climate change, especially if the participants and spectators had travelled long distances to the event. In this case, most of the participants and spectators were from the city nd therefore, locals. Refer to table 6.

Table 6. Understanding of environmental impacts of sport events

Statements	SA	A	N	D	SD	Std Dev	Cron Alpha
Sport events contribute to an improved local environment (e.g. by providing funds or investment)	54.6	39.5	4.2	0	1.7	0.7	0.83
Sport events provide environmental education programmes to create awareness about importance of the environment	33.6	45.4	16.0	5.0	0	0.8	
Sport events contribute to developing local infrastructure	56.3	31.1	10.1	0.8	1.7	0.8	
Sport events attract criticisms about the environment after event	47.4	42.3	8.5	0.9	0.9	0.7	
Sport events can degrade the environmental quality where the event is held	55.5	35.3	7.6	0.8	0.8	0.7	
The behaviour of sport spectators can threaten the host communities' environment	57.1	29.4	10.1	3.4	0	0.8	
Spectators of sport events contribute to pollution	36.1	42.0	11.8	8.4	1.7	0.9	
Sport events lead to the loss of natural habitat for animals	23.5	34.5	20.2	15.1	6.7	1.2	
Spectators can waste natural resources during events (e.g. water and others)	50.4	32.8	9.3	2.5	5.0	1.0	

The findings of this study revealed that a large number of respondents agreed (83.2%) with the statement that "spectators can waste natural resources during the events" (refer to table 6). This may include excessive water usage which may result in a shortage of water after events. Given the fact that Port Elizabeth is located that in a water scarce region, the hosting of any event, as well as an influx of visitors, will place adidtional strain on an already scarce commodity such as water. If events are not well managed and care is not taken at minimising waste, the local population may end up competing for the use of scarce resources. Therefore, sports events should be used to promote environmental awareness amongst the spectators , as well as the host communities. This can be done through designing strategies to enhance environmental awareness, such as, how to minimise water usage, and reducing litter amongst locals and visitors, including spectators, by adopting sustainable initiatives.

The overall findings concerning spectators views about the environmental impact of sports events showed that most of the respondents had an understanding of these environmental impacts. For the statements in Table 6, the internal consistency was also measured and found to $\alpha = 0.83$, meaning that the internal reliability was good.

CONCLUSION

The study demonstrated that the Town Lodge Business Relay event which has been hosted in Port Elizabeth annually has attracted mostly local participants and spectators. With the focus of the study being on the spectators, it became evident that these spectators' profile is similar to previous studies. However, what was perhaps interesting was that the spectators to this specific event had a reasonably good understanding of the interpretation of the environment, as well as an understanding environmental impacts associated with sport events, specifically the younger and more educated spectators.

The implications for sport event managers, hosts and sponsors is quite significant and the following recommendations are made. Firstly, these stakeholders must know the profile of the spectators to specific events. This will allow the stakeholders to better target their spectators and hopefully attract larger audiences. Secondly, stakeholders need to be aware of how spectators interpretated the environment where the event is being held and realise that spectators are likely to have an awareness of the environmental impacts of sport events and design the vent accordingly. Thirdly, these stakeholders should endeavour to highlight how sport events lessen, or can reduce the environmental impact of sport events. In other words, stakeholders need to communicate how a sport event has mitigated the impact on the environment. Finally, clear strategies need to be devised and communicated to the spectators when the event is being marketed as to how the event has been greened and therefore minimize the carbon footprint. This my be crucial for some spectators to know that efforts have been undertaken to reduce the impact on the environment. These recommendations may contribute to the overall sustainability of a sport event and highlight the fact that spectators may also consider the well being of the environment as key.

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TRANSPORT ACCESSIBILITY OF THE LAKE ECOSYSTEMS IN THE NORTH KAZAKHSTAN REGION AS A FACTOR OF TOURISM DEVELOPMENT

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Abstract: The conducted research is aimed at assessing the current state of the tourist and recreational potential of the lake system in the region of North Kazakhstan (Kazakhstan). The research included the relationship between the distribution and natural diversity of reservoirs and landscapes and the density of the transport network of the studied region in the administrative division of the region. The aim of the research undertaken is to indicate the spatial differentiation of the conditions for the development of tourism in relation to the degree of lake density and transport accessibility. The quantitative and qualitative characteristics of the lakes in terms of spatial diversity and transport accessibility in the region were presented. The analysis of the natural and recreational potential, with the use of statistical methods, satellite images, comparative analysis and field studies, made it possible to identify lake ecosystems that are already used or recommended for use as objects in tourism, as well as in the national economy. The analysis of the road network allows to conclude that its density, despite the higher indicators than the national average, does not fully allow the use of the region's tourist potential and may constitute a barrier to its development.

Key words: lakes, lake ecosystems, North Kazakhstan region, road network, tourism, transport

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INTRODUCTION

Tourism in Central Asia, in the pre-Covid-19 era, was becoming more and more popular, which resulted in the interest of numerous researchers (Werner, 2003; Kantarci, 2007a; 2007b; 2007c; Smykova, 2015; Shakirova, 2015; Tleubayeva, 2018; Wendt, 2020). Due to its importance, numerous studies were conducted in Kazakhstan, but most of them concerned mountain regions located in the south and south-east of the country (Ziyadin and Takhtaeva, 2014; Aliyeva et al., 2019; Chernova and Sukhova, 2017; Chlachula, 2019; 2020; Kalugin et al., 2019). However, according to the government's decision, tourism is to constitute a rapidly growing sector of the economy, both at the national and regional level (Zhidkoblinova, 2013; Abubakirova et al., 2016; Tulbayeva et al., 2017), as well as with cross-border tourism, which plays an increasingly important role in the tourism services sector (Dunets et al., 2019; Więckowski and Saarinen, 2019; Cerić and Więckowski, 2020).

The North Kazakhstan region is characterized by unique physical and geographical conditions and historical heritage (Kuralbayev et al., 2016), which are important factors in the development of tourism. The region is located in the north of the Republic, on the southern edge of the West Siberian Lowland, partially occupying the Kazakh Highlands, known as Saryarka. The northernmost point is at 55°26`N, in the south 52°13`N, the westernmost point is 65°57`E, and the easternmost point is 74°02`E. The maximum distance from north to south is 375 km, and from west to east - 602 km. The region's boundaries and division were established on April 8, 1999, its area is 97.99 thousand km^2. The region covers only 3.6% of Kazakhstan's territory, and 60% of its territory is arable land. The total length of the borders is 2,220 km, including the Kustanay region - 300 km, Akmola - 810 km, Pavlodar - 180 km, he regions of the Russian Federation - 930 km, including Kurgan - 210 km, Tyumen 180 km, Omsk 540 km. The North Kazakhstan region is divided into 13 administrative counties (Table 1). In administrative terms, there are five cities in the region - Petropavlovsk, Bulaevo, Mamlyutka, Tayinsha, Sergeevka; four urban settlements - Smirnovo, Talshyk, Enbek (Novoishimskoye), Kishkenekol, 203 rural communes and 759 rural settlements.

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The administrative center of the region is Petropavlovsk, founded in 1752 as the fortress of St. Peter. Tourism is an important sector of the economy of each country (Zhakupov et al., 2015), and its importance is also appreciated in Kazakhstan (Zhidkoblinova, 2013; Ziyadin and Takhaeva, 2014; Syzdykbayeva et al., 2015), a country with a great potential of natural values, which include lake ecosystems of the North Kazakhstan region. Tourism, and especially sustainable tourism (Aimagambetov et al., 2018) and agritourism (Tleubayeva, 2018), balneotourism (Wendt, 2016), slow tourism (cittaslow) (Lewandowska et al., 2019) and a new techlogies as VR in tourism and economy (Ziyadin et al., 2014; Watkins et al., 2018; Korinth et al., 2019; Ziyadin et al., 2019a; 2019b; Bógdał-Brzezińska, 2020) play an important role as a perspective direction of development of its economy. However, its development still faces a number of barriers (Aliaskarov et al., 2017), among which transport, which is of key importance for the development of tourism (Bazarbekova et al., 2018), unfortunately holds a high position. The marketing of tourist services and their promotion are similarly poorly developed in Kazakhstan, also playing an important role in the development of this sector of the economy.

From the point of view of values conducive to the development of tourism, the natural resource potential of the research area is characterized by a high degree of lakes. Numerous lakes are used mainly for agricultural purposes (fishing) and as an important tourist asset (Nazarova et al., 2019; 2020). However, the use of lakes is limited, although the region ranks first in Kazakhstan in terms of their number. It is important that numerous studies emphasize the uniqueness of the origin of northern Kazakhstan's lakes at the geosystem and ecosystem level, which is important as a tourist asset. Scientific research on the study of lakes and river basins in northern Kazakhstan was published in the works (Beletskaya, 1987; Vodopyanova, 1985), confirming their high natural value and importance in the region's ecosystems. The study of landscape, recreational and tourism potential has been the subject of the work of numerous authors (Semochkina, 2012; Moldakova and Dmitriyev, 2016; Fomin et al., 2020; Wendt, 2020). Data on the number of lakes of the northern region of Kazakhstan (mainly in the old borders) vary from 2,500 to 3,500. This can be explained by taking into account the water reservoirs in the flood plains (periodic), which become lakes as a result of spring floods (Dmitriyev et al., 2016; Fomin, 2020).

The aim of the study is to analyze the spatial differentiation of tourism development conditions in relation to the degree of lakes and transport accessibility (Więckowski et al., 2014; Michniak et al., 2015). The analysis of the natural and recreational potential will allow the identification of lake ecosystems that are already used or recommended for use as objects in tourism and in the economy. The hypothesis verified in the research is the poor development of the road network, which is characterized by too low density. Which is a barrier to the development of mass tourism.

MATERIALS AND METHODS

The research material includes data collected on the basis of research carried out under the "Ekosfera" association, from the project "Natural resources and environmental management of Akimat in the North Kazakhstan region", from the research topic "Creation of a lake database in the North Kazakhstan Region" (Dmitriyev et al., 2013). Additional data comes from the interpretation of the collected satellite images of the region. All the factual material was verified and supplemented during field research. Mathematical and statistical methods, classic for research in the geography of tourism, were used to analyze the research results and the characteristics of lake ecosystems (Wendt and Bógdał-Brzezińska, 2018). Statistical methods were used for the classification of lakes and the analysis of spatial differentiation broken down into administrative units of the region. Administrative regions were subjected to a comparative analysis using quantitative methods (Creswell, 2003). Similarly, an analysis of the transport accessibility of lake ecosystems was carried out and their classification depending on the number, size of the area, lake level or ownership relations.

RESULTS AND DISCUSSION

As a result of the research, 2.328 lakes were identified in the northern region of Kazakhstan with a total area of 452430.5 ha. Lakes were defined as water reservoirs over 10 ha, excluding smaller reservoirs from the research.

Table 1. Lake rate index of administrative units of North Kazakhstan Region
Source: https://elib.skolib.kz/catalog/item386.html and the authors' own calculations

Name of administrative units	Area (thous. km²)	Number of lakes	Area of lakes (hectares)	Lake rate index (%)
Region North Kazakhstan	97.99	2328	452430.4	4.62
County Zhambyl	7.46	826	62870.0	8.43
County Mamlyutsky	4.10	404	28442.5	6.94
County Kyzylzhar	6.15	244	21273.7	3.46
County Esil	5.14	138	15468.8	3.01
County M. Zhumabayeva	7.81	122	21015.5	2.69
County Akkayyn	4.71	115	38608.1	8.20
County Ayyrtau	9.62	95	31869.1	3.31
County Timiryazevsky	4.51	91	21674.6	4.81
County Shal akyna	4.84	82	17816.2	3.68
County Taiynshinsky	11.42	68	29505.6	2.58
County Ualikhanov	12.88	67	113015.2	8.77
County Akzhar	8.04	39	32983.1	4.10
County G. Musrepov	11.09	30	16038.0	1.45
City of Petropavl	0.22	7	1850.0	8.41

Table 2. Road network density in selected countries
Source: (Bazarbekova et al., 2018 and https://www.cia.gov/the-world-factbook/field/roadways/country-comparison/)

Country	Area (km^2)	Road (km)	Road density ($km/100\ km^2$)	Year of data
Kyrgyzstan	78867	34000	43.11	2018
Belarus	207600	86600	41.71	2017
Ukraine	603550	169694	28.12	2012
Tajikistan	144100	30000	20.82	2018
Uzbekistan	447400	86496	19.33	2000
Turkmenistan	488100	58592	12.00	2002
Russia	17098242	1283387	7.51	2012
Mongolia	1564116	113200	7.24	2017
Afghanistan	652230	34903	5.35	2017
Kazakhstan	2724900	95409	3.50	2017

Interesting results were obtained regarding the spatial distribution of lakes in the region of North Kazakhstan, which update and confirm the results of previous studies (Dmitriyev et al., 2016). The largest number of lakes is in the territory of the Zhambyl County. In second place is the Mamlyut region - 404 lakes. The third area of Kyzylzhar - 244 lakes. The smallest number of lakes is in the Akzhar County – 39, within G. Musrepov - 30 lakes and the city of Petropavel - 7 lakes. However, in the latter case, numerous smaller water tanks should be noted (Table 1).

The research allowed to determine the total area of lakes, which amounted to 452430.4 ha. Research shows that the lakes are very unevenly distributed in the territory of the North Kazakhstan region. Thus, the largest area of lakes, and hence the lake index, is in the Ualikhanovsky County – 113015.2 ha. The Zhambyl region is in second place – 62870.0 ha. Smaller values of the total lake area are found in the Shal akyn regions – 17816.2 ha, G. Musrepov – 16038.0 ha, Esilsky – 15468.8 ha. The area of lakes in the city of Petropavlovsk was 1850.0 ha, which gives it a high lake index. In order to achieve the aim of the research, apart from determining the lake density index, it was necessary to analyze the spatial differentiation of the road network density. It was carried out in terms of the entire road network and its division into national and regional roads. According to the literature (Page, 2004; Bazarbekova et al., 2018; Dinu, 2018), the transport network, the wider communication accessibility is crucial for the implementation of various forms of tourism. When researching the North Kazakhstan region, it should be borne in mind that both the size of the country and the region and the degree of development of the transport network should be analyzed in relation to the geographical conditions of Central Asia and the country's population density (18 million). And its comparison to the density of the road network of classic European tourist destinations (e.g. Austria, France, Germany and even to Belarus or Ukraine) is not substantively justified (Table 2).

The analysis of the transport network in terms of the length of roads and railways in the region allows it to be concluded that the main role is played by road transport. The available railway lines limit the traffic to the stations, among which a large railway junction stands out - the city of Petropavlovsk. The road network is differentiated into roads of national (republican) importance and regional roads. The total length of all national and regional roads is 3905 km. National roads constitute 37.5% (1468 km) and regional roads 62.5% (2437 km). Despite the low density of the road network, especially national roads in some regions, in the case of Kazakhstan, it can be concluded that the road network of the North Kazakhstan region (3.5km/100km^2) is slightly, but still higher than the national average (4.0km/100km^2). This allows for a good degree of road development in the studied region compared to the whole country, but does not translate into sufficient transport accessibility to naturally valuable lake areas.

Table 3. Diversification of the road network and lakes rate index in the administrative units of the North Kazakhstan region (Source: https://elib.skolib.kz/catalog/item386.html and the authors' own calculations)

Region, county and city	Area (thous. km²)	Roads				Lakes rate index (%)
		Total		state	regional	
		km	km / 100 km²			
North Kazakhstan region	97.99	3905.0	3.99	1.50	2.49	4.62
County G. Musrepov	11.09	664.3	5.99	2.96	3.03	1.45
County Taiynshinsky	11.42	613.2	5.37	1.24	4.13	2.58
County Akzhar	8.04	374.2	4.65	1.01	3.65	4.10
County Shal akyna	4.84	223.4	4.62	2.22	2.40	3.68
County Zhambyl	7.46	325.1	4.36	1.61	2.74	8.43
County Ayyrtau	9.62	415.4	4.32	0.89	3.43	3.31
County Esil	5.14	209.2	4.07	1.45	2.62	3.01
County Kyzylzhar	6.15	245.0	3.98	3.45	0.54	3.46
County Mamlyutsky	4.10	154.0	3.76	2.24	1.51	6.94
County Akkayyn	4.71	155.9	3.31	1.10	2.21	8.20
County Timiryazevsky	4.51	128.4	2.85	0.52	2.33	4.81
County M. Zhumabayeva	7.81	166.6	2.13	0.98	1.15	2.69
County Ualikhanov	12.88	230.3	1.79	0.57	1.22	8.77
City of Petropavl	0.22	-	-	-	-	8.41

As many as 9 out of 13 regions have a road density higher than the average for the whole country and 7 of them higher than the average for the region (Table 3). The length of roads in the counties of the region varies, depending on the development of infrastructure, settlement, and the presence of industrial, agricultural and other facilities in their area. The greatest length of roads is recorded in the area of G. Musrepova, it is 664.3 km. The second place in terms of the length of roads is taken by the Taiynshinsky County – 613.2 km. The third place belongs to the Ayyrtau County – 415.4 km. The fourth and fifth places are shared by the Akzhar and Zhambyl Counties, with road lengths of 374.2 km and 325.1 km respectively. The shortest length of roads is in the Mamlyutsky region - 154 km. Nevertheless, there are many well-known and significant ecological tourism sites in this area.

Among them is Minkeser Lake with healing mud, as well as the Mamlyutsky State Reserve (Baryshnikov et al., 2019). The collected data characterizing the length and density of the road network justify the conclusion that the road network is well developed in comparison to the entire country. It enables relatively (in the conditions of Kazakhstan) access to tourist attractions, the ability to reach some lakes, transit to other regions of the country and to the Russian Federation (Ismagulova et al., 2020). The density of the road network, above the national average (including G. Musrepov, Taiynshinsky, Akzhar, and Shal akyna regions), is related to numerous sediments established by the lakes (access to water and obtaining food).

At the same time, the quality of road surfaces does not always meet international standards, which is one of the possible problems for the development of the tourism industry in the region. However, in the years 2006-2019, the quality of roads clearly improved, increasing from 2.78 (2006) to 3.60 (2019), with the world average (for 141 countries) at the level of 4.07. Of all the regions in the north of Kazakhstan, the region of North Kazakhstan has the highest lakes – 4.62%. Ualikhanovskiy county has the highest lake rate - 8.77%. This ratio is slightly lower in the counties, Zhambyl 8.43% and Akkayyn – 8.20%. Similarly, within the city of Petropavel, the lake rate is high, reaching – 8,41%. Less than 5% of the lake surface is characterized by 8 regions, including the G. Musrepova County has the lowest lake surface index value (Figure 1).

The analysis of the “average” lake surface indicators in the administrative division revealed their ranking. The maximum value of 1686.79 ha belongs to the Ualikhanov County. In addition, there was a sharp decrease in the indicator by half in the Akzhar region - 845.72 ha. Very low rates were recorded in the remaining 11 counties of the region, including less than 100 ha. Another index characterizing the share of lakes was determined, which indicates the share of the area occupied by lakes in the area of the area of the studied region. Thus, the Ualikhanovsky County has the highest lakes, which are 1.13 thousand km^2. In the remaining 12 counties and the city limits of Petropavlovsk, the value of the indicator is lower than 1 (Figure 2).

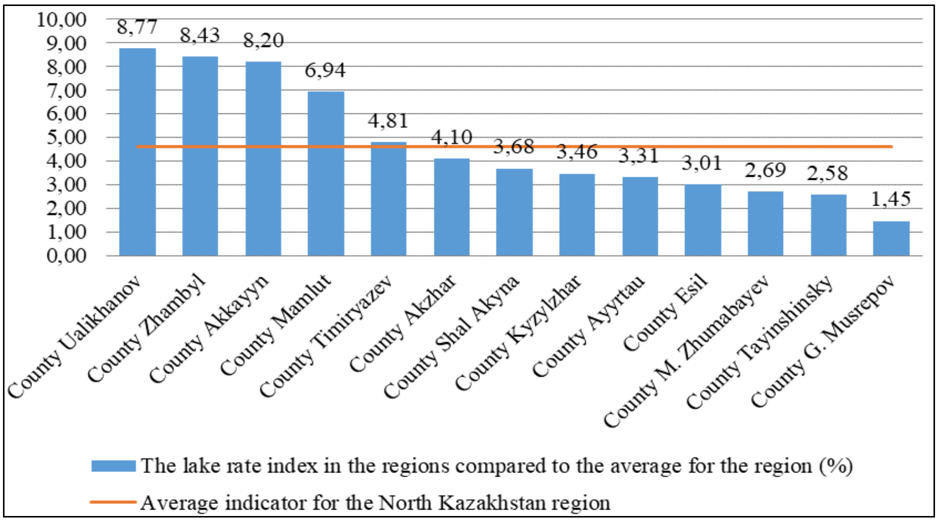


Figure 1. The lake rate index in the North Kazakhstan region, compared to the average for the study area (%) (Source: based on the authors' calculations)

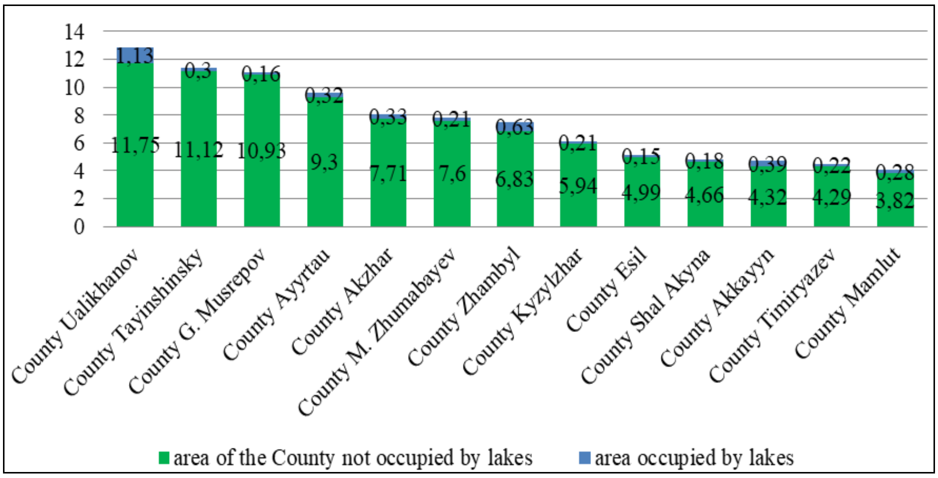


Figure 2. Ratio of the area of lakes in the counties to the area of the region of North Kazakhstan (thousand km^2) (Source: based on the authors' calculations)

The analysis of the number of lakes depending on the area allowed to draw some conclusions. The reservoirs ranging in size from 20 to 50 ha predominate. The smallest indicator concerns reservoirs up to 20 hectares. At the same time, as already mentioned, it should be noted that when compiling a database of lakes in the North Kazakhstan region, water bodies of less than 10 hectares were not taken into account (there are a lot of them, especially in the Zhambyl and Mamlyutsky counties). So the actual picture may be slightly different. The number of lakes from 50 to 100 ha and over 100 ha, 549 and 512, respectively, which is almost the same. One of the problems related to the development of the recreational potential of lakes is their overgrowing. There is an increase in overgrowing of lakes with a smaller area, which can be seen in Figure 3. It can be assumed that the smaller the area of a lake, the more susceptible to degradation and eutrophication processes is. The anthropogenic factor is the main cause of lake degradation. Small-scale water bodies find it difficult to cope with anthropogenic pressures through natural processes, which inevitably leads to degradation. There are the largest water reservoirs in the study area. In the Aiyrtau - Imantau region, they cover 54.5 km^2, Shalkar – 31.2 km^2. In the Akzhar region, these are the lakes Ulken-Karoy – 199.0 km2, Kishi-Karoy – 96.0 km^2. In Yesil Big Tarangul – 42.1 km^2, in the Timiryazevsky area - M. Kak – 39.6 km^2. On the territory of the Mamlyut region, Minkeser Lake – 38.6 km^2, Stanovoe – 29.6 km^2. There are Seletyteniz lakes – 750.0 km^2 in the Ualikhanov region, Teke – 265.0 km^2, and in the Tayynshinsky Kalibek region – 94.0 km^2, Alabota – 27.4 km^2 (Fomin, 2020). The largest water catchment area is the lake Seletyteniz – 750.0 km^2. In favorable years, its depth reaches 3.2 m, and the volume of water mass is 1.5 km^3. It is supplied by the Sholaksay and Seleta rivers, as well as 19 streams. The average depth of the reservoirs in the region is

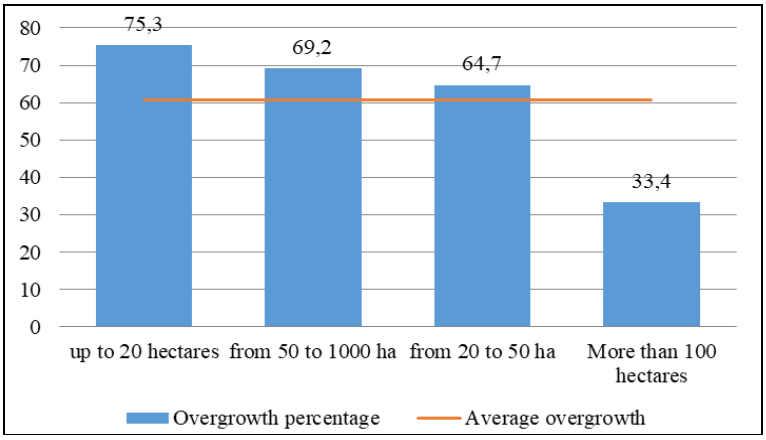
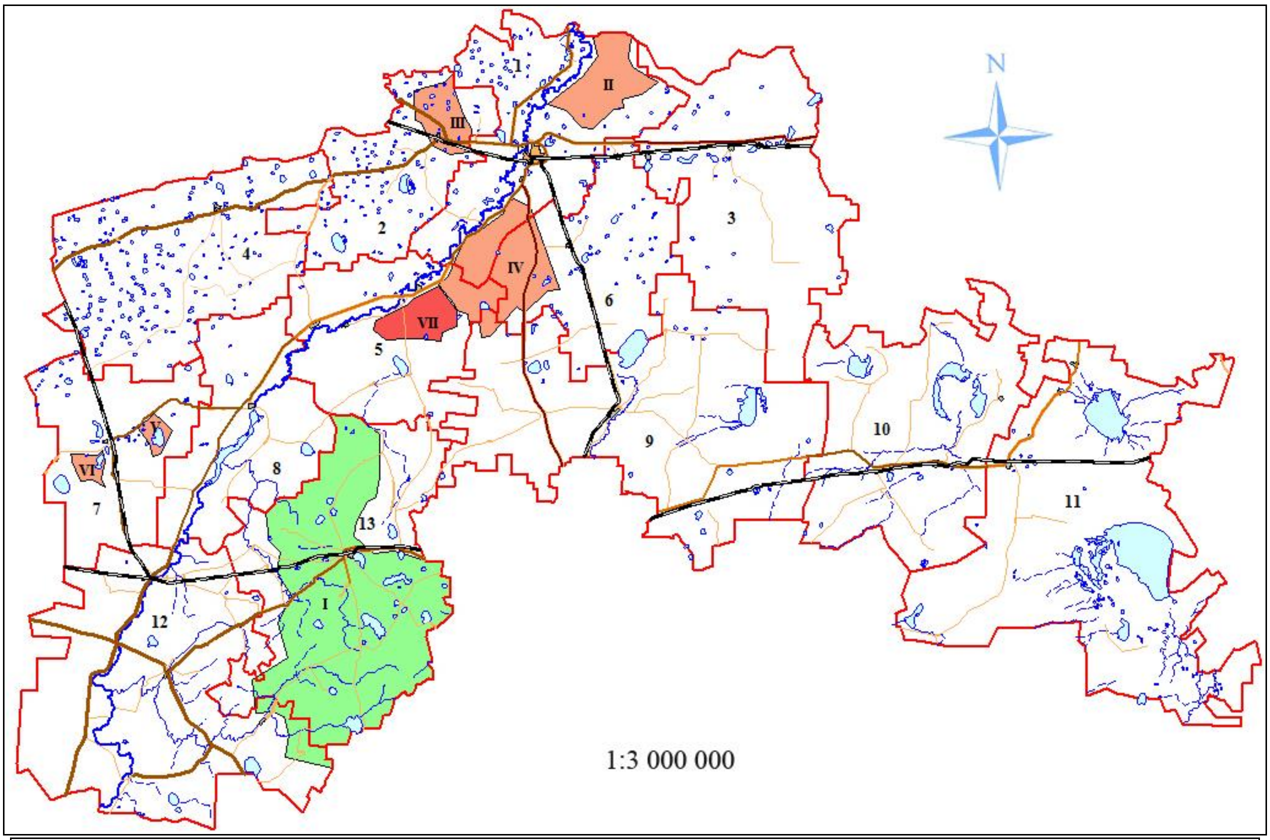


Figure 3. Dependence of lake overgrowth on their area (Source: based on the authors' calculations)

1.5-2.5 meters, and the water volume depends both on the lake surface and the depth and season of the year. The amount of rainfall that determines the high flow of water bodies is very important. There are lake basins of various origins in the region: tectonic, hydrogenic, residual, suffusion-landslide, aeolian and thermocarp.

There are lake basins of various origins in the region: tectonic, hydrogenic, residual, suffusion-landslide, aeolian and thermocarp. The lakes are diverse in terms of their chemical composition and the degree of mineralization of the water. Reservoirs belonging to the classes of hydrocarbons and chlorides, rarely - sulphide ones, prevail. The mineralization ranges from 0.4 to 300 g/l (self-deposited). Unleavened ones include those that have a salinity of up to 1 g/l. Water from such lakes is used for domestic needs and irrigation. Brackish tanks have a salinity of 1 to 25 g/l, water with a salinity of up to 2 g/l can be used for drinking purposes, and up to 3.5 g/l - for watering animals. At a concentration of 25–50 g/l and higher, water is classified as salt. The water is bitter-salty in many of the region's lakes. Magnesium salts give it this flavor (Fomin et al., 2020).

The uniqueness of freshwater lakes determines their strategic importance as freshwater reservoirs. The share of fresh water in the lakes of the northern region of Kazakhstan is about 4 km^3, in this respect almost all sediments in the region are located on the shores of fresh and brackish reservoirs. For example, the share of the three lakes Shagalalyteniz, Imantau, Saumalkol accounts for more than 900 million m^3 of fresh water. The self-identification of the cultural and historical past of this territory is complemented by a variety of toponyms of hydronyms of Turkish and Russian origin. This creates an opportunity for the formation of ethno-ecological tourism (Moldakova and Dmitriyev, 2016; Tiberghien et al., 2017; 2018; Tiberghien, 2019) and ethno-cultural tourism (Bancerova and Kasimova, 2018; Tiberghien and Xie, 2018). As in other regions of the country (Saparov et al., 2017), the names most often reflect some important feature that distinguishes the reservoir that determines the quality of the water or its other characteristics: Bitter, Sól, Pitnoe, Zhamankol, Akkol, Karakol, Zhaltyrkol, Kyzylsor, Shirokoe, etc. Often the names of people such as Plekhanovo, Ponomarevo, Shitovo, Marushkino, etc. appear in the name of the lake. Many reservoirs are named after plants and animals - Kamyshnoye, Rogozyanka, Volchye, Sobachye, Kobylye, Tekekol, Koyandykol. Unfortunately, for most lakes it is impossible to determine the origin of their names.



Legend		Specially Protected Natural Areas:	
Division of N. Kazakhstan	7.Timiryazevsky	I	State National Park „Kokshetau”
1. Kyzylzhar	8. Shal akyn	II	Sogrovsky
2. Mamlyutsky	9. Tayinshinsky	III	Mamlyutsky
3. M. Zhumabayeva	10. Akzhar	IV	Smirnovsky
4. Zhambyl	11. Ualikhanovsky	V	Aksuatsky
5. Esilsky	12. G. Musrepova	VI	Akzhansky
6. Akkaiyn	13. Ayyrtausky	VII	Krasny Bor
	Country roads		National Park
	Regional roads		Wildlife sanctuary
	Railways		Reserves

Figure 4. Distribution of reservoirs and nature areas under special protection, in connection with the transport routes of the North Kazakhstan region (Source: author development)

The lakes are characterized by plant diversity, represented by vegetation immersed in water, and deposits of peat, reeds, etc. Peat deposits can be used as organic fertilizers, and reeds in construction can be used to produce house wall panels. There is practical experience and high positive results from using lakes submerged vegetation as food for domestic animals and birds.

The analysis of the results of mathematical statistics showed that in the region of northern Kazakhstan there is a large number of lake ecosystems, which are distinguished by their natural uniqueness, and have great recreational potential for the development of economic activities and tourism. The research results allowed for the creation of a schematic map visually confirming the natural and recreational potential of lake ecosystems, as well as reflecting the development of the transport network in the region (Figure 4). We assume that for the development of tourist and recreational potential large and deep water reservoirs used as recreational facilities, such as Bolshoi Tarangul from the Yesil region, Maly Tarangul from the Shal Akyna region, Shalkar and Imantau from the Aiyrtaussky region, etc., will be more in demand. At the same time, it is important to remember about shallow waters with a large layer of bottom sediments, represented by mineral silt, which enables their development as balneological objects. In many lakes, bottom sediments are represented by healing muds, which are widely used by the region's population, including Zhamankul (Zagradovka village), Minkeser (Minkeser village), Snezhinka - Krivoye (Mirnoye village), Stanovoye (Stanovoye) village) of the region Mamlyut (Dmitriyev et al., 2018).

Each of the 13 administrative counties of the North Kazakhstan region has at least several unique lake systems that can be used to develop tourism. Since the population of the region makes extensive use of the recreational potential of local water reservoirs, one can speak of possible domestic tourism. The main factors of attractiveness are natural aesthetics, cultural and historical attractiveness, the presence of biological resources (mineral silt, fish, waterfowl).

The main addition is the features of the landscapes, with their unique charm. Based on the analysis of the annual limit of withdrawal of fish stocks in the region of northern Kazakhstan, the largest fish reserves are in Bolshoi and Maly Tarangul, Zhaksy Zhangistau, Kuspek, Kishi Karoy and Sergeevskoye lakes. The role of specially protected natural areas, which include unique natural landscapes, cultural and historical sites, is important. Sixteen prospective, specially protected natural objects have been scientifically confirmed in the region of northern Kazakhstan.

The reserves have been officially introduced, these are the Sogrovsky, Smirnovsky, Mamlyutsky reserves of national importance, as well as Akzhansky and Aksuatsky reserves of regional importance. The Sergeevskoe reservoir, built on the Esil River, as well as the river itself with numerous floodplain lakes, is of particular recreational importance for the region (Dmitriyev et al., 2020). Sergeevskoe reservoir is located in the Shal akyn area, it is about 100 kilometers long. This place is unique in terms of nature and recreation, it is recommended both for the beach and outside. There are unique landscapes and topography, rich flora and fauna, and a large number of floodplain lakes. There is a part of the "Kokshetau" State National Park in the Aiyrtau County. The ecosystems of the Shalkar and Imantau lakes are of particular importance for recreation. In their area, with unique landscapes, pedestrian and bus routes, ecological paths have been marked out, tourist service facilities were built, represented by holiday resorts, with a total capacity of about 500 people.

CONCLUSION

The raw material potential of northern Kazakhstan is certainly interesting. The high index of lakes in this area, the diversity of reservoirs and landscapes of the studied region indicate the possibility of using water ecosystems for economic purposes, for the development of ecological tourism and the tourism industry in general. The limited use of the natural potential of lakes today (mainly for fishing purposes) poses certain tasks for their future development as recreational and balneological facilities. Of course, lakes should be considered in conjunction with landscapes. This gives a wider range of recreational use, including horse riding, hiking, sunbathing and sightseeing, hunting for water game, fishing, picking berries, mushrooms, etc. The favorable geographical location of the North Kazakhstan region, the diversity of landscapes, the cultural and historical heritage, the location in the zone of the restricted region, the uniqueness of the nature of the forest-steppe region, are of interest to the development of tourism. It proves the enormous possibilities of domestic and international tourism development in the region. In the region of northern Kazakhstan, transport routes are well developed, compared to other regions of the country, which ensures traffic in its territory, including lake ecosystems. The motorways, especially in the Nur-Sultan - Petropavel direction, are of particular importance in this case.

Additionally, the border location of the North Kazakhstan region with the Russian Federation enables tourists from Russia to visit it (Batyrova et al., 2018). However, the analysis of road network density indicators, compared to other countries in the region, shows their relatively low value. Thus, higher values than the indicators for the rest of the country, the density of the road network does not ensure sufficient transport accessibility to areas with a high degree of lakes, which is a barrier to the development of tourism both domestic and the arrival of tourists from the Russian Federation.

At the same time, one of the main problems for the development of the recreational potential of the lakes of the North Kazakhstan region is the insufficient development of tourist infrastructure and services. Further research on recreational nature management is necessary for the harmonious and sustainable functioning of ecosystems, the development of scientific recommendations for the development of facilities in order to preserve their value.

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BUSINESS MODEL CANVAS (BMC) APPROACH FOR TOURISM MANAGEMENT STRATEGY OF THE TOP SELFIE KRAGILAN, MT. MERBABU NATIONAL PARK

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Abstract: The tourist spot of the Top Selfie Kragilan, Mt. Merbabu National Park, a conservation area in Indonesia has not been managed with a business strategy despite the community initiatives increase to utilize the surrounding tourist spots for their livelihood. The study aimed at formulating the tourism business management strategy using Business Model Canvas (BMC) and Strength-Weakness-Opportunity-Threat (SWOT) approaches. BMC modeling used nine aspects, namely customer segments, value propositions, channels, customer relationships, revenue streams, key resources, key activities, key partners, and cost structure; then analyzed using SWOT approaches. A total of 377 respondents were interviewed to collect the data. The results showed that every aspect of the old business model has been added or innovated according to the analysis of internal and external factors. Also, there has been a "meeting point" between market expectations, the value offered, and the promotional channels used. The combined strategy of Aggressive (S-O) and Diversification (S-T) should be applied to mitigate damage impact, conserve the natural resources, and arranging visits and selfie vehicles/ photo spot to boost revenue streams.

Key words: Business Model Canvas, Ecotourism, Community Based Tourism, Selfies, National Parks

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INTRODUCTION

National park is a natural conservation area with native ecosystem, which is used for research, science, education, culture, tourism as well as recreation. Besides protection and preservation, Conservation Areas are also expected to accommodate multiple mandates, such as ecological and recreational functions (Shi et al., 2019). One of the well-known National Parks in Indonesia is Mount Merbabu National Park (TNGMb), which is managed by a zoning system, such as Core, Jungle, Use, Rehabilitation, and Traditional Zones. The Traditional Zone is directly adjacent to the buffer village, and it is currently used for Limited Tourism activities. Furthermore, the activities within this zone can be conducted with community groups through a partnership cooperation agreement mechanism. Various systems and regulations are determined unilaterally by the government, such as zoning (Kodir et al., 2019). The geographical information of the study site is presented in Figure 1. Recent developments in TNGMb show an increase in community initiatives to utilize the tourist spots of the Traditional Zone. Similar trends in the development of community-based natural tourism were conveyed by Lonn et al. (2018), where tourist activities were reported to be increased, especially in tropical developing countries. Increased visit rate in many National Parks pose a major threat to environmental integrity because the process requires costly management and monitoring initiatives to minimize negative impacts (Shi et al., 2019). Not only in Indonesia but also the existence of a national park causes more complex problems for indigenous peoples and local communities (Perez, 2018).

Kragilan Pine Forest (called Top Selfie) is TNGMb Traditional Zone that has currently developed into a tourism site. At least 140,100 tourists in 2018 and 135,900 in 2019 have visited this attraction center. The management of Top Selfie by Kragilan Hamlet community is based on mutual agreement between National Park Agency and Ecotourism engagement group (Pokdarwis). This management is conducted communally and tends to be responsive without careful planning.

Also, the impression of a trial and error projects can be seen in the construction of a selfie photo spot that is disorganized and leaves a full and dirty impression. Tourism management in nature reserves should not be performed haphazardly as the cost of repairing damaged ecosystems is much higher. However, it is hoped that at least one "neutral" or "coexistence"

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relationship will be achieved (Cochard, 2017; Shi et al., 2019). It should also be conducted carefully to provide benefits for the community, by focusing on reservation aspects and considering the improvement of welfare(Cobbinah et al., 2017). Making a linkage between the process conservation and educational combined with wildlife tourism, a balance between tourist needs, ecological requirements and expectations of local community could be achieved (Chakrabarty et al., 2019). Organizations that want to realize sustainable business ventures need creative modeling instrument (Joyce and Paquin, 2016) since some experts offer several development models with various approaches. Similarly, Butler (1980) constructed a model based on developmental stages, (Yoon and Uysal, 2005) used a stakeholder approach, and Dwyer and Kim (2003) used resource variables, situational conditions, as well as competitiveness and Business Model Canvas (BMC) approach (Osterwalder et al., 2010). BMC approach (Osterwalder et al., 2010) is good because it identifies the most essential parts of business development, while producing a solid strategy and ensuring sustainability (Toro-Jarrín et al., 2016). There are nine blocks of BMC aspects analyzed, namely 1) Customer Segment, 2) Value Propositions, 3) Channels, 4) Customer Relationships, 5) Revenue Streams, 6) Key Resources, 7) Key Activities, 8) Key Partners, 9) Cost Structure. These aspects illustrate the rational reasons for managerial creativity, delivery, and value capturing (Osterwalder et al., 2010). Following the adopted problems and approaches, this study aims to determine the Top Selfie tourism development strategy using BMC. This is integrated with additional instruments, techniques and methodologies (Daou et al., 2020), namely Strength, Weakness, Opportunity, Threat (SWOT) analysis. The SWOT analysis is based on logic that can optimize strengths and possibilities, as well as serve as a mechanism to mitigate vulnerabilities in the organization's body and decrease the effect of risks that occur and must be faced. The strategic decision -making process is always linked to growth, mission, objectives, and strategy (Sanagustín Fons et al., 2011). Therefore, the business model is more dynamic in integrating all aspects of implementation, and evaluation process to compile the Top Selfie tourism management business model.

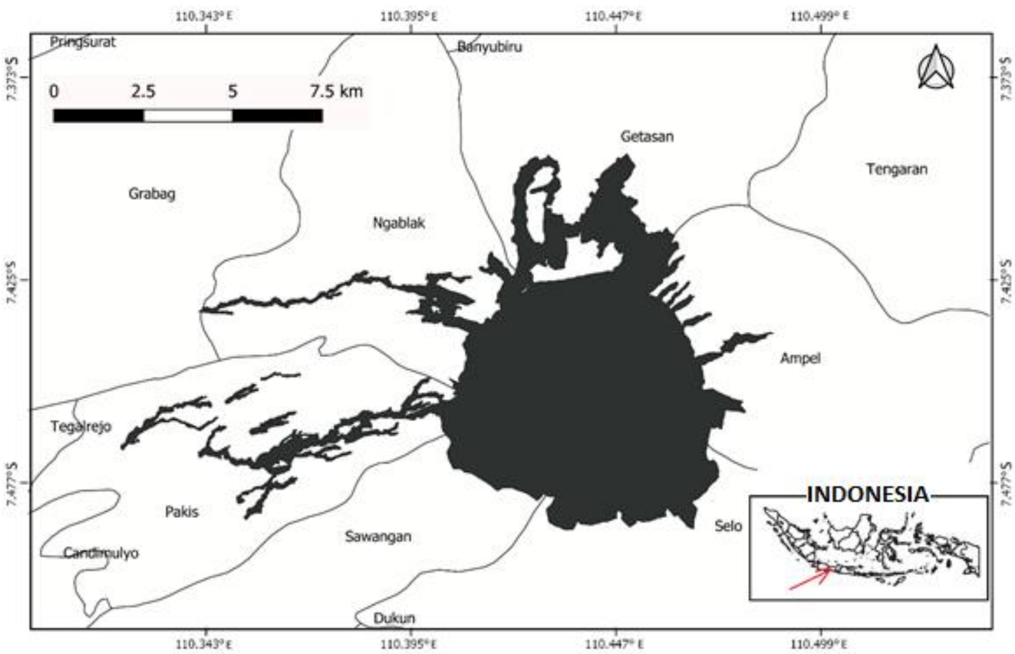

Figure 1. The geographical position of the study site with the surrounding occupied districts

MATERIALS AND METHODS

This study was conducted in Top Selfie, Traditional Zone, Mount Merbabu National Park, Central Java Province, Indonesia (Figure 1). Figure 1 shows that The Mt. Merbabu National Park occupied 6 districts, namely Sawangan, Selo, Ampel, Getasan, Ngablak and Pakis with the total area of 5,725 Ha. The study was carried out from August to December 2019, and it combined both primary and secondary data. Besides direct observation, primary data collection was performed by using tourist questionnaires, which were distributed with an error limit of 5% and was calculated using Slovin formula $n = N / (1 + N e^2)$ (Ryan, 2013), where n= sample number; N= population number; and e= error limit decided by the researcher. From 22,457 population, the Slovin formula resulted the number of samples for Top Selfie was 393 people.

This study used a combination of qualitative and quantitative descriptive methods. Data from field observations and interviews were elaborated with quantitative data from surveys on tourists and were analyzed in nine aspects of BMC. Each element in these blocks is then analyzed for its strengths, weaknesses, opportunities, and threats to formulate a new business model. The flow chart of the research steps is presented in Figure 2.

RESULTS AND DISCUSSION

Customer Segments

Fan et al. (2019) stated that by understanding the types of tourists, managers can determine the variety of values created. Customer Segments is the heart of any business model (Osterwalder et al., 2010), because the market inspire other aspects. Meanwhile, the survey results of 393 tourists show that the current Top Selfie tourism market segment consists majorly of young people from the millennial generation. Therefore, it was reported that 67% of respondents were under 25 years old, 17% were aged between 26 to 35 years and 16% were over 35 years old. From the total respondents, it is known that 66% were unmarried, 47% were in school/college, 47% were already working and 6% were housewives. Judging from the original city, about 40% of respondents were from regencies in Mt. Merbabu foot, 43% were from Central Java, 14% from Yogyakarta and 3% from outside the mentioned locations. It is important to establish the sociodemographic characteristics of ecotourists to understand their motivations and develop management policies that preserve the environment of these destinations (Carvache-Franco et al., 2020).

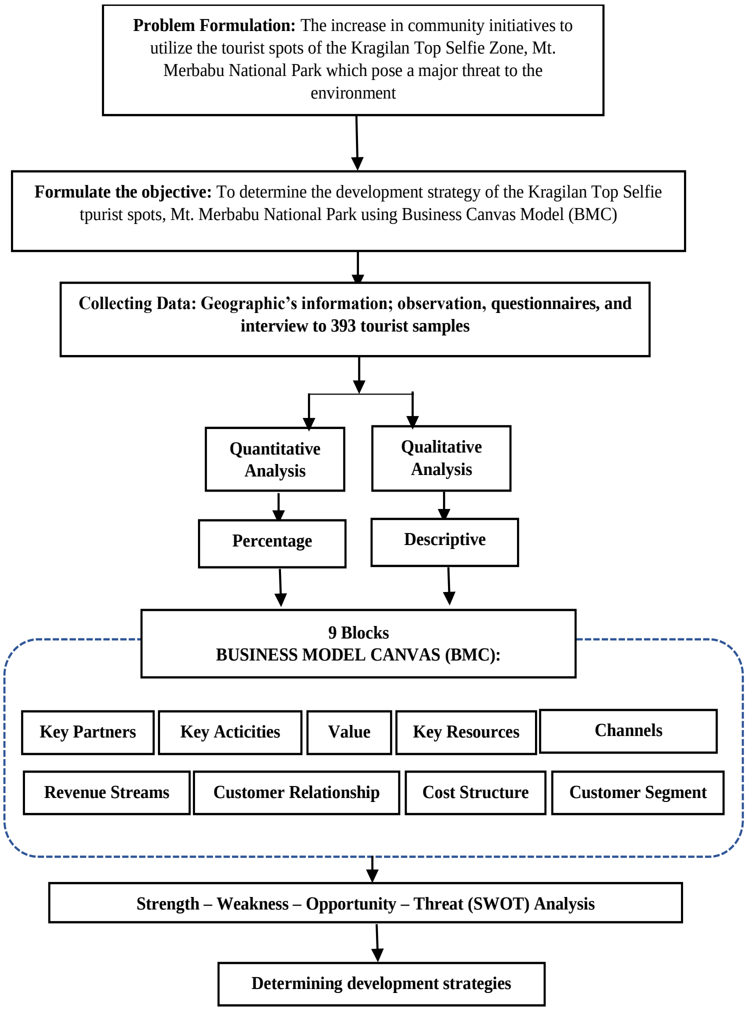

Figure 2. Flow chart of research steps

The profile of young tourists is large in the pocket market but usually has low purchasing power. Although these powers are low compared to the older generation, but they are more consistent with their enjoyment (Cavagnaro et al., 2018). The characteristics of the millennial generation are very dependent on technology information (Hajli et al., 2018), social networking (Oliveira et al., 2020), creating buzz through video posting, tweeting, and sharing links (Cavagnaro et al., 2018). The SWOT analysis of costumer segment is presented in Table 1. It is shown in Table 1 the strategy should be developed in this aspect is the Aggressive (S-O) method, which focuses on programs to capture and maintain the current market while expanding the promotions. The manager does not need to join other markets since opportunities are still wide open.

Value Proposition

The SWOT analysis on value propositions aspects of BMC Top Selfie is presented in Table 2. Table 2 figures out that the high interest in photo tourism is also influenced by the cyberculture that is currently developing among the younger generation and urban community. Selfie culture is a phenomenon easily found in urban society (Fan et al., 2019), where the tourist has a preference for the spontaneous exchange of photos and experiences (Oliveira et al., 2020) as well as possesses a high presence on the social media platforms. It is a great opportunity for Top selfie because in the future cyberculture is still coloring people's lives. Based on Table 2, the strategy applied to the Value Propositions aspect can be the combination of Aggressive (S-O) and Turn Around (W-O). These strategies optimize existing resources and fix deficiencies to seize bigger opportunities. Top Selfie must maintain the nature-based tourism segment, and innovation in attractions should be explored to avoid boredom as well as face other competitors. It is necessary to adjust the flow of visitors and/or limit the quota because their peak value is too high, and in consequence, obtaining a good photo angle will be difficult.

Table 1. SWOT Analysis of Customer Segments Aspects of BMC Top Selfie

Strength (S)	Weakness (W)	Opportunity(O)	Threat (T)
1. The segment of millennials 2. Local tourists	Low purchasing power	The millennial's is a large market pocket	The millenial's is very critical

Table 2. SWOT Analysis on Value Propositions Aspects of BMC

Strength (S)	Weakness (W)	Opportunity (O)	Threat (T)
1. Forest-Mountain landscape view 2. Various kinds of photo spot	1. Narrow Valley 2. The photo spots are not well organized 3. Too crowded during peak seasons	1. Great market pocket 2. The selfie trend is still very high	1. Similar destinations 2.Photo spots are easy to imitate

Channels

Table 3 presents the analysis of SWOT channels aspect on BMC. It describes that the channels for the best selfie advertising are currently powered by social media and word of mouth marketing. Although simple and inexpensive, these channels have proven to be very effective. In addition, the survey also found out that 56% of respondents knew the Top Selfie from social media, while 43% obtained information from friends/family and only 2% respond from other media. Currently, digital empowerment and smartphone proliferation have effectively connected tourists at home with their respective destinations. Therefore, marketing through word of mouth and free publications by visitors on social media is very effective. Considering the importance of identifying the pull and push factors motivating the choice of tourist destinations, social media platforms are very useful for local destination marketers, as a driving instrument for destination determination (del Mar

Gálvez-Rodríguez et al., 2020). Based on Table 3, the strategy should be developed in this aspect is aggressive (S-O), which focuses on programs to continue the proven power of social media publication, coupled with strengthening channels.

Tabel 3. The Analysis of SWOT Channels Aspect on BMC Top Selfie

Strength (S)	Weakness (W)	Opportunity (O)	Threat (T)
1. Social media 2. Word of mouth	Uncontrolled publication	1. Social media publications 2. IT optimization	Bad Publication

Table 4. SWOT analysis on customer relationships aspects of Top Selfie BMC

Strength (S)	Weakness (W)	Opportunity (O)	Threat (T)
1. On site excellent services 2. Direct interaction	1. No feedback / suggestions 2. There is no service standardization	1. Build relationships / networking 2. Bundling with other tourist attractions	Others Competitors provide better service

Customer Relationship

Table 4 presents the SWOT analysis on customer relationships aspects of Top Selfie BMC. The relationship with tourists is directly spontaneous since there is no systemic pattern with tour operator groups. The communication strategy is conducted by providing the best possible service and hope that there will be positive feedback on social media. According to the survey results, 47% of respondents used selfie photo services, while tourist interaction with stalls was 24%. Contact between customers and service providers affects overall satisfaction and experience (Wirtz and Jerger, 2016). A feedback instrument is needed to determine the extent of service ratings provided (Sheehan et al., 2007), allows obtaining useful feedback for the organization (del Mar Gálvez-Rodríguez et al., 2020). This instrument can use developing information technology such as the comment feature, or testimonials on existing social media. Based on Table 4, the strategies that can be applied in the Customer Relationship aspect are the Turn Around (W-O), which can be achieved by increasing the capacity and standardizing services as well as making tourist feedback instruments. Managers can encourage the promotional effect by building information technology networks such as free wi-fi facilities on-site to facilitate the sharing of pictures to social networks.

Revenue Streams

Table 5 shows the SWOT analysis on revenue streams aspects of BMC. It can be figures out from Table 5 that the revenue streams of Top Selfie's are from entrance tickets and parking services. The money in circulation in Top Selfie is quite large, and this shows that tourist attraction has economic benefits for the community. This is in line with research (Ma et al., (2019) and Qian et al. (2017) which has shown that ecotourism is more effective than other local economic sectors in promoting well-being and protecting biodiversity. Therefore, the strategy to increase Revenue Streams is Turn Around (W-O), which is achieved by optimizing the potential of unmanaged sources and building collaborative networks. Managers have to explore potential sources of revenue that have not been worked on, such as creating advertising/promotion space, souvenirs, culinary.

Key Resources

Table 6 displays the SWOT analysis of key resources aspects of BMC Top Selfie. Table 6 depicts the natural factors and a selfie photo spot affected tourist satisfaction in Top Selfie. It is supported by the survey as presented in Figure 2, which resulted 67% of respondents stated that the motivation for traveling is to refresh and see the natural scenery, about 32% is to take selfies, and only 1% answered with the other motivations. Managers have to raise awareness of all elements towards forest resources and consolidate all business actors to increase awareness of natural reserves (Masud et al., 2017) and realize the sustainability of tourism businesses. Sustainability is the central goal for which careful planning and management is necessary.

Table 5. SWOT Analysis on revenue streams aspects of BMC Top Selfie

Strength (S)	Weakness (W)	Opportunity (O)	Threat (T)
Revenue sources from large tickets and parking	1. Revenue is only from ticket 2. Lack of revenue variation	Revenue from advertising space, souvenirs and culinary	1. Similar competitors 2. The lack of innovation threatens the visitor number

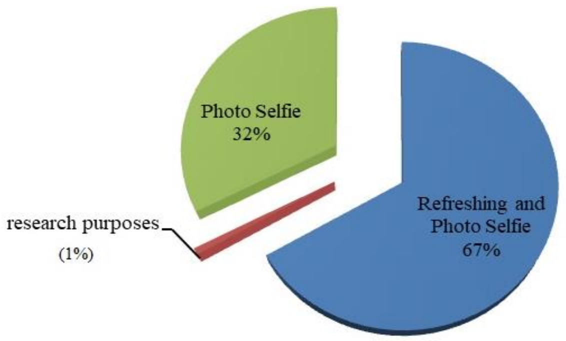

Figure 3. Motivation of visiting the Kragilan Top-Selfie tourist spot

To mitigate the impact of Top Selfie Tourism activities, National Park Agency has to increase its role and function as a companion and supervisor. It is justified, therefore, the intervention by the public authorities in order to regulate the use of natural resources, in order to avoid the "tragedy of the common properties" (Kherrour et al., 2018). The regulations governing utilization in National Park have to be fully complied, such as the implementation of carrying capacity and restrictions on tourism infrastructure buildings. There have not been any restrictions on visits based on the calculation of the carrying capacity in Top Selfie. Visits exceeding the carrying capacity have the potential to destroy resources and reduce satisfaction. When the holiday peak looks very crowded, even finding a clean photo angle is quite difficult. Based on Table 6, strategy should be applied is the combination of Aggressive (S-O) and Diversification (S-T). The strength and opportunity for natural resources are very great, but the damage threat is also great. Therefore, the strategy is emphasized on maintaining natural resources and arranging selfie photo spot. To avoid the tourists' accumulation, it is also necessary to arrange the flow of the visit.

Key Activities

The Top Selfie tourism is well perceived by visitors, supported by the survey result of the satisfaction level where as many as 2% were very satisfied, 41% satisfied, 47% said it was enough, 10% were not satisfied and none expressed dissatisfaction. A high satisfaction level has to be managed by maintaining the quality of the available resources, both artificial and natural. In eco-tourism, general satisfaction influences the intentions of recommending and returning to the destination (Carvache-Franco et. al., 2020). Common management can be observed in the tourism services sector since there are rules for each family to keep a watch at the counter/parking lot/restrooms etc. All residents of Kragilan Hamlet, made up of 74 families, will become “shareholders” of Top Selfie. It is necessary to increase the capacity of members in order to maintain competitiveness (Buhalis, 2000; Christian and Marco, 2012) with other places, both in managerial capabilities, technical expertise, and the eco-preneurships capacity. The poor quality of human resources is reflected in the level of education, from 53 management there are only 2 graduates from high school, 9 from junior high school, and 42 from elementary school. The strategy for Key Activities is the Turn Around (W-O) since it is emphasized on optimizing weak factors, such as capacity building programs and conducting science-based business studies. To improve the quality of service and value offered, it is necessary to conduct research and development.

Table 6. SWOT analysis of key resources aspects of BMC Top Selfie

Strength (S)	Weakness (W)	Opportunity (O)	Threat (T)
1. Natural Resource 2. Selfie photo spot	1. Natural resources are vulnerable 2. There is no carrying capacity setting	1. High tourist satisfaction 2. Trend interest in ecotourism	Degradation of natural resources

Table 7. SWOT Analysis on Key Activities Aspects of BMC Top Selfie

Strength (S)	Weakness (W)	Opportunity (O)	Threat (T)
1. Community-Based Ecotourism 2. Communal management	1. Human resource quality is lacking 2. Development is not scientific-based	1. Community-Based Ecotourism has great support 2. Selfie culture still becomes a trend	Similar competitors

Table 8. SWOT analysis of BMC Top Selfie key partners aspects

Strength (S)	Weakness (W)	Opportunity (O)	Threat (T)
Partnering with the Government Local Service providers	There are still sectoral egos among stakeholders Low HR capacity	Funding support Assistance from universities or other key partners	Overlapping interests

Table 9. SWOT analysis on cost structure aspects of BMC Top Selfie

Strength (S)	Weakness (W)	Opportunity (O)	Threat (T)
All expenditures are formulated by all citizens	There is no capacity building and research development budget	Opportunities for funding support from the State/ Village Fund	Financing operations are increasing

Key Partners

The SWOT analysis of BMC Top Selfie key partners aspects is presented in Table 8. Top Selfie's Key Partners currently consist of three groups, namely National Park Agency, Village Government, and service provider groups. The National Park Agency becomes an important partner in its capacity as "owner" of the national park. In terms of funding support, the National Park Agency also allocates a budget to support the implementation of Top Selfie tourism. Village Government becomes an important partner because of its role in the development of social communities. Furthermore, support from the local government is needed to integrate the area into other sectors, both in terms of infrastructure, financing, strengthening of social institutions, and promotion of tourism. The next Key Partners is The Service Providers, and this group plays an important role in complementing Top Selfie tourism. There are at least 118 photo service providers from nearby villages. Of the 118 top selfie photographers, 106 were high school graduates, while the remaining 12 were from junior high school. Another important service is the Photo Spot provider. It was identified that there were 38 photo spots on the land owned by residents bordering the Top Selfie forest area. Since these photographers work individually, their development is not currently integrated into Pokdarwis/ Top Selfie. The management synergy inside and outside the forest is not strong because of the sectorial ego. Besides the existing Key Partners, it is necessary to build opportunities for collaboration with universities or business actors. Furthermore, business actors or academics can fill this space to improve the quality of human resources and simultaneously provide business assistance.

Therefore, based on Table 8, the Turn Around (W-O) can be suggested as the development strategy. It strengthens the role of existing stakeholders and builds partnerships with universities/business partners in the context of research, assistance, and capacity building. Also, it is important to build collaboration and togetherness with key partners to fight off sectorial egos.

Cost Structure

Table 9 presents the SWOT analysis on cost structure aspects of BMC Top Selfie. The revenue generated is divided into operational costs, management fees, profit sharing, and development. Operational costs are monthly routine expenses incurred to pay duty fees for officers and routine expenses for purchasing tools and supporting materials. Once the operating costs are covered, the remaining (net) income is divided into administration fees of 10%, 20% for development reserves, and 70% for production sharing with the communities. Therefore, each family receives money from profit sharing every month. When considering the composition of the educational attainment, the allocation of resources for capacity building for soft and technical skills is crucial. Also, the budget allocation for research and development is not visible in the current cost structure. Innovation and the management of trial and error are not science-based since it poses a major threat to the sustainability of natural resources. it should be encouraged local economies: a very important aspect is the self-financing, which should support the state funding, pursuing a national park business model (Marlina et al., 2020). Furthermore, National Park Agency and Village Government have the potential to reduce the cost structure burden through the State Budget or Fund held for infrastructure development.

Hence, to anticipate the increasing operational costs based on Table 9, the Turn Around (W-O) strategy is used, where it communicates and collaborates with the National Park Agency and the village government.

Business Model Canvas Development

The prototype design of the BMC Top Selfie business model is shown in Figure 4, which is a combination of the old business model (black box) and its improvements (red box). Figure 4 considers every aspect of the old business model has been added or innovated according to the analysis of internal and external factors.

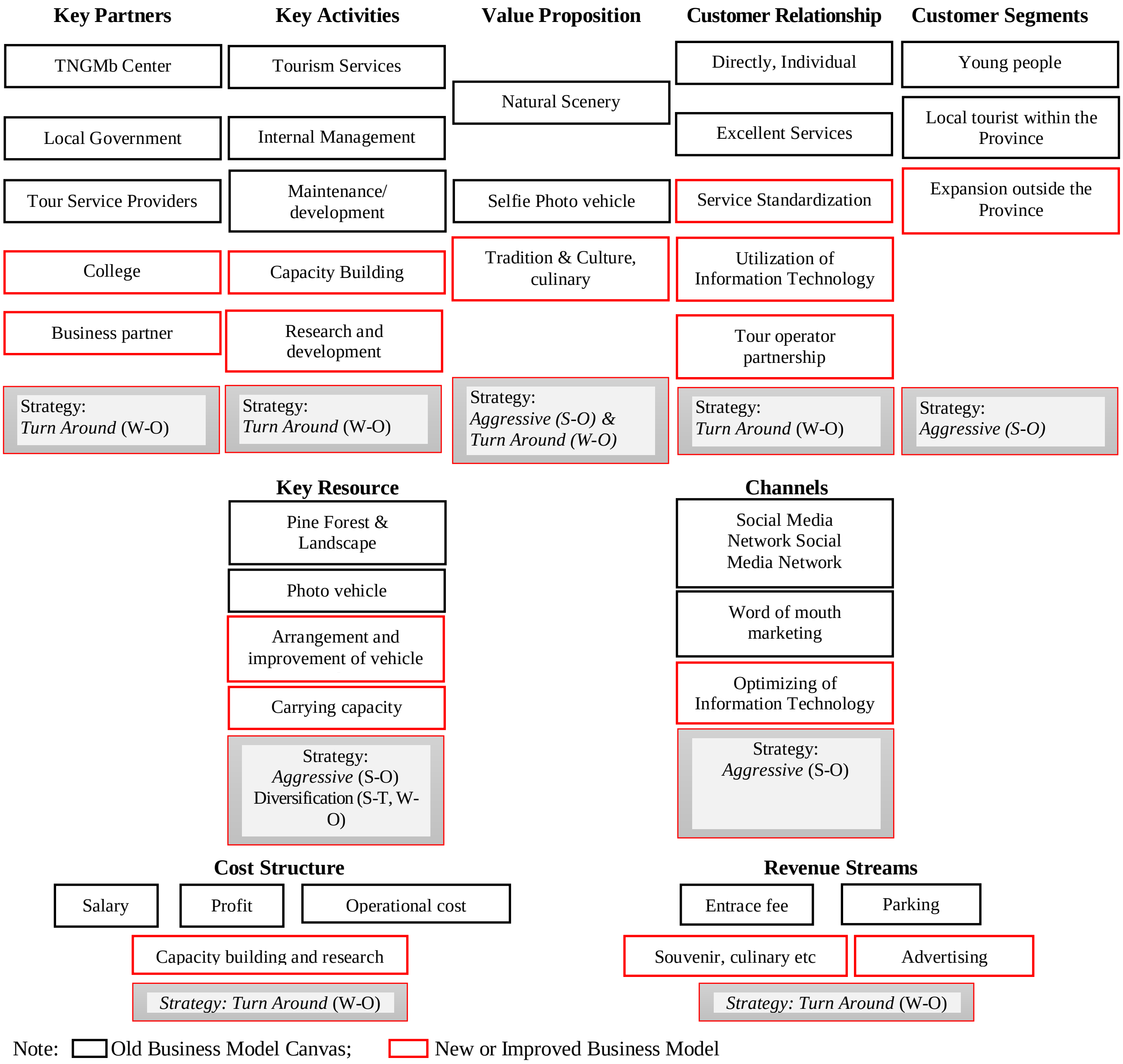

Figure 4. BMC Top Selfie Tourism Development Business Model

CONCLUSION

Top Selfie's BMC analysis produces various strategies. However, there has been a "meeting point" between market expectations, the value offered, and the promotional channels used. This can be achieved by using the nature-oriented tourism opportunities that are still very open. The most important resource aspect is a combined strategy of Aggressive (S-O) and Diversification (S-T) because the factors of strength, opportunity, and threat were equal.

Therefore, the strategy was aimed at mitigating damage impact programs, conserving natural resources, and arranging visits and selfie vehicles/ photo spot. On the other hand, the cost structure, customer relations, key activities, and partners of turn around business strategy aspects focus on improving weak elements to boost revenue streams.

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AN AUTOREGRESSIVE DISTRIBUTIVE LAG ANALYSIS OF CRIME & TOURISM IN THE WESTERN CAPE PROVINCE, SOUTH AFRICA

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Abstract: The relationship between crime and tourism has not received much attention in the academic fraternity. Instead, extensive attention has been placed on the impact of tourism on economic growth, inequality, poverty and employment. To contribute to the scarce literature on crime-tourism, the researcher examined the impact of crime on tourists arrival in the Western Cape Province, South Africa. An Autoregressive Distributive Lag model was employed to examine whether crime reduces or increases the arrival of tourists in the Western Cape Province. The results show that robberies, car hijacking and unemployment minimizes the number of tourists in the province, while economic growth and prosecution per population increases the number of tourists in the province. The results further highlight that robberies, car hijacking and unemployment disequilibrium can be solved after 1 year 6 months, holding all other things constant. Based on these findings, the study recommends that the government provide more employment opportunities to prevent crime in the province.

Key words: tourism arrival, crime, autoregressive distributive lag, Western Cape, time-series

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INTRODUCTION

The tourism sector has transformed into one of the most performing sectors worldwide. Its activities have surpassed the automobiles, food and oil exports industries, combined, in the past two decades (World Tourism Organisation, 2020). Thus, the sector has become a force to be reckoned with, despite the economic instabilities facing the world today. The success of the tourism sector is associated with the commitment of transferring the factors of production from traditional sectors to modern sectors (Garidzirai and Meyer, 2019). This also goes hand in glove with a rising multifariousness and contest among tourism destinations (World Tourism Organisation, 2020). Unquestionably, the growth of the tourism sector has provided positive externalities to other economic sectors such as agriculture, manufacturing and mining sector. This is explained by the money that circulates from the tourism sector to other economic sectors, thereby improving economic growth and employment in these sectors (Garidzirai and Moyo, 2020).

The demand for tourism is fast-growing and often interlinked with an increase in crime rates. Tourism proponents posit that the sector is sensitive to crime which poses substantial mental, material, emotional, and physical harm on tourists (Altindag, 2014; Mudzanani, 2017). More harm is, however, suffered by the society at large as crime increases distrust, intolerance and discourages social cohesion (Vila, 1994). The author further substantiates that tourists prioritize security issues when making a vacation choice as the majority of them are derive total satisfaction from positive aspects of life. Indeed, much attention should be given to the safety of the tourists so as to attract both domestic and international tourists (Mataković and Mataković, 2019).

The main research problem emanates from the fact that crime is a ubiquitous danger to South Africa. South Africa remains one of the countries with a high crime rate worldwide. Currently, the crime rate in South Africa is 78%, and it is expected to increase in future (South African Police Services, 2019). Regrettably, the majority of these crimes are committed in the Western Cape province, which is the focus area of this study. The South African Police Services (2019) has reported that crime in the province has been increasing by an average of 5% in the last two decades. This includes crimes such as common assault, robbery, car hijacking, drug-related crime, to mention a few. The government has attempted to reduce crime to no avail. Noteworthy is that the province is the most preferred tourist destination, therefore analyzing the relationship between crime and tourism arrival is vital for tourism policies and the increase in the body of knowledge on tourism.

Given the substantial harm crime can cause on tourism, the current study investigated the impact of crime on tourists arrivals in the Western Cape Province. Noteworthy is that a majority of studies have focused on the effects of crime on the economy (Altindang, 2014; Garidzirai and Nguza, 2020; Garidzirai and Moyo, 2020), while a handful of studies have focused on crime and tourism (Baker and Stockton, 2014; Mudzanani, 2017; Troy, 2013). The researcher has identified this research *lacuna* and emphasized that there is a lack of academic inquiry into the crime-tourism relationship. This implies that the crime-tourism relationship is inadequate and infrequent. Therefore, the current study analyzed the impact of crime on tourism in the Western Province, South Africa, as it sought to make two contributions. First, the literature on crime-tourism is on panel data, and few/no studies are on the provincial level. For that reason, the study provides this relationship on a provincial level. Second, to the best knowledge of the scholar, this study is the first study in South Africa that has analyzed such a relationship using an econometric model as the few studies that have been conducted on a municipality level are descriptive (Mudzanani,

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2017; Nkosi, 2010). The current study will use variables such as car hijacking, robbery and prosecution per population. The study further used unemployment rate and economic growth as control variables.

LITERATURE REVIEW

The relationship between crime and tourism arrival can be explained by the routine activity theory. The theory posits a positive relationship between crime activities and tourism arrivals (Cohen and Felson, 1979). This implies that an increase in the number of visitors in a destination city increases crimes such as murder, robbery, car hijacking and violence. These crimes are treated as everyday activities that have become a routine behaviour in the host destinations. On the other hand, a city without crime is likely to attract crime when the number of visitors increases (Roncek and Maier, 1991). The routine activity theory makes three assumptions on how tourists arrival and crime relate (Brás, 2015). First, the theory postulates that tourists are a target of those who are motivated to commit crime specifically in less developed countries. Criminals are driven to commit crime because of massive income inequality where the poor envy those who have. Second, criminals target tourists valuable goods and services. In most destination cities, tourists carry their valuables with them which makes them easy targets for criminals. Third, the theory postulates that tourists are vulnerable as they do not have adept guardians. Tourists will be in an unknown environment, far from security or police, which makes it difficult for them to protect themselves (Pizam and Mansfeld, 2006).

The relationship between crime and tourism arrival cannot be separated from previous studies (Altindag, 2014: Baker and Stockton, 2014; Biagi et al., 2012; Mataković and Mataković, 2019; Mudzanani, 2017). For instance, Biagi et al., (2012) investigated the effects of tourism on crime from 1985-2003 using the systematic GMM methodology. The authors objective was to check if the crime rate recorded in Italy was a result of the inflow of tourists. The results reveal a positive influence of tourists on crime in a destination country. The results further highlight that the increase in total population influences crime in relation to the number of tourists in the country. Similar results were also found by Troy (2013) who studied the effects of crime on tourism arrival in Barbados using a transfer function methodology. The results reveal a negative impact of crime on tourists arrival. Thus, an increase in the crime rate leads to a decline in the number of tourists in an area.

Making use of panel analysis, Altindang (2014) examined the relationship between crime and international tourism in European countries. The author measured crime using violence and the risk of victimization, while the number of international tourists and revenue was used to measure tourism. It was found that international tourists are elastic to violent crimes compared to the risk of victimization. The result further highlights a decline in tourism revenue as a result of tourists responding to crime. In South Africa, Mudzanani (2017) conducted a thematic analysis of newspapers on how crime is a barrier to tourism in South Africa. The results highlight that robbery is one of the greatest threats to tourists in South Africa. Garidzirai and Zhanje (2019) further submitted that people commit crime as a result of lack of development in a country. Thus, a negative relationship between crime and economic growth is expected. Improved economic growth creates more employment that will reduce the crime rate in the country. This notion was emphasized by Statistics South Africa (2020).

A study was conducted in Honolulu and Las Vegas on the impact of crime on tourists arrival (Baker and Stockton, 2014). The authors used a panel analysis and found a negative relationship between violent crimes and the number of tourists in Honolulu, while in Las Vegas, a positive link between crime and the number of tourists was established. In Croatia, Mataković and Mataković (2019) examined the impact of crime on security in tourism using a descriptive analysis. The objective of the study was to find out if crime plays a significant role on security in tourism. The results show that crime has a negative influence on the destination image; therefore, a decrease in the number of tourists.

From the literature reviewed, the studies that examined crime and tourism are scarce and Europe based. A few studies done on this relationship in South Africa are questionnaire-based and qualitative in nature. To contribute to this scant literature, the current study examined the relationship between tourism and crime using the ARDL model, which provides robust and accurate results. The following section discusses the methodology and data used in this study.

MATERIALS AND METHODS

Data Description

A quantitative approach was used to examine the impact of crime on tourism arrival. Since the study population is the Western Cape province, a time series analysis was employed from 1994-2019. A sample size of 25 was deemed fit in time-series, especially when employing an Autoregressive distributive lag (Pasara and Garidzirai, 2020). The time-series data used includes international tourism arrival, unemployment rate, prosecution per population, economic growth, number of car hijacking and robbery. Data for car hijacking, robbery and prosecution per population was obtained from the South African Police Services (2020), while data for unemployment rate and economic growth was obtained from the Global insight. International tourism arrival data was obtained from Statistics South Africa (2020).

Worth mentioning is that international tourism was used as a dependent variable. In contrast, unemployment rate, economic growth, number of car hijacking, robbery and prosecution per population were used as independent variables. The model describing this relationship is shown in equation 1.

$$lnItour_t = \beta_0 + \beta_1 lnrob_t + \beta_2 lnhij_t + \beta_3 lnpros_t + \beta_4 lnump_t + \beta_5 lngdp_t + \varepsilon_t \quad (1)$$

Where lnItour represents the number of international tourists arrival, lnrob is the number of robbery cases in the Western Cape province; lnhij is the number of car hijacking in the province and lnpros is the number of prosecution per population in the Western Cape province. Furthermore, lnump is the unemployment rate in the province, while lngdp is the economic growth in the province.

Definition of variables and priori expectation

Tourists arrival was used as a dependent variable. It is defined as the number of people visiting the Western Cape for holiday purposes (World Bank, 2019). Tourism arrival will depend on number of car hijacking, robbery, economic growth, unemployment and prosecution per population. Car hijacking and robbery are the number of crimes committed on car hijacking and robbery, respectively (Adekoya and Razaq, 2017). Both car hijacking and robbery are expected to decrease the number of tourists arrival in the province. Unemployment is expected to increase the crime rate in the province, thus, reducing the number of tourists in the province. Pasara and Garidzirai (2020) defined unemployment rate as all individuals who are actively looking for employment and cannot find a job. Economic growth is the increase in the Gross Domestic Product, considering the number of people in the country (Kathena and Shefeeni, 2017). Economic growth is expected to increase the number of tourists in the province. Prosecution per population is the number of people prosecuted after committing a crime in the Western Cape Province (SAPS, 2019). This variable is expected to decrease the crime rate in the province and increase the number of tourists in the province.

Econometrics Procedure

The study utilized four econometric procedures such as unit root test, cointegration, ARDL model and post-estimation tests. The unit root test is the first procedure employed to assess whether variables are stationary or not. The test is also used to determine the appropriate methodology to use (Gujarati, 2015). In achieving this aim, an Augmented Dickey Fuller (ADF) was used, and the rule of thumb is to accept the null hypothesis if the probability values are above 10%. If the variables are a combination of 0 and 1 then an ARDL is deemed fit, while VAR and VECM can be used when variables are stationary at level one. The second step is to carry out a cointegration test to check whether a long-run relationship exists between crime and tourism arrival. An ARDL Bound cointegration test was employed and it is based on the F-statistic. Pesaran and Shin (1999) posit that the calculated F-statistic should be higher than the upper critical values for cointegration to exist. If the cointegration exists an ARDL model is employed and it is illustrated in equation 2 using the Pesaran and Shin (1998).

$$\Delta lnItour_t = \theta_0 + \sum_{i=h}^{q} a_j \, \Delta lnItour_{t-h} + \sum_{i=1}^{q} \beta_1 \Delta lnrob_{t-h} + \sum_{i=1}^{q} \gamma_2 \, \Delta lnhij_{t-h} + \sum_{i=1}^{q} \beta_3 \, \Delta lngdp_{t-h} + \sum_{i=1}^{q} \beta_3 \, \Delta lnpros_{t-h} + \sum_{i=1}^{q} \beta_3 \, \Delta lnunm_{t-h} + \varepsilon_t \quad (2)$$

Where ΔlnItour is a change in international tourism arrival; Δlnrob is a change in the number of robberies in the Western Cape, Δlngdp is a change in economic growth; Δlnune shows a change in the unemployment rate and Δlnpros represents a change in the prosecution rate in the Western Cape. Moreover, q represents the number of lags used in the model, while β represents the coefficients to be estimated. Noteworthy is that an ARDL model was preferred as it provides a precise and detailed estimate. Furthermore, an ARDL model is the only model that accommodates a combination of variables that are integrated at level zero and one (Pesaran and Shin, 1999). It also allows researchers to estimate both the short-run and long-run relationship. After analyzing the short-run and long-run relationship, diagnostic tests were performed to check if the model used is free from serial correlation and heteroscedasticity.

Empirical results and discussions

The empirical presentation of results includes descriptive statistics, unit root test, cointegration approach, short-run analysis and post-estimation results. The subsequent section presents the descriptive statistics results.

Descriptive analysis of the variables

The descriptive statistics results are illustrated in table 1. The results show that the data used in this study is normally distributed and positively skewed. Furthermore, the descriptive statistics illustrate a high average in the number of international tourists, the number of car hijackers and robberies. This demonstrates that the crime rate in the Western Cape province is significantly high. Noteworthy is that there is a huge gap between the number of crimes committed and the number of prosecution. More so, the province is dominated by unemployment which is recorded at 30.1%. This has led to the stagnant economic growth of 1%.

Table 1. Analysis of Descriptive statistics (Source: Own Compilation)

Descriptive	lnItour	lnhij	lnrob	Lnpros	lngdp	lnunem
mean	62.0361	20.2861	19.8421	8.1010	1.4491	24.1063
median	30.6612	10.7818	9.8621	4.1128	0.1159	14.1263
maximum	40.1590	11.4820	11.8810	5.8530	3.3210	30.1000
minimum	21.8591	6.1295	6.0021	2.5103	-1.1164	12.1752
Std.Dev	3.1041	1.2037	1.1620	2.9862	1.1233	1.5181
Skewness	0.9381	0.5827	0.3113	0.1986	0.8402	0.5123
Observation	25	25	25	25	25	25

Unit root test analysis

The Augmented Dickey Fuller unit root test results are shown in table 2. The results reveal that international tourism arrival, number of car hijacking and unemployment have p-values that are less than 10%. This implies that the variables are stationary at level and are integrated at order zero. On the other hand, the number of robberies, economic growth and prosecution per population were found not to be stationary at level since their probability values were more than 10%. Hence, the researcher first differenced the variables that were all stationary at order one. Zhanje and Garidzirai (2019) posit that if the variables are stationary at a different level, then an ARDL model is deemed fit. Thus, an ARDL model was used to determine if a long-run relationship exists among the variables.

Table 2. Unit root test results
(Source: Own Compilation from E-views; Note: *** represents 1 percent)

Variables	t-statistic and critical values		Probabilities		Order of integration
	Levels	1st Difference	Levels	1st Difference	
lnItour	-3.5110 (-1.0829)	-3.7862 (-2.1742)	0.0029***	0.0000***	I(0)
lnhij	-2.2741 (-1.1253)	-2.7115 (-2.1511)	0.0000***	0.0000***	I(0)
lnrob	-1.1053 (-1.1151)	-5.2130 (-3.9541)	0.4098	0.0000***	I(1)
lnpros	-2.7133 (-1.1210)	-2.3120 (-1.1066)	0.3981	0.0000***	1(1)
lngdp	-2.8318 (-2.7139)	-3.9137 (-1.4981)	0.2764	0.0000***	1(1)
lnunem	-1.1482 (-3.1536)	-1.3913 (-2.8722)	0.0038***	0.0000***	1(0)

Table 3. ARDL bounds test results
(Source: Authors compilation)

Test statistics	Value	K
F-statistic	4.1015	5
Critical value Bounds		
Significance	I0 Bound	I1 Bound
5%	2.9	2.97
2.5%	3.18	3.50
1%	3.47	3.89

ARDL Bound tests analysis

The ARDL bounds test results are illustrated in table 3. The results reveal that a calculated F-statistic of 4.1015 is greater than all the upper bound and lower bound values at all level of significance. Accordingly, the researcher rejected the null hypothesis of no cointegration and accepted that cointegration exists among the variables. Therefore, a long-run relationship was analyzed, and the results are shown in equation 3.

Since cointegration has been established, equation 3 shows a long-run relationship between the dependent variables and independent variables under the study:

$$lnitour = 0.1092 - 1.1821 lnhij - 0.8631 lnrob + 0.6972 lnpros + 0.9828 lngdp - 0.1072 lnune \quad (3)$$

Equation 3 shows an inverse relationship between car hijacking and tourists arrival. Thus, a 1% increase in car hijacking reduces the number of tourists by 1.18%. The result was expected as it is in line with the routine activity theory (Cohen and Felson, 1979). The theory shares the notion that too many activities in the tourism sector increase crime activities in an area, causing the number of tourists to decrease. The results are also in line with the studies done by Matokovic and Matokovic (2019). The authors found that car hijacking is one of the feared crimes, as it reduces the number of tourists in a destination area. Robberies were also found to be significant at a 1% level, thereby negatively influencing the number of tourists in the Western Cape province. Thus, a 1% increase in robbery cases led to a 0.8631% decline in the number of tourists in the province. The same results were found by Mudzanani (2017), who found that robberies are a barrier to tourism arrivals in South Africa. Noteworthy is that all these crimes are a result of high unemployment in the country and province (Statistics South Africa, 2020). This is in line with the current study`s results that found an inverse relationship between unemployment and tourists arrival. A 1% increase in unemployment causes the crime rate to increase, which will reduce the number of tourists by 0.11%. Prosecution per population was found to be significant and positively influencing the number of tourists. A 1% increase in prosecution per population increased the number of tourists by 0.70% in the Western Cape Province.

This result was expected and is in sync with the studies done by Garidzirai and Zhanje (2019). The authors concluded that prosecution per population decreases the crime rate, which increases the number of tourists inflow in Gauteng province. In addition, economic growth was found to be significant and positively related to the number of tourists in the province. Thus, a 1% increase in economic growth increases the number of tourists by 0.98%. This is in line with the studies done by Manzoor et al., (2019) and Khan et al., (2020). Both studies found that economic growth attracts tourists in the country.

Table 4. Short-run analysis (Source: Authors compilation)
Note: ** and *** represents 5 and 10 percent significant level

Variable	Coefficient	Std.error	t-statistic	p-value
ECT	-0.6195	0.2210	-2.1010	0.0000***
Lnhij	0.1061	0.4142	2.1762	0.0000***
lnrob	0.9581	0.1360	3.7515	0.0000***
lnpros	-0.3167	0.9153	-3.4291	0.0072***
lngdp	-0.1940	0.1025	2.1179	0.1827
lnune	-0.2719	0.9861	-2.1011	0.0271**

Table 5. Diagnostic results (Source: Authors compilation)

Test	Test Statistic	p- value	Conclusion
Normality Test	2.4590	0.2917	residuals are normally distributed
Autocorrelation (Order 6)	9.6452	0.3209	no autocorrelation
Serial Correlation (LM test)	8.7864	0.4120	No serial correlation
Heteroscedasticity test (white test)	4.1176	0.8761	No heteroscedasticity

Diagnostic tests results

Table 5 illustrates the diagnostic results. A p-value of 0.4578 on JB test means that the data used was normally distributed. This also confirms the results on the descriptive statistics. Moreover, the p-values of the white test, LM test and autocorrelation test are above 10%, implying, the absence of heteroscedasticity, serial correlation and autocorrelation.

CONCLUSION

The tourism sector has undoubtedly contributed to economic growth, poverty alleviation, inequality and employment. The sector is currently fast-growing and its growth is intermingled with a high level of crime. To study this connection, the objective of the study was to examine the impact of crime on tourism arrival.

The study employed an Autoregressive distributive lag and found that the number of robberies and car hijacking cases negatively influence the number of tourists inflow in the Western Cape Province. The results imply tourism security is one of the crucial aspects when choosing a destination. In addition, unemployment negatively influences tourism arrival. Unemployment increases the crime rate and reduces the number of tourists in the Western Cape Province. On the other hand, economic growth and prosecution per population increased the number of tourists in a region.

Based on the study`s results, the researcher recommends the creation of employment opportunities to minimize the crime rate in the province. The study further recommends that the government empower the province's residents with certain skills to equip those that are vulnerable and to avoid crime. Furthermore, the government should tighten the tourism sector's security so as to protect tourists. Even though the study achieved its objective, a limitation was identified. The study only focused on one province, the Western Cape Province. It is important to focus on all the provinces in South Africa, and this limitation can be addressed in future studies.

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SHOCK METAMORPHISM IN VOLCANIC ROCK DUE TO THE IMPACT OF THE MIGUIR-CAJAS METEORITE IN 1995 AND ITS IMPORTANCE FOR ECUADOR

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Abstract: In the past of the earth several asteroids and meteoroids have been impacted, but most of these collisions have been eroded and today there are only sometimes direct and indirect indications, such as massive extinctions of species in the form of fossils, layers with content of extraterrestrial material among others. Based on our recent reconnaissance in the field in 2017, we have been able to identify a new impact of a meteorite on volcanic rock of the Miocene Tarqui Formation in central Ecuador. We were able to reveal and reconstruct the corresponding trajectory as well as its impact day being in 1995. Based on known impacts in South America, this is the very first to have been impacted on rocks, which would lead to a clear shock metamorphism. This discovery of the impact on a rock may soon be a major tourist attraction of the country due to its accessibility and importance for being unique in Ecuador and on the continent.

Key words: Meteor impact, shock metamorphism, Cajas National Park, tourism, Ecuador

* * * * * *

INTRODUCTION

A form of mass extinction on our planet is credited to the impact of extraterrestrial objects of enormous sizes on a variety of occasions (Hodych and Dunning, 1992; Claeys, Casier and Margolis, 1992; Benton and Twitchett, 2003; White and Saunders, 2005; Benton, 2015).

Of the asteroid impacts on Earth, the most significant occurred in archaic times, late Permian times, as well as late Cretaceous (Ganapathy, 1980, 1982; Smit, 1990; Schulte et al., 2010; Kaiho et al., 2010; Lowe, 2013). Many myths and legends are associated with the appearance of a space object such as Halley's Comet, or of an object that pierced the atmosphere and subsequently impacted. Since ancient times, the Egyptians have linked the flood cycles of the Nile River with the movements of the stars, understanding it as the movement of the gods. The Babylonians predicted time by ruling the facade of heaven (Lowe, 2013).

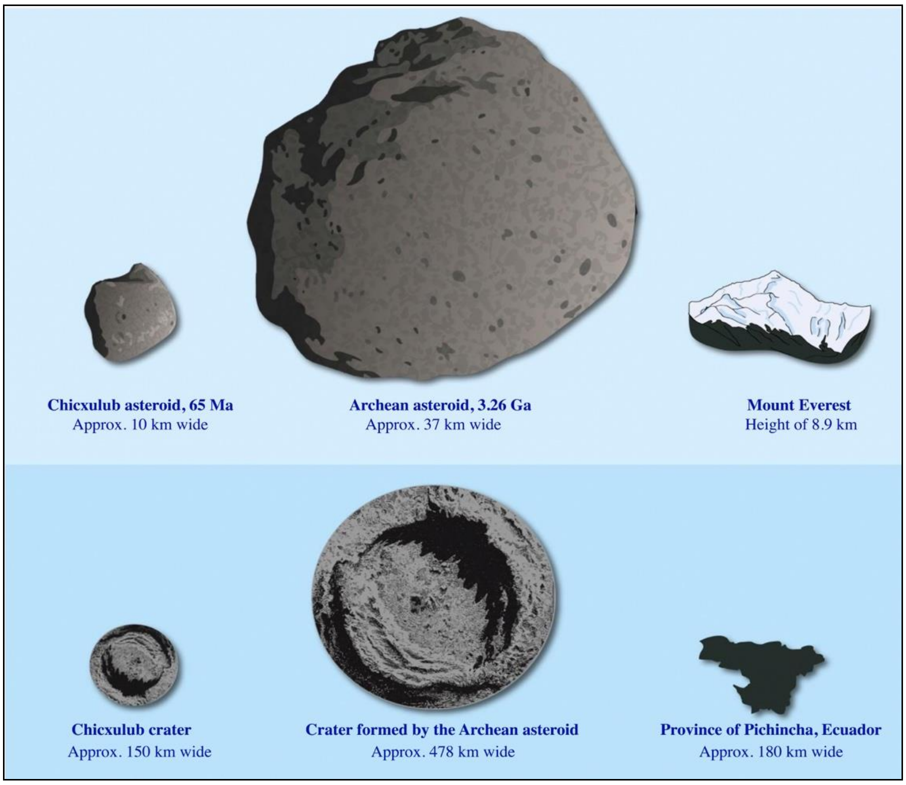

Figure 1. A graphical representation of the sizes of different asteroids and the craters they created. Adapted and modified from American Geophysical Union based on Lowe (2013)

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The Bethlehem star is still considered as the observation of a comet (Humphreys, 1991). However, the appearances of a space object or its impact on Earth are not so exclusive. A considerable amount of materials from space is deposited on the Earth's surface daily. Almost all of these materials arrive unnoticed as dust particles from comets (Humphreys, 1991). There are several pieces of evidence visible today, such as the Barringer Crater near Winslow, Arizona, which is a clear example of what happens when an asteroid hits the Earth's surface (Llorca et al., 2005; DeYoung, 1994; Hager, 1953). It is 1,200 meters in diameter and 200 meters deep and was formed due to the impact of a meteorite around 30 to 50 meters in diameter 50,000 years ago.

Figure 2. Left: Wake of the fireball over Chelyabinsk; Right: Impact crater on Lake Chebarkul (Extracted from Naukas, 2013)

Figure 3. Accurate recorded and studied meteor impacts in South America (Based on Acevedo et al., 2015)

In Tunguska, an uninhabited region of western Siberia, an impact occurred in 1908 as a result of the impact of a 60-meter diameter meteorite, which, unlike the Barringer crater meteorite, completely disintegrated before reaching the ground, which is why no crater was formed (Naukas, 2013; Asher et al., 2005; Napier and Asher, 2009). However, all the trees in an area 50 km around were burned or felled, generating a noise so loud that it could be heard in London. One of the most recent events of this nature has occurred in the Chelyabinsk region, Russia, where a meteorite fell on February 15, 2013, releasing energy 30 times greater than that of the nuclear bomb dropped on Hiroshima, leaving more than a thousand wounded and material damage worth more than $ 33.5 million. (Figure 2) (Kolesnikov and Kolesnikova, 2010; Brown et al., 2013; Barry and Kramer, 2013; Popova et al., 2013). Meteorites are extraterrestrial bodies that are not completely disintegrated by the atmosphere and hit the Earth's surface (Acevedo et al., 2015; Svetsov, 1995). They are popularly known as meteorite, meteor, shooting star. Only large, compact meteoroids touch Earth's surface and become meteorites that hit at high speed. Others are micrometeorites that descend with low speed due to friction produced by the air to settle in the ocean or on Earth (Rietmeijer, 2000). Meteorites are traditionally classified by their characteristics into two categories: differentiated and undifferentiated meteorites. The differentiated Meteorites are mainly represented by the achondrites, which are fragments of larger bodies in which there was already a differentiation of the chemical elements and represent 8% of the recorded impacts on Earth. They also include metals (iron) generally made of an iron-nickel alloy, they are very dense and constitute 5%. Finally, there is the stony-metallic (iron-rock) which is 1% of the meteorites and contains large amounts of rocky and metallic material (Soto, 2004). Undifferentiated Meteorites are chondrites formed by small spheres consisting mainly of silicates and are the most abundant and oldest, representing 86% of the meteorites recorded on Earth (Moyano-Cambero and Trigo-Rodríguez, 2013).

In South America some 31 craters and impact material have been registered in several countries, of which Argentina stands out with 14 craters (Moyano-Cambero and Trigo-Rodríguez, 2013). Other countries where evidence of extraterrestrial object impacts was found are Brazil, Bolivia, Colombia, Chile, Paraguay, Peru, Uruguay, Venezuela and Las Guayanas (Figure 3) (Acevedo et al., 2015). In Ecuador, there is a record in 1995 of a meteorite fall near the Miguir community in the province of Azuay. Among the main newspapers that recorded information on the event, the HOY newspaper published a report on August 16, 2000 (Diario Hoy, 2000). This impact was registered on Saturday, December 9, 1995, through locals and tourists from the Cajas National Park, as reflected in various YouTube videos, called mainly “The UFO of Cajas”. Until now various fragments of the meteorite have been found but never one of the impact sites. This investigation shows the trajectory and the first impact of a meteorite fragment called Miguir-Cajas, in the Province of Azuay, within the Cajas National Park. Another record of a meteorite fall in Ecuador was recorded in Daule on March 23, 2008, leaving no traces so far visible, as the rocks fell into mud and into the river. These are four fragments of up to 20 centimeters in diameter weighing about six kilos, classified as ordinary chondrites. The location of the meteor called "Daule" is Latitude 1 ° 52'15.2 "S and Longitude 79 ° 57'27.2" W.

ANALYSIS AND RESULTS

Observations of the surroundings of the impact zone in Azuay

The Cajas National Park is located about 25 km west of the city of Cuenca, covering about 149 km2. The morphology is characterized by a variety of elevations, separated from hundreds of lake systems through some 232 lagoons (Figure 4).

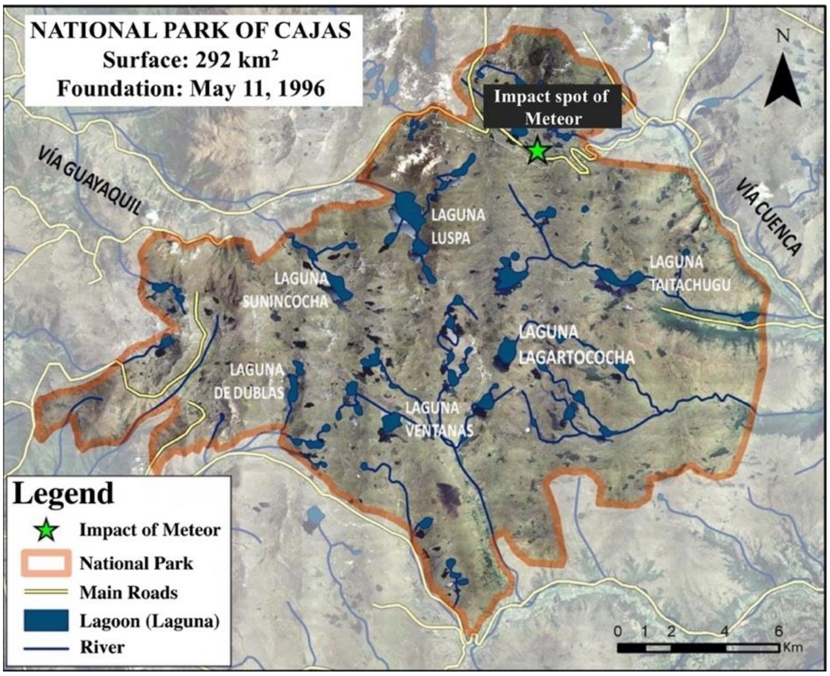

Figure 4. Cajas National Park with impact location

Geomorphology is generally characterized by being of glacial erosion during the Pleistocene, evidencing glacial cirques, U-shaped valleys, ridges, necks, peaks and vertical walls, aberrated rocks and isolated blocks, hanging valleys, glacial deposits such as till, bottom moraines, drumlins, and terminal moraines next to the mentioned glacial lagoons (Acevedo et al., 2011; Goodman, 1996). The geology is characterized by sedimentary and volcanic deposits of basic to intermediate characterization of the Western Cordillera from Paleocenic to Eocenic ages (Navarrete et al., 1999; Pratt et al., 2005; Suhr et al., 2019). On top of these deposits are rocks of the Tarqui Formation, that is, mostly volcanic series from the late Miocene. This formation may be briefly divided into three parts including fine-sized dark andesites, tuff of rhyolitic to dacitic composition, and a layer of a medium-sized homogeneous rhyolite forming visible hills within the park. The tillites are previous till compacted and lithified forming hardened sedimentary deposits (Navarrete et al., 1999). On March 12, 2017, about 710 meters east northeast of the Interpretation Center, passing the Toreadora Lagoon, in a walk of approximately 12 minutes, we were able to identify a rock metamorphosed by the impact (shock) of the Miguir-Cajas meteor. The impact towards the andesite-type volcanic rock occurred on December 9, 1995, at 2:50 p.m. From the observations and field measurements carried out by us, it has been established that the impact occurred due to a fragment less than one centimeter in size, transforming the volcanic rock into a metamorphic rock, leaving a small crater and radial fissures around the impact. The path of the spatial fragment was determined to be north to south in the direction 5˚N to 185˚S with an angle around 25˚ (Figures 4-7).

The Importance of the impact of a meteor to Ecuador

Ecuador situated in a particular geographic and geodynamic environment with the interaction of various tectonic plates is subject of constant movements and associated hazards. Therefore this Andean country together with its Galapagos Islands, situated some 1000 km west of its mainland, is the focus of far and regional tsunamis, strong earthquakes, extremely frequent mass movements and continuous volcanic activity (Aviles-Campoverde et al., 2021; Hungerbühler et al., 2002; Padrón et al., 2012; Rodriguez et al., 2017; Toulkeridis and Zach, 2017). Such geological events have destroyed a variety of villages and strategic infrastructure, leaving behind huge amounts of victims and enormous economic losses.

These economic struggles have compromised occasionally the government's GDP leading to social unrest and manifestations (Toulkeridis et al., 2019; Hochstetler, 2006; Lucero, 2001; Korovkin, 2000; Kennemore and Weeks, 2011).

On the other hand, hazards based on atmospheric and or hydro-meteorological phenomena and or processes also have left behind enormous economic losses and occasionally deaths. Such catastrophic events are based on seasonal activities such as rainy or dry seasons as well as the "El Niño" and "La Niña" phenomenona (Perreaulta and Valdivia, 2010; Toulkeridis et al., 2020; Toulkeridis et al., 2016; Mato and Toulkeridis, 2017).

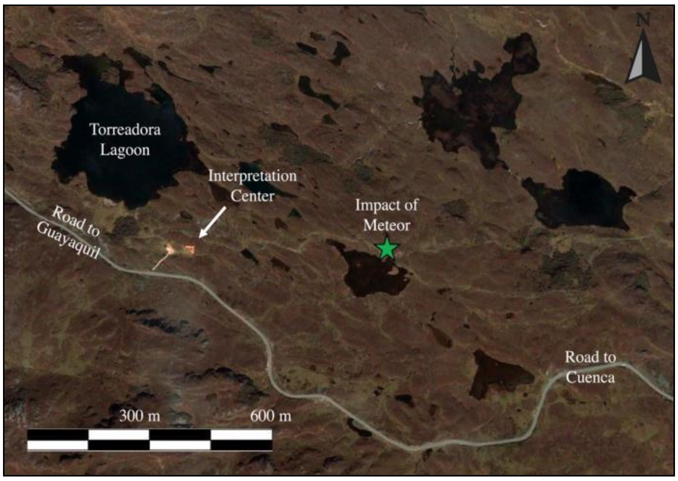

Figure 5. Detailed location of the object's impact zone including the closeness of the Interpretation Center of the Ministry of the Environment. Image extract from Google Earth™

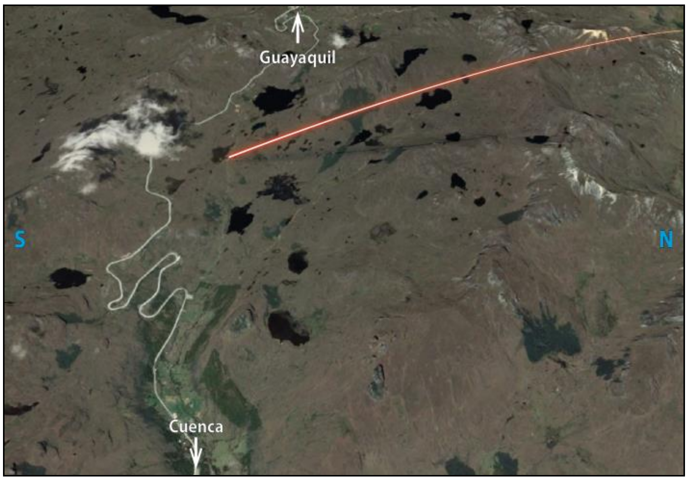

Figure 6. Miguir-Cajas meteor impact trajectory with trajectory from North to South. Image extract from Google Earth™

Figure 7. The impact spot in detail within the andesitic volcanic rock, the exact coordinates of the site are Latitude 2 ° 47'00.6 "S and Longitude 79 ° 12'55.8" W, as taken by the leading author at its day of discovery on March, 12, 2017

Furthermore, due to extreme social and political activities occur extremely often public unrests, which have led to a variety of coups resulting to removals of several presidents, while the dismissal of ministers and deputies is almost of monthly frequency (Edwards, 2015). In the most recent legislation, which shall last for four years, Ecuador has had so far four vice-presidents, due to illegal activities or personal agendas (Lucero, 2001; Korovkin, 2000; Conaghan, 2012). Lastly, corruption and other illicit activities in practically all political social and economic environments paralyze the country and its progress (Marsteintredet, and Uggla, 2019; Lyall, 2018; Buscaglia and Dakolias, 1998).

Despite all aforementioned frequent catastrophic impacts and the continuous political uncertainty, there are still several extraordinary facts about Ecuador to be proud of. Ecuador is known worldwide for its enchanted islands, which belong to the UNESCO Natural Heritage List. Since 1978 there are places in Ecuador that were declared as Natural and Cultural heritage of Humanity through the UNESCO Organization. This list includes the capital of Ecuador with its colonial center, its history and architecture, its historical center being the largest in America. This nomination was followed by Galapagos as a Biosphere Reserve in 1978 and Cuenca, the "Athens of Ecuador", for its buildings and its natural environment in its surroundings in 1999.

Other Ecuadorian icons on this list include the Sangay National Park, the Zárapa language, the traditional weaving of the Ecuadorian toquilla straw hat, also known as Panama Hat, and finally the Qhapaq Ñan (Inca Trail, in Quichua), a masterful communication network road, which with its 6,000 km from south to north covers and crosses Argentina, Chile, Bolivia, Peru, Ecuador and Colombia. Ecuador is also recognized worldwide for its diversity in orchids (4,209 Ecuadorian species of 25 thousand known species), birds (1,640 species of birds in Ecuador of the 9,702 known worldwide), some world-wide scientific discoveries (rose iguana, climbing fish etc.), among its multiculturalism, its archeology (Ingapirca, Cochasquí etc.), caving (Jumandi, Tayos etc.), extreme sports, and now a recognized meteor impact, just a few minutes' walk in the Cajas National Park (Tobar-Pesántez and Solano-Gallegos, 2019; Hoese et al., 2015; Martin-Solano et al., 2016; Moliner, 2011; Gentile and Snell, 2009; Ridgely and Greenfield, 2001; Rumazo, 1946; Snow, 1979; Svistoonoff, 1994; Ziólkowski and Sadowski, 1991; Constantin et al., 2019).

Figure 8. A variety of disasters which have occurred in Ecuador, such as the (a) 3rd of November 2002 eruption of Reventador volcano, (b) the most recent severe 7.8 Mw Earthquake in coastal Ecuador on the 16th of April 2016 and (c) associated mass movement close to Chone, in coastal Ecuadorand (d) flooding after torrential rain in Ecuador´s capital Quito on the 7th of July 2020

CONCLUSIONS

A unique tourist attraction in Ecuador has been found in the Cajas National Park. It is an extraterrestrial impact of the meteor called Miguir-Cajas, which impacted on December 9, 1995 on a volcanic rock.

It was possible to reconstruct the angle of the trajectory as well as the trajectory direction of the space object, as the meteorite has travelled from north to south with a very low angle (25˚) prior impact.

The impact has left radial fissures around the impact spot transforming the andesite volcanic rock in almost pure milk quartz appearance due to the shock metamorphism. Due to its special character, as it is the only one recognized so far in the country as well as continent and very accessible to any visitor, it is recommended to protect this rock, while scientific studies of the detail of the rock, the impact, and the space fragments found continue.

Acknowledgement

We are grateful to the authorities and park-rangers of the Cajas National Park for the permit and logistics to study the impact of the meteorite inside the park.

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DIGITAL CAPACITY OF RUSSIAN TOURIST TERRITORIES

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Abstract: Digitalization has affected the economies and the everyday life of the population all around the globe. Industries are going digital with the Industry 4.0 mode changing the conventional practices of doing business. People spend a significant amount of time online shifting their daily routines to electronic format. The wide dissemination and adoption of ICTs place mutual expectations from the population to have competence in using modern digital technologies and from firms and public institutions to provide their services online. Not surprisingly there is a strong digital divide between territories in their digital capacity – the ability of a territory to generate digital content. This study is aimed at evaluating the digital capacity of cities and municipalities in Russia by measuring their digital footprint in the tourism industry. Tourism is found to be an information-intensive economy sector with a large volume of consumer-generated content making it ideal for measuring the digital capacity of territories. The research design is based on geotagged hashtags sourced from Instagram – one of the most popular social networks worldwide. The geographical scope of research covers 205 cities in 10 regions of Russia – Arkhangelsk region (14 municipalities), the Republic of Crimea and Sevastopol (19 municipalities), Kaliningrad region (28 municipalities), Krasnodar region (26 municipalities), Leningrad region (69 municipalities), Murmansk region (16 municipalities), and Rostov region (23 municipalities). All of the regions are located in the European part of the country but differ in environmental, socio-economic, and geopolitical parameters. In order to focus on the tourism sector, the dataset on tourist accommodation establishments and bed places is collected in addition to population statistics. The analyzed data is mapped, and a series of figures present the research findings. The research results suggest that consumer-generated content with place-related hashtags in Instagram is applicable for tracking the tourism sector development and the tourism-related digital capacity of a territory. However, a number of limitations are identified in using user-generated digital content in social media. This includes overrepresentation of large cities over smaller settlements despite not being the direct location of reference; 'noisy data' featuring additional meaningless information due to ambiguous hashtags; an increasing volume of commercial posts from bloggers, self-employed, and business.

Key words: digitalization, digital capacity, tourism industry, digital footprint, technology acceptance, digital routine, Russia

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INTRODUCTION

Since the 21st century, worldwide Internet usage has shown exponential growth – from 6.5% of the population in 2000 to 51.0% individuals in 2019 being subscribed to the Internet (World Bank, 2021). Other estimates suggest that the average worldwide growth of users between 2000-2021 was even higher, reaching 1,300% due to an immence growth rates in Africa and the Middle East (Miniwatts Marketing Group, 2021). According to the U.S. Central intelligence agency (CIA), there are 4.1 billion Internet users around the globe with the following top ten countries by the number of users (in millions): China – 730.7, India – 374.3, the United States – 246.8, Brazil – 122.8, Japan – 116.6, Russia – 108.8, Mexico – 73.3, Germany – 72.3, Indonesia – 65.5, and the United Kingdom – 61. Impressive growth and geographical coverage also observed for mobile Internet. The 2019 data of the GSM association suggests that 47% of the global population (over 3.5 billion people) are connected to mobile internet, while the share of the population living within the areas covered by mobile broadband networks continues to increase. International Telecommunication Union report of 2020 (International Telecommunication

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Union, 2020) reflects that 93.2% of the world population is covered by a mobile broadband network, including 85% are estimated to have access to a fast-speed 4G network as of 2020. These data imply a widespread integration of digital technologies and the virtual realm in the everyday life of the population around the globe.

Due to the availability of required infrastructure, affordability of Internet subscriptions, and relative consumer readiness for using online services, there is a trend of moving digital by various businesses and public services – retail, insurance services, entertainment industry, etc. People are increasingly switching their daily routines to electronic format, e.g. online shopping, electronic banking, distant learning, telemedicine. The vast dissemination and adoption of digital technologies by society has also facilitated the digitalization of state services being delivered to citizens. In some countries, the e-government format has become dominant over the past few years. For example, in Estonia, 99% of public services are available online, and people tend to prefer the electronic format overall – 95% of people submit their tax returns online, 99.6% of bank transactions are done via the Internet (Mikhaylova, 2019; Tupay, 2020). The digital era of governance is not only making governmental institutions and businesses increasingly reliant on digital technologies but placing the expectations on citizens to be online and act digitally (Schou and Hjelholt, 2018). This digital transformation means that many activities of everyday life are being transferred to the Internet and mobile technologies, thus, framing the new standards and behaviors (Brodovskaya and Huang, 2019).

The new notions of a 'digital nation', 'digital society', 'digital population', 'digital citizen' are being extensively discussed and the prospects of upcoming changes are being debated. Alongside the increasing penetration of Information and Communication Technologies (ICT) and digital online platforms into the public domain, digitalization is expected to increase its impact on the elements of smart cities (e.g. the public transport ticketing and schedule, the sightseeing QR codes, etc.) and the development of regional societies (Bouzguenda et al., 2019; Hu et al., 2020). The digital revolution impacts the economy structure, which is being re-engineered and restructured towards Industry 4.0 and the fast-growing high-tech 'propulsive' industries (Kuznetsov et al., 2019; Pencarelli, 2020; Stankov and Gretzel, 2020). According to Abou-Shouk et al. (2013), one of the strongest changes are found in the service sector and tourism industry, in particular, especially considering the volume of e-tourism services rendered, such as hotel and travel ticket bookings sold via the Internet. Tourists tend to book the entire trip using personal digital devices (Happ and Horváth Ivancsóné, 2020). Digitalization changes the structure of the tourism industry challenging the firms' efficiency by intensified competition and transparent pricing (Ruiz-Gómez et al., 2018). Tourism has become an information-intensive industry with information technology driving the critical changes of consumer behavior and the distribution of travel-related information (Yeoman and McMahon-Beattie, 2006; Xiang and Gretzel, 2010).

The aim of this study is to evaluate the digital capacity of cities and municipalities in Russia by measuring their digital footprint in the tourism industry. We apply the geotagged consumer-generated content (CGC) from social media as an indication of the ability of a territory to generate digital content. Our research hypothesis suggests that the new types of digital data (big data) can act as a marker of the tourism industry development potential. The article proceeds with a literature review on the digitalization of the tourism industry with an emphasis on user-generated content and Web 2.0. The materials and methods section presents a logical framework and the steps of the research design. The research results show the data obtained, which is synthesized in a series of regional-level maps. The paper closes with a discussion and conclusions on the key findings, providing observations on the spatial patterns of the digital capacity of tourist territories in Russia.

LITERATURE REVIEW

In recent years, the two digital megatrends have considerably changed the "rules of the game" in the tourism industry (Leung et al., 2013; Munar and Jacobsen, 2014; Xiang and Gretzel, 2010). The first trend is related to the early development stage of the World Wide Web or Web 1.0, which is associated with static (non-interactive) websites and, most importantly, search engines. With the availability of websites featuring detailed information on the market offerings, the all-embracing search engines (such as Google, Yandex) and the aggregator websites that present the whole variety of competitive goods provided and services rendered (e.g. Booking, Momondo, etc.) the customer got the opportunity to compare and choose offers in the B2C format, self-plan holidays and self-manage all bookings and payments. However, soon the second trend has come to the forefront – Web 2.0 with the user-generated content (conceptualized as consumer-generated content – CGC). The social media websites present the travel-related personal experiences, opinions, and comments in a variety of different forms – social network sites (e.g. Facebook), media-sharing sites (e.g. Instagram, Flickr, YouTube), review sites (e.g. TripAdvisor, Booking.com, Trivago, Yelp, Vacatia, Google Trips) and voting sites (e.g. Digg), blogs (e.g. Travelblog, Travellerspoint) and microblogs (e.g. Twitter), social bookmarking sites (e.g., Delicious), social knowledge sharing sites (e.g. Wikitravel), and numerous virtual travel communities (Leung et al., 2013; Munar and Jacobsen, 2014; Xiang and Gretzel, 2010; Li et al., 2021). This CGC is the "media impressions created by consumers, typically informed by relevant experience, and archived or shared online for easy access by other impressionable consumers" (Blackshaw and Nazzaro, 2006). This content is generally perceived as a marketing-free view on the product and contrasts the Internet marketing that has become more sophisticated in recent years.

A review by Leung et al. (2013) suggests that researchers widely register the strategic importance of social media for tourism and hospitality competitiveness as the CGC is increasingly adopted by travelers in their decision making. Li et al. (2021) indicate that websites and mobile applications provide tourists with communication channels to share information, express opinions, and process bookings. The immense amount of data on travel experiences that are being stored on social media and supplemented with individual travel stories are becoming an increasingly dominant domain in travelers' information search and decision making (Choe et al., 2017). Xiang and Gretzel (2010) orecast that the dedicated travel websites with CGC (such as TripAdvisor, VirtualTourist, IgoUgo, and the alike) along with blogs and social networking sites are evolving into primary sources of information on tourist destinations. Given the importance of the travel data available scholars are developing new methods of capturing and processing this information.

The digital footprints of travelers account for a large volume of semi-structured ‘big data’, such as photos, videos, posts, reviews, or other types of social media, that are impossible to analyze using traditional research methods (Gunter and Önder, 2021). The initial focus of researchers was drawn to text-mining, analyzing questions and answers in forums and user-provided reviews on TripAdvisor, Priceline, Hotels.com, Expedia, Booking.com, etc., posts and reposts with travel experiences, Twitter messages, whereas recent studies are increasingly focusing on the content and metadata from photos and videos (Li et al., 2018; Orsi and Geneletti, 2013; Ma et al., 2018). Back in 2014 Munar and Jacobsen (2014) have revealed a dominance of visual content in the tourism industry, which was recently verified by numerous studies (Aramendia-Muneta et al., 2021; Payntar et al., 2021). Scholars make use of georeferenced information sourced from metadata attached to CGC, typically indicating the latitudinal and longitudinal coordinates, geotags, or hashtags (Gunter and Önder, 2021).

Geotagged photos have been previously applied for tracking the tourist flows and movement patterns (Girardin et al., 2008; Önder et al., 2016; Vu et al., 2015), identify and rank the popularity of tourist attractions and determine tourism demand (Kadar and Gede, 2013; Gunter and Önder, 2021), draw the interdependence and quantify the role of the UNESCO World Heritage sites in regional tourism sector (Payntar et al., 2021), compare the recreational activities of locals and tourists (García -Palomares et al., 2015; Yuan and Medel, 2016), as well as build tourist guides (Jiang et al., 2013). In recent years Instagram is becoming a particularly popular data source for having a large number of users around the globe, as well as due to the system of user-defined hashtags that enable to capture and process of big data in large-scale qualitative geographical studies.

MATERIALS AND METHODS

The research design of the study is set up to test the hypothesis on the user-generated digital content acting as a marker of the tourism industry development potential. In particular, we focus on measuring the digital capacity of territories, which is defined by their ability to generate digital content. That is, does the location in question has a sufficient number of tourist attractions, their level of recreation and hospitality sector development, the attractiveness of cultural heritage and geo-sites.

Instagram is used as the primary source of data. Unlike some other competitive social media, Instagram specializes in photos and offers a user-friendly mobile application for both professionals and the general public. We have used a list of location-specific hashtags to source statistics on posts (digital footprint) and map them accordingly. For research purposes, the following hashtag form was used: #“city name”. The search was carried out in the Russian-language segment of the social network.

Table 1. Territorial coverage of research by hashtags of tourist regions of Russia (Data source: developed by the authors)

Region name	Urban settlements considered (cities and urban-type settlements)		Number of hashtags, thousand	Population size in settlements of the sample, thousand people
	No.	name		
Arkhangelsk region (including the Nenets Autonomous District)	14	Arkhangelsk, Severodvinsk, Kotlas, Mirny, Koryazhma, Novodvinsk, Velsk, Nyandoma, Onega, Kargopol, Shenkursk, Mezen, Solvychegodsk, Naryan-Mar	3498.6	802.1
Murmansk region	16	Murmansk, Severomorsk, Apatity, Monchegorsk, Kandalaksha, Kirovsk, Olenegorsk, Polyarny, Kovdor, Zapolyarny, Polyarnye Zori, Snezhnogorsk, Zaozersk, Gadzhievo, Kola, Ostrovnoy	3728.7	623.2
Leningrad region	69	33 cities (Vyborg, Gatchina, Kingisepp, Tikhvin, Sosnovyy Bor, Kirishi, Luga, Vsevolozhsk, Volkhov, Tosno, Priozersk, Slantsy, Lodeynoye Pole, Svetogorsk, Pikalovo, Podporozh'ye, Boksitogorsk, Kirovsk, Shlissel'burg, Ivangorod, Volosovo, Syas'stroy, Novaya Ladoga, Otradnoye, Sertolovo, Kamennogorsk, Kommunar, Nikol'skoye, Lyuban', Primorsk, Vysotsk, Murino, Kudrovo) and 36 urban-type settlements	5713.1	1260.3
St. Petersburg	10	St. Petersburg, Kronstadt, Pushkin, Kolpino, Peterhof, Lomonosov, Zelenogorsk, Krasnoe Selo, Sestroretsk, Pavlovsk	21289.6	5975.2
Kaliningrad region	28	Kaliningrad, Baltiysk, Gusev, Chernyakhovsk, Sovetsk, Guryevsk, Gvardeysk, Zelenogradsk, Svetly, Neman, Svetlogorsk, Mamonovo, Bagrationovsk, Pionersky, Nesterov, Polessk, Slavsk, Ozersk, Krasnoznamensk, Pravdinsk, Ladushkin, Yantarny, Znamensk Primorye, Rybachy, Donskoe	9171.7	788.8
Krasnodar region	26	Krasnodar, Sochi, Novorossiysk, Armavir, Anapa, Labinsk, Yeisk, Gelendzhik, Tikhoretsk, Tuapse, Slavyansk-on-Kuban, Kropotkin, Krymsk, Belorechensk, Timashevsk, Temryuk, Kurganinsk, Ust-Labinsk, Gulkevichi Klyuch, Korenovsk, Goryachynsk, Korenovsk, Abinsk, Novokubansk, Primorsko-Akhtarsk, Khadyzhensk	78102.3	2986.7
Rostov region	23	Rostov-on-Don, Taganrog, Volgodonsk, Mines, Novocherkassk, Azov, Kamensk-Shakhtinsky, Bataysk, Novoshakhtinsk, Salsk, Donetsk, Belaya Kalitva, Gukovo, Millerovo, Krasny Sulin, Morozovsk, Zernograd, Aksai, Semikarakorsk, Zverevo, Konstantin Tsimlyansk, Proletarsk	21626.6	2821.6
Republic of Crimea	16	Simferopol, Belogorsk, Kerch, Evpatoria, Yalta, Feodosia, Dzhankoy, Saki, Bakhchisarai, Alushta, Krasnoperekopsk, Sudak, Armyansk, Staryy Krym, Shchelkino, Alupka	13310.8	975.2
Sevastopol	3	Sevastopol, Inkerman, Balaklava	4968.3	482.3

The geography of the study covered municipalities of two types (municipal districts and urban districts) in nine regions of the Russian Federation, of which in the north – the Arkhangelsk region (20 municipal districts and 8 urban districts) and the Murmansk region (5 municipal districts and 12 urban districts); in the northwest – the Leningrad region (17 municipal districts and 1 urban district), the Kaliningrad region (22 urban districts) and the federal city of St. Petersburg; in the south – Rostov region (43 municipal districts and 12 urban districts), Krasnodar region (37 municipal districts and 7 urban districts), the Republic of Crimea (14 municipal districts and 11 urban districts) and the federal city of Sevastopol. The download of the hashtag database from Instagram was carried out in 2020 in the context of 205 urban settlements that are part of these municipalities and, in most cases, are their administrative and territorial centers (Table 1). Figure 1 presents the geography of the studied areas. All of the regions are located in the European part of the country but differ in environmental, socio-economic, and geopolitical parameters. For example, Murmansk Oblast is located in the Arctic Circle, Kaliningrad Oblast is an exclave territory, and Leningrad Oblast surrounds Saint Petersburg with numerous historical heritage sites and beautiful architecture.

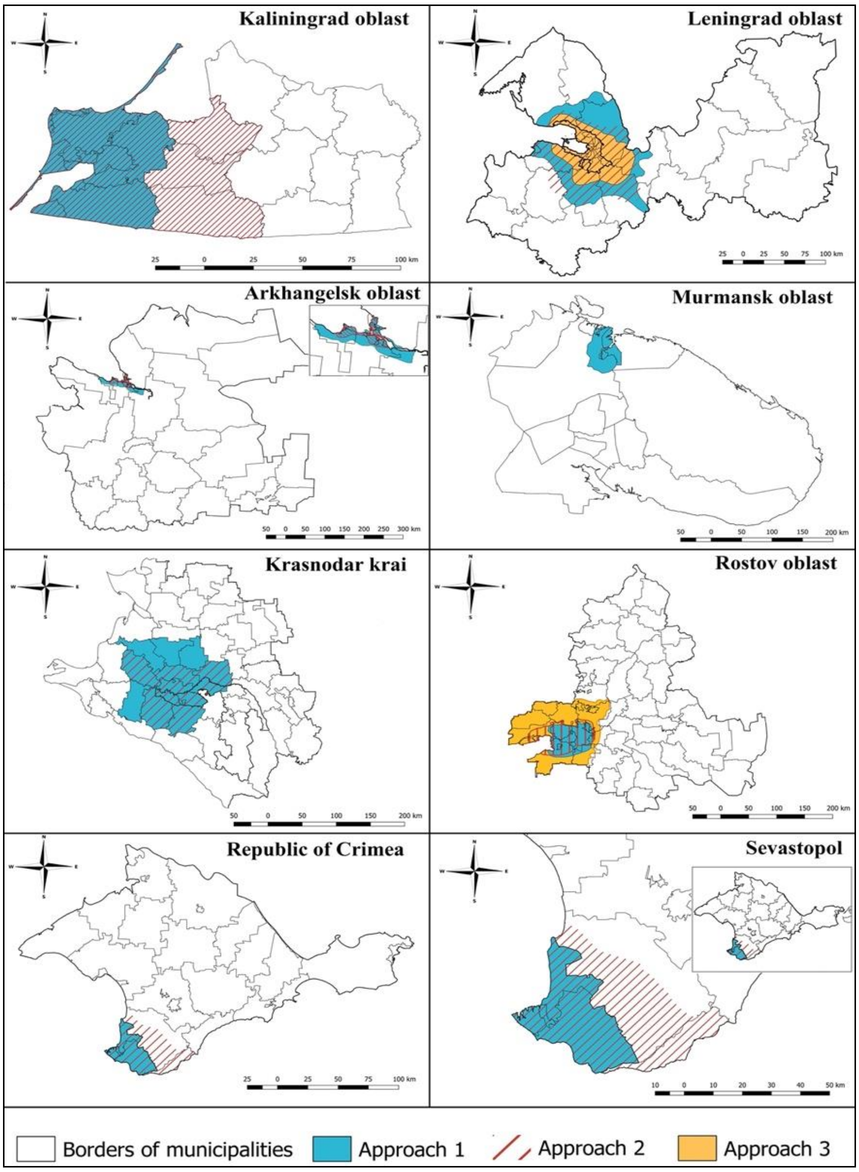

Figure 1. The location of the study area (Source: developed by the authors)

The conventional tourism industry statistics are downloaded from the Federal State Statistics Service of the Russian Federation (Rosstat, URL: https://eng.rosstat.gov.ru). The following regional level indicators are used to compare with geotagged photos from Instagram: the number of tourist accommodation establishments per 10,000 population, the number of bed places per tourist accommodation establishment. All of the data is scaled in a comparable form and unified across the eight regions under consideration. Data is presented as of 2019. An important element of the study is the delimitation of the urban agglomeration (Figure 1). In our study, we proceeded from the fact that the generation of hashtags in a social network can be influenced not only by the tourist attractiveness of territory but also by the agglomeration factor, due to a higher concentration of residents around large cities. In this regard, we have compared three dimensions: agglomeration boundaries, tourist areas, and geotags. The delimitation is done based on the structured literature review of original studies on these regions. Arkhangelsk Oblast has two major delimitation approaches: considering near urban districts and adjacent rural settlements (10 municipalities) or an expanded agglomeration to the Kholmogorskiy district and the village of Nenoksa at the north-west (16 municipalities). The Crimea Republic and Sevastopol form a single bi-polar conurbation with centers in Simferopol and Sevastopol.

Simferopol agglomeration is structured in three belts of transport accessibility (near, middle, remote) or expanded to Dzhankoy on the north and Evpatoria on the west, including the Bakhchisarai district (7-10 municipalities). Sevastopol agglomeration incorporates from 2 to 4 other municipalities. Kaliningrad Oblast has three delimitation options: firstly, the agglomeration is divided into industrial, coastal, and border zones (11 municipalities); secondly, into the agglomeration core and its satellites in the western part of the region based on their transport accessibility (13 municipalities); and thirdly, an approach incorporating major industrial cities, which is equal to almost the entire territory of the region. Krasnodar Krai has two delimitation options: based on transport accessibility, population, and industrial connections (11 municipalities) or an extended area to the north reaching Timashevsk (15 municipalities). Leningrad Oblast is generally regarded as part of Saint Petersburg agglomeration featuring three main approaches: municipalities adjacent to St. Petersburg (5 municipalities), includes settlements functionally gravitating to St. Petersburg, located in its zone of influence and having transport accessibility (8 municipalities) or an expanded territory to the north, including the entire southeastern part of the Vyborgsky district and the south of Priozerskiy district (8 municipalities). Murmansk Oblast has a unified approach to delimitation of its urban agglomeration incorporating 12 municipalities. Rostov Oblast has three main delimitation approaches: firstly, including the satellite cities of Rostov and adjacent municipalities, without Kagalnitsky and Oktyabrsky districts (11 municipalities); secondly, the agglomeration includes distant districts, including the cities of Shakhty and Novoshakhtinsk, as well as a suburban part of the Krasnosulinsky district (18 municipalities); thirdly, the greater area of Rostov agglomeration excluding Taganrog and the Neklinovsky district.

RESEARCH RESULTS

To better understand the digital capacity of tourist areas, we have carried out a comparative assessment of the development of the tourism sector in the regions under study. During 2005-2019, the total number of collective accommodation facilities for tourists in these regions increased 3 times and amounted to 9,865, and the number of people accommodated in them increased 2.5 times to 20.8 thousand people. The aggregate share of these regions has significantly increased relative to the general indicators for the country: in 2019 they accounted for 35% of all collective accommodation facilities (21.7% in 2005) and 27.4% of placed persons (in 2005 – 21.9%). Leadership positions among the regions under consideration in terms of the number of tourist infrastructure are occupied by the Krasnodar region, the Republic of Crimea, and St. Petersburg. The same regions are also leading in the structure of Russian tourists sent on tours across the Russian Federation in 2019: Krasnodar region – 33.5%, Republic of Crimea – 12%, St. Petersburg – 6.8%, and Leningrad Region – 2.6%. According to the types of collective accommodation facilities in the regions of the sample in 2019, 26.6% of hotels, 21% of hostels, 23.7% of sanatorium and resort organizations, and 24.8% of recreation organizations were concentrated from the total country volume. Table 2 shows the ranks of the studied tourist regions of Russia according to some significant indicators of the development of the tourist network.

Table 2. Ranks of some regions of Russia in terms of the development of the tourism sector (Source: calculated by the authors based on Rosstat data)

Region	by the number of organizations				by the number of people placed in							
	hotels	hostels	sanatorium and resort organizations	recreation organizations	hotels		hostels		sanatorium and resort organizations		recreation organizations	
					Russians	Foreigners	Russians	Foreigners	Russians	Foreigners	Russians	Foreigners
Krasnodar region	1	2	1	1	1	2	2	4	1	1	1	3
St. Petersburg	2	1	5	6	2	1	1	1	3	4	4	9
Republic of Crimea	3	4	2	2	4	7	5	6	2	2	3	2
Rostov region	4	3	4	4	3	5	3	2	5	7	5	6
Kaliningrad region	5	5	6	9	6	4	6	3	4	5	9	7
Leningrad region	6	8	3	3	5	3	4	8	6	9	2	1
Arkhangelsk region	7	7	7	7	7	8	8	9	8	8	8	8
Murmansk region	8	6	8	5	8	6	7	5	7	3	6	4
Sevastopol	9	9	9	8	9	9	9	7	9	6	7	5

Note: rank 1 means that the region occupies the best positions in the sample for the considered indicator

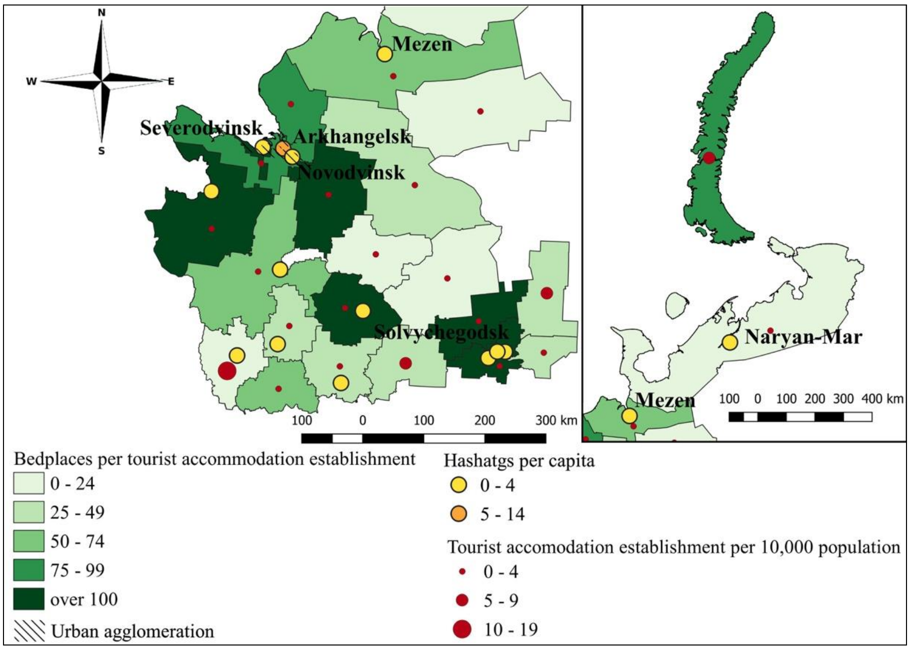

Figure 2. Digital capacity and tourist potential of the territory of the Arkhangelsk region, incl. Nenets Autonomous Okrug (Source: developed by the authors)

The analysis of the data presented in Table 2, on the one hand, demonstrates the superiority of the Krasnodar region in terms of tourist attractiveness among the studied regions of the Russian Federation, and on the other hand, demonstrates the differences between the regions in terms of the tourist flow. For example, among foreign tourists staying in hotels, the most popular destinations are St. Petersburg and the Leningrad region, focused on the development of cultural and historical tourism; Krasnodar region, where the mountain-ski resort of Sochi is located, which hosted the 2014 Olympics; and Kaliningrad region, which is a Russian exclave in the Baltic. A distribution for Russian tourists looks different – in the first places are the southern seaside resorts.

It is interesting that the northern regions (in particular the Murmansk region) are chosen by foreign tourists for accommodation in sanatorium and resort organizations and recreation organizations, while from the side of Russian tourists this direction is less in demand. The analysis of this data helped us to better understand the relationship between the regions under study in terms of tourism specifics and the tourist flow to them, which was subsequently reflected in the volume of digital content generated. Figures 2-8 reflect the patterns of territorial distribution of digital content and tourist potential in the studied regions of the Russian Federation by municipalities. The northern regions – Arkhangelsk and Murmansk regions account for the smallest amount of digital content marked with hashtags (Table 1), which is natural due to the fact that these regions occupied one of the lowest positions in terms of tourist attractiveness among the studied regions in 2005-2019. At the same time, they have steady growth rates in the number of collective accommodation facilities and in the number of accommodation facilities in 2005-2019: 1.8 and 1.4 times for the Arkhangelsk region and 1.6 and 1.2 times for the Murmansk region. The largest amount of digital content is generated in urban agglomerations around the administrative-territorial centers of the regions – Figures 2, 3. This is caused not only by the presence of tourist sites in them but also by the active entrepreneurial activity of local residents, which was revealed during a qualitative analysis of the generated content.

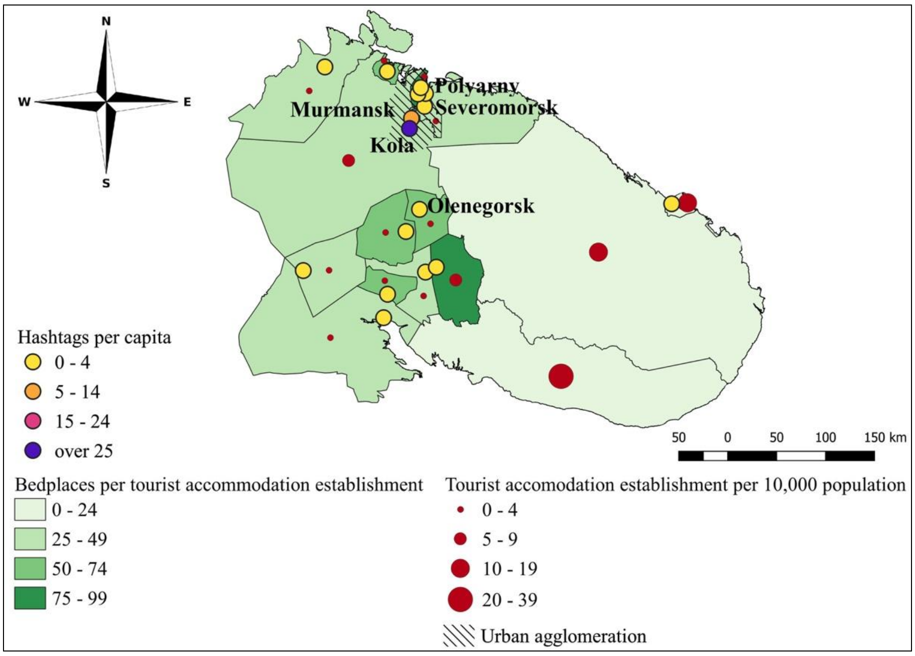

Figure 3. Digital capacity and tourist potential of the territory of the Murmansk region (Source: developed by the authors)

In the Arkhangelsk region, the largest concentration of digital content is in Arkhangelsk, which ranks 15th among the cities in the sample in terms of the number of hashtags, and the nearby cities of Severodvinsk and Novodvinsk, which are part of the zone of its agglomeration influence. Outside the urban agglomeration, Solvychegodsk (3.7 hashtags per capita), which has been a member of the Association of the Most Beautiful Villages and Towns of Russia since 2020, and Naryan-Mar (3.4 hashtags per capita), where the Arctic Tourism Center is located with active, ecological, expeditionary, cultural tourism in unique natural places beyond the Arctic Circle are distinguished. The superposition of indicators on the development of tourism infrastructure on digital data also shows that these municipalities have relatively high indicators in terms of the number of accommodations per collective accommodation facility relative to the regional average – Figure 2.

In the Murmansk region, the largest concentration of digital content is in Murmansk, which ranks 13th among the cities in the sample in terms of the number of hashtags, followed by the cities included in the zone of its agglomeration influence Kola, Severomorsk, Polyarny – Figure 3. By the relative number of hashtags per capita, the city of Kola stands out (31.8 hashtags per capita), which is the center of the Kola district. Despite the fact that a unique polar day festival is held annually in the city itself, most of the digital content is entrepreneurial in nature, due to the influence of the agglomeration factor. It should be noted that the Teriberka village is located on the territory of the Kola region, which was included in the top 20 best travel destinations by National Geographic Traveler magazine in 2016. The hashtag #териберка is found at 126 thousand; it is also often used with #кольскийполуостров (156 thousand) and #мурманск (over 2.5 million). In terms of the absolute number of collective accommodation facilities for tourists, the Kola district takes 1st place in the region, and in terms of the number of places, it is second only to Murmansk. However, in relative terms per capita, the position of the municipality among other municipal districts of the region is more modest. Also, significant tourist sites in the Murmansk region (ski resorts, the Simbozersky reserve, the Oleniy Bereg agro-village, the Olenegorsky quarry, etc.) are located in the central part of the region near the cities of Kirovsk, Monchegorsk, Kandalaksha, Apatity, Olenegorsk – Figure 3. These cities account for 38% of the hashtags in the sample for the Murmansk region without the inclusion of #мурманск, which is often referred to as related / duplicate. Also in the municipalities of these cities, 31.4% of all collective accommodation facilities for tourists in the region and 37.5% of places in them are located, and excluding Murmansk – 37 and 49%.

The north-western tourist regions of Russia are represented in the study by three regions – St. Petersburg, the Leningrad region and the Kaliningrad region – Figures 4-5. As already noted, St. Petersburg is a large tourist center in Russia, attracting both Russian and foreign tourists. The number of collective accommodation facilities for tourists in it for 2005-2019 increased 7 times to 1,000, and the number of people placed – 3 times (over 6 million people in 2019). The largest share of Russian tourists visiting St. Petersburg is occupied by residents of Moscow and the Moscow region, as well as the Republic of Tatarstan. A vast agglomeration zone has formed around St. Petersburg, which includes most cities with high relative indicators of the number of hashtags per capita; the largest number of attractions is also located here – Figure 4. It is especially worth noting a number of tourist-significant cities that are part of the intracity municipalities subordinate to St. Petersburg, and have the high digital capacity – these are Peterhof (11.05 hashtags per capita), Kronstadt (8.85 hashtags per capita), Sestroretsk (5.74 hashtags per capita) and Zelenogorsk (5.02 hashtags per capita). Also, in terms of the absolute number of hashtags among the cities of the

Leningrad region, Vyborg, Gatchina, Kudrovo, Otradnoye, Sosnovy Bor, Murino stand out, which are included in the zone of agglomeration influence of St. Petersburg, accumulating a significant number of attractions (https://www.lentravel.ru). The Kaliningrad region is an actively developing tourist region of Russia, attracting not only domestic tourists (mainly from Moscow, the Moscow region, St. Petersburg, as well as the northern regions of the country) but also a significant number of foreigners (Table 2). In 2020, the region was ranked in the Top 25 trending destinations in the World by TripAdvisor's Travelers' Choice Awards. In terms of the total number of hashtags of city names among the regions of the sample, the Kaliningrad region took 5th place. The 5th place is also held by the administrative-territorial center of the region – the city of Kaliningrad, which, in terms of the number of personal hashtags (almost 7 million), was only behind the Krasnodar, Sochi, St. Petersburg, Rostov-on-Don. Two more resort cities of the region (Svetlogorsk, Zelenogradsk) entered the top 50 among 205 surveyed cities in terms of the absolute number of hashtags. In general, the territorial distribution of the indicators of the digital capacity of the cities of the Kaliningrad region corresponds to the distribution of the tourist infrastructure along the resort sea coast of the Baltic Sea – Figure 5.

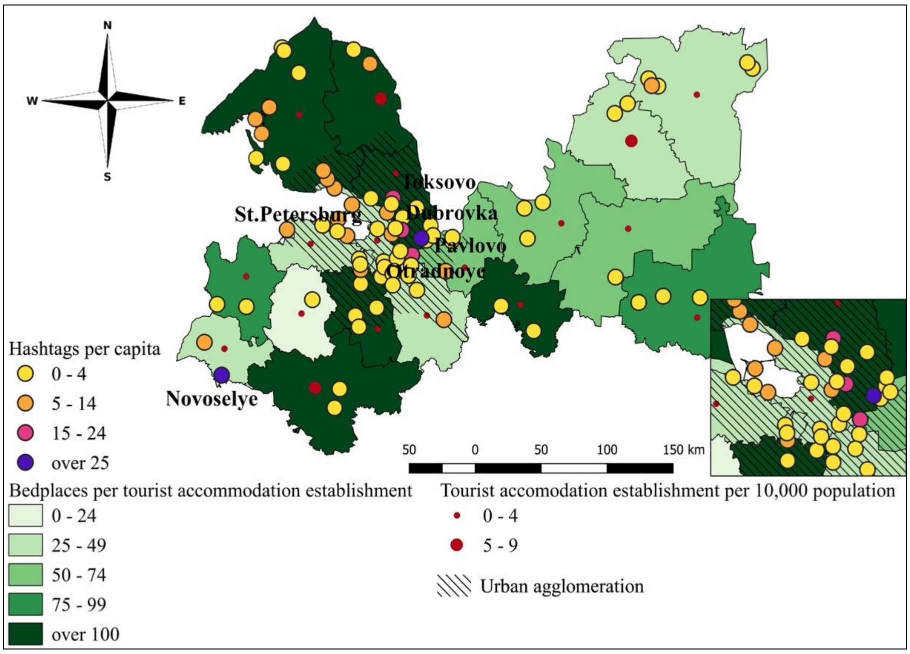

Figure 4. Digital capacity and tourist potential of the territory of the Leningrad region and St. Petersburg (Source: developed by the authors)

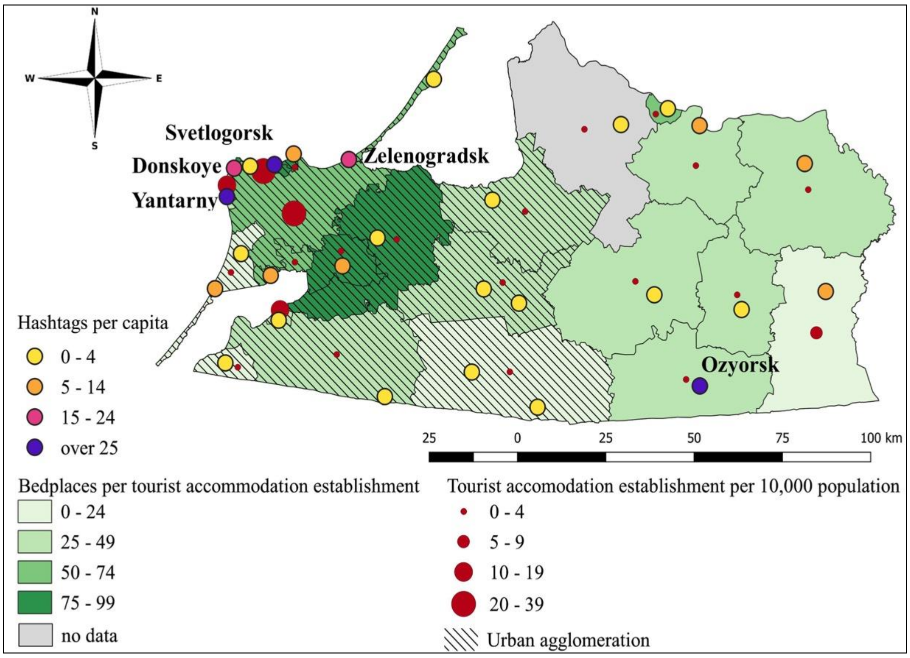

Figure 5. Digital capacity and tourist potential of the territory of the Kaliningrad region (Source: developed by the authors)

Southern regions are most numerous among the considered group of tourist regions of Russia, which includes the Krasnodar region, Rostov Region, the Republic of Crimea and Sevastopol – Figures 6-8. The cities of these regions are strong attractors of tourists, primarily residents of other regions of Russia. Leadership is by the Krasnodar region with over 8 million people accommodated in the collective accommodation facilities in 2019, which is 3 times more than in 2005. The main flow of tourists from Moscow, the neighboring Rostov region, the Republic of Tatarstan, as well as Sverdlovsk, Yaroslavl, Moscow, Tyumen, Nizhny Novgorod regions, Perm region, and St. Petersburg. The main tourist infrastructure of the Krasnodar region is concentrated in municipalities along the coastline, primarily in the urban districts of Sochi, Anapa, Gelendzhik, and Tuapse districts. Cities in these municipalities were also the leaders in personal hashtags both within the region and among all cities in the sample: Anapa – 61.8, Gelendzhik – 51.7, Sochi – 49.3, Tuapse – 18.6 hashtags per capita. Interestingly, the administrative-territorial center of Krasnodar took only 4th place in terms of digital capacity (32 hashtags per capita) among the cities of the region and its agglomeration influence in relation to the generation of digital content was significantly less noticeable than in other regions of the sample – Figure 6. In second place in terms of tourist attractiveness among the southern regions of the European part of Russia and in 3rd place among the regions of the sample – the Republic of Crimea and Sevastopol, which, being located on the Crimean peninsula, are, in fact, a Russian quasi-exclave (transport communication with the main part of the country is carried out through the Kerch bridge). In Crimea (the Republic of Crimea and Sevastopol) in 2019, there were about 1.5 thousand collective accommodation facilities. Their number increased by 9% compared to 2015, while the volume of the tourist flow – by 36% (more than 2.6 million tourists were accommodated in 2019). The main tourist infrastructure of Crimea is located on the Black Sea coast in the urban districts of Saki, Yalta, Alushta, Evpatoria, Feodosia, Sudak, Bakhchisaray municipal districts and Balaklava municipal district, which is the inner city of Sevastopol – Figure 7. Despite the fact that most of the territories of these municipalities are located in the zone of agglomeration influence of the administrative centers of Simferopol and Sevastopol, in relation to their digital capacity the factor of tourist attractiveness plays a greater role. This is confirmed by the superiority of the coastal tourist cities over Simferopol (10.1) and Sevastopol (9.9) in terms of the number of personal hashtags per capita: Sudak – 58.2, Yalta – 42.8, Alupka – 31.9, Alushta – 30.7, Balaklava – 21.1, Bakhchisarai – 15.4, Feodosia – 12.5, Evpatoria – 11.9, and Saki – 11.15.

An interesting example is the Rostov region, the collective accommodation facilities of which served 1.3 million people in 2019. In 2005-2019 the region showed an increase in accommodation facilities and the number of tourists by 2.3 times. When placing tourist infrastructure, a strong influence of the agglomeration factor is observed: the majority of collective accommodation facilities for tourists are concentrated in Rostov-on-Don and in neighboring Taganrog and Aksakai districts, as well as in a large city Volgodonsk in the east of the region where the nuclear power plant is located – Figure 8. The distribution of toponymic hashtags of cities follows the contours of the metropolitan agglomeration, most of them are in Rostov-on-Don (about 10 million) and on average, from 1 to 2 Million in Taganrog, Novocherkassk, Bataysk, Shakhty, Azov, Aksai. Volgodons and Donetsk are also visible on the digital map (however, the latter does not have a unique topographic name and some of the hashtags may belong to other settlements). In relative terms, Rostov-on-Don (8.5) and the closest to it Aksai (18.9), Azov (11), Bataysk (8.2) are in the lead but a qualitative analysis of digital content indicates the superiority of personal and business content over tourist content.

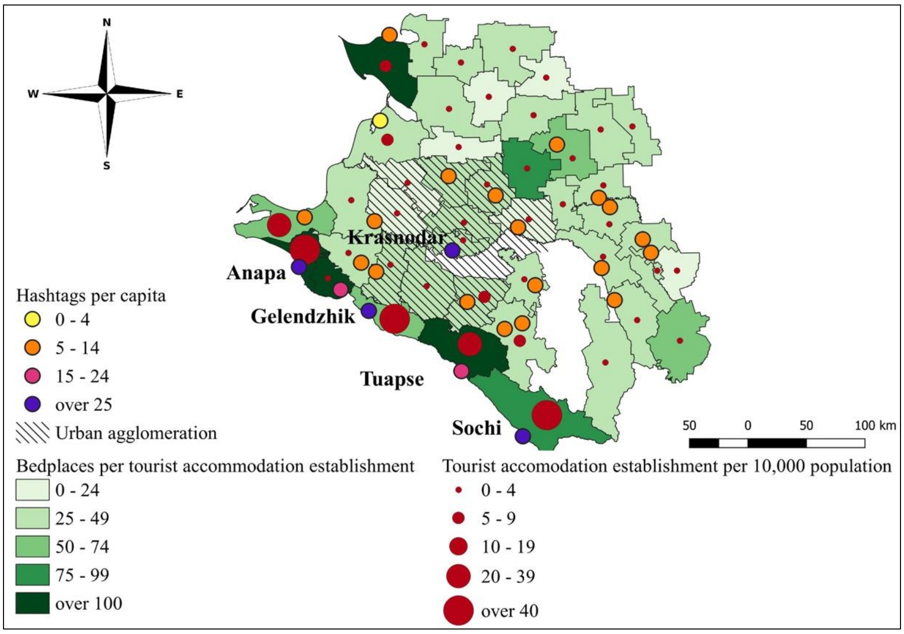

Figure 6. Digital capacity and tourist potential of the Krasnodar region (Source: developed by the authors)

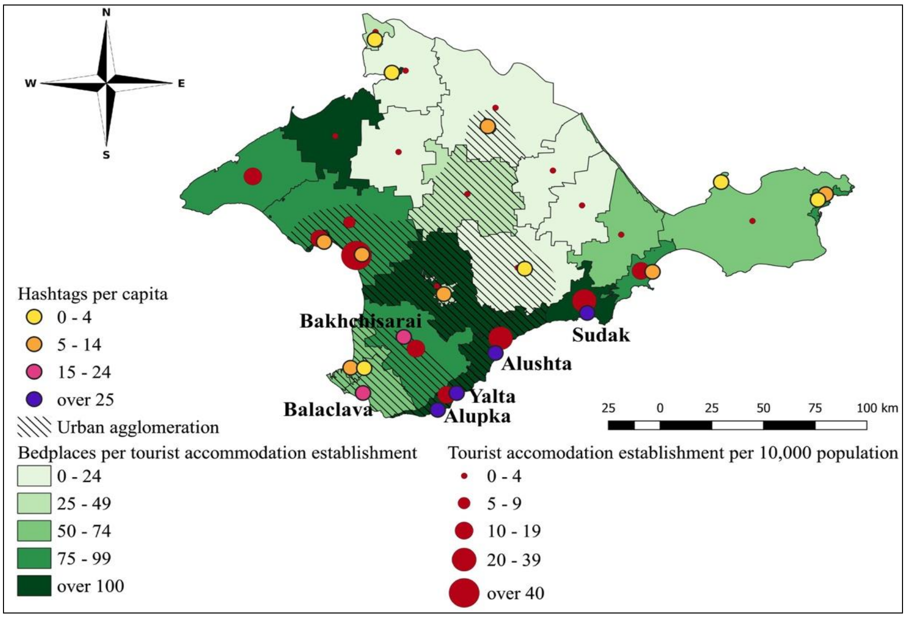

Figure 7. Digital capacity and tourist potential of the territory of the Republic of Crimea and Sevastopol (Source: developed by the authors)

CONCLUSIONS

Digitalization of industries and society is the contemporary trend taking place all around the globe. Russia is one of the countries with strong integration of information and communication technologies (ICT) into the everyday life of the population. Russia holds 5th place by mobile cellular subscriptions with 83% of the population being subscribed to the mobile networks (ITU, 2020) and 6th place by the number of Internet users (CIA, 2019). According to the GSMA Mobile Connectivity Index (2019), Russia ranks 24th by consumer readiness (scoring 88.5 out of 100) and 39th overall, having 95% of the population covered by the 3G network. Citizens are increasingly adopting digital technologies in their daily routines becoming increasingly experienced users. This trend is supported by the government with numerous national programs and

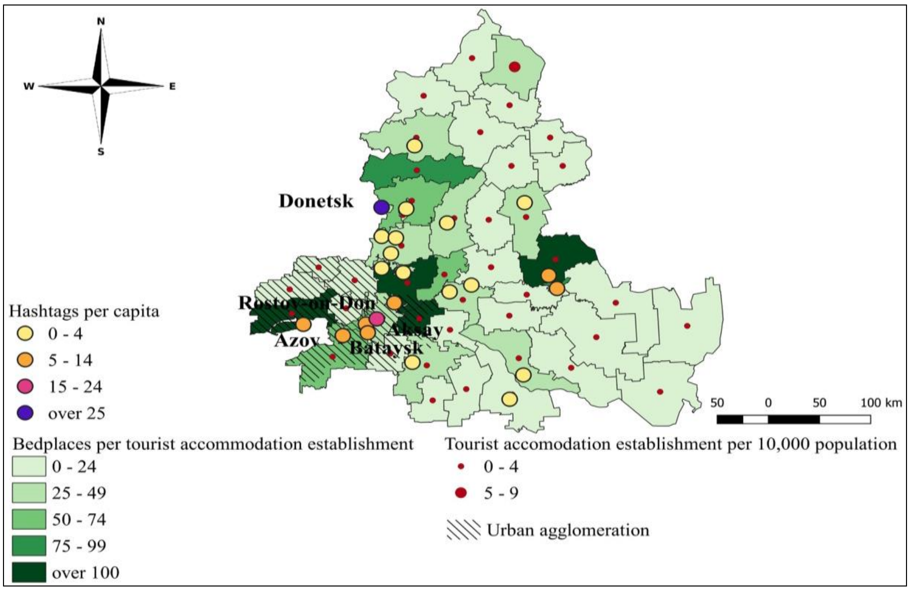

Figure 8. Digital capacity and tourist potential of the territory of the Rostov region (Source: developed by the authors)

strategic documents aimed at intensification of modern digital technologies being used by government organizations, businesses, and citizens: the State Program "Information Society (2011-2020)", "Strategy of Innovative Development of the Russian Federation until 2020 (Government Decree No. 2227-R of 2011)", "The strategy for the development of the information technology industry in the Russian Federation for 2014-2020 and for the future until 2025", "Strategy for Scientific and Technological Development of the Russian Federation", "Development of the Information Technology Industry" roadmap, the program "Digital Economy of the Russian Federation", "Information Society Development Strategy in the Russian Federation for 2017-2030". Studies indicate that Russia is steadily moving towards a 'digital society' with modern digital technologies being well adopted by the population in online shopping, electronic banking, and utilities, as well as a variety of services dominated by recreation (Levashov and Grebnyak, 2020; Popov and Semyachkov, 2018). The study develops on the digital capacity of territories defines as the ability of territories to generate digital content. The focus of the article was the customer-generated content (CGC) related to the tourism industry – one of the information-intensive and rapidly digitalizing economy sectors worldwide. With the development of Web 2.0 and social media, users are increasingly relying on the digital content of other users, which is preferred to purely commercial information. Various tourist experiences, feedback, observations, comments, stories, and most importantly the media content – videos and photos, are becoming the primary source of information on travel destinations. It is expected that popular tourist destinations and major tourist sites have the capacity to generate the highest volume of CGC as travelers are willing to memorize their experience, acknowledge the fact of 'being there', and share their emotions with friends.

We, therefore, set the hypothesis that the new types of digital data (big data) can act as a marker of the tourism industry development potential. Our research design is based on using the place-related hashtags in Instagram for tracking the distribution of tourism-related CGC. This social media is highly popular around the globe and was found equally representative in the regions under consideration. Across the 205 urban settlements studied located in 10 regions of Russia – Arkhangelsk region (including the Nenets Autonomous District), Murmansk region, Leningrad region, St. Petersburg, Kaliningrad region, Krasnodar region, Rostov region, Republic of Crimea, and Sevastopol, the total of 161.4 million hashtags were analyzed dominated by St. Petersburg and the southern resorts of Krasnodar region, Rostov region, and the Republic of Crimea. These findings are fully in line with the distribution of collective accommodation facilities and patterns of tourist flows. By considering the regional level data we confirm the hypothesis set – the regions with highly developed tourist industry tend to excel in user-generated content in social media.

However, there are certain methodological aspects that could act as a research limitation as to the municipal level. The limitations of using CGC in measuring the tourism industry development are generally related to the ambiguity of metadata set by the users. The following generalized examples are distinguished. Firstly, users tend to indicate a location-specific hashtag of a large city, usually an administrative center of the region, in addition, or instead of the name of a particular municipality they are actually describing. This is often the case when the location is less known, and the readers will have difficulties in understanding the context. Moreover, the hashtags of unpopular locations will generate fewer views, thus, stimulating users to indicate more popular destinations nearby. Due to this reason larger cities and the regional administrative centers receive additional mentions, which artificially boosts their digital capacity while decreasing the performance of less-known destinations, or resulting in a double count. Secondly, some toponyms are identical to words describing certain irrelevant objects – coast, amber, sun, soviet, peace, or even names (e.g. Pushkin), which distorts the results from using hashtags in defining the location. Our experience suggests that an additional word, such as 'city' or similar, should be applied for data validation. Thirdly, the agglomeration factor introduces a strong distortion, since a lot of content is entrepreneurial in nature. When deep-diving into the content identified, we have found that large cities tend to feature non-related commercial content of various small businesses and self-employed – hairdressers, beauty services, craft shops, photo studios, cafes, and shops, etc. Tourist-like content is also registered in northern regions of Russia uploaded by people employed in rotational work.

Acknowledgments

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DEVELOPING SMART TOURISM USING VIRTUAL REALITY AS A TOURISM PROMOTION STRATEGY IN INDONESIA

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Abstract: Technological developments have forced several sectors to adapt to technology, one of which is the tourism sector. Departing from the need for effective and efficient promotional tools in the development and marketing strategies of potential tourism destinations in Indonesia, this study aims to develop a tourism information system (SIPADU) with the concept of m-tourism based on android using virtual reality technology. The research and development (R&D) was used as a research method by applying ADDIE model (analysis, design, develop, implementation, and evaluation) in the development process. This study found that SIPADU, in practical terms, is feasible to be used as an effective Android-based promotional media for tourism promotion in Indonesia. In addition, the development of this product can help travelers to obtain tourist information easily and quickly, and can become a medium for sustainable tourism development.

Key words: tourist destination, SIPADU, smart tourism, android-based, promotion strategy

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INTRODUCTION

Tourism is a strategic sector that is one of the largest contributors to a country's economic growth. In the world, tourism accounts for 10.4% of GDP and 9.9% of total employment. Meanwhile in ASEAN, this sector is the biggest driver of the country's economic growth, particularly in Malaysia, Singapore, Indonesia and Thailand (Manzo, 2018). Meanwhile, in Indonesia, in the list of the highest foreign exchange earners, the tourism sector ranks fourth after oil and gas, coal, and palm oil. In fact, by 2020, the tourism sector is expected to become Indonesia's main source of foreign exchange (Kemenpar, 2018). In this context, as a potential sector, tourism can open job vacancies (Kim et al., 2016; Martin et al., 2008), increase people's income (Du et al., 2016), foster a healthy investment climate (Thompson, 2011), and also can increase the economic growth of a region significantly (Garcia et al., 2015). Various efforts have been launched and implemented by the government, in this case the ministry of tourism, such as compiling a strategic national tourism area (KSPN) with 88 tourist destination areas that are made priorities for the "10 new Bali", making a visa-free visit policy (PP. No. 21 2016), promoting the Beautiful Indonesia and Generasi Wonderful Indonesia programs (Kemenpar, 2018). In addition, online promotion efforts have also been increased through social media networks and various other means, by implementing information technology systems (Fauzi, 2018). The development of increasingly sophisticated information technology currently plays a strategic role in helping to facilitate

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tourism and tourist stakeholders in obtaining actual information about tourist destinations including the facilities, accessibility and amenities provided (Borràs et al., 2014; Buhalis and Law, 2008; Kiralova and Pavliceka, 2015; Yoo et al., 2017).

The role of information technology in tourism development strategies, both in the world and in Indonesia, is recognized as the most strategic tool in increasing the effectiveness and efficiency of tourism destination promotion (Berne et al., 2012; Huang et al., 2017; Sigala, 2018; Vichivanives and Ralangarm, 2015; Xiang, 2018). Information technology is not only an instrument in the fundamental function of information and communication, but technology has also become a transformational tool in the structure and operations of the tourism industry as well as the roles and functions of tourism stakeholders (Sigala, 2018). Search for travel agents, payments, hotel reservations, and various other needs, all currently must be available in an interconnected and synchronized manner via the internet and can be accessed easily and quickly (Huang et al., 2017). Thus, smart tourism (Huang et al., 2017; Li et al., 2017) or m-tourism (Fermoso et al., 2015; Rashidi et al., 2016; Sanchez et al., 2013) which is associated with providing high accessibility in information and communication about tourism (Wang et al., 2014) a fundamental requirement for the tourism industry (Sigala, 2018). Madura is an archipelago in East Java, Indonesia which has many potential tourist destinations to be developed. Unique and different tourism characteristics, such as historical tourism, cultural tourism, religious tourism, and marine tourism which are spread across four districts in Madura, have become a significant tourist attraction for the income of the East Java government (Arifin, 2017). However, based on studies conducted (Malia and Hanafi, 2018; Nurif and Sulastri, 2017), tourism in Madura has relatively not had a significant impact on regional income and the welfare of the community around tourist sites. In addition, the use of information technology in tourism development strategies such as the concept of smart tourism is still not a strategic platform for tourism development in Madura.

There are many studies that have been conducted. Some of the relevant researches were limited to looking at development planning and tourism development strategies (Jannah and Idajati, 2018), participation of local communities and village government in supporting tourism development (Prihaariantova, 2017; Purnomo et al., 2020; Wahyuningtyas et al., 2019, 2020), and identification of economic potentials and benefits as well as the carrying capacity of coastal areas (Rini et al., 2015). Meanwhile, research related to information technology-based tourism development has also been carried out by several researchers such as the development of a Google Map or GIS-based application that makes it easier for tourists to find information on the location of tourist attractions (Anamis et al., 2017; Arifin, 2017), based on augmented reality (AR) and smart tourism which allows tourists to enjoy virtual reality and easy access to information (Huang et al., 2017; Jung et al., 2015), and based on m-tourism, which makes tourism information accessible only by using a smartphone (Fermoso et al., 2015; Kiralova and Pavliceka, 2015; Rashidi et al., 2016; Styawan, 2018; Ukpabi and Karjaluoto, 2017). However, the limited integration of the use of digital technology development based on android with the m-tourism approach by using virtual reality as a tourism promotion tool, makes this study much needed and is projected to have a significant impact both on tourism managers and for tourists. This study was conducted to fill that gap.

MATERIALS AND METHODS

This study used a research and development approach. In general, this study was divided into two phases; the first stage was a needs analysis through the identification and mapping of potential tourist destinations in four districts in Madura. At this stage, primary data collection used interview and observation instruments, with data sources consisting of tourism stakeholders in Madura such as the tourism office, investment and licensing offices, tourist destination managers, travel agent entrepreneurs, hotels, guest houses, tourists, and others. In addition, the data collection process was also carried out by involving local communities in focus group discussions. The second stage was the development of an Android-based SIPADU application using virtual reality. At this stage the system development used the ADDIE model (analysis, design, development, implementation, and evaluation) (Branch and Kopcha, 2014). ADDIE was used in various design and development of software and application (Budoya et al., 2019; Moradmand et al., 2014). The steps, at this stage, began with a needs analysis or problem identification and initial data collection as needed, then proceeded with the desired development design before building a system or product development designed in accordance with the aims and objectives of the research. The next phase, after the system developed, was product development, product validation and product tested to determine whether the product being developed was feasible or not.

After that, the product was revised based on the results of validation carried out by expert validators, before the prototype product was tested. The next phase was product implementation, in which the product was tried out on students in Universitas Negeri Malang as shadow tourists. The instrument of effectivity measurement was designed to test the system performance. The next stage was operational evaluation and revision based on previous measurement instruments and operational testing of product use to be fit for use or not. The stages can be seen in the following figure.

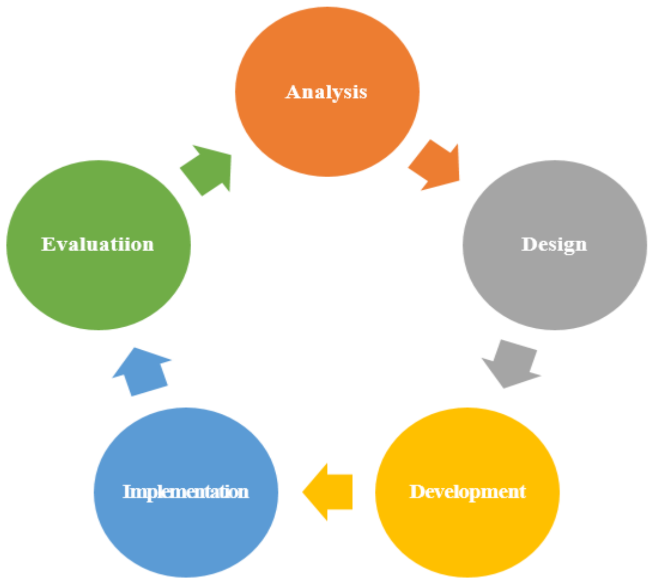

Figure 1. ADDIE model

RESULTS AND DISCUSSIONS

Analysis

The first stage in this development is a needs analysis. Based on the reality, the existence of many tourism destinations in Madura has been developed by the government and non-governmental organizations. Tourism management is still conventional with traditional tourism promotion. Tourists do not get access to comprehensive information related to tourist attractions in Madura. In addition, the lack of information about accommodation and amenities as tourism support capacity in Madura, Indonesia makes tourists confused when they want to visit tourist destinations in Madura. Another problem, which is no less important, is that there is no strategic promotional media for tourism development. Of the four districts on the island of Madura, only one district has sufficient information about tourist destinations and access to other information, in the form of tourist websites. Thus, given the many tourism potentials that exist in Madura such as nature tourism, religious tourism, and various other forms of tourism, stakeholders have not been able to utilize and optimize information technology that is easy and effective as a medium for tourism promotion. Therefore, the development of an android-based tourism information system promotion media is expected to be one of the supporting capacities for tourism development in Madura.

Design

This application product was developed specifically to provide information to tourists from destinations, accommodation to amenities in Madura. In addition, it is hoped that this application product can be a means of promotion for the tourism industry in Madura.

Table 1. SIPADU Features

No	Categories	Features
1	Destinations	Displaying tourist destinations in Madura ranging from natural tourism, religious tourism, culinary tours, artificial tours to cultural tourism with a total of 45 destinations.
2	Accommodations	Displaying accommodation such as hotels, guest houses and inns. There are 28 accommodations throughout Madura.
3	Amenities	Displaying amenities such as restaurants, souvenir shops and public facilities with a total of 69 amenities.
4	Application Inf.	Displaying information about the application, the purpose for which the application was created, and some application features.

Search, filter and maps features are available in the category of destinations, accommodation and amenities. The search column functions to search for destinations, accommodations and amenities according to the entered keywords. Then the filter functions to filter destinations, accommodations and amenities according to the selected options. Meanwhile, maps serve to change the appearance of destinations, accommodations and amenities that were originally in the form of a list to display based on places on maps. In addition, each feature is equipped with a description, address and photo in 360 form and a directions feature is available to go directly to google maps and display directions for users so that they are more interested and have a picture or more information about destinations, accommodation and amenities.

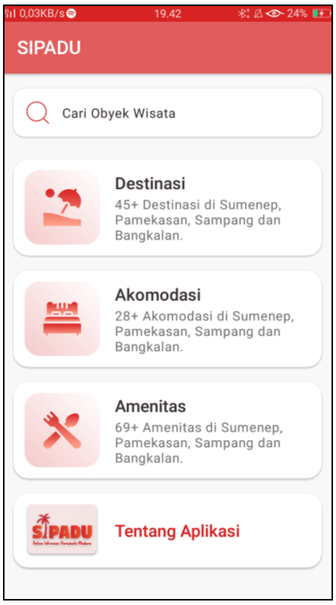

Figure 2. Menu

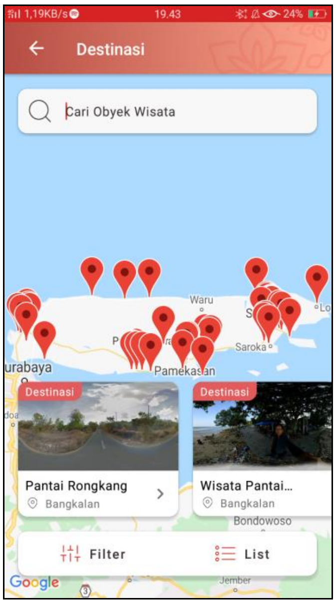

Figure 3. Search for tourism objects

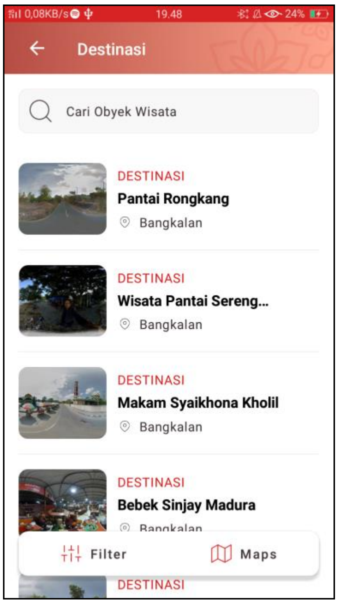

Figure 4. List of destinations

Figure 5. VR image and direction

Development

Product development

Based on the results of product development, the SIPADU application product contains several features such as the search for destinations, accommodation, and amenities. Destination search refers to seeking information about various tourist destinations that can be visited by travelers, at least 45 tourist destinations including natural tourism, artificial tourism, religious tourism, culinary tourism, and cultural tourism in Madura. Meanwhile, in the accommodation search feature, tourists can find 26 information about inns, hotels, guest houses and inns. In the last feature, amenities, there are 69 information provided relating to information on support for tourism facilities such as restaurants, souvenir shops, and public facilities. All of these facilities are developed with the help of virtual reality images that give a real visible effect of each destination. The results of product development can be seen in the following figures.

Product Validation

Product validation in this development was carried out by a media expert, Wahyu Djoko Sulistyo, M. Pd. Product validation was conducted to provide recommendations on whether the product being developed was feasible or not. The instruments used to measure the appropriateness of a product were related to system aspects, user aspects, and interaction aspects. In addition to validation by media experts, product validation in this development was also carried out by a linguist, Didin Widyartono, SS, M. Pd. Product validation was to provide recommendations on whether the product being developed was feasible or not. The instrument used to measure the appropriateness of the product being used includes the physical size of the application, logo design, cover typography, content illustration, application content layout, and application content typography. According to the results of product validation by experts, in general, it can be concluded that the product developed can be tested or implemented. The validation instrument was measured using a Likert four scale with a range of 1-4 (1= Very Bad, 2= Bad, 3 = Good, and 4 = very good). The results of the expert's validation can be seen in the table 2.

Table 2 shows that the results of the evaluation of media experts generally assess that the products developed are in the good category. This is indicated by the average value of 4.07. Of all the statements (13 statements) provided, the media expert answered very well 4 times for a total of 20. Meanwhile, for statements with a weight of 4 as many as 6 times and for statements with a weight of 3 as many as 3 times. The grand total is 53 divided by the total number of statements equal to an average of 4.07. The table also shows that the results of the evaluation of linguists in general assess that the product developed falls into good criteria. This is indicated by the average value of 4.38. Of all the statements (26 statements) provided, the linguist answered very well 10 times with a total of 50. Meanwhile, for statements weighing 4 as much as 16 times. The grand total is 114 divided by the total number of statements equal to a mean of 4.38.

Table 2. The results of the product validation

Validator	Indicators	Total	Average	Inf.
Media	13	53	4.07	Good
Language	26	114	4.38	Good

Table 3. The result of the implementation assessment on SIPADU

Item	Respondent	Total	Average
20	78	1952	80.85

Implementation and Evaluation

The assessment in the SIPADU implementation test was carried out by involving students as shadow tourists who directly used SIPADU. The implementation process did not only include the practice of using or utilizing SIPADU as a new platform for tourism promotion, but also, at this stage, they were asked to provide an assessment of the overall effectiveness and efficiency of the product. The results of the implementation can be seen in the table 3.

Table 3, in general, shows that the result of the implementation regarding the appropriateness of the use of the SIPADU application is good, with an average score of 80.85, with a comparison of ≥ 80 values indicating B criteria (Good). Thus, it can be concluded that the SIPADU is suitable for the use as a medium for promoting the tourism destination in Madura. Evaluation as the next step in the development process was conducted by revising the product based on the expert critics and inputs for a better performance of the SIPADU. Those inputs are such as language improvement, layout enhancement, and additional features such as chat forum and search channel for amenities feature. All those inputs were completed in this final step.

Information technology has played an important role in tourism through flight ticket applications and hotel reservations (Gretzel et al., 2015), and the prevalence of Internet communication technology has significantly expanded the impact of IT on tourism (Li et al., 2017; Xiang, 2018; Yoo et al., 2017). This not only facilitates direct interaction with service providers but also greatly expands travel options for travelers (Ukpabi and Karjaluoto, 2017). The influence of IT on tourism is receiving more and more attention with the emergence of smart tourism. It helps travelers to expand their cognitive boundaries from trip planning with visualized destination details and improve decision quality with data-based and context-specific recommendations (Jung et al., 2015). Smart tourism is very different from previous e-tourism, which provided information via websites in the pre / post-travel phase, by offering smart technology-mediated tourism experiences through information, aggregation, ubiquitous connectivity and real-time synchronization. Smart tourism provides more relevant information, greater mobility, and better decision support for tourism (Yoo et al., 2017). It can be concluded that smart tourism destinations are knowledge-based destinations, where ICTs are used to provide technology platforms.

The use of smart tourism technologies such as travel-related websites, social media and smartphones in travel planning has spread and grown. Currently, most of the search for travel information and reservations and payments during the travel preparation stage is done via the Internet. Even during travel periods, the Internet, smartphones and other technologies provide rich, diverse and useful information to tourists due to their accessibility and easy connection (Sigala, 2018).

The increased availability of smartphones and mobile gadgets has transformed the tourism industry and will continue to improve the way tourists access information while traveling (Wang et al., 2014). Desk-based computer interaction that does not move through single-screen environments with little connectivity has been replaced by mobile and multi-connectivity multi-screen devices, delivering ubiquitous computing experiences (Huang et al., 2017; Jovicic, 2019; Li et al., 2017; Yoo et al., 2017). In the tourism industry, the upgrading of cell phones and smartphones has changed the way tourists collect and access information while on vacation (Buhalis and Law, 2008; Kiralova and Pavliceka, 2015).

Traditionally, orientation at a destination was provided by tour guides, signposts, or online maps. However, the popularity of smartphones with built-in cameras, global positioning systems (GPS), and Internet connections has increased the availability of Augmented Reality applications (Jung et al., 2015) or Virtual Reality (Dorcic et al., 2019) which allows destinations to build personal, context-aware travel experiences.

CONCLUSION

The development of the SIPADU application through the concept of m-tourism based on Android using virtual reality as a tourism promotion strategy in Madura can be a solution for tourists in obtaining Madura tourism information including information about destinations, accommodation, amenities and tourism support facilities. In addition, SIPADU, for tourism stakeholders, can become a promotional media for the tourism industry in Madura and become an applicable medium for the development of Madurese tourism. To summarize, the SIPADU application through the concept of m-tourism based on android is feasible to be used and utilized as a medium of information as well as promotion of tourism in Madura.

Tourists who want to visit Madura, Indonesia are advised to take advantage of the SIPADU application as a tourism information media and for tourism stakeholders it is hoped that they can use the SIPADU application as a medium for accessing tourism information in Madura.

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TOURISM BUSINESS RESPONSES TO SOUTH AFRICA'S COVID-19 PANDEMIC EMERGENCY

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Abstract: The COVID-19 pandemic has compelled tourism businesses to rapidly adjust operations in newer and more resilient ways as firms have to change priorities and respond to challenges, including of shifts in consumer demand. Extant research on tourism business responses and adaptations to COVID-19 highlights the significance of organizational resilience and ability of businesses to respond to uncertainty. Using a qualitative approach this paper investigates tourism business responses in South Africa, seemingly the country worst hit on the African continent by the COVID-19 crisis. The research analyses tourism business responses occurring in one of South Africa's tourism-dependent areas and thus most exposed to the radical effects of COVID-19. Key findings are of the self-reliant character of the community of tourism enterprises in and around Overstrand cluster in the Western Cape. Product diversification, reductions of prices, reduced staffing, changed marketing, greater inter-enterprise cooperation are several of the most significant business adjustments undertaken. With the negative financial impacts of COVID-19 on local tourism enterprises exacerbated by South African government measures for alcohol bans and beach closures there is evidence of a disconnect and lack of trust between the area's local businesses and national government.

Key words: COVID-19, tourism business, adaptation, responses, resilience, South Africa

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INTRODUCTION

The years 2020-2021 will be forever associated with COVID-19. Verma and Gustafsson (2020: 253) contend that COVID-19 "is a human social and economic crisis that has attacked the core of human existence". Currently COVID-19 is the major growth pole in international tourism scholarship (Rogerson and Baum, 2020). Olsen and Timothy (2020: 170) observe that the "COVID-19 pandemic has led to a surge in academic publications focusing on both the immediate impacts of the pandemic on global travel and, more importantly, how the pandemic marks the chance to restart, reset, and reinvigorate tourism in a more sustainable way". This situation is unremarkable as for tourism destinations, the COVID-19 pandemic is one of the most impactful events of the 21st century as it has precipitated an unprecedented crisis with the almost total shutdown of tourist flows (Kock et al., 2020; Zenker and Kock, 2020; Li et al. (2021: 2) summarise the policy response of governments to the COVID-19 crisis into the categories: "infrastructure reconstruction, financial support and human resources for tourism companies and promotion and marketing activities".

Beyond its public health impacts COVID-19 has restructured the landscape for business operations with many businesses closed on a permanent or temporary basis (Bartik, 2020). Tourists perceptions of risk associated with the spread of the pandemic have resulted in changing patterns of mobilities and radical shifts in patterns of consumer demand to which businesses have to adapt (Korinth, 2020; Kowalska and Niezgoda, 2020; Neuburger and Egger, 2020; Sánchez-Cañizares et al., 2020; Godovykh et al., 2021; Rogerson and Rogerson, 2021a). Seemingly, the ways that tourism businesses are confronting and responding to the debilitating effects of the COVID-19 pandemic vary geographically across different regions of the world as is shown by the eight country study undertaken by Alonso et al. (2021a, 2021b).

Africa is one continent that was not included in the rich multi-country research reported by Alonso et al. (2021a, 2021b). The aim in this paper is to address this knowledge gap by examining tourism business responses in South Africa, seemingly the country worst hit on the African continent by the COVID-19 crisis (Rogerson and Rogerson, 2020a, 2020b). More specifically, the research analyses tourism business responses occurring in one of South Africa's tourism-dependent areas and thus most exposed to the radical effects of COVID-19.

LITERATURE REVIEW

Arguably, the COVID-19 pandemic has changed the prospects of nearly all types of businesses across the world (Kvirkvelia and Tsitsagi, 2021). Verma and Gustafsson (2020: 253) contend that due to COVID-19 pandemic impacts it "is becoming challenging for most businesses across the world to keep their financial wheels rolling, given reduced revenues and the high level of uncertainty". For the sector of tourism businesses Assaf and Scuderi (2020: 731) observe that COVID-19 "has been one of the most impactful and tragic pandemics of modern times". The pandemic is unlike many other disasters and crises that previously have impacted the tourism sector and its enterprises (Hall et al., 2020). Seemingly, there will no return to the 'normal' as existed before (Brouder, 2020; Sigala, 2020; Gössling et al., 2021). Activities involving direct contact between consumers and service providers have been most adversely impacted by restrictions imposed on

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movement and social distancing. According to Kock et al. (2020: 2) the pandemic represents "a paradigm shift in research on tourists' behaviour and decision-making" because "what was previously taken for granted may not hold in the COVID-19 era" (Kock et al., 2020: 2). The negative effects of the pandemic are especially pronounced in tourist destinations that are economically anchored on tourism. Research is needed most especially on COVID-19 impacts and responses in those localities and regions that are most reliant on tourism (Deb and Nafi, 2020).

Saarinen and Wall-Reinius (2021) identify the consolidation of two differing narratives or schools of thought in the raging contemporary tourism debates about COVID-19. Both narratives highlight the seriousness of the COVID-19 pandemic for global tourism, albeit they differ in terms of what comes or should come next. First, is a 'resilience school of thought' which stresses the historical capacity of the tourism sector to cope with or adapt to shocks such as the global financial crisis, SARS, or natural events such as earthquakes or tsunamis (Saarinen and Wall-Reinius, 2021: 145). The emphasis is upon the sector's capacity to return to pre-crisis growth paths. This perspective is one which is projected by much of the tourism industry and the majority of national governments including the Department of Tourism in South Africa. Second, is a 'readjustment school of thought' which emphasizes the need to re-think the growth at all cost and volume at all cost path for tourism which has dominated in recent years and in part is responsible for the current crisis (Saarinen and Wall-Reinius, 2021: 146). For this second school COVID-19 is a watershed or turning point for tourism and projects that its impacts will be irreversible as it will fundamentally shift the nature of tourism and human mobility into the future (Higgins-Desbiolles, 2020; Sigala, 2020). Carr (2020: 30) avers that the COVID-19 pandemic represents "an opportunity to re-envision our economies, possibly accelerating governments' responses to environmental practices that have negatively impacted nature". For both these schools of thought there is a need for empirical evidence on how tourism businesses are responding to the COVID-19 crisis.

The pandemic has compelled tourism businesses to rapidly operate in newer and more resilient ways as firms have to change priorities and respond to its challenges (Verma and Gustafsson, 2020). At the core of tourism recovery strategies are tourism businesses which include those operated by major corporations as well as smaller family owned operations including lifestyle entrepreneurs (Dias et al., 2021a). In a context wherein many countries are concerned to revitalize their economies and reignite tourism it is essential that greater understanding be developed of the challenges facing these different types of tourism businesses (Dias, 2021b). The significance of organisational resilience, which is essentially defined as an organisation's ability to manage uncertainty, is viewed crucial for the success of tourism businesses (Prayag et al., 2018). As is the case of other disasters in terms of recovery it is argued that "the ability of tourism businesses to overcome COVID-19 will depend on the levels of their organisational resilience" (Bhaskara and Filimonau, 2021; 364). In addition, other critical factors are viewed as the extent of local inter-enterprise cooperation as well as support available from governments (Jiang et al., 2019). Bressan et al. (2021: 1) disclose that in the case of micro and small winery businesses faced with the loss of vital income through decreased demand managers resorted "to exploiting various initiatives, including 'reinventing' their firms". The importance of entrepreneur's proactiveness and resourcefulness was flagged.

Extant research on tourism business responses and adaptations to COVID-19 highlight a number of issues. In research examining youth travel and the responses to COVID-19 of operators of attractions and of youth travel accommodation Richards and Morrill (2021) pinpoint that the most reported action was the modification of cancellation policies. Other responses by enterprises included product diversification including modification and repurposing of properties, reduction of capacity, forming new partnerships, modifying target markets and change in marketing. This said, for many youth travel enterprises it is observed that "these measures were still not sufficient, as many have gone out of business" (Richards and Morrill, 2021: 6). In the work by Alonso et al. (2021a) focused mainly on small and medium-sized tourism and hospitality firms three different ways of business coping with COVID-19 were isolated. First, is a self-reliant approach which involved changes in revenue-generation, reduction in employment hours and staff rotation, and mothballing certain operations. Second, is a vigilant dimension in which businesses prepare for a 'new regime'' and seek to apply for government relief packages. The third approach was that termed the inoperative dimension wherein firms discontinued operations completely and/or waited for new protocols. In a further contribution Alonso et al. (2021b: 10) highlight that in order to cope with the fall-out from COVID-19 "self-reliance and self-initiating steps illustrate the need to revert to the implementation of new forms generating revenues, while seeking to limit costs". Another notable investigation is that by Dias et al. (2021a) on the category of tourism lifestyle entrepreneurs and of their potential for revitalising their businesses.

METHODS AND LOCALITY CASE STUDY

The case study was the cluster of tourism enterprises centred upon the Overstrand Local Municipality in South Africa's Western Cape province. The municipality ranks as the fourth most tourism-dependent in the country with Hermanus its largest town. Within the Overstand cluster are several tourism destinations such as Kleinmond, Betty's Bay, Stanford, Elgin, Bot River and Gansbaai as well as Hermanus. The area encompasses a range of tourism niches. First, is coastal and marine tourism, specifically whale watching, nature cruises, scuba diving, kayaking and beach tourism (McKay, 2020). Second is adventure tourism which intersects with some coastal tourism activities but also includes zip lining canopy tours, hiking and rock climbing, quad biking, hang gliding and kite surfing (Rogerson and Rogerson, 2019).

The scenically beautiful and hilly interior is the locale of some of South Africa's premier wineries such as around Elgin, Bot River, the Hemel-en-Aarde Valley and Stanford. These wineries and small touristic towns are home to many premier restaurants and mainly organically grown produce (olives, cheese, cider, apples, pears) which has resulted in the Overstrand being awarded in 2019 the status of Africa's first UNESCO Creative City of Gastronomy (Rogerson and Rogerson, 2021b). Overall, the cluster exhibits a strong tourism economy which is heavily leisure-based and with critical reliance on international tourists for tourism spend and support of the commercial accommodation services.

In interrogating tourism business responses to the impacts of the COVID-19 pandemic a qualitative approach was adopted with semi-structured interviews undertaken with a cross-section of key private sector tourism product owners. The interview schedule was designed to determine issues of COVID-19 responses of enterprises and challenges, the role of government regulation and future business prospects. Interview material was analysed through content thematic analysis. A content analysis approach was employed to interrogate the transcribed qualitative interview data. The thematic approach applied followed the approach as suggested by Braun and Clarke (2006). In total 20 interviews were completed during the period December-2020 to February 2021. Of these interviews 75 percent were in-person face-to-face meetings conducted with due regard to appropriate social distancing; the remainder were telephonic interviews. The list of tourism business interviews is shown on Table 1. It is evident that a broad range of tourism enterprises was interviewed in order to cast the net wide and gain a variety of inputs. The mix of interviews encompassed variously the organiser of a country market, adventure tourism operators (2), wine estates (3), a craft brewery (1), tours and transfers (1), restaurants (2) and the full gamut of accommodation providers from high end five-star accommodation to four and three-star guest houses, bed and breakfasts, farm stays and backpackers (10). Fifteen of the tourism enterprises who were interviewed had been in business for ten years or more. As established businesses they are embedded into not only the tourism economy but the broader local economy due to supply chains. Four other tourism businesses had been in operation for between six to nine years with only one business operating for less than five years. Seven of the tourism businesses employed thirty or more people.

Table 1. The Overstrand cluster of interviewed entrepreneurs

Identifier	Type of Business	Years in Operation	Number of Employees
O1	Country Market	2,5	85
O2	Zip Lining (canopy tours)	6	35
O3	Diving and Boat Cruises	9	5 and 2 part time (now 1 part time)
O4	Wine Estate	10	40
O5	Wine Estate	20	32
O6	Wine Estate	40	30
O7	Craft Brewery	9	2 and 8 part time
O8	Tours and Transfers	10	2 (was 5)
O9	Restaurant	17	5
O10	Restaurant	11	12
O11	Five star eco-lodge	24	100
O12	Four star guest house	17	5
O13	Four star guest house	16	9 (was 15)
O14	Three star guest house	21	3
O15	Self-catering house	12	2
O16	Self-catering apartments	10	4
O17	Bed and breakfast	8	2
O18	Bed and breakfast	10	3
O19	Farm cottages	17	2
O20	Backpackers	21	2 (was 5)

The largest enterprises were an award winning five-star lodge employing 100 staff, a country market which employs 85 and an adventure tourism establishment as well as the three wineries each employing between 30 and 40 staff. The rest of the businesses which comprise an adventure tourism outlet, tour operator, craft brewery and a variety of accommodation providers each employ between two and nine people. It should be noted, however, that these employment numbers were those current at the time of the interview and in many cases these businesses employed more staff prior to the onset of COVID-19 (Table 1). The following sections unpack the impacts of the COVID-19 pandemic on local tourism businesses, supply-side adaptation or response strategies, business challenges, the role of government and business prospects. The analysis draws on the words and feelings on the interviewees and every effort has been made to reflect the voices of the area's tourism entrepreneurs and business managers.

Business responses to changes in demand

The COVID-19 pandemic has affected all of the tourism establishments in Overstrand and its surrounds, negatively. Words and phrases used to describe the impact that this has had on their business include: *"devastating"* "*less of everything*", "*survival is the bottom line*", "*eye opening*", "*unless BEE compliant can't survive*", "*change*", "*unpredictable*", "*it's been crippling*", "*totally decimated*", "*destroyed the South African market*", "*disastrous for the most part of 2020*", "*horrific*", and "*quite painful but not devastating*". A major part of explanation for the highly negative impacts relates to the strong orientation of tourism businesses in the research area towards international tourism. In the Overstrand cluster this is especially the case for the hospitality and accommodation sectors. The 5 star eco-lodge, adventure diving and cruise boat establishment are the tourism products most reliant on foreign tourists. For other tourism products, such as the country market, the craft brewery, zip lining (canopy tours) and a few wineries, there was evidence of a majority domestic market or even split between international and domestic tourists. All businesses experienced a change in demand since the onset of COVID-19 and the collapse of international tourism. In a number of cases hope was expressed that demand for tourism products would increase from domestic tourists. In many cases, however, this has not occurred as a consequence of the wider impacts of COVID-19 on the South African economy and correspondingly of reduced discretionary expenditure. Of significance also is that certain respondents identified "the fear" factor of travel as another factor in accounting for laggard domestic demand. In addition, the interviews were conducted at a time when national government imposed a harsh lockdown that included a ban on sale of alcohol as well as closure of beaches/swimming pools and early evening curfew. These issues are highlighted in interview responses as follows:

Don't really see many changes as people don't have money. We have dropped rates to encourage domestic tourists - R3 800 for sea facing room is now R2 600/2 200. Hoping to see some sort of pick up in March and Easter (O13).

Less demand as most domestic guests are affected financially, so weekends away are now considered a luxury. And the threat of COVID making potential domestic guests wary of communal facilities and interacting with strangers (O20).

A lot of people are not going out as they are in fear (O7).

The South African economy has shrunk and the economic onslaught continues. Domestic tourists have less disposable income to spend on leisure and this impacts demand (O11).

Possibly more local tourists looking to escape the city but this is not showing yet (O19).

Some businesses recorded a marginal increase in domestic tourists which assisted in keeping their businesses open at a survival level. This said, in this part of South Africa the spending from domestic tourism cannot replace the reliance upon higher-spending international tourists.

We have increased percentage of domestic visitors over the past few years and expect more local visitors going forward (O12).

Marginal change from domestic tourism. National (from different provinces) seems to have dropped. Business down more than 50%. Not seen a big uptick in domestic demand. Not able or willing to devalue our product. Margins are already narrow as the beach ban dissuaded upcountry people from visiting or staying longer (O2).

Yes, we expect more domestic visitors as South Africans can't travel abroad (O13).

We were pleasantly surprised. Domestic tourism rapidly increased mainly from December but throughout last year. Local tourism kept the business afloat although no replacement for the international tourists. South Africans friendly, supportive and eager to tip, sometimes 100% tip after a dive trip R1000 (O3).

The tourism enterprises have undertaken a number of responses to address the changing demand as a result of no international tourists and cautious domestic tourists many of whom are fearful of catching the virus or under financial strain. All establishments have visibly implemented full legislated safety protocols for COVID-19. Another common denominator across all tourism categories is a dramatic increase in their online/social media presence as businesses sought innovative ways to market themselves to the domestic market. The energetic and innovative responses of the organizer of the country market are worthy of note.

Before Christmas through the local tourism committees it was clear that Cape Town and the Overberg were attracting large number of Gauteng tourists. I took out simultaneous radio adverts in Johannesburg and Cape Town. The ads played on Magic 828 for Cape Town and on 702 for Johannesburg. The message was reinforced as Joburgers heard the same message when they travelled to the Cape on holiday. Astounding results with over 30% of cars in the carpark with GP plates. More than they have ever had since opening two and a half years ago. Radio stations also losing revenue so for a few 1000 Rand extra they incentivised us to spend a bit more and the ad reach grew by 150 000. In these times it is important to be pro-active, innovative and get out there. To attract the people from markets that have closed like Hout Bay Route 44, Lourensford I was also on local radio stations such as WhaleCoast FM to attract Hermanus visitors (O1).

Further, in common with trends observed in other parts of South Africa, price-cutting was a supply-side response to the crisis for nearly all of the tourism enterprises. Businesses had to lower or freeze their rates to entice domestic tourists in order to ensure that their offerings were desirable and affordable. These specials and rate cuts have been advertised extensively on social media and through online tourist booking platforms. The voices of the accommodation establishment operators illustrate these trends.

We are currently running a digital campaign - Summer Sun special which will run through to the end of April and we ran a Spring Splendour special (O11).

During November level 2 and 3 had a special on the eco tours but to compensate have not increased prices to keep business afloat (O3).

We can't vary our product offerings, but we have trimmed some of the added extras that we used to offer in an effort to reduce costs. We've also offered specials aimed at local families (O2).

Price reductions being offered via booking sites (O20).

Specials for mid-week stays, stay for 3 and pay for 2. Contactless check in. Sanitizing deeply in between stays (O19).

Responded by decreasing rates. More focused on the local market. Always had a 'local is lekkker' rate drop of 20% now it is 30% and previously was mainly applied in the low season when internationals were not around. There is business over the week-ends but during the week very quiet with discounts up to 45% and still many days there are no guests. Hopeful that it will pick up (O13).

Another strategy that tourism enterprises used to adjust their existing offerings towards domestic tourists was to introduce more diversified and often family-friendly products which they advertised to the local market. For the Overstrand cluster, alongside the various lockdowns, the banning of alcohol sales was particularly damaging to the tourism and hospitality sectors which has a substantial element of food and wine tourism. In response those businesses engaged in alcohol production developed a range of more family friendly activities to encourage visitors to their establishments. Examples are that wineries allowed pets and introduced children's activities and the craft brewery sold more novel soft drinks and other wineries conducted on line tastings.

As a wine estate we have diversified our product offerings to be more family friendly and less wine - oriented. Welcomed pets on leads. Introduced or ramped up more family focused activities such as – children's waterpark, jungle gym, picnics, boat rides. Putt Putt with a family friendly restaurant attached (O4).

We had to find things to sell that we didn't normally sell. Different to coke such as rock shandy. There is a market for soft drinks due to regulations on drinking and driving (O7).

People are not keen to go out and taste wines so they do online tastings with trade and customers and groups of wine enthusiasts This generally has worked well - chatting to the wine maker especially for international buyers so they get a feel *for the farm. Sometimes winemaker chats from the vineyards which gives people the feeling that they are there - will carry this on with internationals after COVID. Using WhatsApp and Zoom in the vineyard and for tastings with foreign buyers has been a positive spin off from the pandemic* (O5)

Finally, it was highlighted by one interviewee that in the current negative policy environment that faces tourism businesses in South Africa that "*tourism operators are going offshore to Mauritius or Europe but keeping operations in South Africa*". (O2) The explanation was given that this move was more tax effective and what was driving this move was uncertainties about directions of national tourism policy. The interviewee added "*We are looking at this option as well*" (O2).

Overall, the responses from businesses emphasized strategies of self-reliance with accompanying shifts in revenue-generation and reduction in work-hours . For other businesses – most notably the adventure tour operations massively reliant on international travellers, the response can be characterised as of vigilance as their situation precluded them from controlling their destiny and thus their options are either to undertake preparations for a new post-pandemic regime or to become *inoperative*, discontinue operations, or standby for new protocols permitting a reopening of business.

Business Challenges

The major challenge for all business owners was to keep the business open and to survive financially. With minimal support provided by national government necessarily the enterprises had to be self-reliant in their responses and address a range of challenges. In particular during the December and January holiday period (2020-2021) the alcohol and beach ban put added strain on already struggling tourism businesses in the Overstrand and environs to avoid closure of their operations.

Challenge is more feet through the door and the uncertain future which is unpleasant. Trying to keep tenants, giving rent reductions and anything to keep up some sort of cash flow. It is a nightmare. With me and the tenants there is a feeling that we are all in this together and all trying to do whatever it takes to survive (O1).

The major challenge is keeping the business open. Keeping afloat is difficult and I contemplate closing the business three times a day (O8).

Staffing was an important issue for most cluster respondents. Some businesses could not afford to keep all their staff and reluctantly had to reduce staff numbers. Other cost reducing measures that were implemented included mothballing part of their accommodation establishment, turning off geysers, DSTV and fridges. In an effort not to retrench many businesses cut staff salaries and work hours in half. These points are elaborated by accommodation respondents as follows:

Reduction in staff, no upgrades to the rooms and very basic services so that you don't have too many costs (O12).

The challenge is that the business imperative is simply survival. There is no room for the introduction of innovative new products. The business survival is critical to the staff and also the community work the business drives through its Foundation (O11).

We've also made a monumental effort to reduce the monthly overheads of running the business, such as cancelling our security contract, reducing insurance to minimums, turning off geysers and fridges in our adjacent building when not in use. And sadly, reducing wages – we previously employed four cleaning staff, one front of house, a gardener/handyman and two or three international volunteers, now we have one cleaner, one front of house (O20).

For the crippled local adventure tourism sector, unable to afford to keep critical trained staff was of major concern. The operator of a major ziplining operation articulated the following:

Retaining highly trained staff is our main concern. We've started reducing our operating days, but we don't want to close, because that produces a negative public image, and there is a lag in start-up again. But we can't continue to make a drastic loss through the coming low season. Most staff been with us since the beginning. Not feasible to re-train people they are all local community members (from Grabouw) (O2).

A further challenge to the accommodation and hospitality sectors given the dearth of international tourists and slump in domestic demand was the necessary flexibility to deal with late bookings and cancellations.

Challenges are the last minute bookings and cancellations. The major challenge is to keep up standards even though rates are lower and to keep afloat until the end of the pandemic Major challenge is that lower prices affect our bottom line. We are in the self-catering niche which is surviving better than other types of accommodation. Fairly quiet during the week but full most week-ends. Last week no bookings by Tuesday but by Friday were full. This is the last minute new normal. No pre-planning anymore we have to be on the ball all of the time. Apartments need to be ready to go all of the time. Internationals would book well in advance so more notice period (O16).

Despite the many negative consequences of the COVID-19 pandemic and the various lockdown regulations and the threat to all of the businesses livelihoods, several interviewees saw potential opportunities. The following interviewee responses speak loudly to the resilience of local tourism businesses and their self-reliance in the context of the pandemic.

Always opportunities. This disaster has made us think out of the box (O1).

It is great that there is an enthusiasm for exploring what is on offer domestically. So the market that normally would travel overseas each year is happy to support a local tourism product. The lockdown restrictions have tempered this enthusiasm. Also taking this time to get the basics right. Usually tourism is driven and high paced so this slow down means there is time to engage extensively with their sustainability principles such as waste management and environmental management. We focus on doing better things that have no cost. It is also very important for management to keep staff motivated and involved as issues around mental health are important (O11).

The opportunity was to utilize technology better to keep in touch with visitors and clients and to stay close to people (O5).

Outdoor activities are big in the Cape. We plan to focus on this market by offering mountain biking trails and hiking. Customers are looking for outdoor experiences so our space on the farm is a good opportunity to catch those looking for something to do while being able to be outdoors in the fresh air (O6).

Opportunities are maybe working with other businesses We are teaming up with 10 other Hermanus businesses and advertising in a Cape Town magazine that advertises widely. The main aim is to market Hermanus as if we can get visitors to visit the town then we all win so the first goal is to market the place and then specific offerings. Focus on local more and run more specials (O13).

All interviewed tourism enterprises sought either to introduce new products or alternatively to adjust existing offerings in order increase their attractiveness to domestic tourists and thereby improve their enterprise bottom line. Keeping prices affordable for domestic tourists and focusing on marketing and improved social media presence were strategies deployed by most tourism enterprises. In addition, some modified or added to their existing offerings. Restaurants have, in many cases, simplified their menus and others have added frozen meals to their businesses. At two winery restaurants frozen meals can be purchased at the premises and one of the wineries went even further by instituting a delivery service to deliver meals as far as Cape Town, 100km away. A major benefit of this enterprise diversification was that they were classed as 'essential workers' and thus were able to grow this part of the business during the first hard lockdown. Subsequent to the hard lockdown the business continued to grow such that they have had to employ more cooks (O6).

The frozen meals are new products from our restaurant. In the winery we are scaling back on the wines and focusing on styles within specific wine series and ranges. The winemaker has been experimenting and they have now gone back to storing white wines in clay pots. Their philosophy is to keep things fresh and different. They looked at their offerings and decided to pare down their wines and organize them differently (O5).

At the one surviving country market the strategy and business opportunities were explained as follows:

Focus on marketing. We do what we have to do. Revamping the shops and constantly improving the offering and adding new touches all the time. Repeat visitors need to see something new so it is important to stay fresh and relevant. Look at small innovations. After the popularity of Queens Gambit on Netflix we brought in three chess boards. People linger and play - parents teach their children. People enjoy them and over the 3 months not one piece has gone missing and taken. It is 100% a mindset. It is easier to give up rather than fight -"the barbarians are at the gate" mentality. Some businesses have failed but mainly due to defeatist attitude, easier to throw it all in. Also we encourage the traders to try new offerings. One food seller always had some of his lamb left over. We chatted and he decided to make pies which can be frozen and taken away as well which added a new little side line to his business (O1).

For the owners of a backpacker lodge with the collapse of the international market the business had to pivot towards accommodating particular groups of short-term visitors.

We've directed more energy into adapting the business to cater to building contractors coming to the area, long term guests such as Telkom engineers, doctors on assignment at the local hospital and building contractors (O20).

Other different opportunities were explored and activated as tourism products by the sample's resilient entrepreneurs as self-reliance interventions for new opportunities. The different opportunity pathways are highlighted in the following responses.

We need to do more than just give each other referrals but create a platform and package things. We are looking to put a poster together or video at Cape Town Airport international arrivals with names of each of their businesses (O2).

Used lockdown to launch a new website and to sharpen our social media and newsletter presence. Opened a deli on the farm to increase wine sales through this. Just completed our 10km Mountain Bike trail which we will launch in March. Plan to improve hiking trails. We focus on producing more fruit rather than grapes because of the alcohol bans (O6).

Looking to convert an old building to increase our accommodation to 3 cottages. Possibly the building of a yoga deck to accommodate retreats on the farm (O19).

No new offerings just new pricing and ability to keep a credit for 12 months instead of cancelling and freezing the rate. No rate hikes until 2022 (O13).

Seven of the Overstrand cluster of tourism businesses downsized their business to some extent. Restaurants by law can only seat a certain number of people due to social distancing legislation so are automatically smaller than in pre-COVID times unless they have managed to accommodate those diners in suitable outdoor locations. Several accommodation providers have also downsized by shutting up/ mothballing/decommissioning some of their rooms, outbuildings or in one case a whole lodge in order to save money on staff and overheads. Other businesses have cut down on their products or their services, however, they all recognize that closing is not an option. These are signals of vigilant entrepreneurs waiting for post-pandemic revival.

Only one of the two lodges are open. Villas open on an ad hoc basis (O11).

Downsizing. Started this prior to COVID. Owning less cars and just trying to stay afloat. Not at the point where I will say no to business. I have diversified into some non-tourism business (O8).

Reduced quantity of beer that we produce. Economizing as to how they purchase supplies. Have not reduced prices but continued as before. Not looking at any change. It is not the time (O7).

Yes. Fewer tours a week and cutting down on overheads. Can't afford to close as then more difficult to open up after long lag period (O2).

Sort of downsized as now they only run the main building with 11 rooms and outside buildings have turned off fridges, geysers and cancelled DSTV. Even though they have downsized still had to run 2 breakfast shifts to keep physical distancing rules (O13).

Despite the difficult trading conditions many of the cluster's tourism businesses were not willing to downsize or reduce their business despite the current hollowing out of the tourism industry as a whole in South Africa. The respective responses of the operator of the country market and one restauranteur are revealing:

No! Downsizing is the worst thing that you could do. Would like more business and more visitors but will not downsize. I went and visited other markets in Cape Town and many were closed or barely functioning, others have closed down. I see that as opportunity and have used radio ads and social media to keep awareness of Elgin market high and encourage visitors (O1).

No we have stayed open 7 days a week despite many week days being extremely quiet (O10).

Finally, inter-enterprise cooperation with other local cluster businesses remained an essential business response. In total it was disclosed that 19 of the 20 interviewees co-operate with other businesses. This co-operation occurs variously in the form of joint marketing, information sharing or referrals. In addition to co-operating in order to assist other businesses many recognize that it is important to all come together to sell the destination first and encourage tourists to the area rather than merely focusing on one tourism business at a time as increased visitor's benefits all businesses in the area.

We co-operate within the group and do more joint marketing with a range of Hermanus businesses to encourage visitors to visit the town (O12).

We work in a tight community so there is information sharing and dialogue across the industry and community (O11).

Absolutely. The dive charters supports other tour packages and they get permission. So there is a reciprocity with other adventure tourism businesses as well as waiters at restaurants – if they sell dives waiters get commission. Word of mouth is incredibly powerful. All adventure tourism needs to do well to attract tourism to Hermanus as we need lots of tourism businesses otherwise nothing to attract tourists (O3).

We co-operate within the group and do more joint marketing with a range of Hermanus businesses to encourage visitors to visit the town (O15).

Always referred to other accommodation suppliers and recommended places to eat and visit. Need more formal linkages through joint advertising for Hermanus as a whole and individual businesses as well (O13).

The role of government and future business prospects

Interviewees were asked a number of questions relating to the role of government. First, if government regulations during the pandemic affected their business positively or negatively. Second, what local government and national government could do to assist and which of these interventions would assist in responding to the challenges of supplying the domestic tourist market in the short term (next 12 months). In terms of the impact of government regulations it should be noted that some of the interviews took place during the alcohol and beach ban which was in place from December into February and consequently most of those interviewees focused on those restrictions which was a further challenge to their business during these already business-stressed times. Most negative comments related to government regulations focused on the alcohol and beach bans as well as the curfew especially for the restaurant businesses which particularly impacted those in the night time tourism economy. The interview responses highlighted contradictions in alcohol policy as well as the devastation caused to coastal tourism businesses by the December beach ban. The views of several respondents below reveal the debilitating consequences of government regulations for the Overstrand tourism business cluster.

Negative effects and 100% of that is due to the liquor restrictions. The clientele who visit the market are responsible. 320 000 people through these doors and only 2 drunkards Are the government rules penalizing the responsible for the tiny proportion of irresponsible? Not one car crash as the traffic police are always around and would have notified of anything. Curfew has impacted the dinner trade at night, barely worth-while and only just breaking even but will continue as it is a social outing for the locals and can't afford to lose tenants who also need all the business that they can get. There is also nobody to replace tenants as in normal times as nobody has any start-up capital or funds to start another business (O1).

When the new regulations came into force on 27 December the whole area 'packed up and left'. No beaches, the curfew and alcohol ban destroyed the idea of a holiday and they as well as surrounding tourism businesses had many cancellations (O11).

Affected negatively due to loss of business. On the 27 December we had total cancellations of diving and cruises. We could not operate sunset cruises due to curfew and not allowed to sell liquor. We make 40% of annual revenue during the December/January period so this was devastating. The December months subsidize the 3month lull in the winter months (June to August) (O3).

The curfew had a negative effect on planned events - New Years' Eve party, outdoor cinema evenings, afternoon music events. The drinks ban put visitors off visiting the restaurant. Very busy with domestic tourists visiting up until 27 December then many visitors left the Hermanus area especially with the beaches being closed as well (O4).

Government regulations affected us negatively. We operate out in the open, in a nature reserve. Having Cape Nature as landlords, we were not allowed to open particularly because ziplining was not specifically allowed (O2).

Very negatively. Understandably, the closure of our international borders to stop the spread but interestingly the closure of beaches and the alcohol ban of late December 2020 was more of a blow as this was our peak season and an opportunity to make a little money. We had so many late cancellations that the peak dates over New Year saw empty rooms, where previous years we'd had waiting lists - traditionally the Christmas/New Year dates are almost entirely domestic tourism (O20).

Only negative impacts. When beach ban came in we had a lot of cancellations. We are across the road from the sea.

Earlier in December it was not looking too bad and we had visitors that were booking for longer than usual - a week or longer as these were people who normally went overseas so had money to spend on a local holiday. We were full for part of December but the beach ban meant cancellations and lower occupancy (O13).

In addition to the lockdown regulations which disincentivized travellers, the government announcements to stay home or within bubbles fostered a fear of travel and of mixing with others which further affected tourism businesses negatively. As was expressed by a local tour operator: "*COVID has created a lot of uncertainty and people more cautious to travel freely*" (O8).

It should be noted that in one case the business did not see the government regulations as only negative. This winery was able to increase overseas wine sales which subsidized the shrinking of their restaurant and tasting room business. It was also seen as a time to train staff and increase their online presence. The enterprise response of this wine estate operation is a further indicator of resilience in the cluster of operational tourism enterprises.

It was very difficult at first but overall the positives outweigh the negatives. Early April 2020 the owner met with all employees and set targets which they had to meet otherwise there would be cuts. The following month the hashtag #savesouthafrican wine went viral. Our larger overseas markets continued to import our wines. Consequently, not one staff member was lost which means that negative knock-ons to the broader community was low. The private online market was also amazing. Three years ago their online shop made around R60 000 and last year the increase was exponential. Buyers have shifted en masse to online. Initially, logistics companies were inundated and there were early problems with couriers. They did adapt. For us the major negative was lower numbers in the restaurant due to the restrictions. During lockdown staff who deal with the public were also demotivated as there were fewer people around. They did not lose their jobs so not such a big negative. The lockdown did free up some time which normally they would not have so training was ramped up which benefited a number of staff members (O5).

The major positive national government policy intervention which assisted a number of the cluster's tourism establishments was the Temporary Employer/Employee Relief Scheme (TERS) payments to staff who qualified as in many cases that minimized retrenchments and augmented the salaries of those workers who are on the bottom rung of the tourism employment ladder such as housekeepers, cleaners and gardeners.

Most interviewees hoped that local government might assist them by reducing business rates during the difficult times, albeit acknowledged that this was unlikely to happen. For example, the operator of the country market stated that it "*Would be great if they could reduce the rates and taxes but that will not happen. Elgin and Grabouw council has no marketing budget so they cannot even help with awareness and encourage visitors to the town*" (O1). Another major theme that flowed through the interviews was for the local government to be more pro-active in advertising the locality.

To stop promoting Hermanus as a 'whale only" destination as that season is only for 5 months but Hermanus has a range of products - diving, hiking, art galleries, wine. As Hermanus mainly promotes whales it could get more tourists by advertising itself more widely than whales. Need to diversify, particularly for ocean tourism (O3).

Bot River is not really on the wine map so local government could increase marketing of smaller wine regions. We have had to make ourselves a destination but Bot River needs more work. Each farm is fairly insular need to think how to benefit all (O6).

Other respondents recognized that local government was struggling to provide their basic mandate and did not have the finances to market the tourism products in their area. In at least one case – that of a large ecolodge – enterprises pro-actively went out of their way to assist their local municipality to feed people who had lost jobs and could not fend for themselves.

Have had a close working relationship with local government for many years. They are trying their best but not able to cope. Most people in the area employed in tourism as fishing industry no longer viable. Municipality helped with the feeding scheme early on but could not afford to sustain it. They struggle to do the basics. We have stepped in to help and all of the lodge staff help to prepare or distribute food to the local people who are struggling and we have provided over 300 000 meals. We feed 650 people per day and try to focus on the children. We also provide a two-week survival kit for those who have to self-isolate due to COVID-19 (O11).

The support needs that the cluster of tourism enterprises required from government are varied and included the request to extend TERS, improve public transport, encourage a local culture of travel and to enhance the marketing and promotion of South Africa. Further, in the case of the wine tourism sector there was a request for more nuanced appreciation by government of the operations of alcohol producers. This was expressed in the statement in the case of wineries for government to understand that they are "*wine farms and not liquor outlets*" (O4).

A key finding across the Overstrand cluster is that government actions relating to the alcohol bans and beach closures have resulted in a disconnect and reduced levels of trust and between the tourism industry entrepreneurs and government. Inadequate communication and sharing of information with the private sector were flagged as key issues. The operator of the country market stated as follows:

Generally, we ignore government. We understood the need for a curfew and social distancing but banning alcohol made no sense. We don't understand how or why these decisions are made and have lost faith with government. They do not share information which is then passed from province downwards and decisions are arbitrary and makes people believe that there is no rational basis for decision in the first place……. National government should improve public transport so that staff and visitors can get around. Nothing has really come through from national government encouraging domestic travel or a culture of travel (O1).

The core support interventions as expressed by respondents in the Overstrand cluster are evidenced from the following responses:

National government could support tourism staff and not leave it all to the owners. TERS at the same level as before would be great. (O11).

We understand the need for tourism businesses to be run by all South Africans and we are all passionate ambassadors for South Africa. It seems that other African countries tourism industries have not been as damaged as South Africa. Kenya is doing OK and they have made it clear that they are open for business. A few months ago they flew in American agents - they are proactive and seeing results. We are becoming a pariah (O11).

National Government could encourage a culture of travel. Sell South Africa better to all South Africans – advertise and enhance what this country has to offer (O8).

Important short-term interventions that were put forward by the tourism enterprises in many cases overlapped with what many had said with regard to support from national government. Again, improved marketing of South Africa and its various touristic regions was a recurring theme. This is illustrated in the view expressed by a local tour operator: "*The most important intervention would be to sell and promote South Africa to local tourists. Let places create good experiences so that visitors return"* (O8). Overall, the need to open up the beaches and unban alcohol was echoed by many who were interviewed during the lockdown period. In addition, more education of the general populous explaining that they are safe if safety protocols are followed by tourism businesses was also a plea from a number of interviewees.

Intervention that would assist is for people to be educated more about the pandemic. There is such a fear of the unknown that people are scared to go out. Tourism spaces have prepared and introduced safety protocols and if people wear masks and sanitize they should go out and enjoy themselves sensibly. Equip people with knowledge but encourage them to travel (O5).

All of the Overstrand cluster interviewees were optimistic that they would still be operational by 2022. This said, whilst none of them forecast permanent closure, a few suggested that they would drastically cut back or close down for part of the winter months, a traditional downturn business period when there is more reliance on the domestic market.

In 2020, however, these businesses did not enjoy the financial boost from a healthy Christmas season with international tourism to tide them over the quieter times. Some of them were resolute others were more negative albeit remaining upbeat despite the current COVID environment.

The rest of this year will be a slow uptick which is a long and slow process. We are here for the long-haul (O1).

No matter how many or few guests be welcoming and do the hospitality job to the best of your ability. It is a head-game to keep motivated. We need each other there is still great value in getting up and going to work and meeting colleagues. We are looking to survive but not sure what shape or form we will be in 12 months' time. It is purely survival at the moment and we are all in the same boat with other tourism enterprises – restaurants b and bs etc (O11).

Stay open. Be innovative and hope that lifting of alcohol ban and beach ban and extended curfew will encourage more visitors (O4).

In 12 months' time probably in the same position. Hoping that I will still be afloat. That is all no further expectations (O8).

Fortunately, we own the buildings we operate from and have reduced staff and overheads to the point where we hope that although not profitable, the business will be able to at least make a reasonable contribution to its overheads. We the owners, are contributing to the running costs of the business from our savings and a cashed in pension policy. If we're still here by early 2022, when we hope to see some recovery in tourism, we'll be broke and nervous. We have considered closing the business and selling the buildings - but this is also not a great time for that option either (O20).

We will continue to focus on the local market and keep a strict eye on expenses. After 6 months we will need to look at staffing again. We did not retrench but not sure how we can keep going with current staff levels if no government support (O12).

Overall, these statements attest to the self-reliant character of businesses in the study area and the vigilance of others in seeking to prepare for opportunities in a post-pandemic environment.

CONCLUSION

The COVID-19 pandemic has created major uncertainties by radically recasting the landscape for the owners and operators of tourism businesses. In the expanding scholarship on COVID-19 an important topic is that of supply-side responses to the changes taking place in consumer demands, the resilience of local tourism enterprises and coping strategies. This locality case study in South Africa points to the self-reliant character of the community of tourism enterprises in and around Overstrand in the Western Cape in addressing the challenges of a deteriorating business environment. Product diversification, reductions of prices, reduced staffing, changed marketing, greater inter-enterprise cooperation are several of the most significant business adjustments revealed by the Overstrand cluster. With the negative financial impacts of COVID-19 on local tourism enterprises exacerbated by government measures for alcohol bans and beach closures there is evidence of a disconnect and lack of trust between the area's local businesses and national government. This suggests that as part of the range of initiatives which are required for successful tourism recovery planning in South Africa the rebuilding trust between government and the established private sector tourism businesses will be another critical issue.

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A PHOTO IS WORTH A THOUSAND WORDS: HOSTS UPSET BY THE NEW NON-DISCRIMINATION POLICY OF MOVING BEYOND PHOTOS ON AIRBNB

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Abstract: In attempting to tackle the alleged digital discriminatory practices, Airbnb has established a series of non-discrimination policies, and the recent one was that guests' photos will not be disclosed to hosts until they accept the booking requests from prospective guests. This new non-discrimination policy has sparked heated discussion among the hosts. This study sets out to explore the overlooked narratives of Airbnb hosts towards this recent non-discrimination policy. A total of 1,211 posts shared by numerous hosts were collected from the Airbnb community website. These posts were analyzed by undertaking a co-occurrence analysis to identify key concepts and the connections among these key concepts that revolved around the new non-discrimination policy. Nine key concepts, namely, home, safety, stranger, risk, hotel, third-party booking, trust, community, and discriminate, and their connections, were presented in a visual network generated via Gephi to show what concerned the hosts after Airbnb implementing this policy. This study also offers insights into why such a new policy that aimed at fighting against discrimination on Airbnb may put hosts at a disadvantaged position or vulnerable status. It also offers significant practical implications regarding the important roles played by photos on Airbnb.

Key words: Airbnb, peer-to-peer accommodation, profile photos, digital discrimination, co-occurrence analysis

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INTRODUCTION

Airbnb is an online sharing platform where individuals can share their private space within their homes or rent out their properties entirely to holidaymakers and/or other accommodation seekers (Guttentag, 2019). The emergence of peer-to-peer (P2P) accommodation platforms, exemplified by Airbnb, has revolutionized the traditional accommodation practices within the hospitality and hotel sector (Guttentag, 2015; Mody et al., 2019). Airbnb not only allows guests to have access to the private space of the hosts and facilitate the interactions among them but also enables guests to have an authentic experience of neighborhood life (Tuttle, 2014). Thus, Airbnb has witnessed exponential growth and enjoyed tremendous popularity within the P2P accommodation section since its inception in 2008 (Boros et al., 2018; Camilleri and Neuhofer, 2017; Oskam and Boswijk, 2016; Pizam, 2014). With the unprecedented development of Airbnb, many guests have voiced their experiences concerned about alleged digital discrimination when using Airbnb on the ground of sexual orientation, religion, and/or race (Ahuja and Lyons, 2017; Cui et al., 2020; Edelman et al, 2017). When facing the situation, Airbnb has strived great efforts to fight against alleged discriminatory practices on its platform by introducing a range of non-discrimination policies, such as promoting instant booking among its hosts and forming a special team to work on resolving the issue, etc. (Airbnb, 2016; Levin, 2016). Further in October 2018, Airbnb announced a new, specific non-discrimination policy of moving beyond photos, which is to conceal the profile photos of guests from hosts until the booking is confirmed. Previous studies have suggested that photos on Airbnb help connect hosts with guests in their first interactions (Ert et al., 2016; Farmaki and Kladou, 2020), and host assess the potential risks of granting permission to guest booking requests based on the features of their profile photos (Karlsson et al., 2017). Although Airbnb has taken a series of actions to fight against discrimination and academic scholars have begun to look into the potential discrimination encountered by Airbnb guests on the platform; minimum attention has been focused on how these non-discrimination policies affect Airbnb hosts and/or what roles these hosts have played when policymakers considered introducing new policies. Given the recent controversial policy implemented by Airbnb, the necessity of understanding how Airbnb hosts react to this policy is imminent. Built on this premise, this paper sets out to explore how these Airbnb hosts have responded by examining their responses and concerns to this new policy at large drawn from the threads posted on Airbnb Community - an affiliated website where Airbnb users can proactively share their concerns over their Airbnb experiences. Also, this paper may contribute an insightful understanding of hosts' perspectives on the matter of alleged discrimination on Airbnb, which may provide valuable implications for Airbnb to contemplate on its policy-making process and the trusting-building within the community.

LITERATURE REVIEW

1. Digital Discrimination

Digital discrimination refers to a variety of situations where individuals or groups are treated unfavorably or unfairly as

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compared to other individuals or groups on the ground of their race, background, and/or particular characteristics on the Internet (Cheng and Foley, 2018). In the sphere of P2P accommodation, the complaints about racial discrimination encountered on Airbnb have attracted media and public attention (Glusac, 2016). As mentioned above, Airbnb has implemented a series of non-discrimination measures to tackle this issue ever since (Airbnb, 2016; Benner, 2016) and its efforts are still on-going.

Scholars have begun to look into the potential discriminatory practices on Airbnb. Edelman and Geradin (2015) have lifted the curtain and probed into the alleged discriminatory practices, such as race, sexual orientation, and religion, and so on, that occurred on Airbnb. Since then, studies have adopted field experiments by creating fake accounts on Airbnb with white names and distinctive ethnic ones and the results have indicated that guests with white names are more likely to be accepted compared to those with ethnic names when making bookings on Airbnb (Cui et al., 2020; Edelman et al., 2017). Similarly, Ahuja and Lyons (2017) suggest that male gay couples are more likely to encounter discriminatory practices when making booking requests on Airbnb due to sexual orientation. Research has also found that ethnic hosts in San Francisco, such as Hispanics and Asians, tended to price their listing less than their white counterparts by 8 to 10% to attract potential guests, indicating that the reverse discrimination from Airbnb guests occurred when they choose a place to stay on Airbnb (Kakar et al., 2018). In a recent study, Farmaki and Kladou (2020) have developed a framework to examine the sources and types of discriminatory behaviors among Airbnb hosts and shown useful insights and a greater understanding of the causes of discrimination and the way to eliminate it.

2. Photos and Power Dynamics on Airbnb

The importance of profile photos on P2P accommodation platforms has also begun to draw attention from the academic discourse. Edelman and Geradin (2015) argue whether it is necessary to allow Airbnb hosts to see guests' photos and names, as it may lead to potential discrimination against the guests. However, studies have suggested that a profile photo is of great significance within a home-sharing community like Airbnb, because it can build trust and connections between guests and hosts and potentially reduce risks that both parties may perceive (Kakar et al., 2018; Murphy, 2016), which contributed to the satisfaction of the guests (Bar et al., 2016; Boros et al., 2018). Meanwhile, by focusing on hosts' profile photos, scholars have confirmed that a lack of profile photos from hosts may reduce the perceived trustworthiness among guests thus leading to reduced booking tendencies (Ert et al., 2016; Fagerstrøm et al., 2017). It is evident that a profile photo plays a significant role during the process of accepting booking requests. Thus, policymakers should have considered the impact on hosts accepting booking requests from guests without photos before implementing such a new policy.

The regulations and policies implemented on the platform can trigger a series of power issues among hosts, guests, and the platform. P2P accommodation platforms exert mediating impacts on both hosts and guests (Cheng and Foley, 2018) so that the equality and balance between two parties are maintained and empowered (Dolnicar, 2018). The double-blind review system on Airbnb is also a representation of power equality between hosts and guests (Farmaki and Kaniadakis, 2020). Displaying profile photos from both parties and photos of the rented place from hosts prior to booking confirmation facilitates the trust-building between hosts and guests, which is also seen as a symbol of equal power. However, Airbnb hosts began to feel that the power balance was shifted to guests as a result of Airbnb taking a more guest-center approach (Farmaki et al., 2019; 2020), such as pushing hosts to use the function of Instant Booking to accept requests from guests by controlling the display orders of hosts' listings and striping hosts' Superhost Badge if they turn down or cancel a booking (Farmaki and Kaniadakis, 2020). Another example is that Farmaki and Kladou (2020) suggest that several hosts on Airbnb mentioned that they are very likely to be affected by this new non-discrimination policy of not disclosing profile photos; consequently, they have become more powerless and less flexible when it comes to accepting booking requests. Due to the nature of home-sharing that mixes personal with professional space, the absence of regulations, and the issues of property rights, Airbnb hosts have started to form self-regulating and self-empowering groups so that they can discuss issues and find solutions for various scenarios encountered when hosting guests, which is also a way to regain a certain level of power (Farmaki and Kaniadakis, 2020). Other research has suggested that the introduction and implementation of the new non-discrimination policy of disclosing guests' profile photos can potentially restrict hosts' ability to select prospective guests (Farmaki and Kladou, 2020), which further weakens hosts' power and leaves them at a disadvantageous position on Airbnb. It is of great necessity to take the concerns voiced by Airbnb hosts into consideration with regard to introducing new policies and regulations to tackle the issue of discriminatory practices on P2P accommodation platforms like Airbnb. Thus, a much more nuanced understanding of how Airbnb hosts responded to this new policy is needed to understand and address this issue.

The implementation of such a new policy of concealing guests' profile photos prior to booking acceptance has made a huge splash among Airbnb users, in particular its hosts. More importantly, this policy of concealing guests' photos has mirrored serious contradictions between the two anti-discrimination reports issued by the Airbnb team, which summarized the actions that Airbnb has taken to combat discrimination as well as build trust towards a more inclusive platform and community (Murphy, 2016; 2019). The first one emphasized that profile photos from both parties play an essential role in fostering interactions and trust within the Airbnb community, thus guests should show their images rather than hiding under the disguise of anonymity when they try to look for a place on Airbnb (Murphy, 2016). However, the latest report (Murphy, 2019) advocated the new non-discrimination policy of hosts receiving the guests' photos after they accept the booking request. Thus, it is of great necessity to examine the attitudes of hosts towards such a controversial non-discrimination policy due to the mixed message sent by Airbnb. Airbnb brands itself as "a trusted community marketplace for people to list, discover, and book unique accommodations around the world" (Murphy, 2016, p. 2). However, the new non-discrimination policy may render it difficult for hosts to build trust and rapport with potential guests whose profile photos are nowhere to be seen when hosts try to make decisions regarding booking requests. Also, Farmaki and Kladou (2020) confirm Airbnb hosts are concerned with their host rights under this new policy. Although this research has briefly discussed the attitudes of some hosts held towards this policy, it paid more attention to the underlying reasons for the discriminatory practices of hosts that occurred on Airbnb. Built on the reviewing of extant literature, limited academic attention has been given to how hosts respond to these non-discrimination policies implemented by Airbnb. Therefore, this study attempts to provide a nuanced understanding of the reactions of Airbnb hosts towards the new policy of not disclosing guests' photos until booing is confirmed and how they might have been affected by this policy at large.

METHODOLOGY

After Airbnb introduced this new non-discrimination policy of not disclosing guests' profile photos to prospective hosts until the confirmation of the booking requests, it had sparked heated discussion among Airbnb users, particularly, hosts. This study sets out to offer a nuanced understanding of how Airbnb hosts responded to this new non-discrimination policy. These opinions were collected from Airbnb Community where they had vented their personal opinions about this policy. It is a website that helps Airbnb, guests, and hosts to communicate and discuss matters that are related to their Airbnb experiences. By January 2020, a total of 1,211 posts in this regard had been collected and analyzed. The collection of users' posts from a public online domain does not fall in the scope of human-related studies (Kozinets, 2010); therefore, it is not required to obtain consent and ethical approval for this research. These online posts were put into an Excel spreadsheet for data analysis, which consisted of several steps. First of all, the content of these posts was familiarized with repeated reading. In this step, certain posts were excluded from the original dataset based on three criteria: (1) posts that did not offer relevant opinions on this non-discrimination policy, (2) posts that merely offered comments on other hosts' posts but not on the policy itself, and (3) posts that were repeatedly posted by the same host. This screening step thus enriched posts that were used as a refined dataset for subsequent data analysis. In the second step, the content of each post from the refined dataset was decomposed into tokens, i.e. meaningful words and phrases, and the process is termed tokenization. For instance, one host posted below:

Hosts need to know who is coming to the door of their home. Airbnb is a home rental platform, not hotel. When a host opens their home to a stranger, they expect a gracious friend, not an entitled customer to take over their life. Yes, I absolutely want to see the face of the guest. It is good manners. This is for the safety and comfort of both sides. The above post has been decomposed into the following tokens: hosts; coming to the door of their home; home rental platform; not hotel; opens their home to a stranger; a gracious friend; an entitled customer; take over their life; see the face of the guest; good manners; safety and comfort. The third step involved the selection of key tokens based on their degree of relevancy. To isolate key tokens, the primary elements of this non-discrimination policy need to be revisited. It states that hosts are not allowed to view the profile photos of potential guests until the acceptance of guests' booking request; accordingly, this policy revolves around three key aspects: the discrimination issues, the hosts' rights at their own premises, and the relationship and dynamics among all Airbnb parties. Measured in the relevancy to this policy, some of the tokens extracted from the posts would be too general to be included as key tokens. Taking the above post as an example, the following key tokens were isolated: coming to the door of their home; not hotel; opens their home to a stranger; safety and comfort. The fourth step was to synthesize key tokens into key concepts. Key tokens have been condensed into concise words or phrases without changing the meanings. For example, the token "guests who are employees booked by their employer", which indicates that the guests did not make the booking themselves, has been condensed into "third-party booking". Also, tokens have been conflated to their root forms, such as "discriminating" and "discrimination" being lemmatized into "discriminate". Moreover, tokens that share the same or similar meanings have been clustered into the same word. For instance, "house", "home", and "property" have been converted into "home". Following this synthesis step, nine key concepts have been identified from the data analysis, which aims to represent the crucial issues and concerns voiced by Airbnb hosts. Each of these key concepts has at least appeared once in each post. Lastly, all the key concepts were input into Gephi (Version 0.9.2), an open graph viz platform, to generate a visualized network based on their co-occurrences in each post (Figure 1). The size of the nodes indicates the frequency of these key concepts that has been mentioned throughout these posts. The thickness of the edge connecting two nodes signifies the weight of the co-occurrence between these two key concepts. The user names of the hosts, whose posts were quoted in this study, have been concealed and replaced by a pseudonym, such as "Host 1" and "Host 2" according to the order of appearance.

Figure 1. Visualized network of key concepts

FINDINGS AND DISCUSSION

As illustrated in Figure 1, the nodes in the visualized network represent the most frequently mentioned key concepts by Airbnb hosts as indicated by their size. These nine key concepts are home, safety, stranger, risk, hotel, third-party booking, trust, community, and discriminate. These key concepts are connected based on their co-occurrence in these posts and its thickness indicates the weight of these co-occurred concepts, indicating the intertwined relationships among the key issues voiced by Airbnb hosts. The network shows what concerned Airbnb hosts the most towards this new non-discrimination policy of not showing guests' photos until accepting booking requests. "Home" is the most frequent key concept that appeared in these posts posted by Airbnb hosts who showed great concerns over accepting the booking requests without being able to the guests' photos and have strongly voiced their protection over their private space. Host 1 vented the feeling of frustration by stating "I think it is totally nonsense that people don't want to share their photos yet they expect us to share our homes.

Nonsense!!! We need access to full profiles and reviews prior to accepting reservations." Many hosts have criticized this new policy of removing guests' photos and compared it to blind dates, for instance, Host 2 argued "I do not feel comfortable to accept bookings without a photo. If a dating site tried this they would not have any customers. It is just natural to want to see who you are talking to and inviting into your home. Especially for women letting part of their living areas." Roelofsen and Minca (2018) argue that hosts have sacrificed personal spaces in their homes to join the Airbnb platform. Although hosts want to commercialize their spaces, simultaneously they would like to retain certain rights and freedom within their private yet commercialized spaces (Farmaki et al., 2020; Farmaki and Kladou, 2020) without being seen as discriminatory. Farmaki et al. (2020) argue the transparency is crucial in representing the private space of hosts for guests to choose. In this context, it is also paramount for Airbnb to ensure transparency by disclosing guests' photos to hosts when guests make booking requests. Therefore, hosts have called upon all hosts to stand together and firm regarding the new policy to protect their homes. When introducing policies and regulations, Airbnb needs to consider not only the guests' rights of not being discriminated against but also hosts' rights to transparency. The second significant matter that concerned many hosts relates to the perceived safety among Airbnb hosts brought by not being able to identify the incoming guests via their profile photos, leading to potential safety issues when hosting the guests. Host 3 stated "Safety is my most important issue. This is my home not a hotel, not a government center, not a political center, not a halfway house for criminals, [sociopaths] or terrorist, not a charity organization etc." In particular, hosts who reside in apartment buildings expressed their safety concerns over not only themselves but also other residents and the neighborhood as a whole. For example, Host 4 pointed out that "It [is] important to know who you [are] renting to especially if it is in an apartment building. I have to protect the other tenants and the tenant. This is also why I greet the guests, show them the apartment and how everything works. If there is no profile photo and you do [not] know who you are renting to that is a [scary] thing." These quotes resonate with the findings that hosts' concerns over safety and security are rational and reasonable as Airbnb has not implemented sufficient rules and regulations to protect their hosts from potential issues (Gear, 2016), which may result in a negative impact on host satisfaction on Airbnb (Malazizi et al., 2018).

The next key concepts are about guests being strangers in hosts' homes and personal space, which posed tremendous risks to hosts. For P2P platforms like Airbnb, both parties do not know each other yet hosts choose to share their personal space with strangers (Liang et al., 2018; Moon et al., 2019). For example, Host 5 said that "As residents, we are already at a disadvantage, if not danger, by allowing total strangers into our homes. You are asking us to exposes ourselves even more than we are already doing. How is that even almost acceptable to hosts? And what about our responsibility to our neighbors?" For instance, The removal of guests' photos also posed potential risks as perceived by hosts, particularly those living with young children:

As a parent [of] three young kids, I am extremely uncomfortable renting out my spare room to a faceless stranger. Photos give visual clues to the sort of person you are. It seems that Airbnb has failed to [realize] that hosts are oftentimes renting out their homes that they live in and guests are sharing that space. For my husband and I, as parents, we want to see who is coming into our home. I [am] not happy with this new rule about photos at all and I hope Airbnb [realize] that this rule may prevent the tiny minority of hosts who do discriminate - and obviously this is totally unacceptable - from doing so. However, the vast majority of us hosts do not discriminate and would like to put a face to the person requesting to book so we get an idea of what sort of person we are letting into our homes. The whole idea behind Airbnb is sharing your home, not renting out hotel rooms. Come Airbnb, please listen to hosts on this as sadly, I think this policy, although [well-meaning], is wrong (Host 6).

Various studies have confirmed that profile photos play a bridging role during their initial interactions (Ert et al., 2016; Farmaki and Kladou, 2020), and characteristics of profile photos constitute one of the important attributes for hosts to assess the potential risks of granting permission to guests (Karlsson et al., 2017). For those hosts who were motivated by financial gains through sharing their personal space on Airbnb, they felt the urge to please the guests, thus suffering from the disadvantages in the power negotiation with potential guests (Farmaki and Kaniadakis, 2020). Thus, the removal of guests' profile photos takes away the foundation of host-guest interactions and trust on Airbnb.

As demonstrated in Figure 1, the lines that connect "home" to "stranger" and "safety" are particularly thicker, which represent that these key concepts have been co-occurring in these posts and the underlying safety concerns over inviting strangers into their homes brought by the new policy. For instance, Host 7 stated that "When a host opens their home to a stranger, they expect a gracious friend, not an entitled customer to take over their life. Yes, I absolutely want to see the face of the guest. […] This is for the safety and comfort of both sides." Similarly, Host 8 pointed out that "We are renting our homes to the strangers that we do [not] know so we need to see who is booking and actually not only the person who books but also the people that they come with would be better for security [confirmation] reasons." It can be seen that there are multi-dimensional and correlational concerns among hosts revolving around this new policy of removing guests' photos.

Moreover, trust is defined as a "disposition to engage in social exchanges that involve uncertainty and vulnerability, but that are also potentially rewarding" (Bicchieri et al., 2004: 286). Airbnb was founded based on the mission of building a trustworthy home-sharing community between guests and hosts (Airbnb, 2016) who are strangers to each other. The trust needs to be established among three parties within P2P platforms, i.e., hosts, guests, and Airbnb in this case. However, many hosts considered that by withholding their access to guests' profile photos, Airbnb has made hosts vulnerable, undermined the trust-building among relevant parties, including hosts, guests, and the P2P platform—Airbnb, and deviated from its motto to foster trust within the community. For instance, Host 9 claimed that "if I have to start a new relationship with a stranger, a picture of each other will help a lot and speed up the trust between the [two]". To a similar sense, Host 10 not only questioned how the removal of guests' photos would affect trust establishment but also voiced to seek retaliatory actions on her own profiles to balance things out:

[T]his is completely wrongheaded of Airbnb to protect the interest of a *potential* guest over the host who has so much more at stake. I'm a single woman living alone in my home; I [am] using my legal name on my profile; and I [am] using a clear full-face photo I of myself for all to see. I expect the exact same from potential guests. Or should I use a picture of my cat and an alias? How does that establish trust, which used to be the keyword of all Airbnb's marketing? From the perspectives of hosts, this step taken by Airbnb not only undermines the trust-building but also imposing far-reaching impacts on the Airbnb community. Host 11 stated "When I have a booking request from someone who has a goofy photo on their profile, I asked them to update it. I do this by explaining that Airbnb is built on community and being able to recognize one another when we meet in person. And, they can look at my profile for an example." To a similar vein, Host 12 hoped Airbnb would reconsider this new policy as contradictive to the spirit of the Airbnb community: "Knowing more about each other better reflects the spirit of home-sharing that Airbnb is supposed to be about. Guests who want an anonymous, faceless experience should book a motel. Knowing whether a guest 'looks trustworthy' may not be much to go on, but Airbnb should not strip hosts of our limited ability to exercise our judgment when creating a connection". Some home sharers expressed that they might delete their profile photos or put up an animal or plant photo instead, which may further deteriorate the trust-building efforts in the Airbnb community. Regarding the implementation of such a new policy, hosts are generally afraid of the guests who show up at their front doors are not the ones who made the bookings. These third-party bookings are very likely to pose extra risks on hosts:

Do you understand that if someone shows up who [is] not the person who booked, [Airbnb] considers it a 3rd party booking and you are [on] your own? Do you understand that without that photo you'd have no way of knowing? It [is] way too easy to lie and book for someone else without a recent photo and government photo ID with a matching credit card. It [is] not about discrimination, it's about overall host safety, and [Airbnb] has created a loophole in this to avoid liability if there are issues (Host 13).

I [am] always scared of retaliation. I have [not] had a situation like this but have had 3rd party bookings. Did [not] you know 3rd party bookings are not covered by Airbnb host guarantee. Now I ask you, how are we going to be able to tell they are who they say they are without having a profile picture. A boss booking for an employee, a friend booking for another... A family member booking for another. We are not covered! (Host 14).

More importantly, the connections among "third-party bookings", "home" and "hotel" warrant much attention. Since guests do not need to share their photos until their booking requests are confirmed, hosts fear to accept third-party guests into their homes, causing unnecessary and additional issues. To numerous hosts, it seems that Airbnb has gradually changed from a home-sharing and trust-building community to becoming a hotel association where guests' rights are more favored. These hosts in no way agree with what Airbnb has implemented, Host 15 voiced the feeling of anger by saying "I am accepting almost every request except when there is a risk of harming the quietness of the community in the building. [My] home is not a hotel neither a [business] service." Similarly, Host 16 was equally concerned and expressed "This is nothing other than forcing INSTANT BOOKING we are becoming a HOTEL. Personal experiences are now plain bookings. Homeowners rights are gone."

It remains unknown whether such a policy would be effective in stopping alleged discriminatory acts on Airbnb, but it certainly failed to foster trust between both parties and decreased hosts' willingness to accept guests who do not have profile photos. Furthermore, third-party bookings have made hosts less flexible and willing to host these guests at their homes due to safety and security concerns (Farmaki and Kladou, 2020), and Airbnb not having sufficient rules to protect hosts (Gear, 2016).

The new policy of removing guests' photos was implemented to combat the issue of discrimination towards guests that occurred on Airbnb. However, apart from undermining the mutual trust within the community as perceived by hosts, the concept of "discriminate" identified by Airbnb hosts in this network reflected how they considered that the new non-discrimination policy is one-sided and biased and felt they were discriminated against by it. For instance, It is awful to get inquiries/bookings without a picture and absolutely NO information about the person and be expected to answer "into the blind". It is [one-sided] and goes against the host (Host 17). This lack of guest photo is very one-sided. Hosts [cannot] see the guest, but, guests can see the hosts and inside our homes. So much for equality (Host 18). It is utterly ridiculous and dangerous to make hosts blind to guests['] appearance before they show up, and if we change our minds and decline them, then we are discriminated against by [Airbnb] and, it seems, the law! These are our homes and we have our rights too (Host 19). All [hosts] are currently subject to discrimination as well because our profiles must include a facial profile photo. I submitted my profile photo willingly and by doing so definitely do expect it to be made public to all [guests] before they Request to Book (Host 20).

Current literature has mainly focused on hosts discriminating against guests based on their race, name, and/or sexual orientations (Ahuja and Lyons, 2017; Cui et al., 2020; Edelman et al., 2017). Although researchers have begun to look into discrimination that aimed at hosts, these studies paid more attention to the economic side of the story, namely, racial minorities on Airbnb, such as Asians, Hispanics, African-Americans, tend to suffer from price differences as compared to their white counterparts (Edelman and Luca, 2014; Kakar et al., 2018; Wang et al., 2015). Although Farmaki and Kladou (2020) offered some insight into how this new policy limited Airbnb hosts' ability to select prospective guests, it emphasized the underlying reasons for hosts' discriminatory behaviors towards guests too. However, the findings in this study have placed the emphasis on allowing hosts' concerns towards this new policy to be voiced and heard.

CONCLUSION

Situated upon the digital discriminatory practices on P2P accommodation platforms and the new non-discrimination policy of not revealing guests' profile photos to hosts until booking requests are confirmed, this study has looked into how Airbnb hosts had responded to this new policy by examining the posts shared by them on an affiliated Airbnb Community website. By analyzing these posts shared by Airbnb hosts, nine key concepts identified through the analysis were presented in a visualized network generated via Gephi. These key concepts include home, safety, stranger, risk, hotel, third-party booking, trust, community, and discriminate. The visualized network also illustrates the intertwined connections among these key concepts are multi-dimensional and correlational, indicating these concepts cannot be easily separated from one another. Moreover, the findings of this study offer a nuanced understanding of why the new non-discrimination policy of removing guests' photos upset Airbnb hosts and put them in a disadvantaged position.

1. Theoretical implications

While existing studies have mainly focused on identifying the underlying reasons for the discriminatory practices of Airbnb hosts (e.g., Ahuja and Lyons, 2017; Cui et al., 2020; Edelman et al., 2017; Farmaki and Kladou, 2020), and the motivation of Airbnb hosts and their interactions with guests (Farmaki et al., 2020; Karlsson and Dolnicar, 2016; Karlsson et al., 2017), this study contributes to the existing literature and knowledge by suggesting that the new non-discrimination policy introduced and implemented by Airbnb to fight against digital discrimination has put Airbnb hosts in a vulnerable and disadvantaged position. The findings of this study have offered a nuanced understanding of narratives and voices of Airbnb hosts towards this new non-discrimination policy, which is an under-researched area under the context of increasing academic attention to hosts discriminating against guests on P2P accommodation platforms like Airbnb. In addition, this study has adopted the network software Gephi to visually present a holistic picture of the key concepts and their connections relating to the new policy. The network suggests that the issues that concern Airbnb hosts are intertwined, multi-dimensional, and correlational; therefore, it is imperative to incorporate their narratives and voices into the process of making new regulations and rules to facilitate the trust-building and foster a community atmosphere among three parties, namely, Airbnb, hosts, and guests and tackle potential issues arisen during the sharing experiences by minimizing the possible risks perceived by all parties.

It is a controversial yet overlooked topic as Airbnb hosts deemed the new policy discriminatory as a discriminatory act towards them. The findings of the study also argue that Airbnb hosts have been discriminated against by Airbnb because of the introduction and implementation of the new policy of not disclosing guests' photos to hosts. Since Airbnb hosts need to post their profile photos and pictures of their home, rented room and/or space and common areas, which may result in an inequivalent status between hosts and guests. Specifically, guests could view all the photos uploaded by hosts to choose their preferred accommodation, whereas hosts could only view guests' photos after they accept the booking request from guests. Also, the findings of the study suggest that Airbnb hosts are more concerned with a series of uncertain issues brought about by this new policy rather than undertaking discriminatory practices. The reason why hosts would like to maintain a flexible ability to select their prospective guests on Airbnb is that they want to ensure the safety of themselves, their family, and their homes rather than discriminating against guests based on their names, colors of skin, and sexual orientation, etc.

2. Practical Implications

Besides offering nuanced insights into hosts' attitudes towards the new policy and theoretical implications to the literature, this study also provides practical implications with regard to P2P accommodation platforms. Firstly, hosts regard profile photos of guests as an essential element of fostering trust along with past reviews and other information on their profiles (Ert et al., 2016), and most hosts displayed their personal photos and their homes for prospective guests to make informed decisions. The findings of this study suggest that P2P accommodation platforms like Airbnb need to consider and listen to the hosts' opinions before introducing and implementing new policies and regulation to ensure equality between hosts and guest and enhance hosts' practices and experiences in spite of its initial intention of fighting against alleged discriminatory practices. This is also essential to smooth the home-sharing experience and facilitate the mutual trust-building among guests, hosts, and P2P accommodation platforms like Airbnb. Secondly, as the idiom goes that "a photo is worth a thousand words", the characteristics of guests' profile photos, such as content, setting, facial expression, and gesture, etc., may indicate certain personalities and characters of those potential guests (Karlsson et al., 2017), thus creating certain assumptions and/or associations perceived by hosts. Therefore, Airbnb needs to better regulate the account settings and establish detailed guidelines about what can be used as a profile photo to minimize the possibility to develop certain assumptions and/or establish certain associations and among hosts. For example, Airbnb may consider forbidding someone to set up their account or send out booking requests if their profile photos do not meet specific criteria. Thirdly, Airbnb also needs to establish regulations to minimize the possibility of third-party bookings to ensure the rapport of the home-sharing community as well as the safety and security of both hosts and guests rather than turning homes into hotels. Moreover, guests, hosts, policymakers, and P2P accommodation platforms like Airbnb involved need to work together to form a better plan to not only fight against discriminatory acts on P2P platforms but also safeguard the legal rights of both parties. Last but not the least, the findings of the study indicate that Airbnb hosts may undertake retaliatory behaviors by taking down their listings on Airbnb and relisting their properties at other P2P accommodation platforms where their concerns and rights are better cared for and protected. Thus, this study calls for policymakers and government regulators to consider more relevant factors, such as the hosts' rights to accept booking requests and host-guest power balance, and evaluate the impacts on both parties involved when introducing new policies to reduce potential discriminatory practices on P2P accommodation platforms like Airbnb and find a better solution for a win-win situation.

3. Limitations and Future Research

This study has offered nuanced yet significant insights about the narratives and voices of Airbnb hosts towards the new non-discrimination policy of moving beyond photos on Airbnb, but it is not without limitations. This study has collected the posts shared by Airbnb hosts from one particular community website. Future studies could use a variety of community websites of P2P accommodation platforms where hosts actively shared their opinions and perspectives in this regard to provide further insights. Meanwhile, this study has only collected and analyzed online data, so future studies could use different approaches to collect different types of data about how hosts responded to this non-discrimination policy. Moreover, this study only looked into the narratives and voices of Airbnb hosts in this matter, so future studies could delve into other stakeholders, such as guests, Airbnb, and other parties to provide a more holistic perspective about the impacts and implications of moving beyond photos. Furthermore, this study did not include the place of residence where hosts listed their shared space as one of the study subjects. Future studies could look at whether the places of residence play a role in how hosts react to certain policies from the P2P platform.

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THE USE OF NEW TECHNIQUES IN SPATIAL MODELING AND ANALYSIS OF URBAN QUALITY OF LIFE: MULTIPLE-CRITERIA DECISION ANALYSIS AND GIS

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Abstract: The research aims to analyze and evaluate the quality of urban life using modern technologies by engaging residents and experts to choose criteria for analyzing and evaluating the quality of life (QoL)using multi-criteria analysis and a geographic information system to conduct spatial modeling to extract a Qol analysis and evaluation map and determine its geographical ranges. The study showed that (4.44%) represent a high QOL and (47.23%) represent an acceptable QOL and (48.33%) represent a low QOL. The study proved that there are geographical differences between the city center and the suburbs that can be spatially determined.

Key words: quality of life, Delphi method, spatial modeling, GIS, multi-criterion analysis for decision-making, Djelfa

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INTRODUCTION

Due to the rise of Immigration, the rural displacement, and the unchecked development of Algerian cities as a result of Algeria's insecurity and terrorism (Dehimi and Hadjab, 2019), the city of Djelfa was a place of displacement in which inhabitants of the neighboring areas settled. This fact led to rapid and illegal expansion of the city, which caused low level in the quality of life (QoL). Nowadays, cities are in competition to offer the best QoL to their residents. In Britain, in particular, highly educated people showed their readiness to move to places of high QoL across the boundaries of their country and continent (Massam, 2002). Because the QoL has different aspects such as the urban environment, social or commercial facilities, and services (Heydari and Bakhtar, 2018), geographers are trying to understand the complex term by combining different approaches. The first conducted studies on the QoL appeared in the 1960s.

They were basically dealt with from a psychological or an environmental view point. Other works appeared in the 1970s by geographers who studied spatial differences in social indicators (Knox, 1975), but they have roots in the means of economic measurement during the 18th, the 19th and the early 20th centuries (Mostafa, 2012).

In recent times, the use of computational models, tools and indicators has witnessed a sudden increase in assessing QoL at the neighborhood level. AARP livelihood index (AARP-AARP public policy institute, 2018), QoL assessment indicators (Dehimi and Hadjab, 2019) index (intelligence, 2015), livable city index (Onnom et al., 2018) indicator (Mittal et al., 2020) (quality of life index (LQI)) QoL index (Dissanayake et al., 2020) to name but a few. QoL is an interdisciplinary field where sociologists, psychologists, socio-geographers, and economists attempt to assess living conditions objectively and subjectively on the basis of available data, whether objective or subjective (Domin et al., 2010; Merschdorf et al., 2020; Mizgajski et al., 2014; Mittal et al., 2020; Abd el karim and Awawdeh, 2020 ; Garau and Pavan, 2018 ; Mizgajski et al., 2014; Dissanayake et al., 2020) in recent years there has been a lot of interest in the QOL issue in the field of geography however, it is difficult to find an agreed definition or measure it, and the reason for the difference in the approaches and goals of scholars (Ištok and Martin, 2012.) Researchers associate QOL with satisfaction with life (well-being), and QOL is understood as the quality of a place. It is related to the relationship between the person, the place of living and his ability to survive, which indicates aspects of spatial differentiation (Martin and Robert, 2016), of the difficulties is the lack of an agreed definition of QOL, which is a multifaceted problem that has attracted much interest in urban geography (Massam, 2002), each according to their specialization and point of view .Recently, indicators such as the cultural and artistic workforce, diversity of origins, sexual orientation, and residential diversity have been taken into account (Florida, 2002).

The idea behind QoU studies is to measure and evaluate the relationship between social and urban characteristics of a place and perceived QoL (Merschdorf et al., 2020). We believe that this approach is beneficial for establishing a balanced development, as QOL research reveals in terms of spatial disparities and disparities, regional disparities affect inequality between regions, regions, and settlements .Previous researchers have made a number of attempts to define, evaluate, measure, and quantify QoL or well-being within different types of perspectives, including :QOL is an issue that has caught considerable attention in the urban geography because it is difficult to find an agreed-upon definition or to measure it (Massam, 2002). Recently, other indicators have been taken into consideration such as the cultural and artistic workforce, the diversity of origin and the sexual orientations, and housing diversity (Meric et al., 2002). One of the studies that dealt with the QoL is of Petr Kladivo who employed a set of 30 variables expressing the quality of living conditions in the city

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(Kladivo and Halás, 2012). His study focused on social, commercial, and environmental indicators, using multi-variables analysis; and he concluded that the quality of housing, attractiveness of the environment and the availability of services are crucial indicators of the quality of living conditions, according to his respondents. Kladivo involved residents in his analysis, but he did not use programs to determine the areas spatially. The second study was conducted by (Rinner, 2007) who used geographic conceptualization principles GeoVis along with multi-frequent evaluation styles to support spatial decision making. He used AHP to calculate the weights that form the urban QoL, including social, economic, and demographic indicators in the cities. However, he did not involve the residents in his study. Besides, the researcher focused in his interviews with the experts on implementing only GeoVis which did not state clearly the shift from AHP and the spatial ranges of QoL. In his study (Merschdorf et al., 2020), which aims to develop a model for predicting the urban quality of life (QoUL), based on the analysis of objective indicators (economic, social, and environmental), the researcher used his research variables from the previous QoUL. Surveys based on GIS have been experimentally demonstrated to predict service quality. We support this suggestion for these indicators are reliable, as we can see this from the good studies in the QoUL, (Dissanayake et al., 2020). The aim of the research was to develop indicators of QoL.

The researcher used two strategies to determine the first indicators through consultations with experts and administrative authorities in the study area. In the second, the opinions of the residents were observed by conducting formal interviews with the residents of the study area, and we support this idea because the combination of expert opinion and the population supports the research idea and can determine the indicators with all credibility. The researcher also used the multi-criteria decision-making method (MCDM) where the weights of the indicators were determined through the AHP process, and the researcher used geographic information systems to extract the QoL map. The study (Abd El Karim and Awawdeh, 2020) aims to use an innovative approach to assess the quality of the urban environment based on the services provided in terms of distance and time criteria by integrating network analysis based on (GIS) and (MCDA). The researcher identified and selected criteria that affect the quality of urban life in the study area based on local and international literature and personal interviews. We support this option, but the researcher should have involved the local population at this stage of the research.

The researcher used the AHP method in determining the weighting preferences for the evaluation criteria, which is a good method in such type of research, and the results of the research were very satisfactory, as the results of the final suitability map for the definition of the study came. The region revealed five living standards according to the services provided, these results are important for decision-makers in the urban planning process and the process of preparing sustainable urban development plans in order to strengthen the infrastructure according to the needs of the city population.

With the multiplicity of methods and methods for assessing the QoL in our research, we will combine the Delphi method in selecting QOL variables with the participation of the population in selecting indicators that drive Qol research to approach the practice of their lives, and the AHP method for hierarchical analysis in comparing them, extracting the weight of each variable and finally translating all results To the map .The main aim of the research is to use modern techniques in spatial modeling and urban quality analysis by involving local populations and experts.

MATERIALS AND METHODS

In this study, the Delphi method was applied with a multi-criteria analysis method for decision-making using Geographical Information Systems GIS to develop indicators for measuring the QoL in Djelfa. The study lasted for 3 years, and the analysis was done in three steps. First, the local residents and a group of experts were involved in all stages. Second, modern techniques of hierarchical analysis were used in comparing key factors and sub-factors.

Third, the results were put into QGIS program to come out with a map to identify and evaluate the QoL in the city according to the criteria set by the experts and residents’ opinions. The majority of issues associated with the QoL evaluation require methods that can be integrated in GIS, which are powerful tools designed for managing, transforming and representing referenced data spatially (Jones, 2014). The use of GIS enables us to manage and analyze spatially and to model QoL data in the city. GIS techniques and procedures contributed profoundly to decision making being able to analyze a set of spatial data, on one hand (Drobne and Lisec, 2009; Najafifar et al., 2019).

On the other hand, they also contributed to the implementation of effective measures designed to analyze the preferences and assessments expressed by experts and local inhabitants. Therefore, the ultimate goal of using GIS is to provide support for spatial decisions, while multi-criteria decision-making procedures determine the relationship between “input” and “output” maps (Drobne and Lisec, 2009). Figure 1 summarizes the methodology used in this paper.

RESULTS AND DISCUSSION

Delphi Method

In selecting the QoL factors in the city, Delphi method was used as an organized technique of communication (Sackman, 1974). It can be defined as "a systematic and interactive method of prediction” that relies on a committee of experts" (Norman and Olaf, 1963). Therefore, this method is “for interactive decision-making based on the term collective intelligence of experts." (Rowe and Wright, 2001). Experts are required to answer questionnaires in “two or more stages” for accurate judgments (Turoff and Scher, 2002; Lund, 2020). After each stage, the researcher submits an anonymous summary containing a summary of experts' expectations from the previous stage and the base on which they made their judgments (Harold et al., 2002). Experts are encouraged to review their previous responses in the light of responses from different persons of the Committee of experts, and it is certain that through this process, the scope of responses will be reduced and the group of experts' views would cluster towards the “correct” answer. At the end, the procedure would be stopped at the predetermined "stop criterion" and the averages of the final stage's degrees determine the results (Qureshi et al., 2014). In this study, we worked on four phases with a group of 30 experts from different disciplines, namely: environment, urbanization, economics, and sociology (including professors, colleagues at work, engineers in private companies and public entities, associations' managers, decision makers, public and private institutions managers, and social activists) to establish different and varied criteria based on opinions of the majority. The main questions sent to experts included: what were the suggested variables to assess the QoL in the city of Djelfa? And how are they measure?

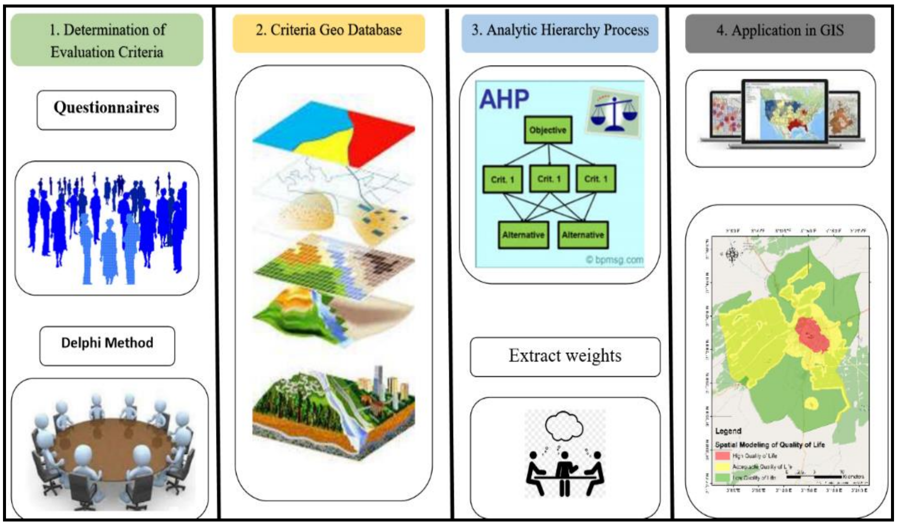

Figure 1. Analysis procedure used in this paper

In every stage of the above four stages, expert expectations were resent back for re-evaluation using Likert scale (Allen and Seaman, 2007). Then, six variables were put, namely health, social services, education, environment, culture and entertainment, security, and protection. Finally, experts proposed three service area indicators for all variables to be measured spatially, including a "benefited from the service", "partly benefited", and "not benefited". In the second stage after collecting the variables, questionnaires were handed out to the inhabitants of the city. The sample of inhabitants was randomly selected and answers were collected immediately. 384 enclosed questionnaires were distributed to evaluate the QoL in the city according to the mentioned factors. 381 questionnaires were received and 3 ones were either lost or sent back blank. Among the questions asked in the questionnaire were: Among the suggested variables, what is the most necessary service for you? What is the convenient distance between home and the services? Do these variables contribute in the welfare of the city residents? What is relationship between distance and service quality? Beside these questions, the degree of preference between the various principal and subsidiary criteria was examined according to the residents' opinion using Thomas Saaty scale Table 1 to compare variables and to take opinions of the majority of residents in AHP comparison.

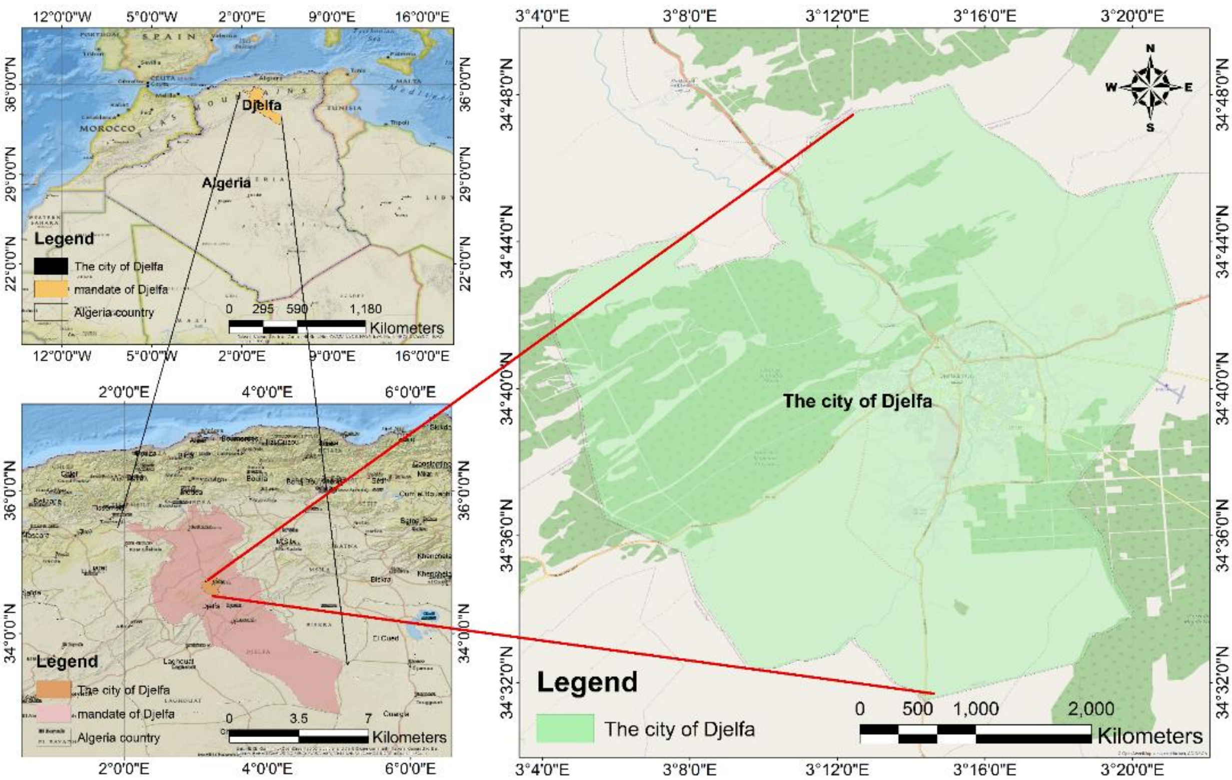

Figure 2. Location of the study area in Djelfa city

STUDY AREA

Djelfa is an internal Algerian city located within the following geographical coordinates: between the latitudes (34.32° and 34.48°) north of the equator and between longitudes (3.4° and 3.20°) east of the Greenwich Meridian. The municipality of

Djelfa is the main residential community in the area of study. It occupies an area of 527.91 km² with population of 332968 inhabitants. The population density is about 631 people / km², according to the Municipal Statistics Office (2015) and Statistics (2015). The study area of the urban region in the city is estimated at 527, 91 km2 as in shown in Figure 2

Variables for evaluating the QoL in the city: As stated earlier, parameters were defined using the Delphi system to measure the QoL by applying a multi-criterion analysis through the objective hierarchy process to decision-making (Çağliyan and Ayhan, 2019; Kamali et al., 2017). Spatial analysis was conducted using the function Spatial analysis: distance analysis - Euclidean distance (Raghunath, 2006) after the compilation of geographical data for each element of the six variables, then reclassified according to predetermined distances.

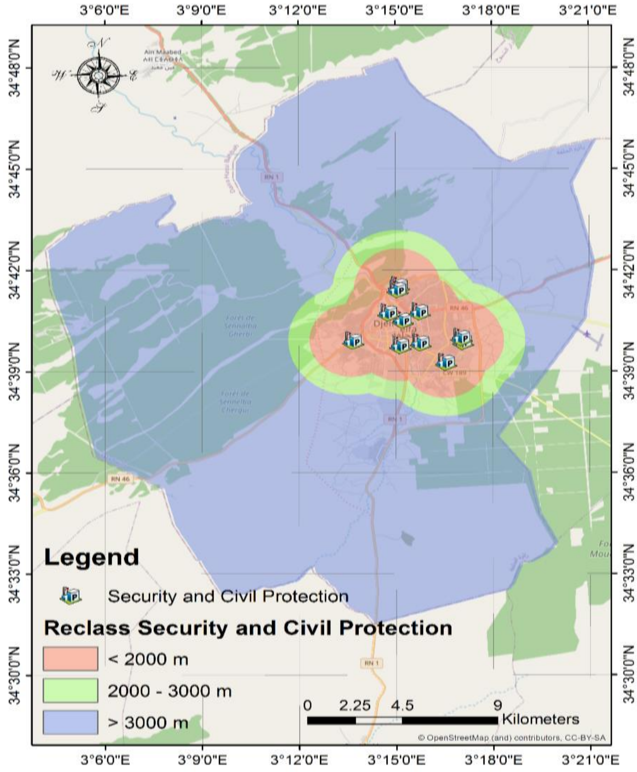

Figure 3. Security and Civil Protection

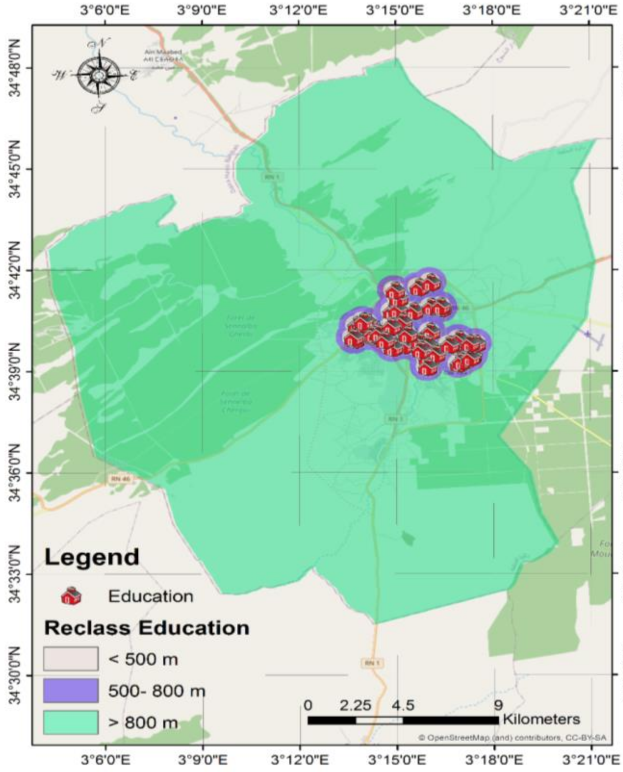

Figure 4. Education

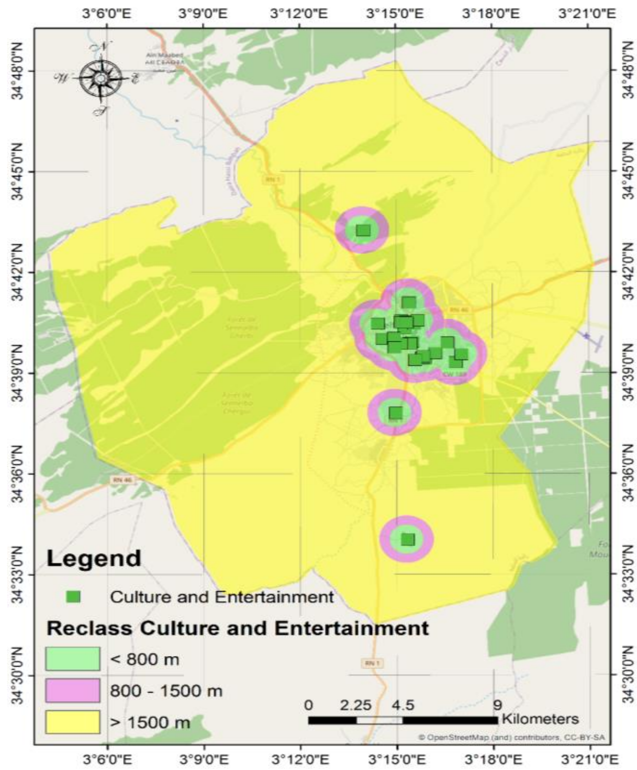

Figure 5. Culture and Entertainment

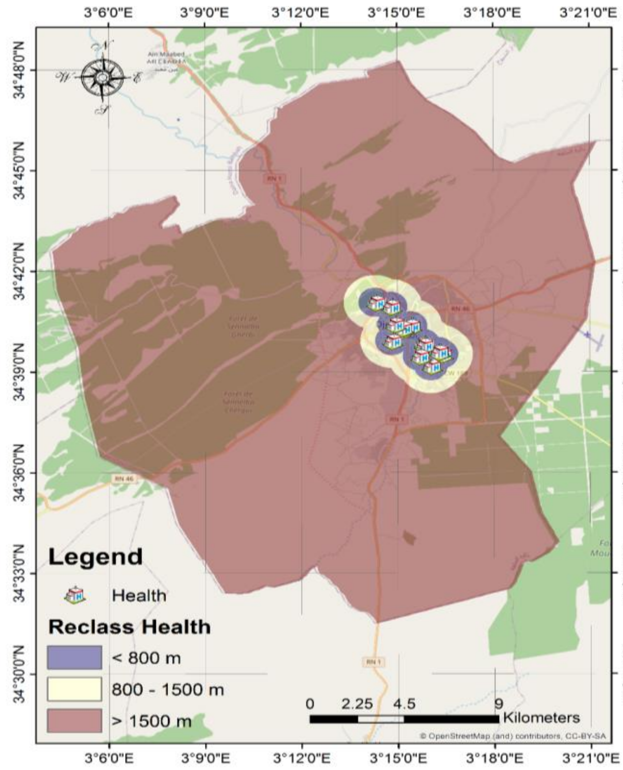

Figure 6. Health

Security and Civil Protection: Information was obtained in this variable by field surveys and the identification of all police stations and fire departments and the establishment of a layer for the latter in the GIS application. Based on the views of experts and field surveys, police stations and fire departments were selected to assess the ranges of service: (less than 1500 m); (1500 m to 2000 m); (more than 2000 m), Figure 3.

Education: I contacted the Education Directorate in Djelfa to collect spatial and descriptive data. For the ranges of service, the experts determined: (less than 500 m); (500 m to 800 m); (more than 800 m), as indicated in Figure 4.

Culture and Entertainment: In this variable, we focused on all entertainment centers, including public parks, recreation centers, football fields, swimming pools, theater houses, movie theaters, community centers, cultural centers, and all social-related centers. The scope of operation was based on expert views, but the data were gathered from the Youth and Sports Directorate and the Djelfa Culture Directorate. Service ranges were defined as follows: (less than 600 m); (600 m to 800 m); (more than 800 m), as indicated in Figure 5.

Health: In this variable, information was collected on the basis of Djelfa the design of the planning and remodeling of Djelfa with field examination to renew the gathered information. A layer was then established for all health centers and hospitals. The ranges of service were determined by the experts' opinions as follows: (less than 700 m); (700 m to 900 m); (more than 900 m), as shown in Figure 6.

Public Services: In this variable, we relied on all necessary public services distributed along the city, including post offices, municipal branches, telephone service offices, water supply service, religious facilities, besides the urban deport service. Data were gathered from the design of planning and reconstruction of Djelfa by 2012 with an examination to update data. The ranges of service were resolved by scholars as: (fewer than 500 m); (500 m to 800 m); (more than 800 m), Figure 7.

Environment: Green areas, fields, orchards, forests, water basins, arid areas and green areas were identified and classified through field surveys and satellite images. Experts exclude service areas as in previous variants and area-specific classifications only, as indicated in Figure 8.

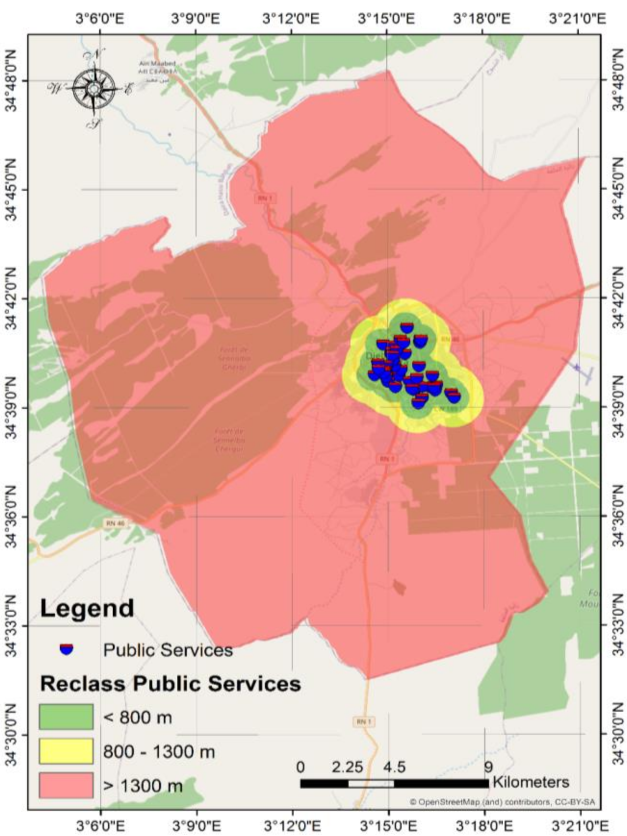

Figure 7. Public Services

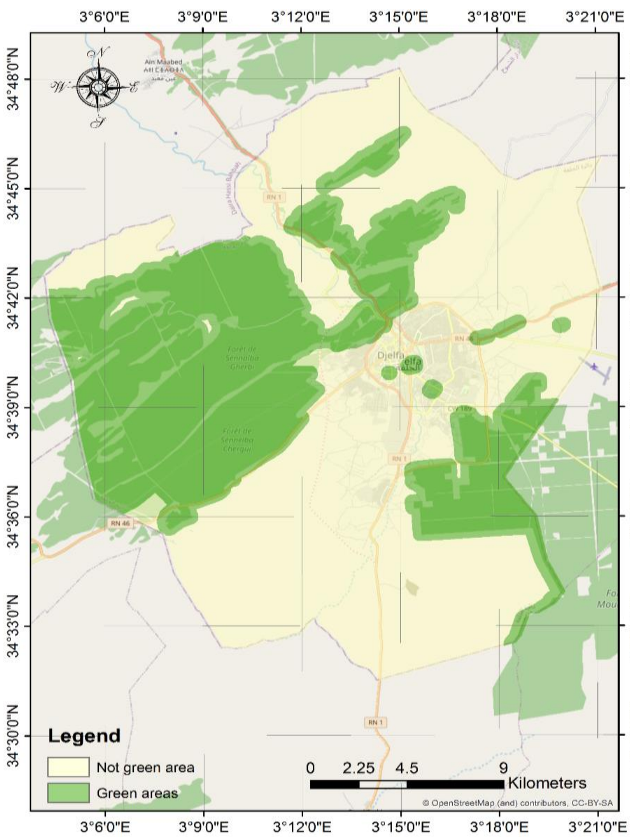

Figure 8. Environment

From the maps above, it can be noted that the study area, from the maps mentioned above, is full of educational services; however, the environment variable is not available because the city does not have green spaces, only some fruit tree fields. All health, cultural and recreational services are concentrated in the city center. Other services throughout the city.

Analytic Hierarchy Process: In the 1980s, Thomas Saaty developed a method of analytical hierarchy process AHP (Dadras et al., 2014; Dissanayake et al., 2020). This process paved the way to include provisions concerning intangible quality criteria by concrete quantitative criteria (Badri, 2001). It is a quantitative method for evaluating and ranking the alternatives for a given target (Cheah et al., 2018). For Saaty, it is "an integrated framework that combines substantive and non-substantive criteria," based on a pairwise comparison and relative scale (Saaty, 1980). AHP is a powerful and flexible technique which formulates the problem in pyramid structure, it combines the qualitative and quantitative aspects of a decision and provides a simple method for assessing selection criteria, thus minimizing bias in decision-making (Ma et al., 2005; Abd El Karim and

Awawdeh, 2020). It also describes a map-focused interactive application to support spatial decision (Rinner, 2007). At the end of the process, the weights of the main evaluation criteria are produced. Application of analytic hierarchy process: After creating a database of all variables and doing a spatial analysis, analytic hierarchy process comes to extract the weights and the primary and secondary variables. The procedure is summarized in the following steps:

Analysis: A complex problem breaks down in a hierarchy of consistent decision elements. A hierarchical structure is created for the coherence and sequence of all decision elements in the top-down hierarchy (Chalermchai and Nitin, 2008). The target is placed at the top of the hierarchical structure. The lower level of the hierarchical structure consists of more detailed elements, which are related to the criteria at the next higher level (Saaty, 1990).

Prioritization: After the hierarchical structure is created, the relative importance of all elements of decision is captured and detected through pairwise comparisons, which are used to create a ratio matrix. Pairwise comparisons between key criteria and sub-criteria are determined within the same hierarchical level (Boulomytis et al., 2017). The numerical scale was used as suggested by Saaty (Ouma and Tateishi, 2014), ranging from (1 to 9), (Duc, 2006) in the pairwise comparisons of matrices (Saaty, 2008). The results were based on the questionnaires in the comparison between primary and secondary criteria to give them more credibility and impartiality in decisions about preferences. The degrees of the questionnaire were applied to each of these elements according to the degree of importance for Saaty in matrices to be translated into weights (Hosseinali, 2008). Pairwise comparison is made between the key criteria then between the sub-criteria of the same level (Al-shabeeb, 2016). Finally, the weights are extracted. The consistency ratio value CR = 0,05 was less than 0.1 of Saaty's values in the first hierarchy level AHP process Which means that the distribution of weights between factors is very acceptable (Wei et al., 2011).

Table 1. Reference scale by Saaty (Source: Saaty, 2008)

Value	Preference Level Numeric
1	Equal Preference
3	Moderate Preference
5	Strong Preference
7	Very Strong Preference
9	Absolute Preference
2, 4, 6, 8	Intermediate Values Between Them

Table 2. Comparing AHP among Key Criteria (Source: author's composition)

	Security	Education	Culture	Health	Public	Environment	Weights	Rank
Security	1	2	2	1/2	1	1/2	0,151	3
Education	1/2	1	1	1/2	3	1/2	0,135	4
Culture	1/2	1	1	1/5	1	1/3	0,084	6
Health	2	2	5	1	2	1	0,273	1
Public	1	1/3	1	1/2	1	1/3	0,095	5
Environment	2	2	3	2	3	1	0,261	2
	Λmax = 6,294 CI = 0,059 RC I = 1,24 cr = 5 %							

RESULTS AND DISCUSSION

Multi-criteria spatial analysis requires data related to criteria values and its geographical location in the process of multi-criteria spatial decision-based GIS. GIS technology provides access to data storage and retrieval, processing and analyzing data to develop information that can support decisions. In addition to that, the use of GIS in spatial data models provides a system and method for entering and displaying spatial data and spatial analysis tools. For the analytic hierarchy process, results summarize the output AHP program. The pairwise comparison begins from the middle level to the lowest level. The criteria are compared in pairs based on efficiency and according to the higher-level criteria (Albayrak and Yasemin, 2004). Multiple pairwise comparisons in AHP are based on a nine-level standardized comparison scale Table 1.

Supposing **C = {Cj / j = 1, 2, . . ., n}** is the set of criteria, the consequence of the pairwise comparison on criteria can be shortened in an (n × n) evaluation matrix Eq. (1) wherein each element (a_{ij} = 1,2 ...n) is the part of criteria weights.

$$A = \begin{bmatrix} a_{11} & a_{12} & \cdots & a_{1n} \\ a_{21} & a_{22} & \cdots & a_{2n} \\ \vdots & \vdots & \ddots & \vdots \\ a_{n1} & a_{n2} & \cdots & a_{nn} \end{bmatrix}, a_{ii} = 1, a_{ji} = \frac{1}{s_{ij}}, a_{ij} \neq 0$$

Eq. (1)….(Lotfi et al., 2009)

Finally, normalization is based on the mathematical procedure and that for each matrix there are relative weights. The right eigenvector (W) gives the relative weights corresponding to the biggest eigenvalue, (λ_{max}) as in Eq. (2):

$A_W = \lambda_{max} W$ Eq. (2) ….(Lotfi et al., 2009)

As long as the pairwise comparisons are totally consistent, the matrix "A" has rank 1 and λ_{max}= n. Therefore, through normalizing any of the rows or columns, weights can be attained.

Hence, the quality of AHP results is related to the consistency of pairwise comparison judgments. The consistency is defined by the relation between the admissions of: A: $a_{ij} \times a_{jk} = a_{ik}$. Accordingly, the consistency index (CI) is Eq. (3):

$CI = (\lambda_{max} - n)/(n-1)$ Eq. (3) … (Abd El Karim and Awawdeh, 2020)

The consistency ratio (CR) is calculated as the ratio of the (CI) divided by the random index (RI), as shown Eq. (4) (Dadras et al., 2014).

CR= CI / RI Eq. (4) …(Abd El Karim and Awawdeh, 2020)

For Saaty, if the ratio exceeds 0.1, the set of judgments might not be consistent and cannot be reliable. Therefore, a CR under 0.1 or 10% is acceptable, but the procedure is repeated if the CR evaluation is inconsistent (Saaty, 2008).

Then, we extracted the measures. The consistency Ratio (CR = 0.05) was less than (0.1) of the values of Saaty (Shokati and Feizizadeh, 2019) at the first hierarchical level of AHP, which meant that weight distribution between factors was acceptable and showed good consistency (Ishizaka and Labib, 2009).While comparing the key criteria based on the residents' opinions and using AHP, results of the preferences show that city residents give health care services a priority by

27.3%, and green spaces and for relaxation by 26.1%, security and protection comes in third place in terms of priority by 15.10%. Residents believe that security of the city is fundamental to QoL. Educational services came in the fourth place by 13.50%, public services came in fifth place by 9.50%, and then culture and entertainment by 8.40% of AHP. The results of criteria pairwise comparison Table 2 indicate that residents get to all the services on foot.

In AHP, health occupied the highest percentage, and this suggests that the residents give great importance to health services as well as green spaces, security, and educational services, respectively. After completing the maps of services for all variables and extracting the weights of AHP in QGIS program Because Gis is now within the reach of all users of spatial analysis, Raster Calculator tool is used for spatial analysis deriving the classifications of the QoL based on AHP results. According to experts, ranges should be classified into three areas to be easily read: high, acceptable, and low QoL.

In addition, the tool is used to identify the borders, the areas, and the positions geographically to be useful for decision makers. Before classification, the results of the map Figure 9 show that high QoL is concentrated in the City Center because it has all the services and meets all the needs of the residents.

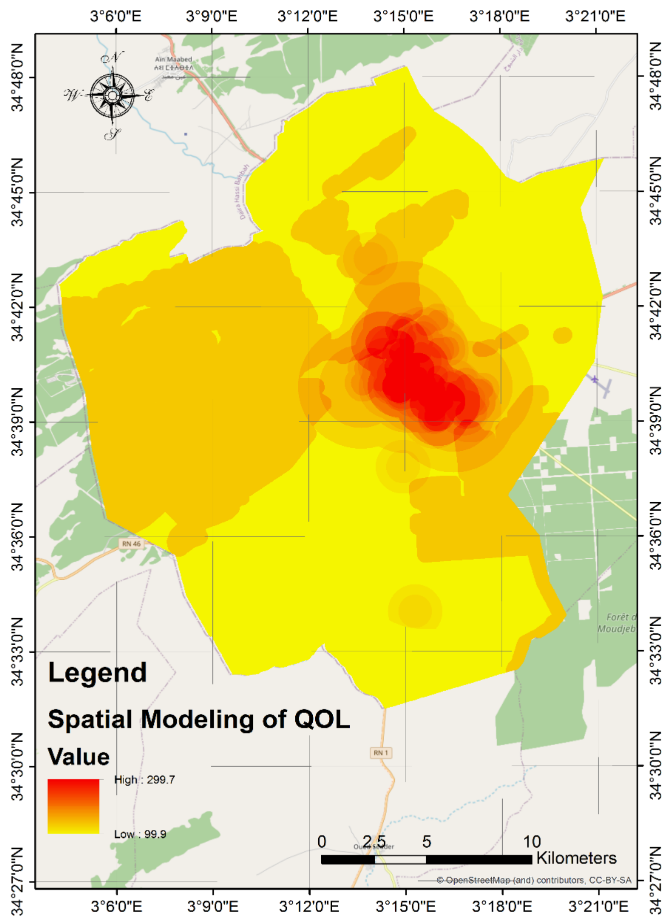

Figure 9. Quality of life map of Djelfa before classification

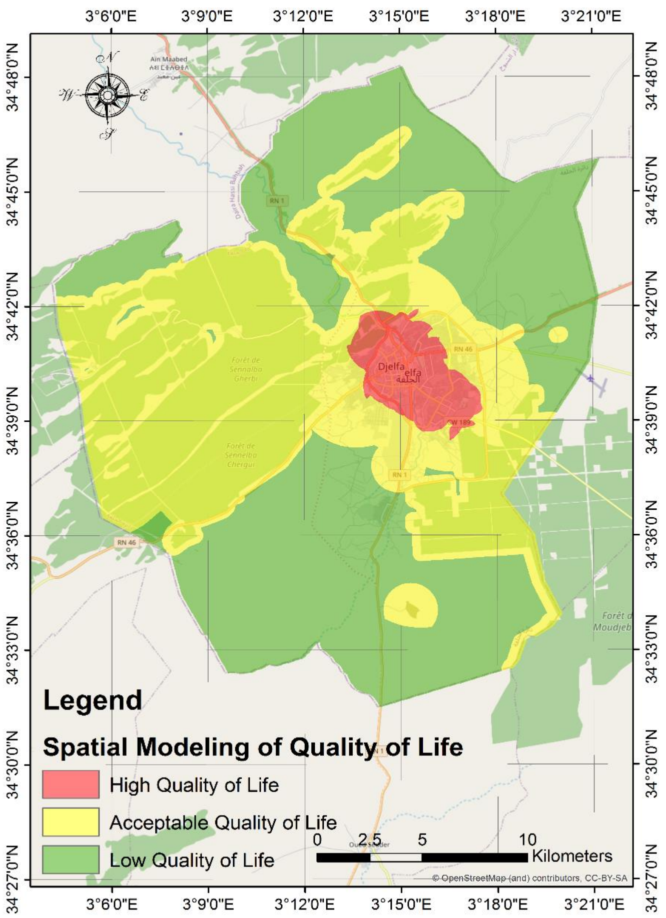

Figure 10. Quality of Life Map of Djelfa

The results describe the application of Delphi method and AHP in GIS for the purpose of evaluating the QoL in Djelfa city. Evidently, decision support tools integrated in GIS help us explore a variety of reasons and perspectives in evaluating the QoL in the city. The available tools are important for decision makers to solve spatial problems. After converting the QoL map from Raster to Shape file in its triple classification Figure 10, each classification has been calculated.

The results are summarized in the Table 4. By reading the QoL map, it is noted that areas of high life quality according to AHP analysis are at the City Center and the surrounding areas. That is, there is a differentiation in the distribution of services and facilities between the neighborhoods of the city. In this paper, results show that applications of decision making in GIS are multifunctional. They integrate diverse stages in complicating the problem of decision.

Accordingly, the choice of weights and AHP techniques played a central role. It is obvious that decision makers, who prefer a subjective scale, may not come to identical weights for the criteria; which in turn may lead to different results and affect the final decision. In this regard, Drobne states, "the presented methods are only tools to aid decision makers; they are not the decision itself" (Drobne and Lisec, 2009).

Table 3. Random indices from (Source: Saaty, 2008)

n	3	4	5	6	7	8	9	10
RI	0.58	0.9	1.12	1.24	1.32	1.41	1.45	1.49

Table 4. Percentage of AHP scale of quality of he life in the city of Djelfa (Source: author)

	Classes	Area sq. km.	%
1	High Quality of Life	23,42	4,44%
2	Acceptable Quality of Life	249,43	47,23%
3	Low Quality of Life	255,24	48,33%

CONCLUSIONS

In this paper, a practical scientific method for modeling and analyzing urban quality of life in developing countries is proposed by combining the Delphi approach with AHP and GIS techniques. Djelfa was selected as a case study for this research. A Delphi-based survey was conducted by a group of experts to come up with a set of criteria for modeling and analyzing QoL in cities. AHP was used to extract weights of the QoL analysis criteria.

The consistency ratio (0.05) was less than (<0.1), and therefore acceptable. After creating a geographical database of the predetermined criteria, the weights derived from the AHP were used in a GIS environment in spatial analysis to extract the QoL map in the city with three classifications: high, acceptable, and low. The results from the map of the area of the study were (4.44%) demonstrating a high QoL in the city center with an area of (23.24km²), and (47.23%) representing an acceptable QoL in the city center surrounding areas with an area of (249.43 m²), and (48.33%) achieving a low QoL, in the places far from the city center and lucking the necessary services and infrastructure, with an area of (255.24km²). Here, the geographical differences between the city center and the suburbs are evident. This creates differentiation and social anomalies between them and encourages people to live in the city center.

The participation of the inhabitants and the integration of Delphi's technique with a multi-criteria analysis through the hierarchical analysis in the GIS environment are effective methods because they reflect the actual realities of the residents and translate the results in the form of a map based on scientific foundations and on the cultural aspirations of the community in the evaluation of the QoL. These methods also identify the areas requiring urban development, through creating geographic database to calculate the shortage in services in the city and proposing services in accordance with the study variables.

This method identified high and low QoL regions. Factors remain local and vary by region. The map results can be used to analyze access to key services, identify areas in need of development, suitable places to live, and determine spatial inequalities between neighborhoods. They can be helpful for decision makers in balancing and developing local neighborhoods.

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AN INTEGRATIVE MODEL OF COGNITIVE IMAGE AND CITY BRAND EQUITY

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Abstract: This study aims to assess the effect of cognitive image and city brand equity on total city branding, evaluation of word-of-mouth (WOM), brand commitment and intention to revisit. The conceptual model used in the impact study of the impact of tangible and intangible elements related to city branding. Involving 423 tourists visiting four cities in West Java, Indonesia as an assessment of the variables studied. The results showed that the conclusions on cognitive image, city brand equity and brand commitment were low. While the other categories are classified as good. These findings also reveal the analysis of the relationship between variables, including cognitive image variables that have a significant effect on city brand equity. Cognitive image is explained through the dimensions of quality experience, tourist attraction, infrastructure environment, and outdoor activities. Meanwhile, city brand equity is measured by brand awareness, brand loyalty, and brand value. Furthermore, the results also show that the variable city brand equity has a significant effect on the variable word-of-mouth (WOM), brand commitment, and the intention to revisit. The most significant influence exerted on brand commitment. These results indicate that the condition of city brand equity affects how word-of-mouth, brand commitment, intention to revisit. This study only discusses part of the tourism activities carried out in these four destinations, so to confirm these findings it is necessary to carry out further research on various destinations and events.

Key words: city branding, cognitive image, word-of-mouth, brand commitment, city brand equity

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INTRODUCTION

A city has an identity inherent in itself, such as heritage, economy, socio-culture, technology and icons that are reconstructed into such a product or brand from a marketing standpoint. Understanding and appreciating this identification and fostering interaction with stakeholder groups and separating cities from growing global competition are challenges for related stakeholders (Bartis and Madlwabinga, 2020; Mohd Shariff and Zainol Abidin, 2020; Utomo et al., 2020). However, even though the city has implemented a marketing approach to achieve its organizational strategies and goals, this transposition raises strategic difficulties, primarily due to the distinctive existence of the locations in some cities (Kavaratzis and Kalandides, 2015). Transposition could be undertaken to analyze cities as brands using traditional typologies in brand analysis, thereby giving much weight to urban management stakeholders (Ilieş and Ilieş, 2015). In reality, a place might be a brand such as Bali (Indonesia) and KwaZulu-Natal (South Africa) (Mastika, 2020; Mlambo and Ezeuduji, 2020) and a brand name was its title a destination that strategy is to make the people recognize the brand and build connections that visitors want and enjoy. Besides, there could be fewer than one brand in a city (Kavaratzis, 2020). Brand equity is described by Zenker and Braun (2017) in which a place throughout the framework of global marketing is a crucial element and promotes economic growth (Bernhard and Olsson, 2020; Jászberényi and Miskolczi, 2020), helps to recruit and to hold citizens and companies. Therefore, it adds importance and serves as a providing mechanical for regional attractiveness and profitability.

Increasing the brand value of a city requires understanding and engaging actively with local stakeholders as they can collectively plan a specific storyline that improves the reputation of the venue and strengthens the place brand (Cleave and Arku, 2020; Eugenio-Vela et al., 2020). There are two very significant categories in the stakeholder community to test city brands: residents and visitors. Meanwhile, the value of tourism to the city's grand plan is that citizens not only are they customers, they are part of the setting, but they also get the power to say the city to future tourists, investors or even

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prospective new residents (Gómez et al., 2018). In this way, people have various positions in creating the city's brand and are part of the landmark and are thus considered representatives or founders of the city. Much of the city brand equity analysis focuses on the study of brands or areas of business brand equity (Kladou et al., 2017) founded on Aaker proposal (Aaker, 1996) that this condition is justified on two grounds that arise from one another and. Each place's marketing is inspired by traditional marketing strategies, provided that marketing strategies and concepts refer not only to products and services but also to areas, countries and towns. As a result, city brand value has a similar basis to brand value, in general, it has been recognized as a key component tool for competitive advantage, plays a primary role in all local businesses and is important for stakeholders to consider when designing a tourist destination (Ashton and Ashton, 2015; Kankhuni, 2020) Another important point is that of all the conceptual models of brand value, the paradigm of Aaker (1996) stands out for its profound influence on the subject in the research.Place brand equity research is primarily relevant for tourism brand equities, with an emphasis on destination brands and brand culture. This research focuses on the dimensions of travel, heritage and tradition centred on Anholt's hexagon brand model (Anholt, 2006). However, some studies have taken into account the views of tourists regarding different cultural assets or compared the tourist viewpoint with the perceptions of various stakeholders such cultural and regional backgrounds, while others vary from other cultural and regional backgrounds depending on the particular stakeholder community (Acuti et al., 2019; Toros and Gazibey, 2018). In order to fill this gap, the aim of this research is to evaluate city brand equity in West Java using a model centred on tourism perceptions, to analyze the key drivers of cognitive image and its effect on brand commitment, intent to revisit and word-of-mouth (WOM).

This study also helps to minimize the scarcity of models and city brand sizes and compares the findings of four different regions, such as the Tsaur (2017) research, which shows that from the point of view of the effects of tourism, several studies have examined the construction of the visitor population conflict in several regions and a strategic region that promotes many economic activities, including tourism, fisheries, power plants, agriculture, markets and social factors such as coastal villages, schools and other public facilities (Munawir, 2019; Windupranata et al., 2020).

Sukabumi, Garut, Pangandaran, Bandung are cities in West Java, Indonesia is the main city in West Java and is a destination for natural, historical and cultural tourism, which was considered to be the best city brand in West Java (Sukmayana and Mukti, 2017; Venus et al., 2019; Windupranata et al., 2020). This research examines cognitive image aspects that have an effect on city brand equity in Indonesia through a quantitative method analysis approach. The structural analysis describes how cognitive image decreases city brand equity, word-of-mouth (WOM), brand commitment and intention to revisit. This research will yield constructive results for the tourism sector by providing proof of key behavioural characteristics.

MATERIALS AND METHODS

City Brand Equity

At this current phenomenon, brand equity is no longer just talking about products/services within the company. There are various forms currently in branding, ranging from advertising to the long-term development plan, sticks to the economic structure, physical appearance and identity of a city (Joo and Seo, 2018). Place or city is also another attribute in brand equity (Górska-Warsewicz, 2020). Brand equity can be explained as the continuous accumulation of loyalty, awareness and financial value for a brand (Clarke and Kredens, 2018). Several previous studies state that a city brand's main characteristics are an academic concept (Zenker et al., 2017). Local stakeholders' position is still unclear in branding practices in cities and other places (Lindstedt, 2015). This is a concern for some researchers and encourages them to consider the local concerns in it (Zenker et al., 2017). This eventually led some researchers to develop ideas for brand co-creation in the context of a place (Martin and Capelli, 2018). In branding in an area, many governments, consultants and researchers interpret product standards, public relations and identities where the product is a country, or a city or a region (Kavoura and Bitsani, 2014).

Through this, it will have an impact on local government (provinces, towns and counties) a certain amount of control in debt agreements, budget management and budget execution to give confidence in being responsible for designing and implementing strategies with stakeholders and of course also contributing support (Lindstedt, 2015; Zeng et al., 2020) However, in thinking about branding for a city or place, there needs to be a form for overall planning and management to form a more strategic development and gather political aspirations from local government (Cassinger and Eksell, 2017).

There is a practical execution of city branding which consists of three methods, namely promotional campaigns, forming a distinctive building as a bulge for the city or finding other ways to integrate structures that become protrusions into promotional activities and provide various activities in the city (Makarov and Illarionov, 2020). For some other academics, it is stated that branding is a planning process that aims to form the identity of the brand itself and that the emphasis on literature is often the content of branding planning (Mariutti and de Moura Engracia Giraldi, 2019). City branding itself was first put forward by Braun et al., (2018) who gave the fact that city branding is implemented in government in an urban context. Also, city branding is seen as the subject of political decision-making, making it inseparable from politics or administrative procedures, so that city branding becomes part of the political process (Aziz et al., 2015).

Cognitive Image

Image is one part of a brand that receives the most attention in academic literacy (Iordanova, 2015). For a long time, the image has been described as one of the dimensions of a brand, but this view has changed where the image formation is no longer a brand, building an image is the closest step in branding, but there is one other aspect that is still missing, namely the identity of the brand itself (Salim et al., 2015). The picture in a location is a construct that refers to the accepted characteristics and depends on the meaning of a photograph that may alter or evolve, the effect is not only on an attitude but also on individual behaviour. The image, in this case, is also related to describing the expectations of a destination.

Currently, the image has been formed at different levels (Mason and Moretti, 2015).

The image today does not always discuss products or services developed by the company. Other aspects such as culture, tourism, technology, education, data, people, politics, places or cities are also included (Acharya and Rahman, 2016). Nowadays, it is inevitable that all destinations or places in the world aim to enhance their international reputation. An image built in a place or city will significantly influence government policy and benefit foreign businesses who are considering injecting capital investments into a country (Hsieh et al., 2017; Lee and Lee, 2019). The cognitive image will be influenced by national, political and economic identities different from branding as understood by the commercial sector. Images themselves will build awareness and reduce the risk of associating consumers when visiting a place with little information they know (Petrevska and Cingoski, 2017). In this case, belief and knowledge of an object and affective image are related to a sense of an object (Martens and Reiser, 2019). Besides, there has been researching which states that cognitive image has a relationship with brands. Similarly, Gartner (2014) found that image is an important central feature for brand equity in destinations. In the city brand equity will increase if there is a positive reputation from the image in the city.

Word-of-mouth

Word-of-mouth (WOM) or can be said to be an exchange of opinions regarding products and services offered by the market (Grohs et al., 2020). Word-of-mouth can be one of the most effective advertising tools in changing consumer attitudes. WOM can be seen from various studies that have demonstrated that word-of-mouth effectively influences consumer behaviour (Chin et al., 2018). The definition of word-of-mouth has been described by several experts and is entirely inspired by Chen et al. (2018). They focused on the informal aspects of word-of-mouth communication, the independence of communicators from commercial sources, and the phenomenon of information dissemination. Word-of-mouth communication itself can occur through face-to-face, telephone, email, mailing lists, and other communication tools (Reijonen et al., 2017). Word-of-mouth can be affected by marketing efforts such as advertising, media relations, public relations, and spontaneous conversations between two individuals and by satisfying or unsatisfactory purchasing experiences (Thi et al., 2016). In the current phenomenon, the practice of word-of-mouth can often be seen when someone is looking for a review or opinion on a product (Papadimitriou et al., 2018). Based on the findings of research by Sumartias and Nuraryo (2017) who see that through word-of-mouth, when there is a negative opinion, information is spread among customers, it will affect brand equity. Word-of-mouth is seen as having a positive or negative influence on customer perceptions of the brand. Besides, other research states that the impact of consumer perceptions on brand equity will weaken if consumers are very attached to word-of-mouth (Papadimitriou et al., 2018).

Brand Commitment

Customer commitment has become a common topic in marketing. Commitment occurs when individuals begin to have a psychological attachment and develop more and more to an object (Ahn et al., 2016). The concept of commitment comes from social psychology (Sannassee and Seetanah, 2015). Besides, this commitment is also one of the images associated with place attitudes (Coffin, 2019). Brand commitment is a psychological or emotional connection between consumers and brands or organizations (Fullerton and Kendrick, 2017). Besides, brand commitment consists of calculative dedication (rational, economic calculation) and affective commitment (emotional and social sentiment). Brand commitment can also increase brand image because committed individuals are motivated to continue to support the brand and have a positive relationship with brand associations (Kladou et al., 2017). In the context of destinations, commitment to brands is a psychological connection with city brands.

Intention to Revisit

A person's experience with what they have experienced can be considered the most significant influence in choosing to return to that destination (Booyens and Rogerson, 2015). In other studies, it is stated that when someone has experienced a memorable experience, then involving the components of hedonism and local culture, and there is a positive impact on the intention to revisit to the destination (Li et al., 2017). Aspects on the willingness to return to visit, a tourist, will relate to cognitive components, such as quality, value, and image and they can also be related to affective details such as satisfaction and pleasure. The destination image is a critical component that will be the primary consideration for people to choose and the willingness to return. Tourists with a good picture of the location would have a better attitude towards their experience. In financial and non-terms, the perceived costs may affect the consequent plan to purchase, purchase and return tourist goods to the same destination. The right destination image will positively impact where tourists will have the desire to return to that destination (Reitsamer and Brunner-Sperdin, 2015).

Method

This research is a quantitative descriptive study by looking at the field's facts (Al-ansi et al., 2020). The variables used in this study consist of the independent variable cognitive image, the intervening variable brand equity and the dependent variable word-of-mouth (WOM), brand commitment, and intention to visit. Data were collected through online surveys. The research location is in Jawa Barat, Indonesia. This research population is tourists visiting Jawa Barat with a total sample of 423 people, illustrated in Table 1. Researchers use a systematic and sophisticated theoretical approach. Method to resolve the objectives of the report. This is made up of eight, as reported in Figure 1. Stage 1 specifies the domain and structures relevant to the encounter. Tourist inconvenience by evaluating previous literature and secondary data (i.e., newspapers and government reports). Stage 2 produces two focus group discussions with business, academics and experts, accompanied by semi-structured interviews with visitors. Stage 3 includes the administration of the first survey questionnaire. Finally, stage 4 consists of refining and purifying the produced items by conducting an exploratory factor analysis (EFA) and then removing unloaded or insufficient items according to the standard criteria. A second survey questionnaire, including additional structural designs, was administered at stage 5. Stage 6 carried out a solid evaluation of the products to verify their reliability and validity, including the EFA, confirmatory factor analysis (CFA), Model fit indices, convergent validity and discriminatory validity. Stage 7 measures the proposed structural model predictions and path coefficients using structural equation modeling (SEM) and partial minimum squares (PLS). Finally, the effects of the structural model were established in stage 8.

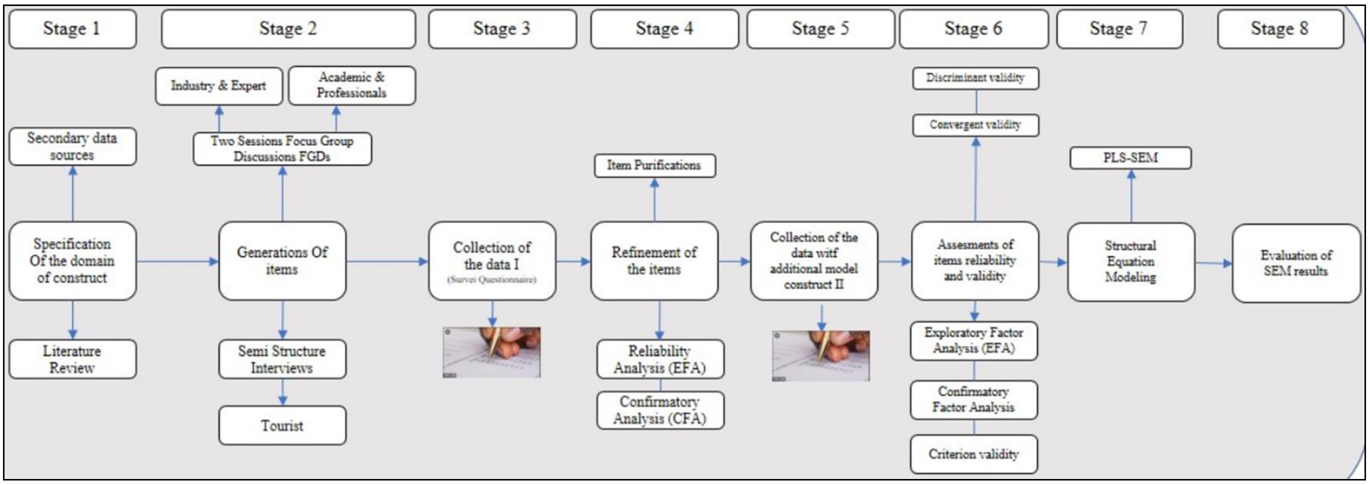

Figure 1. Research design and process

RESULTS DISCUSSIONS

To achieve the objectives, we choose the study. It is possible to use a sampling unit, namely tourists visiting the tourist destinations of Jawa Barat, Indonesia to be evaluated, with criteria and scales that have been prepared in advance. Concerning periods, to obtain greater homogeneity in answers and suitability for questions that refer to specific moments, fieldwork was adjusted for a limited time frame, focusing on the December 2019 holiday season. After a comprehensive analysis of the scales and constructs defined, cognitive Image toward city brand equity was considered unidimensional constructs reflectively linked to their indicators. City brand equity was described as a multidimensional construct with dimensions related reflectively to their indicators and formatively to the construct. This study conceptualizes brand equity as a second-order structure with three first-order dimensions as formative indicators and the influence of cognitive image toward city brand equity, city brand equity toward word-of-mouth, brand commitment, and intention to revisit as contributors to the construction of city brand equity. Studies have included second-order models to measure city brand equity (Li et al., 2017).

Table 1. Visitor profiles

Variable	**Frequency**	**Per cent**
Gender		
Male	180	42.55
Female	243	57.45
Age		
17-25	220	52.01
26-45	129	30.50
46.65	74	17.49
Education		
High school	90	21.28
Diploma	16	3.78
Undergraduate	244	57.68
Graduate	73	17.26
Household income per month		
<Rp. 3.600.000	232	54.85
Rp.3.700.00- Rp.5.000.000	19	10,5
Rp.5.000.000- Rp.10.000.000	48	26,5
>Rp. 10.000.000	84	46,4

Table 2. Statistics descriptive

Variable/Dimensions	Number of items	Minimum score	Maximum Score	Mean
Cognitive Image				
Quality Experience	6	1	5	4.05
Tourist Attraction	5	1	5	3.84
Infrastructure Environment	5	1	5	3.72
Outdoor Activities	2	1	5	3.93
City Brand Equity		1	5	
Brand Awarness	4	1	5	4.03
Brand Loyalty	3	1	5	3.81
Brand Value	4	1	5	3.75
WOM	3	1	5	4.11
Brand Commitment	2	1	5	3.83
Intention to revisit	1	2	5	4.17

Table 3. The goodness of fit model

Indicators	Criteria	Score
Root Mean Squared Error (RMSEA)	< 0.08	0.056
Comparative Fit Index (CFI)	> 0.800	0.885
Tucker-Lewis Index (TLI)	> 0.800	0.860
Standardized Root Means Residual (SRMR)	<0.100	0.061

Based on the results of data processing, it was found that the community's assessment of cognitive image, city brand equity and also brand commitment was still relatively low as indicated by the average score which was generally less than 4. For WOM and Intention to Revisit were good with an average score of more than 4 can be seen in Table 2. WOM is also likely to affect travelers' destination choices significantly (e.g., Papadimitriou et al., 2018; Fernandes and Fernandes, 2018). In tourism, repeat visits have also been accepted as an essential phenomenon at the economy level as a whole and for individual attraction. Indeed, many travel destinations rely heavily on repeat visitors (Li et al., 2020; Rodrigues et al., 2019). This study aimed to determine the effect of cognitive image on brand equity and its impact on word-of-mouth, brand commitment, and Intention to revisit. The analysis technique used is structural equation modelling (SEM). There are two models in SEM, namely the measurement model and the structural model. However, before discussing the measurement model and structural model, the research model must meet the model fit criteria such as the Root Mean Squared Error (RMSEA), the Comparative Fit Index (CFI), the Tucker-Lewis Index (TLI), and the Standardized Root Means Residual (SRMR). The analysis results found that all the criteria for the fit of the model were appropriately met, so it can be concluded that the model has a high level of compatibility with the data can be seen in Table 3.

Table 4. Measurement model

Variable/Dimensions	Number of dimension/Item	Loading*	Composite Reliability
Cognitive Image	3+	0.667 - 0.890	0.877
Quality Experience	6	0.444 - 0.688	0.760
Tourist Attraction	5	0.543 - 0.736	0.792
Infrastructure Environment	5	0.586 - 0.796	0.824
Outdoor Activities	2	0.847 - 0.881	0.855
City Brand Equity	3+	0.884 - 0.952	0.894
Brand Awareness	4	0.626 - 0.775	0.781
Brand Loyalty	3	0.814 - 0.863	0.869
Brand Value	4	0.664 - 0.794	0.777
WOM	3	0.748 - 0.912	0.894
Brand Commitment	2	0.336 - 1.000	0.876
Intention to revisit	1	1.000	1.000

*) p-value <0.05 ; +) dimension

Table 5. Result of Hypotheses Testing

	Std.all	Std.Err	z-value	P(>|z|)
Cognitive Image →City Brand Equity	0.815	0.137	7.289	0.000
City Brand Equity →WOM	0.855	0.102	13.597	0.000
City Brand Equity → Brand Commitment	0.989	0.093	14.735	0.000
City Brand Equity → Intention to revisit	0.774	0.117	12.526	0.000

The validity analysis results refer to the loading factor value greater than 0.500 or the p.value less than 0.05, while the reliability refers to the composite reliability value greater than 0.600. The analysis results found valid and reliable items with a loading factor value of more than 0.500, except for brand commitment items; one thing was found with a value of less than 0.500. However, this item had a p-value <0.05, which stated that this item was significantly able to measure brand commitment variable can be seen in Table 4 and Table 5. In general, the loading factor value for the second-order can be seen in Figure 2. The influence analysis explains the effect of cognitive image on city brand equity and its impact on word-of-mouth (WOM), brand commitment and intention to revisit.

Cognitive Image > City Brand Equity

The cognitive image component is one that is used in forming city brand equity in a place, in addition to the affective and conative components (Hernández-Mogollón et al., 2018). Several studies have shown that the mental image is related to the destination brand and city brand. Cognitive image will also increase brand equity (Han et al., 2018; Leković et al., 2020).

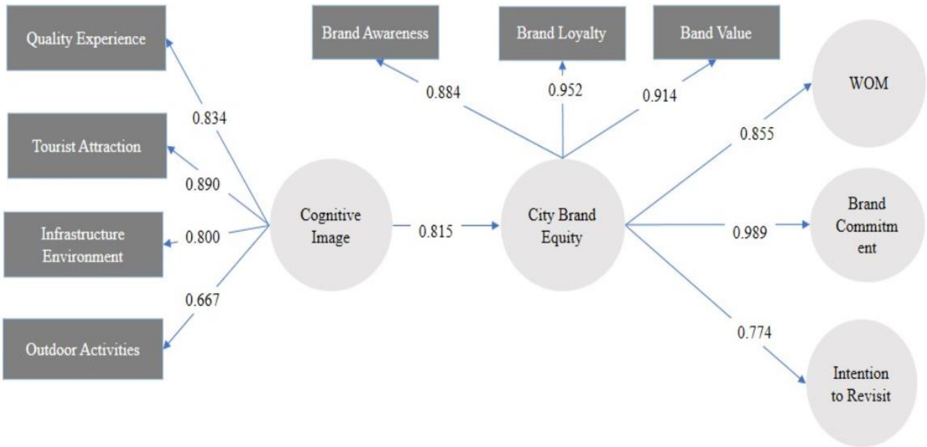

Figure 2. Research

City Brand Equity > WOM

WOM is an opinion of the nature of service, product or reliability, which passes from one person to another (Jabreel et al., 2018; Park et al., 2019) It should be noted that WOM communications can be either positive or negative, all of which are the product of customer experience. In the future, destinations such as goods and brands, could be recommended to other visitors, such as relatives, friends and acquaintances. Besides, in a variety of tests, WOM has actions with significant implications in destination image testing. Melewar and Skinner (2020) demonstrate how brand equity affects customer response, namely loyalty and WOM. Brand loyalty and perceived value have also been investigated and evaluated as a word-of-mouth antecedent dimension.

City Brand Equity > Brand Commitment

A brand's dedication is a psychological connection to a city brand in the sense of a destination. The experience of tourists in a destination encourages them to view the brand, which results in greater loyalty, as a desire to revisit or buy (Mangano and Ugolini, 2020; Sánchez-Rivero et al., 2020). People are one of the most significant internal stakeholders in the region, and those with a more robust understanding of the importance of the city brand, a higher degree of engagement, and a more significant effort to do so (Ahn et al., 2016). Commitment, as an emotion, is also a key element in creating brand equity, since it reflects the desire of people to engage in the improvement of their city's brands (Ahn et al., 2016).

City Brand Equity > Intention to Revisit

According to Tosun et al. (2015), a tourist with a good picture of a destination often has a positive attitude about the encounters he had in that place. Stylos and Bellou (2019) conclude that tourists' intention to revisit a destination is directly affected by their connection to the spot through emotional relations between tourists and the goal. One might also assume that a tourist who visited the city is more likely to revisit it than a tourist who comes to the city for the first time.

Ching-Cheng and Der-Jen (2015) argue that brand equity is precious and is a crucial concept in the competitiveness of the tourism industry, in line with their plan to revisit it. Tourist loyalty and high brand value, according to Thi et al. (2016) are directly linked to the desire to revisit the site (Koodsela et al., 2019; Wassler et al., 2018).

The calculation results found that the variable cognitive image had a significant effect on city brand equity as indicated by the p-value <0.05 and with the magnitude of the influence of 0.815 standard deviations. Furthermore, the variable city brand equity significantly influences word-of-mouth (WOM) variable, brand commitment, and intention to revisit. The most significant impact was given to the brand quality with a magnitude of 0.989.

CONCLUSION

Because this study's scope is new to the literature, it is necessary to precisely identify the elements of the cognitive image that form city brand equity in the area of city branding. To achieve this, the researcher conducted a literature review and a qualitative study to determine the factors identified by tourists that form a cognitive image. The results show five dimensions: the first dimension refers to a cognitive image, the second dimension relates to city brand equity and three other dimensions, namely word-of-mouth (WOM), brand commitment, and intention to revisit.

This dimension was then validated using factorial analysis confirmation. Acceptable values were found for the overall fit of each measurement and correlation's model, validity, and reliability. Therefore, the analysis results found that the variable cognitive image has a positive and significant effect on city brand equity, and city brand equity has a positive and significant contribution in building word-of-mouth (WOM) and brand commitment.

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NUANCED GENDER PERCEPTIONS: TOURISM BUSINESS CAPABILITIES IN KWAZULU-NATAL, SOUTH AFRICA

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Abstract: We explored nuanced gender perceptions regarding the influences that business capabilities may have on tourism-related business operations in Durban, KwaZulu-Natal. We used structured questionnaire to collect data from 150 tourism-related entrepreneurs and managers. This study made no conclusive finding that gender does play a role with regard to differentiating business success or performance, as reported in some literature. However, marketing capability is the main factor that influence business performance.

Key words: gender nuances, business performance, business operations, business capabilities, sub-Saharan Africa

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INTRODUCTION

Durban is the commercial hub of the KwaZulu-Natal Province, which is one of the nine provinces of South Africa. Tourism has a significant contribution in the local economy of KwaZulu-Natal, this grew from a reported R9billion contribution to the Provincial Gross Domestic Product (GDP) in 2014 to above R10billion in 2018 (Tourism KwaZulu-Natal, 2019 - https://www.zulu.org.za/). The study by Ezeuduji and Nkosi (2017) posits that the KwaZulu-Natal province is very popular for its unique heritage and diverse cultural experiences. Most tourists who visit this province are mostly attracted by the nature, culture, warm weather, and beach experience, which are offered in both its coastal and inland regions. KwaZulu-Natal Tourism competes on tourist volumes and the quality of visitor experience. Therefore, tourism-related entrepreneurship is vital in this province to service domestic and international tourists, and the local community. Developing countries are putting more emphasis on building stronger economies by promoting entrepreneurship. South Africa, like any other developing country developed policies that place high value on entrepreneurship (Business Environment Specialist, 2013 - http://www.sbp.org.za/uploads/media/SBP_Alert). The Government of South Africa has identified tourism as a huge potential for economic growth (Tshabalala and Ezeuduji, 2016), hence entrepreneurship in the tourism industry is desirable. Nonetheless, a study by Iwu et al. (2016) reveals that entrepreneurial activity in South Africa is relatively low.

Gender mainstreaming has become part of the entrepreneurship studies. Mainstreaming is a concept that essentially paves way for a varied approach that acknowledges and values the variance that may exist among different genders. The ultimate goal of gender mainstreaming is to achieve gender equality (Shepard, 2015). According to Sarfaraz et al. (2014), economic development is difficult to achieve without the active participation of women. Unfortunately, South African tourism industry has inadequate women participation. Research shows that women in tourism and other sectors' businesses occupy low position (Tshabalala and Ezeuduji, 2016) and they have less opportunities for advanced career development (Ferguson, 2011). This predicts that South African women may remain in the periphery of economic development. Research also reports that the performance of female-owned businesses have been lower and very constrained compared to male-owned businesses (Marlow and McAdam, 2013), as they are likely to close down and less likely to make sustained profit (Fairlie and Robb, 2009). Literature on women entrepreneurship posits that there are many challenges (such as unfavourable societal perception, inadequate financial capital, lack of management capabilities, weak entrepreneurial networking) faced by South African women in business (Nxopo and Iwu, 2016; Nzama and Ezeuduji, 2020a; Nzama and Ezeuduji, 2020b; Tshabalala and Ezeuduji, 2016). Reports emanating from the entire Southern African Development Community (SADC) region show that men dominate management positions in the tourism industry (Nyaruwata and Nyaruwata, 2013; Global Entrepreneurship Monitor (GEM), 2012 - https://www.gemconsortium.org/report/gem-2012-womens-report). There has been a call from the global community to empower women in all socio-economic activities, and promoting women entrepreneurship is a significant way to achieve that (Kimbu et al., 2019), specifically in the tourism industry with its high potential for economic growth (Mkhize and Cele, 2017).

Much gender-based entrepreneurship studies (such as Kimbu et al., 2019; Kokotović et al., 2016; Mkhize and Cele, 2017; Nxopo and Iwu, 2016; Sarfaraz et al., 2014; Todorović et al., 2016; Tshabalala and Ezeuduji, 2016; Vossenberg, 2013; Witbooi and Ukpere, 2011) focused on women entrepreneurship as a driver of gender equality, poverty reduction, and social

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development. They did not specifically explore gender-induced differences or perceptions, especially from the African perspective. This research therefore explored nuanced gender perceptions with regard to the influences that business capabilities may have on tourism business operations; and also sought if gender identity drives business performance, using the case of Durban Central Business District, situated in KwaZulu-Natal, South Africa.

LITERATURE REVIEW

1. Gender discourse in entrepreneurship studies

Across the world, entrepreneurship has been considered one of the viable development strategies resulting from its considerable socio-economic contributions (González-Sánchez, 2015; Hassan et al., 2014; Okeke-Uzodike et al., 2018; Todorović et al., 2016). Since the first publication of academic papers related to women entrepreneurship in the 1970s, the concept of women entrepreneurship has attracted many researchers owing to its significance contribution to social and economic development. Vossenberg (2013) and Sarfaraz et al. (2014), state that women entrepreneurship has an impact on achieving gender equality, social development and poverty reduction. Women entrepreneurship is recognised as a source of economic development (Ceptureanu and Ceptureanu, 2016), and the important role women entrepreneurs play has drawn attention of academics, governments, and non-governmental organisations (Moses et al., 2016; Tajeddini et al., 2017). Witbooi and Ukpere (2011) also indicate that many women entrepreneurs possess adequate level of expertise, skills, and creativity necessary to kick-start and manage entrepreneurial activities, however they often do not have equal access to resources such as information, education and finance, as male entrepreneurs (Kokotović et al., 2016; Todorović et al., 2016).

Research by Tajeddini et al. (2017) emphasises that men and women are equal, but cultural influence encourages women to adhere to duties such as managing households. Ceptureanu and Ceptureanu (2016) posit that generally, men and women possess very similar characteristics, but female-owned businesses tend to be smaller and yield lower incomes compared to male-owned businesses (Daniyan-Bagudu et al., 2016; Gidarakou, 2015; Ramadani, 2015; Tshabalala and Ezeuduji, 2016). Hence, the performance of female-owned businesses are lower and very constrained in comparison to male-owned businesses (Marlow and McAdam, 2013), and they are likely to close down and less likely to make profit (Fairlie and Robb, 2009).

2. Gender discourse on managerial capabilities

Managerial skills have been conceptualised as the main resource for managerial capabilities according to Wessels et al. (2017). It should be noted that Maurya and Sharma (2017) define managerial skills as the knowledge and the ability of business people in managerial positions to perform particular managerial tasks. According to Seyedinejat et al. (2014), managerial capability drives organisational success. The authors of this paper understand managerial capability to mean the ability to combine and coordinate resources (human, tangible and intangible) to add business value. In comparison to male entrepreneurs, female entrepreneurs tend to be more of transformational leaders. Guillet et al. (2019a) posit that women have great value of their teams and tend to invest in them by training and empowering its members; whereas, male managers appear to be very assertive and arrogant as opposed to showing respect and willingness to listen. Researchers (such as Schaap et al., 2008) also state that women entrepreneurs promote training for the subordinates in order to improve their understanding of how to implement and reach the performance targets as set by the organisation; whereas men are more likely to use position power and more dominance. Hence, women appear to lead by coaching, affiliation and allowing development of their subordinates. Regarding interpersonal skills, men and women entrepreneurs appear to practice different styles of management. Sudarmanti et al. (2013) show the communication differences found between male and female entrepreneurs; indicating that male entrepreneurs use power as a strategy to persuade the subordinates unlike female entrepreneurs.

Schaap et al. (2008) state that female managers perceive their power to be based on themselves and their positions, but they feel part of the team and identify with what the team is doing. Females tend towards approaches that are more transformational to leadership and interactive management. Schaap et al. (2008) indicate that women entrepreneurs emphasise task enjoyment, working with people, helping others, and making friends; whereas, men entrepreneurs use transactional leadership approach with emphasis on rewards, such as money. Vázquez-Carrasco et al. (2012) posit that women entrepreneurs have better capacity to organise and listen, and that women are more practical than men. Sudarmanti et al. (2013) mention that women entrepreneurs create a supportive, flexible and loyal environment within the business. Manzanera-Román and Brändle (2016) articulate that women specifically possess abilities such as perseverance and they have more social and human relations' abilities. Guillet et al.'s (2019a) study found that women entrepreneurs are perceived to be more sensitive and empathetic in their understanding of others (counterparts, subordinates, and customers). These abilities equip women entrepreneurs to be able to treat people with social sensitivity as they are dealing with people in and outside the organisation. In contrary, men tend to be detached and do not frequently engage with their staff as women leaders do. The authors (Manzanera-Román and Brändle, 2016) further state that these abilities or characteristics possessed by women give them advantage over their male counterparts as they are facilitators of entrepreneurship (Guillet et al., 2019b). Meanwhile, lacking technical skills has been identified as one of the reasons why women entrepreneurs usually operate in small and mostly informal enterprises. Sudarmanti et al. (2013) explicate that women entrepreneurs tend to have less experience, skills and managerial knowledge, compared with male entrepreneurs, hence, women entrepreneurs prefer (or are forced) to operate in micro enterprises.

3. Gender discourse on marketing capabilities

Previous literature (such as Kimosop et al., 2016; Welsh et al., 2017) maintain that there is a significant positive relationship between entrepreneurs' marketing capabilities and the business performance. Marketing capabilities equip entrepreneurs to grasp available opportunities to grow their enterprises and increase competitiveness (Welsh et al., 2017).

Making a business known to potential consumers is one of the key aspects that affect business performance, as researchers (such as Yadav, 2018; Zeng and Gerritsen, 2014) alluded that the increase of tourists' flow at a destination relies more on proper marketing capabilities. Tshabalala and Ezeuduji (2016) identify a poor marketing strategy among women-owned businesses, pointing that the craft dealers are dispersed without any signage to show their presence. Furthermore, the study revealed that some women entrepreneurs do not have proper connection to the tourism industry to make their business known; hence, it is difficult to find customers. According to Jiyane (2014), women entrepreneurs prefer face-to-face communication to transfer, use and access information. In most cases, women entrepreneurs advertise their businesses by means of word-of-mouth (Biernacka et al., 2018; Tshabalala and Ezeuduji, 2016).

The emergence of information and communication technologies have changed the traditional frame for marketing, and brought smartness into the tourism industry. In the extant marketing landscape, having the presence of Internet, social media, blogs and Search Engine Optimisation (SEO), many platforms have been created for organisations to share information with potential customers. Chetty (2015) emphasises that a strong online presence of any organisation is considered a valuable asset for the business. Tourism organisations can use a variety of platforms of technology (such as TripAdvisor, Tripcast, social media, and HearPlanet) to share information about the organisation (Jovicic, 2019). By using such platforms, organisations also gain knowledge of what the tourists are expecting from the destination as they allow participant's review, which makes it easier for the marketing management to understand the target market and their needs and wants. Zeng and Gerritsen (2014), and Gidarakou (2015) advise tourism industry to take advantage of social media, as the industry relies on consumer opinion, word-of-mouth, destination reputation, and advertising. Though women are perceived as being particularly adept to social media, they have not been involved in technology as men (Orser and Riding, 2018). Meanwhile, women are less likely to apply their knowledge of social media to business development opportunities (Orser and Riding, 2018). The study also conclude that women lack confidence in their technology capabilities compared with men. This attitude towards technology generally affects access to certain markets that are technological intensive (Witbooi and Ukpere, 2011), such as the tourism market.

RESEARCH DESIGN AND METHODS

This research explored nuanced gender perceptions regarding the influences that business capabilities may have on tourism-related business operations in Durban Central Business District, in KwaZulu-Natal, South Africa. This requires a quantitative research approach using structured questionnaire survey to address research objectives (see Veal, 2011). We employed structured questionnaire survey using purposive sampling method, selecting those who have relevant knowledge (tourism business owners and managers) in tourism entrepreneurship, and who are willing to participate (Etikan et al., 2016; Nardi, 2018). The criteria of respondent inclusion in this study were that a tourism business is an enterprise that falls within the travel sector (transport and travel organisers), hospitality sector (accommodation and events), leisure and business sector, conservation sector, sports and recreation sector, gaming and lotteries sector, tourism support service sector and government tourism sector. The actual target population for this study is largely unknown because many of these businesses operating in this study area fall under the informal sector (not registered). This study therefore used non-probability (purposive) sampling to survey 150 respondents (75 males and 75 females) in their tourism businesses in Durban Central Business District under Ethekwini Metropolitan Municipality, KwaZulu-Natal, South Africa. We took special care in distributing questionnaires to create a fair comparison of the characteristics of male entrepreneurs against female entrepreneurs; and how they may respond to the business capabilities and operation factors. Because this study is non-probability in nature, we considered a sample size of 150 tourism entrepreneurs large enough to address the research objectives. Chawla and Sondh (2011) posit that a sample should not be too small to achieve data saturation or theoretical saturation.

We performed data analyses with the aid of IBM's Statistical Package for the Social Sciences (SPSS) software, version 25. We employed descriptive statistics (mostly frequencies), bivariate analyses (using Pearson's Chi-Square, Mann-Whitney U, and Spearman's Rank Correlation tests) and also performed multivariate analysis (conducting Reliability tests by the help of Cronbach's Alpha scores). Our initial data analysis proved that the ordinal variables used in measuring business operation statements (perceptions) have non-normal population distributions; hence we made use of Mann-Whitney U tests of comparing the means of responses by two independent groups to check if they significantly differ from one other. We hence compared responses to business operation statements with the respondents' demographic variables or characteristics (such as gender). We employed Mann-Whitney U tests based on the reported criteria that the dependent variables should have ordinal scale; whereas the independent variables should have only two groups; and the normality of distribution and homogeneity of variance do not prove true in a t-test (see George and Mallery, 2003; Veal, 2011). We employed Spearman's Correlation (two-tailed) test to check for relationships between the ordinal variables, enabling is to find out if there are positive or negative correlations between the variables that are being analysed (Veal, 2011); which for this particular study is between business operation statements and the perceived classification of business success. We also used Pearson's Chi-Square test to check for relationships between categorical / nominal data, where some variables that were previously measured in ordinal scale were recoded as categorical variable to support this analysis. Respondents' profiles were compared with business start-up motivation and perception of entrepreneurial success. We applied reliability test, a form of multivariate analysis, to calculate the level of internal consistencies of the variables that were used to describe factors that may influence business operations ('managerial and operational capabilities', 'marketing capability' and 'general entrepreneurial statements'). Finn et al. (2000) agree to the use of multivariate analysis in tourism research where a particular phenomenon may be influenced by a large number of variables (rather than a single one). Previous studies support that Cronbach's Alpha coefficient of between 0.5 and 0.7 should be acceptable in the social science studies, to show enough internal consistency of variables that are used to measure a factor or dimension (Chawla and Sondhi, 2011; George and Mallery, 2003). Nonetheless, Tavakol and Dennick (2011) state that low

Cronbach's Alpha score may be achieved, if there exists a weak interrelationship among variables that are being used in the analysis, or if only few variables are used to explain or measure a particular dimension or construct. From the reliability tests conducted on the three business operation dimensions: 'managerial and operational capabilities', 'marketing capability' and 'general entrepreneurial statements'; dimensions achieved above 0.6 Cronbach Alpha coefficient, hence this study finds the variables contained in these dimension, internally consistent or related, to measure each of the dimensions.

RESULTS AND DISCUSSION

1. Respondent's profile

The results in Table 1 show that respondents in this study are mostly South Africans (about 89%) and majority (about 61%) of the respondents had business experience of not more than six years. Nsengimana et al. (2017) state that business experience influences the chances of entrepreneurial success. Results further show that entrepreneurs' motivation to start a tourism business to take an opportunity is somewhat higher (about 54%) compared to the motivation of starting a business as means of survival (about 46%). Mersha and Sriram (2019) posit that in most African countries, entrepreneurs are pushed into business by socio-economic factors (such as unemployment). This study however found that majority of respondents started businesses based on available opportunity. The level of education was also highlighted as an important factor in business operation (Fairlie and Robb, 2009; Ramadani, 2015). The results of this study show that 56% of respondents have tertiary education. Majority of the respondents (57%) perceived themselves as successful in their businesses, as about 44% perceived themselves as successful and about 13% as very successful.

Table 2. Business operation statements (%)

Statements	Strongly agree	Agree	Neutral	Disagree	Strongly disagree
2.1 Managerial and Operational Capabilities					
I have skills and experience in running a tourism business	35.3	56.7	4.7	3.3	0.0
I give my employees the opportunity to come up with ideas or decisions in running the business	23.3	51.3	18.7	6.7	0.0
Male business managers are more capable than female business managers	8.7	8.7	13.3	54.0	15.3
Male business managers are better managers than female business managers	7.3	11.3	12.0	52.0	17.3
I send/arrange workshops for the staff members to receive training.	30.7	41.3	14.0	12.0	2.0
*Reliability statistics (**Managerial and Operational Capabilities**): Cronbach's Alpha = .664, N of items = 5, Valid cases = 150 (100%), Excluded cases = 0 (0.0%), Total =150*					
2.2 Marketing Capability					
I use Internet to market my business	42.0	32.7	8.0	14.0	3.3
I rely on different sources of media to get my business known.	30.7	43.3	5.3	20.0	0.7
I do research to find out the new market trends	36.7	41.3	6.0	16.0	0.0
I know very well how to offer my products and deliver services to meet customer need (Product)	36.7	51.3	8.0	4.0	0.0
I use different promotion techniques to sell my products and services (Promotion)	41.3	38.7	2.7	17.3	0.0
Reliability statistics (Marketing Capability): Cronbach's Alpha = .875, N of items = 5, Valid cases = 150 (100%), Excluded cases = 0 (0.0%), Total =150					
2.3 General Entrepreneurial Statements					
I always bring new ideas in the business	44.0	48.0	4.0	4.0	0.0
I am ambitious to bring change in my society	33.3	51.3	11.3	3.3	0.7
I have been a powerful force for helpful change	26.7	48.7	21.3	2.0	1.3
I enjoy facing and overcoming obstacles to my ideas	40.3	46.3	8.7	3.4	1.3
I do not give up easily	60.0	37.3	1.3	1.3	0.0
I am great at turning problems into opportunities	36.7	53.3	8.0	2.0	0.0
I can spot a good opportunity easily	41.3	50.0	4.7	2.7	1.3
Reliability statistics (General Entrepreneurial Statements): Cronbach's Alpha = .774, N of items = 7, Valid cases = 149 (99.3%), Excluded cases = 1 (0.7%), Total =150					

Table 1. Respondents' profile (N=150)

Variable	Category	Frequency (%)
South African	Yes No	88.7 11.3
Gender	Male Female	50 50
Ethnic group	Black White Indian Coloured	52.7 18.0 22.0 7.3
Age group	Less than 40 years 40 years and above	61.3 38.7
Business owner	Yes No	63.3 36.7
Business manager	Yes No	58.7 41.3
Motivation to start tourism business	Took opportunity Means of survival	54.4 45.6
Level of education	Up to Secondary School (Matric) Tertiary Education	44.0 56.0
Business type	Accommodation Food and Beverage Events Management Tour Operation Travel Agency Tour Guide Car Rentals Resorts Consultancy Souvenir Shop	16.0 26.7 10.0 3.3 4.7 2.7 7.3 2.0 2.7 24.7
Number of years in business	Up to 6 years 7years and above	60.7 39.3
Self-classification as an entrepreneur	Very successful Successful Surviving Struggling Unsuccessful	13.4 43.6 32.2 9.4 1.4

2. Business operation statements

Respondents were asked to show their level of agreement or disagreement with the statements used to measure 'managerial and operational capabilities', 'marketing capability' and 'general entrepreneurial statements'. Previous study (Mersha and Sriram, 2019) posits that entrepreneurs in Africa lack business management skills as they are likely to be pushed into business by socio-economic challenges. Results in Table 2 contradict this statement and show that 92% of respondents strongly agreed or agreed with the statement: 'I have skills and experience in running a tourism business'. The results indicate that the majority of managers and owners of tourism businesses have skills and experience to run a tourism business. Nsengimana et al. (2017) argue that business experience influences the chances of business operational success. Notably, respondents in this study agreed more to the statement referring to developing and supporting their subordinates. About 74% of respondents agreed or strongly agreed with the statement: 'I give my employees the opportunity to come up with ideas or decisions in running the business' and 72% of respondents agreed or strongly agreed with the statement: 'I arrange workshops for the staff members to receive training'. Kimbu et al. (2019) in this regard, emphasise that skills development is a crucial factor that increase destination competitiveness in the tourism industry. In line with Kim and Brymer (2011), results in this study show that most of the owners and managers possess transformational leadership qualities. Chirwa (2008) argues that compared to men, women lack business training skills and have less business experience to manage their businesses. Respondents in this study however contradict this finding, as about 69% of respondents strongly disagreed or disagreed with the statement: 'male business managers are more capable than female business managers' and only 14% respondents strongly agreed or agreed with this statement.

The results in this study show that respondents mostly agreed to a set of variables used in measuring 'marketing capabilities'. About 72% of respondents strongly agreed or agreed with the statement: 'I use Internet to market my business'; and 74 % strongly agreed or agreed with the statement: 'I rely on different sources of media to get my business known'. Majority of respondents in this study showed that they endeavour to keep up with the market trends, as 78% of the respondents strongly agreed or agreed with the statement: 'I do research to find out the new market trends'. The statements concerning the marketing-mix strategy (of product and promotion) also receive high levels of agreement. 88% of respondents strongly agreed or agreed with the statement: 'I know very well how to offer my products and deliver services to meet customer need (Product)'. Also, 80% of the respondents strongly agreed or agreed with the statement: 'I use different promotion techniques to sell my products and services (Promotion)'. Welsh et al. (2017) maintain that marketing capabilities equip entrepreneurs in growing their businesses and remaining competitive in the market. Results Table 2 also show that respondents mostly perceive themselves to have strong entrepreneurial qualities (see responses regarding 'general entrepreneurial statements'). These are some of the entrepreneurial attributes that strengthen the business operations (Ezeuduji and Ntshangase, 2017a, b).

3. Perception of entrepreneurial success level versus business operation statements

Spearman's Rank Correlation test was used to test for relationships between respondents' responses to 'perception of entrepreneurial success level' and 'business operation statements'. Based on the results in Table 3, it is evident that there is no reported correlation between gender nuanced business operation variables and perceived business success level.

Table 3. Correlating perception of entrepreneurial success level versus business operation statements

Statements[a]	Correlated with perception of entrepreneurial success level[b]
3.1 Managerial and Operational Capabilities	
I have skills and experience in running a tourism business	N.S
I give my employees the opportunity to come up with ideas or decisions in running the business	N.S
Male business managers are more capable than female business managers	N.S
Male business managers are better managers than female business managers	N.S
I send/arrange workshops for the staff members to receive training.	**
3.2 Marketing Capability	
I use Internet to market my business	**
I rely on different sources of media to get my business known.	**
I do research to find out the new market trends	**
I know very well how to offer my products and deliver services to meet customer need (Product)	*
I use different promotion techniques to sell my products and services (Promotion)	**
3.3 General Entrepreneurial Statements	
I always bring new ideas in the business	N.S
I am ambitious to bring change in my society	N.S
I have been a powerful force for helpful change	N.S
I enjoy facing and overcoming obstacles to my ideas	N.S
I do not give up easily	**
I am great at turning problems into opportunities	N.S
I can spot a good opportunity easily	*

[a]Questionnaire were itemised along a 5-point Likert-type scale (business operation statements): 1, Strongly agree; 2, Agree; 3, Neutral; 4, Disagree; 5, Strongly disagree. Questionnaire were itemised along a 5-point Likert-type scale (perceptions of entrepreneurial success level): 1, Very successful; 2, Successful; 3, Surviving; 4, Struggling; 5, Unsuccessful
[b]Spearman's Rank correlation (two-tailed) test significance: **, $p < 0.01$; N.S., no significant results

The variables identified to have positive correlations with perceived business success are mostly found within the dimension of 'marketing capability'. This shows that marketing capability is pivotal to business success, as all the variables within this dimension have mostly very strong positive correlation with business success. Results in this study support the findings of other authors (such as Kimosop et al., 2016; Welsh et al., 2017) who report that there is a positive relationship between marketing capabilities and business performance. According to Welsh et al. (2017), marketing capabilities prepare entrepreneurs to spot and take available opportunities to grow the business and remain competitive in the market. This is in line with the other findings of this study. In Table 3, the other variables that show positive influence on entrepreneurial success are those that have to do with 'training of staff members', 'not giving up easily' and 'ability to spot good opportunities easily'. Supportive and transformational leadership, persistence, and identifying opportunities are therefore drivers of business success.

4. Comparing demographic variables with business start-up motivation and perceptions of entrepreneurial success level

We further compared demographic variables of respondents with business start-up motivation and perceptions of entrepreneurial success level (using Pearson's Chi-Square and Mann-Whitney U tests, respectively). As shown in Table 4, results show that there is no significant relationship between 'gender', 'age group', and 'number of years in business' with 'business start-up motivation'. Focussing on the purpose of this study, gender did not explain any choice between being 'opportunity' or 'survival' entrepreneur. However, nationality and educational level were identified as the socio-demographic characteristics that have significant influence on the type of motivation to start a tourism business.

Table 4. Comparing demographic variables with business start-up motivation and perceptions of entrepreneurial success

Statements		Evidence from analysis	Compared with respondents' demographic variables [c]
4.1 Motivation to start tourism business [a, c]			
		Cross-tabulation results	
Nationality	South Africans	Expected count for opportunity entrepreneurs = 71.8; Actual count = 79	** South Africans are more 'opportunity entrepreneurs', while Non South Africans are more 'survival' entrepreneurs
	Non South Africans	Expected count for survival entrepreneurs = 7.6; Actual count = 15	
Gender	Male		N.S.
	Female		
Age group	Less than 40 years		N.S
	40 years and above		
Level of Education	Up to Secondary School	Expected count for opportunity entrepreneurs = 45.1; Actual count = 52	* Respondents with tertiary education are more 'opportunity entrepreneurs' while respondents without tertiary education are more 'survival' entrepreneurs
	Tertiary education	Expected count for survival entrepreneurs = 29.7; Actual count = 37	
No. of years in business	Up to 6 years		N.S.
	7years and above		
4.2 Perceptions of entrepreneurial success level [b, d]			
		Mean scores	
Nationality	South Africans	2.42	N.S.
	Non South Africans	2.41	
Gender	Male	2.49	N.S.
	Female	2.35	
Age group	Less than 40 years	2.34	N.S.
	40 years and above	2.53	
Level of Education	Up to Secondary School	2.79	** Respondents with tertiary education agree to being more successful
	Tertiary education	2.12	
No. of years in business	Up to 6 years	2.39	N.S.
	7years and above	2.46	

[a]Questionnaire was itemised categorically: 1, Took opportunity; 2, Means of survival

[b]Questionnaire were itemised along a 5-point Likert-type scale (perceptions of entrepreneurial success level): 1, Very successful; 2, Successful; 3, Surviving; 4, Struggling; 5, Unsuccessful [c]Pearson's Chi-Square test significance: *, $p < 0.05$; **, $p < 0.01$; N.S., no significant results

[d]Mann-Whitney U test significance: *, $p < 0.05$; **, $p < 0.01$; N.S., no significant results

Results show that respondents who have tertiary education are more 'opportunity' driven entrepreneurs while respondents who do not have tertiary education are more 'survival' driven entrepreneurs. South African respondents are more 'opportunity' entrepreneurs whereas non-South Africans are more 'survival' entrepreneurs. Non-South African entrepreneurs may struggle to find long-term resident permit in South Africa, and may be discriminated against in the labour market. They may therefore decide to start businesses to survive in South Africa. Securing a decent job opportunity in South Africa may also prove difficult for those without tertiary education, hence they may end up becoming 'survival' entrepreneurs. These results support Mersha and Sriram's (2019) argument that socio-economic challenges may lead individuals to start a business (as means of survival).

Also, based on the results in Table 4, the only socio-demographic characteristic that has a significant influence on 'entrepreneurial success level' is the 'level of formal education'. Respondents with tertiary education perceived themselves more successful than those without tertiary education. According to Nxopo and Iwu (2016), and Rao (2018), formal education equips entrepreneurs with skills (such as financial management, use of technology, sourcing of information) to effectively manage business operations. Formal education serves as basis for accessing and utilising information to run a business successfully (Iwu and Nxopo, 2015). Also relating to this study's finding, lack of formal education has been labelled a major challenge towards business operations' success (Chinomona and Maziriri, 2015; Daniyan-Bagudu et al., 2016; Nsengimana et al., 2017). Entrepreneurs with higher level of education are better prepared to handle entrepreneurial challenges that may arise in the business (Meunier et al., 2017), and be able to operate the business successfully.

5. Comparing gender identity with business operation statements

The respondents were asked to indicate their level of agreement or disagreement with business operations' variables; their responses were then compared with respondents' gender. This study employed Mann-Whitney U test to check if there are significant relationships between gender identity and the business operations variables. Results in Table 5 show that male entrepreneurs showed stronger managerial capabilities than female entrepreneurs, regarding the statements: 'I give my employees the opportunity to come up with ideas or decisions in running the business', and 'I send/arrange workshops for the staff members to receive training'. These results contradict some of the previous findings (Guillet et al., 2019a; Schaap et al., 2008) that women are more transformational business leaders than men. Therefore, from the findings of this study, compared to previous findings, transformational leadership can be argued not to be gender specific.

The results in Table 5 indicate that there is no significant difference between male and female mean scores regarding their responses to the variables within the 'marketing capability' dimension. These results suggest that both male and female entrepreneurs have similar levels of marketing capabilities. This study did not identify significant differences between male and female respondents when gender identity was compared with the responses on 'general entrepreneurial statements'. Hence, neither gender can claim to be more entrepreneurial.

Table 5. Comparing gender identity with business operation statements

Statements[a]	Mean score (Males)	Mean score (Females)	Compared with gender[b]
5.1 Managerial and Operational Capabilities			
I have skills and experience in running a tourism business	1.77	1.75	N.S.
I give my employees the opportunity to come up with ideas or decisions in running the business	1.91	2.27	** Males agree more
Male business managers are more capable than female business managers	3.45	3.72	N.S.
Male business managers are better managers than female business managers	3.47	3.75	N.S.
I send/arrange workshops for the staff members to receive training.	1.91	2.36	* Males agree more
5.2 Marketing Capability			
I use Internet to market my business	1.93	2.15	N.S.
I rely on different sources of media to get my business known.	2.12	2.21	N.S.
I do research to find out the new market trends	1.83	2.20	N.S.
I know very well how to offer my products and deliver services to meet customer need (Product)	1.89	1.69	N.S.
I use different promotion techniques to sell my products and services (Promotion)	1.85	2.07	N.S.
5.3 General Entrepreneurial Statements			
I always bring new ideas in the business	1.60	1.76	N.S.
I am ambitious to bring change in my society	1.80	1.93	N.S.
I have been a powerful force for helpful change	1.88	2.17	N.S.
I enjoy facing and overcoming obstacles to my ideas	1.72	1.86	N.S.
I do not give up easily	1.44	1.44	N.S.
I am great at turning problems into opportunities	1.76	1.75	N.S.
I can spot a good opportunity easily	1.75	1.71	N.S.

[a]Questionnaire were itemised along a 5-point Likert-type scale (business operation statements): 1, Strongly agree; 2, Agree; 3, Neutral; 4, Disagree; 5, Strongly disagree; [b]Mann-Whitney U test significance: *, $p < 0.05$; **, $p < 0.01$; N.S., no significant results

CONCLUSIONS AND RECOMMENDATION

We explored nuanced gender perceptions regarding the influences that business capabilities may have on tourism-related business operations; and also sought if gender identity drives business performance, using the case of Durban Central Business District, in KwaZulu-Natal, South Africa. Our results reveal no correlation between gender nuanced business operation variables and perceived business success level. The variables identified to have positive correlations with perceived business success are mostly found within the dimension of 'marketing capability'. This shows that marketing capability is pivotal to business success, as all variables within this dimension have mostly very strong positive correlation with business success. Also this study found that the entrepreneur's supportive and transformational leadership, persistence, and ability to identify opportunities are other drivers of business success. Gender did not explain any choice between being 'opportunity' or 'survival' entrepreneur. The only socio-demographic characteristic that has a significant influence on 'entrepreneurial success level' is the 'level of formal education'. Respondents with tertiary education perceived themselves more successful than those without tertiary education. This study reveals no convincing differences between male and female respondents regarding their responses on 'managerial and operational capabilities', 'marketing capability' and 'general entrepreneurial statements'. Therefore, being male or female does not make an entrepreneur a better business manager. This study therefore recommends business mentorship programmes and more entrepreneurship trainings in KwaZulu-Natal, South Africa; and these should emphasise that formal education, marketing capability and other factors (but not gender) support business success. Hence training and mentorship should focus on building marketing capability, among others.

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EVALUATION OF THE COMMUNITY-BASED ECOTOURISM DEVELOPMENT STATUS IN THE AKSU-JABAGLY NATURE RESERVE, KAZAKHSTAN

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Abstract: Many stakeholders believe that developing community-based ecotourism (CBET) in vulnerable nature reserves is an effective method of ensuring greater conservation of natural and cultural resources, empowering host communities, and improving their socio-economic well-being. This paper assesses the current status of the CBET development in the Aksu-Jabagly nature reserve (NR), located in the south part of Kazakhstan. In order to understand ecotourism development status, 222 representative households from two neighboring communities of Aksu-Jabagly NR were surveyed with 5-point Likert scale questions. At the same time, two tourism relevant experts were interviewed. The results of examining the three indicators (community tourism relevance, community participation rank, and community empowerment), showed that the neighboring community relevance with the tourism in Aksu-Jabagly NR was low, the community residents' participation rank in tourism was also at the lower level, and the community's empowerment status is not ideal. As a result, we initially asserted that the status of CBET development in Aksu-Jabagly NR is not well, in particular, the positive economic and social impact of tourism development is not so obvious.

Key words: CBET, relevance, participation, empoverment, nature reserve, Aksu-Jabagly, Kazakhstan

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INTRODUCTION

Community-based ecotourism (CBET) development

If tourism practices are not properly monitored, they can deplete natural resources and exploit the work of local communities. The approach to CBET projects should be part of a larger community development strategy and carefully planned. It is universally recognized that community-based tourism initiatives reduce poverty not only by increasing incomes, but also by providing rural communities with the tools and education for long-term critical thinking and decision-making. Sustainable eco-tourism is contingent on the 4Es: environmental conservation, equity, education, and economic benefits. In other words, eco-tourism is a tourism activity that can reduce environmental degradation during economic development and support environmental protection, social justice and environmental education (Powell and Ham, 2008). The participation of the local community is needed to create ecotourism. Such communities are expected to provide support for ecotourism activities. Therefore, they will recognize their role in preserving the protected natural areas. Ecotourism can be an incentive to protect the environment, if it leads to positive economic change (Stronza and Gordillo, 2008). The premise is that ecotourism depends on maintaining fascinating natural landscapes and abundant flora and fauna; therefore, helping communities make money from ecotourism can provide not only conservation motivation but also economic alternatives to destructive activities (Kiss, 2004). CBET essentially helps to preserve biodiversity and wildlife, and believes that people living in natural areas should be involved in conservation decisions (Reimer and Walter, 2013). CBET is run by the community, management decisions are made by local people and the profits go directly to the community (Khanal and Babar, 2007). CBET is a type of ecotourism that focuses on the development of local communities and allows local people to significantly control its development, management and participation, at the same time, most of the profits should remain in the community (Denman, 2001; Wood,

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2002). CBET has become an important tool for protecting biodiversity, based on the principle that the protected biodiversity reserve must generate economic benefits for itself, especially for the local people (Kiss, 2004). CBET destinations bring potential benefits to individuals, communities and the entire country in terms of creating employment opportunities, foreign exchange earnings and improving the well-being of local residents (Mbaiwa, 2003). Development organizations see CBET as a potential source of economic development and poverty eradication, especially in rural areas with limited agricultural potential. For example, in the past decade, CBET in East Africa and Southern Africa has seen the strongest growth in the global market because of its positive economic impact on the people of the region, making it an essential industry (Organization, 2001). CBET has increased local income and built the local economy by protecting the local ecosystem and culture. However, only when the community sees the benefits of ecotourism development, and when the development of ecotourism does not harm their environment and affect their main source of livelihood, will ecotourism get support among the local community (Alexander, 2000; Walpole and Goodwin, 2001; Salafsky et al., 2001).

CBET and responsible tourism should be part of a sustainable development strategy. Environmental sustainability includes present generations' preservation of natural heritage and biodiversity, and the preservation of important environmental processes for future generations (Törn, 2007). Moreover, from a social point of view, nature-based ecotourism employs the local population and promotes the development of the regional economy, as well as assures the quality of life of local population, preserves environmental values and provides quality services to tourists (Williams and Fennell, 2002). The proper organization of CBET always meets all the criteria of the sustainable tourism development. Hipwell (2007) proposed a framework of six standards for sustainable CBET: 1) tourism activities must be small enough to be completely managed by the community without external support; (2) broad representatives of community members should actively participate in the project; (3) the project must benefit the entire community; (4) the project must comprehensively improve the community members' life quality; (5) the awareness of conservation value must be improved; and (6) the maintenance or enhancement of local culture should be promoted. These criteria are indicated to be the particular characteristic of successful CBET projects (Hipwell, 2007). In the case of nature-based tourism areas, the local community closest to the area where tourism development is permitted are often the main stakeholders, because as human resources, they participate in various activities in tourist attractions. To understand how sustainable tourism benefits local communities, it is essential to examine the extent to which local communities can participate in tourism planning and related decision-making processes and to assess how tourism can contribute to their well-being. The aim of this paper is to explore the development status of the CBET in the Aksu-Jabagly NR through examining the tourism relevance of two main neighboring communities of natural heritage tourism destination, the local community's tourism participation rank, and the empowerment level of the local community.

An overview of the study area: Aksu-Jabagly Natural Reserve

Tien Shan is the one of the biggest mountain systems in Central Asia. It spreads for 2,500 kilometers (1,500 miles) and consists of several units of mountains. Aksu-Jabagly (also spelled as Aksu-Zhabagly) NR is situated in the north west of Talas, Alatau and Ogem mountains. Aksu-Jabagly NR was opened by the conference of Soviet-Kazakh National Commissioners on July 14, 1926. At the conference it was decided that the Aksu and Jabagly's rivers, trees, plants and animals living there be designated as a historical untouched nature preserve. The area of reserve changes from year to year but currently has a territory of approximately 131,934 hectares (326,015 acres). Aksu-Jabagly NR borders Kyrgyzstan and Uzbekistan. Reserve's territory covers Tulkibas, Tolebi, Baidibek regions in South Kazakhstan oblast and the Juali region in Djambyl oblast. Aksu and Jabagly are the two main rivers that flow through the reserve. There are 27 lakes in the reserve which are all situated at the height where the snow doesn't melt. Aksu-Jabagly NR is rich with rare and endangered species of animals. Since the last count there are 267 types of birds, 52 types of mammals, 11 types of vermin and 2124 types of insects. Aksu-Jabagly NR is rich with plants and trees. There are 63 types of moss, 64 types of algae, 235 types of mushrooms, 62 types of branches, 17 types of trees and 3 types of spruces. It contains 25% of all Kazakhstan's plants (Kovshar, 2016). And the NR was officially listed on UNESCO as a part of the Western Tien-Shan natural world heritage site under the criteria of (vii) and (x) in 2016. The Aksu-Jabagly heritage site is located among four districts of two administrative oblasts in the most densely populated region of Kazakhstan, with total population about 3 million people. Approximately 150,000 people live in the transition area

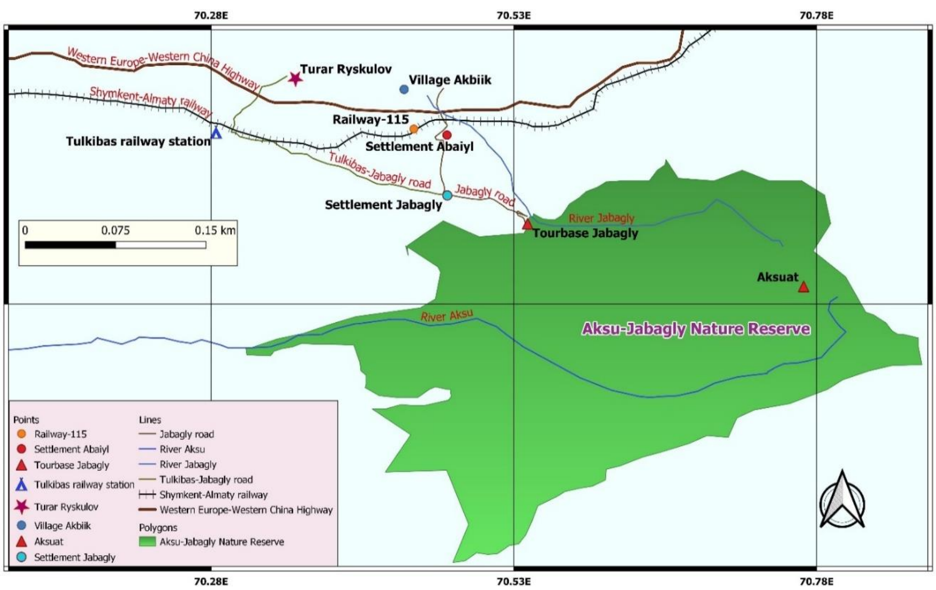

Figure 1. The administrative map of the study area

of the nature reserve (Kazakhstan National Committee, 2014). In the last 10 years, ecological tourism has become highly popular in the reserve, mainly due to tourism for bird watching and plant research and wildlife seeing, and the 59 km area of Tulkibas is located along with the Western Europe-Western China (WE-WC) Highway (Figure 1), it provides convenience for auto travel to this nature reserve (Akbar et al., 2020b).

MATERIALS AND METHODS

Data Collection and Methodology

In 2019, we conducted a similar comparative study called the ‘‘Local residents’ participation in tourism at a world heritage site and limitations: A case of Aksu-Jabagly natural world heritage site, Kazakhstan’’. The aim was to indicate two main neighboring communities' participation status and their barriers to participation. This is a case study integrating quantitative and illustrative qualitative methods in data collection and analysis. A questionnaire survey was used to evaluate the two main neighboring communities’ tourism relevance degree. At the same time, interviews with relevant experts (A tourism researcher of the L.N. Gumilyov Eurasian National University, the mayor of the village Jabagly and the scientific research department director of Aksu-Jabagly NR office) were used to indicate neighboring communities' participation rank and empowerment status in the CBET development in Aksu-Jabagly NR. The Aksu-Jabagly NR was selected because it has been identified as a more CBET developed area among nature reserves in Kazakhstan. In the initial stage of research, interviews were held in city Shymkent (the closest location to Aksu-Jabaly NR and the third largest city in Kazakhstan), with 3 informants representing tourism companies which were involved in ecotourism in the Aksu-Jabagly NR. Our advance study area observation helps to effectively perform questionnaire surveys and interviews for the primary data analysis. Field research was conducted in about 3 week-long visits to the Aksu-Jabagly ecotourism destination from the 2nd of March to 22nd of March, 2019, and the respondents were selected from settlement Jabagly (166 people out of 1571 economically active population) and settlement Abaiyl (56 people out of 275 economically active population). Data was collected in Aksu-Jabagly NR from multiple sources: questionnaire survey, direct observation, interviews. All fieldwork was conducted by the first author (Imanaly Akbar), who is a doctoral student at the University of the Chinese Academy of Sciences. Focus respondents were the key CBET stakeholders including eco-tour guides, guesthouse owners, cooks, taxi drivers etc., who are representatives both from settlement Jabagly and Abaiyl. At the same time, in order to understand neighboring communities’ empowerment status and participation rank in tourism comprehensively, the aforementioned relevant experts were also interviewed. Villagers who are responsible for the protection work of this ecotourism destination were interviewed as well. Survey questions about tourism relevance of the neighboring communities include current engaging industries, suitable industries for the nature reserve, reselected industries, and concerns about tourism development. When we discuss and illustrate the comparison results of tourism relevance indicators, the “Distance Decay Law” was used in our study. The map of the community participation level and community empowerment map was also applied to show the status of Aksu-Jabagly neighboring communities’ tourism-participation and empowerment. Accordance with the results from the analysis of the above indicators, we evaluated the sustainability of CBET development in the Aksu-Jabagly NR.

Demographic characteristics of respondents

Table 1 shows that out of the 222 respondents, 166 were from the Jabagly settlement and 56 were from the Abaiyl settlement. Since men generally go out to work in remote villages to earn money while women do housework and raise children, the number of men we interviewed is almost twice as large as that of women, with 66.3% (from Jabagly) and 67.9% (from Abaiyl) respectively. The highest number of respondents was the middle age group (35–54) with (53.0%) from Jabagly and (48.2%) from Abaiyl respectively, followed by the young (18–34), with 36.2% (Jabagly) and 39.3% (Abaiyl). And the lowest number of respondents was the elder group (≥55), with (10.8%) from Jabagly and (12.5%) from Abaiyl respectively. Nearly all respondents were Kazakhs: 91.6% were from Jabagly and 92.8% from Abaiyl were interviewed, respectively. At the same time, survey questions were answered by 4.8% Russian ethnic people and 3.6% other ethnic groups in Jabagly and 3.6% Russian and 3.6% other ethnic groups in Abaiyl. Most of the respondents had the middle (school or college) education, with 85.5% of Jabagly and 89.3% of Abaiyl while only 14.5% (Jabagly) and 10.7% (Abaiyl) of those who have received higher education (university or above).

RESULTS AND DISCUSSIONS

Community-based ecotourism in the Aksu-Jabagly NR

Sustainable tourism enables people to participate and benefit from it. Developing sustainable tourism activities can generate income for local residents and build community facilities. Not only local people will benefit from sustainable tourism resources, but the private sector will also benefit from it (Polnyotee and Thadaniti, 2015). In order to achieve sustainable tourism, tourism development should recognize and encourage a higher level of local community satisfaction. And to improve the sustainability in Aksu-Jabagly heritage tourism destination, opportunities of engaging in the tourism sector should be equally given to local residents (Akbar et al., 2020a). To measure the development status of tourism types in a designated area, it is necessary to study how the community as a whole involved in the development of the area as a tourist destination. Therefore, we consider the following indicators to determine the status of CBET development in the Aksu-Jabagy NR: the relevance of the neighboring communities with tourism; tourism participation rank of neighboring communities; empowerment of neighboring communities.

Tourism relevance of the neighboring communities

Current engaging industry comparison: As can be seen from Table 2, the settlement Jabagly in the buffer zone of the Aksu-Jabagly NR was typically dominated by animal husbandry (48.8%) and farming (23.6%), whereas settlement Abaiyl was other industry-dependent communities (more than half of the total population in Abaiyl settlement engaged in other industries with 53.6%). As far as the two settlements' tourism involvement is concerned, few people participated in tourism activities in both settlements. Comparing tourism involvement of two settlements, there were about 5 times more residents in Jabagly settlement (10.2%) engaged in tourism than in settlement Abaiyl (2%). During our study area investigation, we found that Jabagly had more land available for animal husbandry and farming compared to Abaiyl, and we also found that the settlement Abaiyl is located along the railway. Thus, the current engaging industry of Jabagly's people was animal husbandry and farming, while most Abaiyl's people were engaging in other industries due to the lack of arable land.

Table 1. Details of resident sample responses (n = 222)

Characteristics	Jabagly (n=166)	Abaiyl (n=56)
	Percentage	Percentage
Gender:		
Male	66.3	67.9
Female	33.7	32.1
Age (years):		
Young (18–34)	36.2	39.3
Middle age (35–54)	53	48.2
Elder (≥55)	10.8	12.5
Ethnicity:		
Kazakh	91.6	92.8
Russian	4.8	3.6
Other	3.6	3.6
Education:		
Middle (school or college)	85.5	89.3
High (university or above)	14.5	10.7

Table 2. Comparison of residents' tourism relevance in neighboring communities (Source: authors' own work)

What is your current engaging industry?	Settlement Jabagly (%)	Settlement Abaiyl (%)
Tourism	10.2	3.6
Animal husbandry	48.8	19.6
Farming	23.6	12.5
Commercial activities	10.8	10.7
Other industries	6.6	53.6
What kind of industry do you think is suitable for in the Aksu-Jabagly NR?		
Tourism	52.4	67.9
Animal husbandry	27.1	14.3
Farming	16.3	7.1
Forestry	4.2	10.7
What kind of industry do you want to engage if you have a reselect chance?		
Tourism	28.3	19.6
Animal husbandry	31.3	32.1
Farming	19.3	10.7
Commercial activities	13.3	19.6
Other industries	7.8	17.9
Do you think your advice should be acquired when conducting tourism development strategies in the Aksu-Jabagly NR ?		
Should ask	38.1	21.4
It would be better	45.3	37.5
I do not care	12.9	35.7
No need	3.7	5.4

Comparison of residents' choice in a suitable industry: When answering the question about suitable industries in the Aksu-Jabagly NR, about half of the respondents who settled in Jabagly (52.4%) and about two-thirds of the respondents who settled in Abaiyl (67.9%) chose tourism. The second choice for respondents from the two settlements was animal husbandry, which accounted for 27.1% of Jabagly's population and 14.3% of Abaiyl's population. Jabagly's respondents considered the forestry as the least suitable industry (4.2%), while Abaiyl's respondents thought farming as the least suitable industry (7.1%) in the territory of the Aksu-Jabagly NR (Table 2). This means that although tourism is one of Kazakhstan's newly emerging industries, most people in Kazakhstan and even the country's rural people are aware of the economic, socio-cultural and environmental benefits of tourism development in the fragile biodiversity reserves.

Reselect industries comparison: Table 2 showed that there were approximately the same proportion of people in both settlements (Jabagly – 31.3% and Abaiyl – 32.1% respectively), who chose "animal husbandry" for their reselect industry. 28.3% of Jaagly's respondents chose tourism for their reselect industry, while 19.6% of Abaiyl's respondents chose tourism. In terms of "farming and commercial activities", the result of choice was opposite in the two settlements. The number of people willing to engage in farming in Jabagly and commercial activities in Abaiyl were almost the same, with 19.3% and 19.6% respectively, while those willing to engage in commercial activities in Jabaly accounted for 13.3%, and those who were willing to engage in farming in Abaiyl accounted for 10.7%. The proportion of Jabagly residents who chose other industries was low (7.8%), but nearly one-fifth of Abaiyl's residents chose other industries (17.9%). More than half of the respondents in the two neighboring settlements believed that tourism is the most suitable industry to develop in this world heritage site, but for the question of reselect industries, most respondents in the two settlements chose animal husbandry as their first top wish. It means that although the locals in the two settlements believe that tourism is good in many ways, they actually want to engage in their old professions.

Comparison of residents' care about tourism development strategies: In response to a question about whether residents' advice was obtained when developing tourism in the Aksu-Jabagly NR, more respondents in the settlement Jabagly answered "Should ask" (38.1%) and "It would be better" (45.3%), however, the Abaiyl respondents' answers focused on "It would be better" (37.5%) and "I don't care" (35.7%). There were only 12.9% of Jabagly's respondents selected "I don't care", and 21.4% of Abaiyl's respondents selected the answer "Should ask". The answer "No need" was selected in less proportion by people in both Jabagly and Abaiyl, with 3.7% and 5.4% respectively (Table 2). This means that compared with the Abaiyl settlement, more Jabagly settlers are concerned about the tourism development strategies in the Aksu-Jabagly NR. This is because there are more people engaged in tourism in Jabably than in Abayil (seen in Table 2).

Comparison of the current and reselected industries in neighboring communities

By comparing the respondents' reselected industries to the current industries (Figure 2), we found the following changes:

The tourism industry was selected by 28.3% of Jabagly's residents and 19.6% of Abaiyl's people after they had a reselect choice. It is about 4 times more in Jabagly and about 5 times more in Abaiyl compared to the current engaging industry.

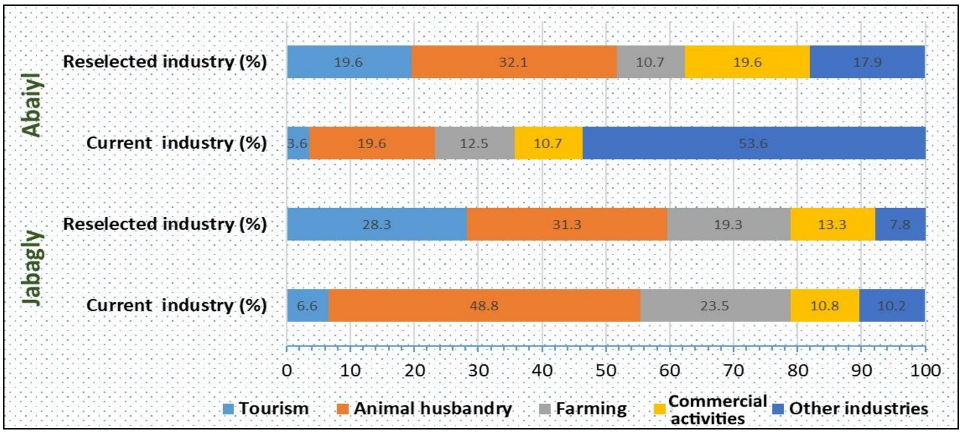

Figure 2. Comparison of the resident's current industries with the reselected industries

In addition, the proportion of reselected animal husbandry (31.3%) is lower than that in the current industry (48.8%) in settlement Jabagly, while the proportion of reselected animal husbandry (32.1%) is higher than that in the current industry (19.6%) in settlement Abaiyl. Then, there were not seen big changes in farming, commercial activities and other industries of Jabagly after reselecting, the proportion of farming and other industry slightly decreased (from 23.5% to 19.3% and from 10.2% to 7.8% respectively), but commercial activities proportion increased a little (from 10.8% to 13.3%). Finally, after reselecting, the proportion of other industry in Abaiyl has declined significantly (from 53.6% to 17.9%), at the same time, farming proportion somewhat decreased (from 12.5% to 10.7%) and the proportion of commercial activities increased more (from 10.7% to 19.6%).

It can be concluded from the changes above that, the main industries of Jabagly's community have become animal husbandry and tourism after re-selection, and the main industries of settlement Abaiyl is animal husbandry. The ideal industry for residents of the two settlements is "animal husbandry".

Distance decay law and tourism relevance

The purpose of distant villagers is to provide the tourism products that tourists need and compete with the local community for the market, which constitutes a competitive relationship with the residents who live adjacent to core tourist destinations (Sun, 2009). Distance decay is a term used in geography to describe the effects of distance on spatial or cultural interactions. Distance decay means that the interaction between locals declines as the distance between them increases.

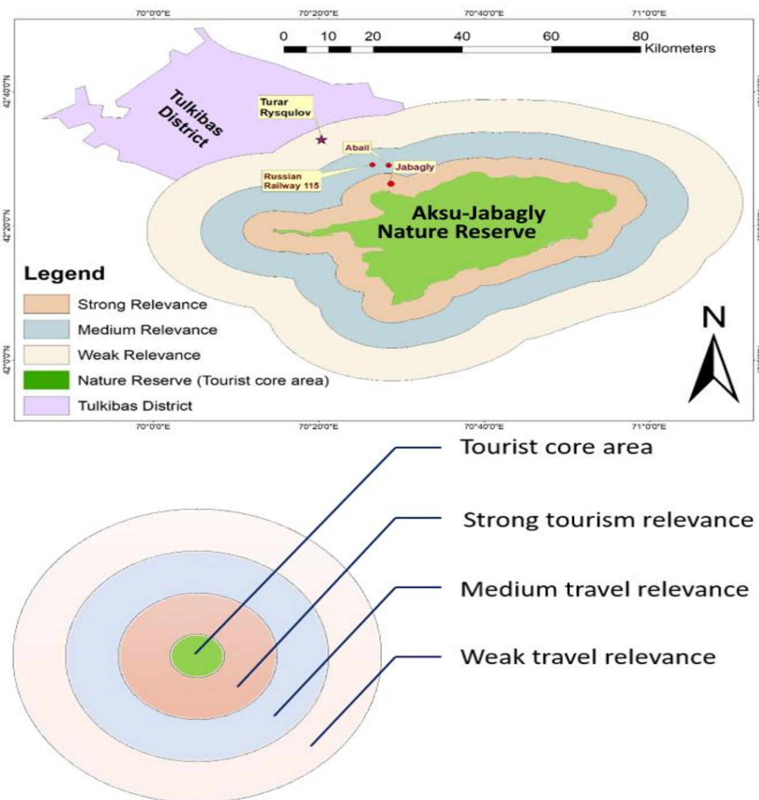

Figure 3. Sketch map of tourism correlation distance decay

In other words, if the distance between the two local communities increases, then their interactions decrease (Rengert et al., 1999). It can be seen in Table 2 that the level of tourism engagement, residents' wish of reselecting industries, and the residents' concerns about tourism development strategy were positively correlated with the distance of the Aksu-Jabagly heritage tourism destination. By comparing the level of tourism engagement, residents' wish of reselecting industries and the residents' concerns about tourism development strategies, we found that people who engaged in tourism in Jabagly (shorter distance from the core area) are more than those in Abaiyl (farther from the core area), of Jabagly residents' wish of reselecting industries is higher than Abaiyl residents', and there are more Jabagly's people concern about tourism development in the heritage site than Abaiyl's. Thus, it can be easily concluded that the smaller the distance from the community to the heritage site, the stronger the tourism relevance, and the stronger the tourism relevance, the higher level of tourism engagement, the more people have the wish to choose tourism as their reselect-industry, and the more people care about tourism development strategies in their neighboring area.

The farther the distance from the community to the tourism destination, the fewer people are willing to choose tourism as their re-selected industry, and fewer people care about the tourism development strategy of the nearby areas.

Settlement Jabagly is the nearest point of the core zone of the Aksu-Jabagly NR, located in circle 2 and there is a strong tourism relevance between the community in settlement Jabagly and the Aksu-Jabagly NR, while settlement Abaiyl is located in circle 3, and the tourism relevance between the community and the NR is medium (Figure 3). One of the most primary reasons for this phenomenon is definitely the location. In terms of location, the relevance of CBET in the Aksu-Jabagly NR decreases in the following order: tourist hotspot – tourist hotline – tourist warm point – tourist cold spot. Settlement Jabagly is a “tourist hotline”, located near the hot spots, so tourists must visit there, it has good scenery and the best location, and some community residents participate in the tourism industry. Thus the number of tourists is more in settlement Jabagly than that in settlement Abaiyl. In terms of settlement Abaiyl, because of longer-distance very few residents in this settlement participate to the tourism industry in the NR, the community of settlement Abaiyl belong to the “warm point”. Some tourists visit this area and few community residents participate in tourism there. If the community residents have different locations from the core zone of the tourism destination, the level of community participation and tourism concerns will be different. A good location can enhance the tourism relevance of the community, thereby increasing the tourism engagement level of the communities, the communities’ reselecting-tourism wishes and the communities’ concerns about tourism development strategies.

Participation rank of neighboring communities in tourism

High level community participation is defined as a process by which people are enabled to become actively and genuinely involved in defining the issues of concern to them, in making decisions about factors that affect their lives, in formulating and implementing policies, in planning, developing and delivering services and taking actions to achieve change (Craswell et al., 2001). Being a developing nation, the status of tourism development, democratization, land ownership, and the civil organization's development in Kazakhstan are still at a low level. When we interviewed professor Ordenbek Mazbayev (a tourism researcher from the Eurasian National University of Kazakhstan) he said: *“Local communities of tourism destinations in Kazakhstan are mostly in a shallow level of participation or non-participation: just participating in the field of economic activities, starting to have the interest-sharing appeal, but not exceeding the economic scope. As a rural local residents’ participation in tourism, most people belong to a shallow level of participation due to their own limited abilities and other objective conditions. The community participation in tourism development at the Aksu-Jabagly NR is no exception”.*

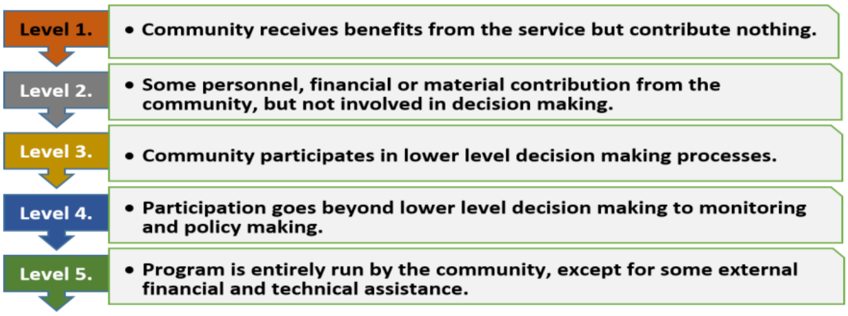

Figure 4. Stages of the community involvement in tourism

Figure 4 is the level of community participation in tourism development. The two levels below the figure (level 4 and level 5) belong to the advanced participation stage, and the above three levels (level 1, level 2 and level 3) are the primary participation stage. When we interviewed the scientific research department director of Aksu-Jabagly NR office, who knows local residents’ participation situation in tourism of the Aksu-Jabagly NR well, he said:

“Local communities mainly involved in general hospitality services and participation in tourism distribution, catering, accommodation, entertainment, transportation, etc. Although they are sometimes invited the meetings of decision making about tourism planning and management in their area to allow giving their suggestion to some degree, no community residents are involved in tourism administration at a higher level or entirely.” It can be seen from the above-mentioned fact that the communities of Jabagly and Abaiyl are still in the low-level stage of the community participation hierarchy.

Empowerment of neighboring communities

Community tourism usually creates a unique view of the importance of community participation in rural development, which in turn leads to increased community capacity (SETOKOE, 2021). Most research in Western countries focuses on community’s participation in decision-making, especially the tourism planning process (Gunn and Var, 2002). Community empowerment is a process of re-negotiating power in order to gain more control, and it recognizes that if some people are going to be empowered, then others will be sharing their existing power and giving some of it up (Baum and Groeling, 2008). The ideal Western-style ‘community participation’ approach can be examined from at least two perspectives: decision-making and tourism benefit sharing (McIntosh and Goeldner, 1986). Community empowerment, therefore, is more than the relevance, participation or engagement of communities. It implies community ownership and action that explicitly aims at social and political change. However, professor Ordenbek Mazbayev also said: *“Due to Kazakhstan’s social reality, on the one hand, rural community participation in higher stages of tourism-participation, such as decision making and tourism planning, has not been recognized as important in tourism industry; and on the other hand, many rural residents do not desire to be involved in regional tourism decision-making and management.”*. According to the results of the tourism relevance questionnaire survey of the two neighboring communities and the analysis of community participation rank above sections, we knew that the tourism relevance of the neighboring communities with Aksu-Jabagly heritage tourism destination was low, and their overall participation was at the lower level. As a result, we can say that communities of Jabagly and Abaiyl settlements, like other rural areas’ communities in Kazakhstan, are not well prepared for an active public participatory approach in decision-making, planning and management of tourism activities. For "empowerment", there are two definitions, one is to enhance the understanding of individual abilities and rights through external intervention and help to reduce or eliminate the process of powerlessness. The ultimate goal is to point to the social action of acquiring rights and the resulting structure of social change (Clark and Zimmerman, 1990); the other is defined as an action-process that builds awareness, empowers and develops skills, leads to greater participation, greater equality, and greater impact (Sun and Ma, 2012). The meaning of community empowerment is reflected in the economic, socio-cultural and political aspects, as shown in Figure 5. Through community empowerment, residents' incomes will increase, community infrastructure will gradually improve, economic and social benefits will be improved, and residents will become the biggest beneficiaries. Participation in decision-making generally refers to empowering local residents to determine their hopes and concerns for tourism (Timothy and Tosun, 2003). According to the locus of the right to tourism development and operation, there are two general modes of rural communities' tourism development: top-down and bottom-up. The former refers to those dominated by local governments, corporations or non-governmental organizations (NGOs); the latter refers to those dominated by local residents or migrants in rural communities (Huang and Chen, 2020). It can be concluded from the above-discussion that foreign residents have relatively large rights in community participation while Kazakhstan communities' participation in tourism and residents' rights are weak. The scientific research department director of Aksu-Jabagly NR office also said: *"The tourism activities in the core zone of the heritage site have been strictly controlled and monitored by the heritage management office. Although it is said that the chance of tourism development in the buffer zone gives everyone equally, tourism planning and organizing events in the buffer zone have been monopolized by very few business-skilled and politically powerful people, some of whom are not local residents".* Therefore, we can claim that in accordance with its law Kazakhstan is a democratic country like western states, the government or other political parties have empowered their community or citizens, every citizen of the Republic of Kazakhstan has the privilege to participate in events holding around them, and bottom-up management should be applied in the decision making, however, community residents' rights are always limited, their enthusiasm to participate in various economic activities including tourism development is very low, and the top-down management of governments, corporations or NGOs plays a primary role in CBET development at the Aksu-Jabagly NR.

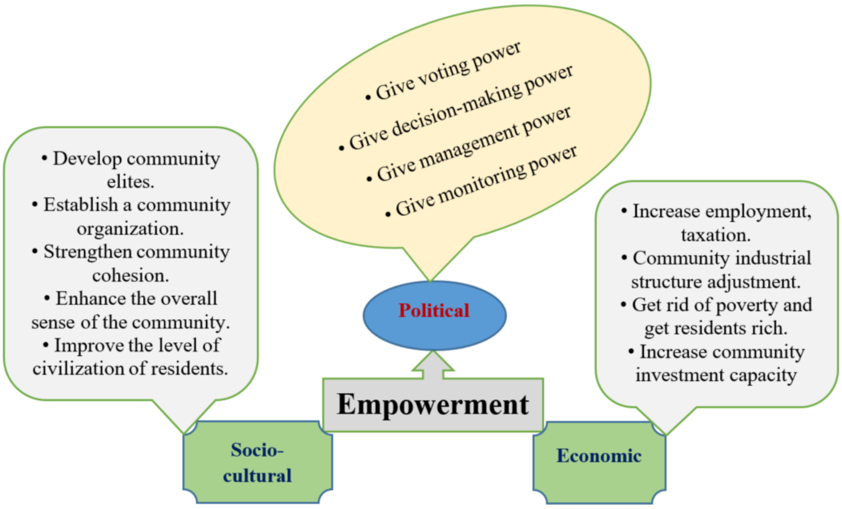

Figure 5. The significance on the empowerment of the local communities

To study the relevance of the neighboring communities with tourism is fundamental to evaluate the sustainable development of nature-based tourism or ecotourism, because the communities adjacent to the nature tourism area are the first owners of the area, they have the right to receive a large share of economic benefits from there, and the participation of the local community is very important in terms of environmental protection. Tourism in protected areas occurs in remote rural areas, it is generally believed that these areas will experience the stimulation of economic activities caused by tourism, and the local people will receive tangible benefits from tourism development (Nepal, 1997). The result of the questionnaire survey regarding tourism relevance of neighboring communities at the selected research area showed that despite the fact that a small number of local residents in the settlements of Jabagly and Abaiyl were engaging in the tourism activities, more than half of the population in both communities considered tourism as the most suitable industry for developing in the heritage site and cared about the tourism development strategies in the heritage site. At the same time, according to their reselect-industry wish, a relatively high number of locals have a desire to participate in the development of tourism. It means that based on the situation of these two communities, if the majority of the people chose tourism for the answer of the suitable industry and people chose tourism as their second wish for the answer of the reselect industry, we will see that those residents are highly motivated to believe in future benefits of tourism and to participate in tourism. According to the documents of Kazakhstan National Committee for the UNESCO Program "Man and Biosphere" and Nomination Dossier of Western Tien-Shan, local communities should be involved in the development and management plans of the biosphere reserve. However, professor Ordenbek Mazbayev said: *"Due to their low educational level, corruption, monopoly, and lack of competitiveness, limited management and operational capabilities, they have not participated well in tourism development management plans in rural areas.".* If rural areas are developed as tourism destinations, local community rights to local resources do not change, and as local owners, the local community has the right to use and prioritize the community's tourism resources. They have the right and obligation to participate in the development and protection of local community tourism resources, the right to participate in tourism development decisions and the right to obtain tourism income fairly. Our results also reveal that although the community residents of village Jabagly are the owners of the heritage sites, part of the tourism resources and providers of human resources, the tourism participation level and empowerment status of the main neighboring communities are still low.

In our article, we have analyzed the three indicators (tourism relevance of the neighboring communities; participation rank of neighboring communities; empowerment of neighboring communities) when assessing the sustainability of CBET in the Aksu-Jabagly NR. From the analysis of them, we can draw the following conclusions: The development of tourism in the Aksu-Jabagyl heritage tourism destination does not meet the requirements of sustainable development of tourism in rural areas, in particular, fails to maintain the economic and social sustainability of tourism development. The tourism industry has the potential to promote sustainable development, especially through the creation of jobs, including employment for women and marginalized groups (Cukier, 2002). The purpose of sustainable tourism is to achieve a balance between protecting the environment, maintaining cultural integrity, establishing social justice and promoting economic interests, at the same time, to meet the needs of the host country's population in terms of improving short-term and long-term living standards (Liu et al., 2013). After observing the study area, we witnessed that the development of sustainable tourism has been implemented in the neighboring communities of Aksu-Jabagly NR to some degree, where some tourist companies and several local residents operate tourism business and they receive tourists every year. They hire several local residents and help increase the local community's economic income. But, unfortunately, despite the fact that there are great opportunities for realizing the economic and social sustainability of tourism development, not many people of neighboring communities engaged in the tourism industry actively and did not see the real economic and social benefits.

Economic sustainable development provides the basis for the efficient use of local resources, while ecologically sustainable development emphasizes the need for effective conservation of biological diversity (Joseph et al., 2020). Considering the environmental effects of sustainable tourism, we are pleased that according to the research results, many people believe that the development of tourism is more effective than other industries in maintaining the ecology of this world heritage site. And when observing the study area, we saw that comparatively higher proportion of local residents are employed by the NR administration office to effectively protect the biosphere in the reserve. They work hard every day, sometimes, workers live in the core zones of the NR for several days to check the wild animals' safety.

As a result, due to the above-mentioned strict regulations and cognitive ideological measures, despite the fact that the NR has been established for nearly a century, the ecology of it is still intact. Through discussing some issues of the relevance of neighboring communities with tourism, participation rank in tourism and the empowerment of the neighboring communities, we initially assessed the development status of CBET at the Aksu-Jabaly NR in Kazakhstan. It helps to conceptualize the socio-economic value of NRs, demonstrate its utility and promote knowledge with practical policy implications in various ways. In this process, it provides innovative theoretical contributions by unifying the relevant fields of NR tourism research and sustainable tourism development, emphasizing the needs to provide more empirical evidence for issues studied through specific case studies. Exploring the development status of the CBET development is accomplished by a mixed-method approach in the case of the Aksu-Jabagly NR in Kazakhstan.

CONCLUSION

The study concludes that the tourism relevance of two main neighboring communities of Aksu-Jabagly tourism destination is comparatively low because very few people engage in the tourism industry at present. At the same time, the local community participation rank and empowerment level of the local community are low too. It indicates that the development of CBET in Aksu-Jabagly NR is still at the lower stage. Improving local communities' tourism relevance, participation rank and empowerment level should aim at increasing economic, social and environmental benefits of nature-based tourism. Therefore, in order to increase the local communities' participation level in the tourism industry, first, local governments or relevant organizations should arrange regular training to improve the knowledge of local communities about engaging in tourism. Second, the local communities' experience of organizing tourism should be accumulated by providing opportunities for engaging in tourism activities and the government provides them with financial and policy support when they are incapable. Finally, if the community has its own source of funds and has certain talents and experience, at the same time, the relevant administrations establish a pleasant environment for them, then the community can manage and operate the heritage tourism itself. There is no doubt that empowering communities will lead to an increase in the level of community participation and tourism relevance, which is definitely the prerequisite of community-based tourism development, a guarantee of gaining the fundamental interests of surviving and developing for the local community, and the foundation of implementing a fair development concept. Although Kazakhstan has a favorable geopolitical position, natural and recreational resources and world cultural and historical heritage, it is not competitive with countries known for tourism and travel (Aktymbayeva et al., 2020). As we have seen in our research, one of the main reasons for this is the low development level of community-based tourism in rural areas, which attracts more tourists.

The main limitation of this study is to evaluate the status of the sustainability of tourism development in the study area by analyzing and discussing limited number of indicators, such as tourism relevance of neighboring communities, their participation rank in tourism and the empowerment status of them, and interviewing the most representative stakeholder groups for quantitative and qualitative analysis, namely local residents and some relevant experts, which are not fully representative of the entire population of stakeholders in the Aksu-Jabagly tourist attraction. In addition, empirical research is biased due to the use of a single case study, the research's time framework and budgetary constraints. A single case study could give some new ideas or theoretical propositions, but may not be an effective basis for laying a general theoretical foundation. Further researches can be carried out based on the current findings to obtain more precise strategies to improve the management of natural heritage sites and to promote the sustainable development of nature-based tourism in protected areas of Kazakhstan.

Aknowlegments

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SUPERVISOR'S AND TOURISM STUDENTS' EVALUATION OF WORK INTEGRATED LEARNING: A POST PLACEMENT ANALYSIS

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Abstract : The success of work-integrated learning (WIL) in academic activities is dependent on feedback from supervisors and the students themselves. Feedback from industry supervisors is crucial for the success of WIL activities in academic qualifications. The purpose of this paper is to analyse the evaluations of supervisors of Lerotholi Polytechnic 2019 final year tourism students WIL and the evaluation of WIL by students themselves. This was done by supervisors evaluating the frequency with which they observed certain behaviour from the students. The evaluation questionnaire formed part of the final WIL report that the students submitted back to the institution upon completing the WIL program. The findings of this research indicate that overall observations by supervisors were consistently and often whilst from a student's perspective, findings show that payment for WIL and gender affect aspects related to how they agreed or disagreed with statements in question.

Key words: work-integrated learning, industry supervisors, academic qualifications, tourism industry, tourism students

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INTRODUCTION

The dynamic nature of the tourism has seen the industry require skills and competencies that can serve the ever-changing demands of tourists. This has made apparent a gap between the requirements of the industry and provisions made by post-school education institutions (Zehrer and Mössenlechner, 2009). Global expectations place a demand of tourism graduates to be work-ready and possess a wide range of competencies and qualities to meet the ever-changing needs of the tourists (Yorke and Harvey, 2005). This has seen the success of academic programmes of institutions of higher learning being measured by their ability to impart on graduate's knowledge, skills and aptitude considered important by industry (Petrillose and Montgomery, 1998). This is a sentiment shared by captains of industry and professionals indicating the importance of integrating academic study and experiential education with the aim to provide students with effective opportunities for success in their chosen industry (Kay and DeVeau, 2013). Based on the above discussed views, the purpose of this paper is to analyse the evaluations of supervisors of Lerotholi Polytechnic 2019 final year tourism students WIL and the evaluation of WIL by students themselves. Central to the study was the question of how supervisors evaluate WIL and how do students themselves evaluate their own WIL experiences? The objective of the study was to establish how the supervisors assesses WIL and how students themselves evaluate their own WIL experiences such that the results can be used to enhance the implementation WIL for the benefit of both the academic institutions, students and the tourism industry. This objective was addressed using 100 supervisor's final WIL evaluation reports and student self-evaluation reports from the department of tourism management.

LITERATURE REVIEW

According to Reeders (2000) the rising diversity in the modes of vocational learning has led to the introduction and coining of the term WIL. A review of literature reveals that there are different terms used to refer to WIL and they include amongst others, experienced-based learning, professional learning cooperative education, work-based learning, practice-based learning, work placements, internships, filed work, sandwich year degrees, and job shadowing (Groenewald, 2004). In this regard, WIL is still at many times, mistaken for a simple internship or work placement. WIL, in its various forms, has existed for more than 100 years and extensive research regarding various aspects of WIL has been conducted (Groenewald and Shurink, 2013; Kay and DeVeau, 2013; Yiu and Law, 2012; Zopiatis and Theocharous, 2013). WIL is considered as the practice that combines traditional academic knowledge/formal learning with student exposure to the world-of-work in their chosen profession (Von Treuer et al., 2010). The desired outcome for WIL is to better prepare undergraduates students for when they enter into the workforce. WIL has developed into an important feature in higher education worldwide and one which is attracting significant funding for future growth and its main idea is to encourage students to have an authentic experience in the real work environment where they are able to apply skills and knowledge gained in the classroom setting (Abeysekera, 2006).

According to CHE (2011:4), WIL can be described as an umbrella term which is used to describe curricular, pedagogic and assessment practices across a series of academic disciplines that formal learning and workplace matters. The views of Yiu and Law (2012) are that students learning in the classroom should be enhanced by WIL. It is important to note that until recently, research into supervisors and tourism student's views of their own WIL experience remained scarce. However, it is worth

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mentioning that research around the relationship between theoretical education and practical experience has been done in abundance providing clarity on roles of stakeholders in WIL (Yiu and Law, 2012; Stanley, 2005; Choy and Delahaye, 2011). The same can be said about research done on the benefits of WIL (Weible, 2010; Pitout, 2009; Zopiatis and Theocharous, 2013; Rudman and Terblanche, 2012; Leslie and Richardson, 2000), research on expectations of WIL (Cannon and Arnold, 2010; Kelley-Patterson and George, 2001; Stone and McLaren, 1999; Emslie, 2009), perceptions of WIL (Petrillose and Montgomery, 1998; Lam and Ching, 2007; Ross and Elechi, 2002; Kay and DeVeau, 2013; Cho, 2006; Tse, 2010; Beggs et al., 2008) and the contribution of WIL (Walo, 2001; Zopiatis, 2007; Groenewald and Schurink, 2003). The results of all these studies can be summed-up as providing useful information about WIL in areas identified above but all these studies fall short in assessing the supervisor's assessments of WIL and students' analysis of their own WIL experience. This current study focussed on both these aspects that continue to be missing in research around WIL in the tourism industry. The above statement is supported by Taylor and Geldenhuys (2016) and Emslie (2009) who recognised that students are key stakeholders of WIL, however, they are generally talk about rather than talked with when it comes to WIL. These students continue to be treated as objects rather than active participants of the WIL process.

It is clear that if institutions of higher learning and employers are serious about improving the quality of tourism placements, then listening to and learning first hand from students is critical. This article, on the one part is written with the intention of filling the gap in literature and providing valuable feedback on student experiences in order to assist the various stakeholders of WIL and on the other part, to review the supervisor's evaluation of WIL for tourism students.

Lawson et al. (2011) noted that WIL at tertiary institutions is mostly used in a broader sense than internships or placements. This is done to ensure that WIL is able to accommodate a broad range of activities which ensure a strong emphasis and focus on industry partnerships. The same authors went further to stressed that WIL is used interchangeably with professional learning and as such this is conceptualised as "the development of professional capabilities through teaching and learning experiences and activities that integrate academic, discipline-specific and industry-referenced knowledge, skills and attitudes. The same authors went further to note that WIL should encompass industry simulation, industry practitioner delivery, industry mentoring, industry study tour, industry placement, industry competition, and industry project. In this paper, WIL is the main focus and as such, the activities under consideration involve partnership with industry stakeholders.

The views of Fleming et al., (2008) are that the global work environment requires certain skills and attributes and not only the discipline-specific skills and knowledge which students acquire at their training institutions. The same authors stressed that these skills and attributes should be supported and reinforced throughout the student's program and these should be highlighted during the workplace learning experience. It should be noted that any type of activities included in WIL, their success will only be maintained if there are practical roles of each stakeholder to maintain strong relationships with key players of WIL. Within the framework of this research, stakeholders are defined as any individual or organisation that participates in or impacts on WIL. According to Patrick et al., 2008; Shirley et al., 2006, there are normally three key participants in WIL and they are: students, lecturers and their training institutions, and employers and workplace supervisors.

Whilst previous literature may be extensive, there is very little research regarding WIL in the tourism industry in the African continent where Lesotho is located, specifically students' post-placement perspectives. Since the students are one of the main stakeholders for WIL and they are the ones provided with the opportunity, they are ideally placed to observe and experience WIL component of their learning first hand and therefore, in evaluating the effectiveness of WIL, they are the most suitably qualified to provide the judgement (Ralph et al., 2007). In support of the above, Taylor and Geldenhuys (2016) asserts that students are the most suited to pass judgement on the effectiveness of the WIL program structure and processes involved. Cho (2006), supported by Ju et al., (2007) noted that WIL is increasingly becoming an essential part of educational preparation and as such, students are demanding effective ways to gain professional skills so that they can reduce uncertainty in the educational process. Ralph et al., (2007) advancing the views of Clift and Brady (2005) noted that the studies and research done has highlighted and revealed that the voice of students who have completed WIL placements is relatively small and that policy-makers and program administrators have more often ignored these students. Wait (2014) advanced that if the purpose of WIL is limited to students gaining work experience, then it is highly possible that its effectiveness will not be realised completely. In this regard, Ralph et al., (2007) emphasised that it is necessary to evaluate and analyse students post placement WIL results in order to improve current practices since they are the only stakeholder who have a direct, daily and intimate involvement with all aspects of the teaching and learning situation.

Karlsson (2010) noted that the ability of industry supervisors to infuse theory and practice is central to the success of WIL students as this ensures exposure and facilitates exposure to original experiences. Rayner and Papakonstantinou (2015) asserts that supervisors are an important part of the WIL experience and without them it is not education, but merely an experience and they are responsible for the transfer of theory into practice whilst facilitating, reflecting and providing feedback to the students. The role of supervisors places them in a position to evaluate the student's WIL experience and provide such feedback to the institutions of higher learning so that they can improve, enhance and create a holistic WIL program.

Odora, 2011; Bilsland and Nagy, 2015; Khuong, 2016, noted that a number of studies about the necessity and importance of industry supervisor's perspectives of students that have completed WIL has been undertaken. These authors asserts that these studies explored WIL practices from countries such as Vietnam and Botswana and they noted that these studies concluded that there was lack of depth in supervisor's final evaluations of WIL tourism students. This finding has placed the current study in a position to contribute new knowledge, addressing the lack of depth highlighted above but also contribute to allowing institutions of higher learning and the profession an opportunity to address the needs of the industry and design strategies that will ensure the continuous improvement and stability of WIL through the results of this study. Milne and Caldicott (2016) conducted a study, which explored the differences in industry supervisors' ratings of student performance on

WIL placements and the relative importance of skills. The article examined the influence of remuneration as a factor in supervisor rating scores. The conclusions found little evidence of significant differences in patterns of supervisor ratings of student performance, or in the importance attributed to skills, in either ‘paid’ or ‘unpaid’ settings (Milne and Caldicott, 2016). It is important to note here that Milne and Caldicott (2016) suggested that industry supervisors remain important to the WIL process as they are best suited and best judges of professional competency, making their assessment of students important since the reliability of students ‘self-evaluation cannot be relied upon. This current study has however, included the self-evaluation by students themselves. In their study of “A baseline study of the gaps in work-integrated Tourism learning: student expectations and perceptions”, Taylor and Geldenhuys (2016) found that most of the students’ received payment for their WIL placement (72,5%). The same authors (Taylor and Geldenhuys, 2016b) conducted research into the final evaluations of WIL students by their supervisors and found that unpaid students had better job understanding and were better at completing tasks than paid students, whilst most students’ were satisfied with their WIL placement (86,3%). In the same study, the authors found that 43,8% of the students found placement of WIL within the retail or wholesale sector and these students were provided with retail and wholesale industry specific training, such as Galileo and Tour Plan, and are therefore best suited to work in this sector. It is interesting to note that only 13,7% of students found WIL placement in the retail and wholesale sector. In their studies, Ahmad (2005) and Avcikurt (2003) found that the tourism industry is dominated by females especially at lower levels of management. Most of the students during WIL work in the lower level of management in the tourism industry.

In his study of WIL process in tourism training programmes in Vietnam from the perspective of academic institutions and industry, Khuong (2016) found that the links between institutions and industry were at best superficial and unstable though there were existence of WIL initiatives. In the same vein, Bilsland and Nagy (2015) found in their study conducted on perspectives of intern work supervisors in Vietnam for Commerce and Management students from students who came from foreign university that it is important to understand supervisor’s perspectives of WIL graduates. It is important to note here that capturing industry supervisor’s perspectives on tourism students’ performance during placement will enable academic institutions and the profession to address current needs and to design and implement strategies aimed at assuring improvement and sustainability of WIL. Tourism academic programmes came into prominence in the 1980s and they have been steadily growing since then. This is as a direct result of many governments around the world noticing the economic contribution of the sector and realised that the industry requires organisation to ensure that it meet the needs of the growing demand from tourists (Leslie and Richardson, 2000). This has propelled academic institutions to produce graduates with high quality learning, knowledge, skills and ability to meet the special needs of the tourism industry (Beggs et al., 2008; Goeldner and Ritchie, 2006; Harris and Zhao, 2004; Kok, 2000). According to Beggs et al., (2008) due to this high industry expectations, emphasis has always been placed on the need for students to acquire industry experience. The views of Tse (2010) are that many institutions of higher learning are now placing practical experience as an essential component of educational preparation for tourism graduates. The same author went further to note that these institutions of higher learning are designing academic curricula to include student work experience to complement the traditional class theory as compulsory.

The views of Fallows and Steven (2000) are that the tourism industry focusses on employing those who have proactive attitudes, capacity and capability to perceive and react to problems creatively and autonomously beyond the academic skills and knowledge they possess. Wang (2008) claimed that there is a perception that education providers are not preparing graduates adequately to meet the expectations of the industry but instead produced graduates having unrealistic expectations of an industry where operational competence is taken in high regard. This has resulted in the need to re-look into the WIL process both in vocational education and in tourism training institutions. This is to ensure that WIL is able to equip graduates with knowledge of specific disciplines, employability skills and competencies to meet the high and growing demands of the tourism industry around the world which has now become a global village (Fleming et al., 2008; Yorke, 2006).

This has seen the alignment of academic and workplace practices into qualifications aimed to be mutually beneficial for students and workplaces through a process termed Work Integrated Learning (WIL) (Nduna, 2012; South African Qualifications Authority (SAQA), 2014; Tovey, 2001). Such a process has provided a space ideal for professional development, as it occupies both learning and work (Trede, 2012). However, the success of the WIL process in its core mandate of developing workforce entry-level competencies and improving the workplace readiness of graduates (Sealey et al., 2015:53), requires the commitment of all relevant stakeholders without compromise. This process furthers requires meaningful feedback that will enable the narrowing of the gap between the current and expected performance of graduates (Peach et al., 2014), thereby allowing institutions of higher learning the ability to adapt their WIL programmes to be in line with industry requirements. Recently, it has become evident that it is difficult for students to get employment after graduation because they lack the experience and skills required to occupy advertised positions (Kim, 2014). For the tourism industry to be successful, it needs skilled, educated and well-trained workforce. The combination of learning and experience allows students to become active participants in their own education (Yiu and Law, 2012). Work Integrated Learning (WIL) demonstrates that theory reflects practice thus providing a meaningful link between what is theoretically learned in a classroom and what is practiced in the industry. This experience enables students to apply theoretical knowledge within the actual working world thereby bridging the gap between theory and practice (Zopiatis and Theocharous, 2013).

According to Karlsen (2010) supported by Sealey et al. (2015), industry supervisors main task during WIL is to integrate theory and practice as well as facilitating the exposure of the students to authentic experiences. The views of Winchester-Seeto et al. (2016) stressed the role and importance of supervisors in underpinning the success of WIL for students. Ralph et al. (2007) noted that the process of transferring theory into practice is done under the watchful eye of supervisors who provide guidance to the students and these supervisors facilitates learning and reflection but also provide feedback of the learning process to academic institutions. It can therefore be concluded that first-hand knowledge of the student’s WIL experience and evaluations completed by industry supervisors are important in creating a holistic WIL programme (Rayner and Papakonstantinou, 2015).

MATERIAL AND METHODS

This study was concerned with analysing tourism industry supervisor’s assessments of Lesotho’s Lerotholi Polytechnic 2019 final year tourism student’s evaluation of WIL and to analysed how students themselves evaluated their own WIL experiences and to achieve this aim, the study adopted a quantitative research methodology. Bryman and Burgess (1999: 45) noted that quantitative research method is the way in which data are collected and analysed, and the type of generalisations and representations derived from the data. The objective of the study was to establish how the supervisors assesses WIL and how students themselves evaluate their own WIL experiences such that the results can be used to enhance the implementation WIL for the benefit of both the academic institutions, students and the tourism industry.

This objective was addressed using 100 supervisor’s final WIL evaluation reports and student self-evaluation reports from the department of tourism management. The quantitative analysis consisted of student behaviours evaluation by the supervisors and student learning experiences evaluation by students themselves during WIL. Descriptive statistics were used to create a profile of respondents and provide insight into the evaluations of students by the supervisors and a self-evaluation by students themselves. Frequencies indicate the rating provided by supervisors for observed behaviours and students self-evaluations. T-tests were conducted to analyse statistical significant differences between certain experiences by the students and this was done to see if students evaluated their own experiences based on certain factors.

RESULTS AND DISCUSSION

The results of the study as shown in Table 1 above, reveal that the females were in majority (78%) whilst the males only made 22%. This is fair reflection since females dominate the tourism industry. These results concur with the findings of Ahmad (2005) and Avcikurt (2003) who noted that the tourism industry is dominated by females especially at lower levels of management. The results in Table 2 above show that majority of the students (74%) did their WIL in the Hospitality sector whilst 23% did their WIL with government sector and only 1% with the wholesale sector. The results of this study are contrary to the findings of Taylor and Geldenhuys (2016) which found that 43,8% of the students found placement of WIL within the retail or wholesale sector. These results may infer the difference of the tourism industry in African context since the study by Taylor and Geldenhuys (2016) was conducted in South Africa whilst the current study was conducted in Lesotho.

Table 1 Gender of the respondents

Gender				
	Frequency	Percent	Valid %	Cumulative %
Male	22	22	22	22
Female	78	78	78	100
Total	100	100	100	

Table 2 Sub-sectors where students completed their WIL

Under which industry sub-sector did you do your learnership?				
	Frequency	Percent	Valid %	Cumulative %
Hospitality	74	74	74	74
Wholesale	1	1	1	75
Government	23	23	23	98
Retail/Services	2	2	2	100
Total	100	100	100	

Table 3. Payment during WIL

Did you receive payment during your learnership?				
	Frequency	Percent	Valid %	Cumulative %
Yes	59	59	59	59
No	41	41	41	100
Total	100	100	100	

Table 4. T-test for payment and experience scores

	Payment	N	Mean	Std. Deviation	t	Df	p-value	Cohen’s d
Experience score	Yes	59.000	1.536	0.347	-3.685	98.000	0.000	0.766
	No	41.000	1.772	0.263				

The results in Table 3 above infer that students who were paid during their WIL (59%) were slightly higher than those who were not paid (41%). These results again slightly differ with the findings of Taylor and Geldenhuys (2016) were they found that found that most of the students (72.5%) received payment for their WIL placement. Once again these results maybe the influenced by the fact that the study by Taylor and Geldenhuys (2016) was conducted in South Africa, which probably has the most advanced and developed tourism industry compared to Lesotho where the current research was based. These results may also infer that due to the tourism industry size in Lesotho, which only accounted for 15.6 percent of the total economy in 2018 according to Lesotho Tourism Development Corporation (LTDC), the industry may not be in a position to pay the students since it is the requirement from the students to have the WIL component in their study to be awarded the qualification.

The tourism industry may therefore see the provision of WIL opportunities to students as a way of assisting them to obtain their academic qualification rather than seeing them as employees for them. Linking the results above under Table 3 with the results presented in Table 4, an independent-samples t-test was run to determine if there were differences in the overall experience score between students who were paid and those students who were not paid during WIL placements. Surprisingly, paid interns average experience score (1,536 +- 1,772) was significantly lower than the unpaid intern average experience score (1,772 +- 0,263), t (98) = -3,685, $p < 0.000$, Cohen's d = 0766. These findings are in line with the results of Taylor and Geldenhuys (2016) who noted that unpaid students had better job understanding and were better at completing tasks than paid students, whilst most students’ were satisfied with their WIL placement (86,3%). These findings are however, in contradiction with those of Milne and Caldicott (2016) conducted a study, which explored the differences in industry supervisors’ ratings of student performance on WIL placements and the relative importance of skills with the aim to examine the influence of remuneration as a factor in supervisor rating scores. The conclusions found little evidence of significant differences in patterns of supervisor ratings of student performance, or in the importance attributed to skills, in either ‘paid’ or ‘unpaid’ settings.

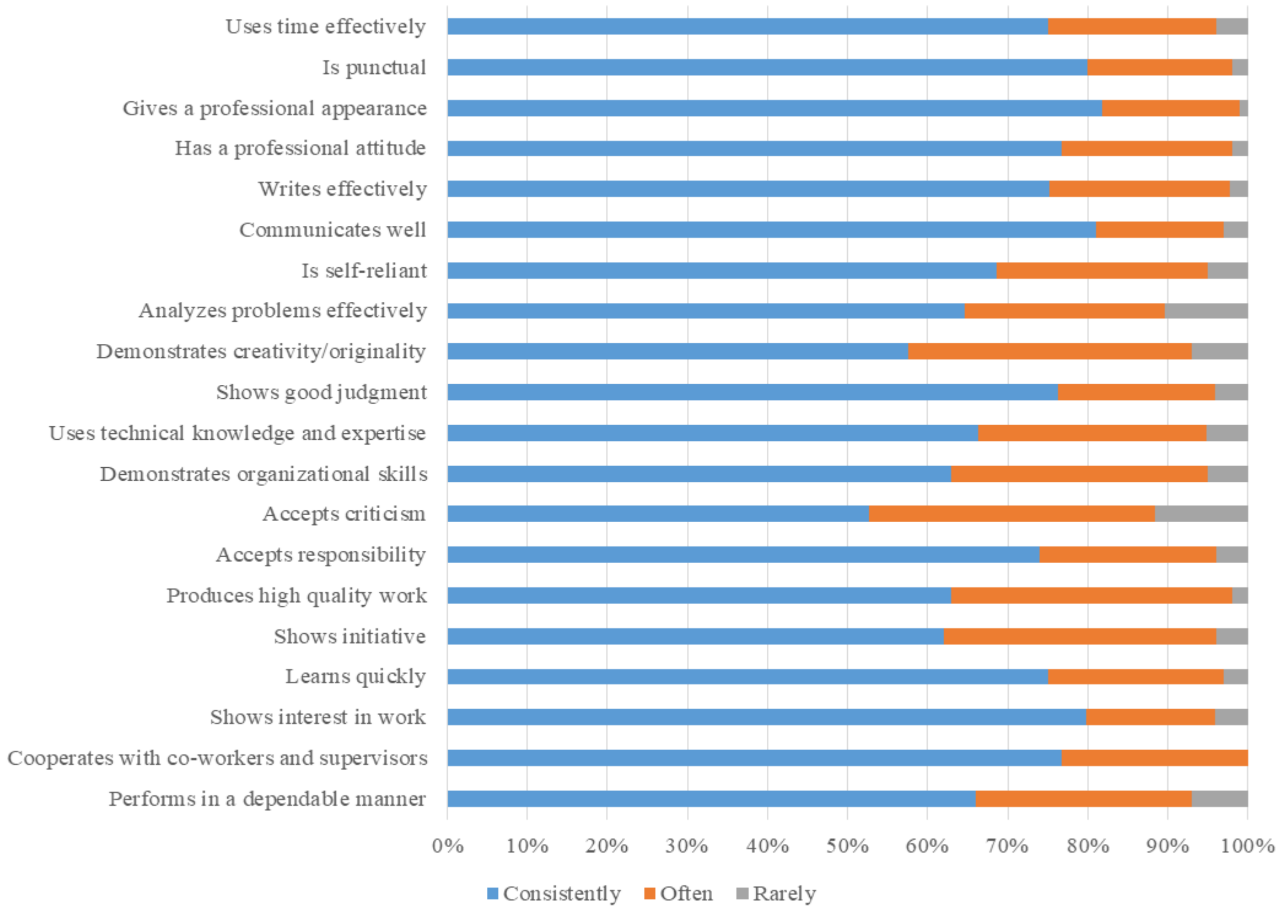

Figure 1. Rating of student behaviours during WIL by supervisors

The supervisors had to rate the students using twenty (20) different student behaviours during the WIL period and these were: performs in a dependable manner, cooperates with co-workers and supervisors, shows interest in work, learns quickly, shows initiative, produces high quality work, accepts responsibility, accepts criticism, demonstrates good organizational skills, uses technical knowledge and expertise, shows good judgment, demonstrates creativity/originality, analyses problems effectively, is self-reliant, communicates well, writes effectively, has a professional attitude, gives a professional appearance, is punctual, and uses time effectively. Figure 1 above show the results of this observation. The results of the study infer that supervisors observed these student behaviours as more consistently and often. In fact, there were only two behaviours that were rated at less than 60% and they were accepts criticism (50%) and demonstrate creativity/originality (57%). There were also two behaviours that supervisors rated highly than the others with both students communicates well and student gives professional appearance rated at 81%. These two student behaviours ratings were slightly followed by student is punctual with a rating of 80%. The rest of the student behaviours were rated between 60% and 80% respectively. Previous studies such as that of Taylor and Geldenhuys (2016), questioned the objectivity and commitment of supervisors when they rate WIL for students. Their study concluded that supervisors have a tendency of rating student behaviours during WIL as consistent and often which questions their objectivity in their ratings.

The results in Table 5 above indicate that majority of supervisors rated the performance of students during WIL as excellent (47%) and above average (42%) with only 10% of them rating the overall performance of the students during WIL as average (10%). Previous studies such as that of Taylor and Geldenhuys (2016), questioned the objectivity and commitment of supervisors when they rate WIL for students. Their study concluded that supervisors have a tendency of rating student performance during WIL as excellent and above average which questions their objectivity in their ratings.

Table 5. Overall performance of the student rating by the supervisor

Overall performance of student intern (Rating by supervisor)				
	Frequency	Percent	Valid %	Cumulative %
Excellent	47	47	47	47
Above Average	42	42	42	89
Average	10	10	10	99
Fair	1	1	1	100
Total	100	100	100	

Table 6. Overall performance of the student rating by the student

Considering your overall experience, how would you rate this internship? (Rating by the student)				
	Frequency	Percent	Valid %	Cumulative %
Excellent	33	33	33	33
Very Good	41	41	41	74
Good	24	24	24	98
Fair	2	2	2	100
Total	100	100	100	

The results of the study in Figure 2 above infer that majority of the students strongly agreed and agreed with the statements about their own WIL experiences with the least opinion being 71% combination on their views on "WIL provided a chance for me to use my leadership skills". This finding could be linked with the fact that when students are doing WIL, they are under guidance of the supervisor and hence they are provided with limited to non-existent opportunities to lead within the spaces they are doing their WIL. It is important to note that the highest disagreement with the statements was 17% were students indicated that they were not provided with the opportunity to use their leadership skills during WIL. Finally, and of significance is to note that there was only 1% across all statements where students strongly disagreed with a statement about their WIL experience. This is noted where 1% of the students indicated that they strongly disagreed that WIL provided them with an opportunity to apply classroom theory into practice.

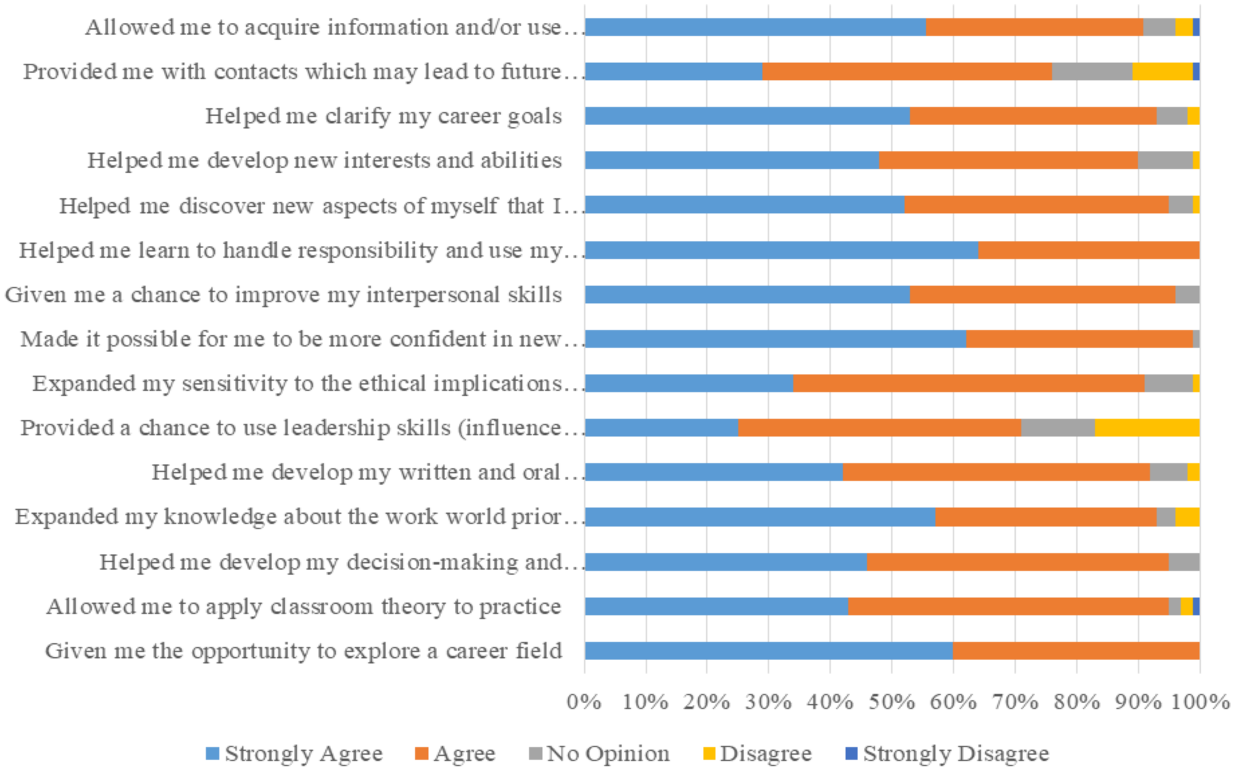

Figure 2. Rating of WIL experience by students

Table 6 results above indicate that in combination, majority of the students (74%) rated their overall WIL experience as very good and excellent. Note is taken here that only 2% of the students rated their overall WIL experience as fair with 24% rating their overall experience as good. An independent-samples t-test was run to determine if there were differences in the overall experience of WIL rating between males and females. Males average rating of their overall experience (1.50 +- 0.673) was significantly lower than the average female rating of overall experience (2.08 +- 0.802), t (98) = -3.079, p = 0.003, Cohen's d = 0.783.

Table 7. T-test for gender and overall WIL experience

	Gender	N	Mean	Std. Deviation	t	df	p-value	Cohen's d
Rating of overall WIL experience by the students	Male	22	1.50	0.673	-3.079	98	0.003	0.783
	Female	78	2.08	0.802				

CONCLUSION

While this study sheds light on the evaluation of WIL by supervisors and students, there are important limitations to the application of these findings that must be acknowledged. First, the study analysed data that centred on the evaluations of a small group of students (100) by supervisors and self-evaluation by these students themselves in one discipline only (Tourism management), that of Polytechnic University in Lesotho, a less developed country. While these data represent what is likely to be typical of supervisor and student experiences in similar regional areas, WIL placements in developed countries where consistent training opportunities for students may exist, the results could potentially be slightly different both from a supervisor and student perspectives. Additionally, these data were reflections of the supervisor's evaluation of the students during WIL and also self-reported by students through recording their own WIL experiences.

While it would be useful to triangulate data from student's self-evaluation with the perspectives of supervisor's who monitored, supported and evaluated the students WIL, these student perspectives are important because they indicate the impact of experiences on their own experiences during the WIL period.

This study results confirm the tendency of supervisors to rate student behaviours during WIL as excellent and above average. Various research articles have raised concerns regarding the gap between graduate employability skills and requirements of prospective employers and based on the findings of this study, as well as previous studies, it appears that supervisors complete the evaluations in a hurried fashion. It also appears that students do not evaluate themselves objectively to provide a fair assessment of their WIL experience. They normally strongly agree and agree with statements provided regarding their own experiences during WIL. Significant differences were found for payment of WIL and gender. Payment for WIL is a contentious issue and one that requires further research.

Further exploratory research into these differences may provide interesting results and can assist with the improvement of WIL placement for future tourism students. It is therefore recommended that further research be conducted into effective, model-based evaluation tools, which can be used to assess the depth of learning in the workplace.

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MILLENNIALS AND TRAVELING TO DOMESTIC DESTINATION

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Abstract: In this period, traveling has become one of the activities most in demand by the community, many people try to get rid of boredom by switching to traveling. The purpose of this research is to investigate the impact of lifestyle among millennials on their attitude toward traveling activities. We use survey research that is conducted to understand the causal relationships between variables with the use of a questionnaire as the instrument to obtain data. The questionnaire is distributed to 100 samples who fulfill the requirements. The sample is millennials in Pontianak City who are between 20 - 39 years old. The data analysis method used is Structural Equation Model Partial Least Square (SEM-PLS) method using SmartPLS 3.0 software. The hypothesis is the lifestyle and travel motivation have an effect to tour preferences. Furthermore, lifestyle, travel motivation, and tour preferences have an effect on consumer intention to travel. The result of this research shows that all the hypotheses are accepted. Not a few people think traveling has become a hobby and lifestyle because traveling itself has become a trending topic in the community.

Key words: lifestyle, travel motivation, tour preferences, traveling, millennials

* * * * * *

INTRODUCTION

With the rapid advances in technology and the increasing global availability and accessibility of digital channels for information/media distribution, sharing the daily activities in social media has become a habit for people around the world, things that are normally shared on their social media are usually in the form of a photo of activities or writing scribbles about their feelings or opinions that are related to the environment around them (Darma et al., 2020). With new habits arising in the community some activities become so popular, like traveling, martial arts (karate and muay Thai), and hang out at Cinema. In this period, traveling has become one of the activities most in demand by the community, many people try to get rid of boredom by switching to traveling, and not a few people think traveling has become a hobby and lifestyle because traveling itself has become a trending topic in the community. Generally, traveling activities will be made a topic on their social media accounts to show what they have done (Ratnasari et al., 2020; Suharto et al., 2019).

Travel motivation is the one that drives people to do travel activities, people tend to travel when they need to get out of their daily activities, they need some refreshment of their mind and body, so they choose traveling as their reflexing moment or as a new exploration to the new place they haven't seen before. So it can be concluded that travel motivation can influence the tour preferences, we can see from their motivations when people want to have a relaxing moment, tour preferences also have escape activities, and when they want to explore a new place, tour preferences also have adventure activities, these two variables have a positive correlation. Research conducted by Prebensen (2016), these studies revealed Norway people tend to choose to explore the new place. She stated that motivation is the most influencing factor and improvement in the service attributes of the journey would contribute to increased overall satisfaction with the journey. Individuals with active, energetic, and adventurous extraversion tendencies will love outdoor activities (Tran et al., 2015). Vuurent and Slabbert (2012) revealed that the tour preferences can drive people to travel, and most of the travelers motives were to rest and relax, to participate in exciting activities, to partake in enriching and learning experiences, social interaction, and certain personal values. Market tastes can be known by studying the needs and desires of consumers through psychographic segmentation by classifying the lifestyle or personality of the traveler (Jannah et al., 2018), these research results indicated that it is clear that tourism marketers are required to do research on a continuous basis in order to determine tourists' travel behavior.

With the development of technology and the many lifestyles of this era, many millennials have various activities influenced by their lifestyles. Sometimes what they often do will become the benchmark of society in assessing the young

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generation (Chivandi et al., 2020). So it can be concluded, that lifestyle is a pattern of life where there is a meeting point between the needs of self-expression with the hope of a particular group is expressed in activities, int sts, and opinions. No doubt lifestyle is often used as group identity. The lifestyle of each group will have its own characteristics. Thus, the lifestyle of society is different from other societies. Lifestyle also can bring us the insight of the people's want in their traveling, and lifestyle is often used as group identity therefore people that care much for their self-images and prestigious things, could be using their money for the expensive tour packages that were provided by the travel agents, they don't care about spending a lot of money to get the luxury one, because what they really want are being recognized by people around them. They will feel shame when they can't get the best services during their travel activities. The examples above indicated that lifestyle patterns could be used to identify the consumer market segments, and that lifestyle dimensions influence consumer behaviors. Previous research indicated that lifestyle variables can provide more effective and efficient marketing information about a tourist as a customer than demographic or socio-economic variables (Plummer, 1979; Zins, 1998). We can see from the examples above, that lifestyle could be the important variable to get the pattern of tourist's behavior because lifestyle directly bring us to their personal life, and this is a big chance for tourism industries to expand their businesses to fulfill the demand of people.

Millennials are known as the icon of the youth generation, and they have their lifestyle and communities that special just for them, they have a great posture of the body, good thinking, and high curiosity. Most of their life is a challenge for them to show their abilities and their presence. Traveling has become one of the ways to show others about themselves, some of them travel by their own, and others using the travel agencies, both of them become their way to show people that they can do it, those who do it by themselves try to show that they are independent and capable doing anything by their own, and the one who uses the travel agencies they try to show others that they can trip with luxury services and indirectly affect other millennial about the image of traveling (Kamri et al., 2020). Considering generating opportunities for the resource potential of regions and public relations of individual enterprises in the production, distribution, exchange, and consumption of tourism products (services) that arise in the implementation of tourism and a number of related types of activity (Kala et al., 2017). Destination of traveling can be anywhere, it can be the view of the modern city, it can be a beautiful landscape of mountain, beach or sea, and even just a small village in the remote parts of the country (Ushakov et al., 2020). Indonesia provides all of the destinations that travelers want to visit. There are Jakarta, Surabaya, and Bandung that provide the modern city and a modern culture rather than other regions. Bali, Lombok, Raja Ampat provide a beautiful landscape of mountains, beach, and seas. Banten provides Baduy village for the one who wants to know about local Sundanese, Papua provides Tablanusu village for the one who wants to know more about local Papuans, and the other places.

LITERATURE REVIEW

Theoretical Approaches

According to Prasetijo and Lhalauw (2015) lifestyle is born from a mindset that becomes, this mindset that forms a person's perspective to do various activities becomes a habit. Meanwhile, Parubak (2010) explains that lifestyle will give a picture where lifestyle will determine someone in choosing what they want, where the phenomenon will shape one's mindset. Hsu and Chang (2008) explained that lifestyle can have an impact on purchasing behavior that has a relatively large influence, while lifestyle is an outside characteristic that can be observed and can be used in strategic marketing (Gonzáles and Bello, 2002). It has been stated that lifestyle variables are built based on the activities, interests, and opinions that exist in the overall consumer behavior model. Gerrig and Zimbardo (2002) define motivation as the general term for all the processes involved in starting, directing, and maintaining physical and psychological activities. Travel motivation is considered an important field in the tourism research literature, the prediction and knowledge of travel motivation plays an important role in tourism marketing, in order to create demand and assist tourists in decision-making (Decrop, 2006).

Thus by having adequate knowledge and understanding of travel motivation, strategies, and policies can be developed and implemented to increase the demand for tourism (March and Woodside, 2005). Travel preference is a selection of travel types, there are a lot of types that can be chosen for the traveler to do travel (Ashworth and Goodall, 1990). Travel types are one of the options that can give an insight of the traveler to do travel with the kind of model traveling they want, and this is the chance for the travel agency to give support to the traveler with providing the tour packages, and there are four effective characteristics of a tours preferences–adventurous, cultural, business-related, and escaping (Abbey, 2004). Consumer intention to traveling refers to the degree in people's minds to do travel posits that behavioral intentions, rather than attitudes, are the main predictors of actual behavior (Fishbein and Ajzen, 1975). There are effective characteristics of behavior when people or consumers have the intention to do something, in this case, is traveling-willingness, financial support, and positive attitudes (Ajzen, 2020).

Hypothesis Development

The application of lifestyle segmentation could provide a unique and important view of the tourism market. The concept of lifestyle is defined as patterns in which people live and spend their time and money reflecting on people's activities, interests, and opinions. Calantone and Johar (1984) stated that lifestyle also could be a useful variable for tourism marketers, not only to classify customers and examine the differences of travelers, but also to predict tourist consumption behavior by looking at their activities, interests, and opinions which are based on their ways of living. So the variable of lifestyle will become the new study for this research. Previous research explained that most travelers are affected by their own motivation, Kozak (2002) tested the factor structure of this measure and found that it comprised four dimensions of motives: cultural motives, pleasure-seeking/fantasy-based motives, relaxation-based motives, and physical motives. Cultural motives (3 items) involve cultural reasons for visiting the destination (e.g., "I visit Barbados to meet the local people"). Pleasure-seeking motives (4 items) involve reasons based on the need to find pleasurable and enjoyable experiences in the destination (e.g., I came to

Barbados to seek adventure"). Relaxation-based motives (4 items) are based on the need to find peace, tranquility, and relaxation in the destination (e.g., "I came to Barbados to be emotionally and physically refreshed"). Physical motives (3 items) are based on the need to find opportunities to be physically active during one's stay in the destination (e.g., "I came to Barbados to engage in sports"). These are the motives that usually people have when they decided to travel.

Travel preference is a selection of travel types, there are a lot of types that can be chosen for the traveler to do travel (Ashworth and Goodall, 1990). As Abbey (2004) stated there are four affective characteristics of a tour's preferences – adventurous, cultural, business-related, and escaping. The type of tour preferences from this research can be assumed to have a relationship with the travel motivation itself, so both variables can affect one another.

Cizmar and Weber (2000) pointed out, destination choice remains one of the first and most important decisions made by tourists; and this decision, in turn, is, to a large extent, subject to a number of external factors, such as country image, accessibility, attractiveness, safety, etc. Destination choice, on the other hand, also determines inter-enterprise competition between airlines, tour operators, hotels, and other tourism services (Ritchie and Crouch, 2000). Consumer intention to traveling refers to the degree in people's minds to do travel posits that behavioral intentions, rather than attitudes, are the main predictors of actual behavior (Fishbein and Ajzen, 1975). After they all know what they are searching for this journey or travel activities.

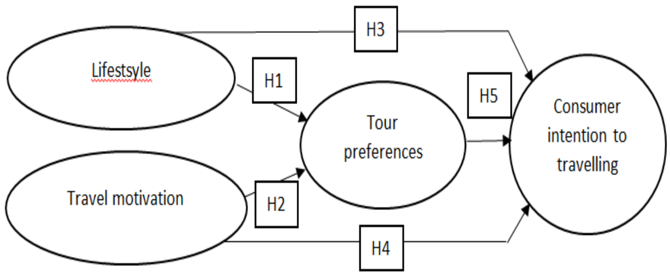

Figure 1. Conceptual framework

From Figure 1, the formulated hypotheses are depicted beside the arrows on the conceptual framework. Scholars believed that lifestyle is one of the consideration factors affecting tour preferences (Chen et al., 2009). Backman et al. (1999) used 46 AIO measurements to categorize senior nature-based travelers and to determine whether differences and similarities between the groups exist. The result of the study stated that senior nature-based travelers are looking for different packages of benefit; in sum, lifestyles are very useful to marketers of nature-based travel products. Therefore, the first hypothesis is formulated, as follows:

H1-The lifestyle has an effect to tour preferences.

Research conducted by Vuurent and Slabbert (2012) condungting results revealed that the tours preferences can drive people to travel, to participate in exciting activities, to partake in enriching and learning experiences, and social interaction and certain personal values. Mohamad and Jamil (2012) stated that most of the motives can be aligned by the tour preferences, and it really helps the traveler and the business sector to collaborate. Based on theoretical support, the second hypothesis is formulated:

H2-The travel motivation has an effect to tour preferences.

Calantone and Johar (1984) stated that lifestyle also could be a useful variable for tourism marketers, not only to classify customers and examine the differences of travelers, but also to predict tourist consumption behavior by looking at their activities, interests, and opinions which are based on their ways of living. Chen et al. (2009) said that lifestyle can be a booster for the people to choose traveling as their activities to spend their time. It does not rule out the possibility that people can be driven by their lifestyle to choose traveling as their activities. Hence, it is concluded that:

H3-The lifestyle has an effect on consumer intention to travel.

Thus by having adequate knowledge and understanding of travel motivation, strategies and policies can be developed and implemented to increase the demand for tourism (March and Woodside, 2005), travel motivation can drive people from the inside, it's what a person wants. People tend to move because of what they want, and that is how the travel motivation works when they know exactly what they want it makes them easy to do traveling. Tourists expect and believe that going on a vacation can partly or fully different needs and wants (Mill and Morrison, 1985) intrinsic and extrinsic motivation can figure tourist motives out, intrinsic motivation is about individual needs to encourage themselves going travel. For example, tourists travel for self-improvement or self-realization. It can make them have happiness, fulfillment, and ego-enhancement. So the fourth hypothesis is formulated:

H4-The travel motivation has an effect on consumer intention of traveling.

Travel types are one of the options that can give an insight of the traveler to do travel with the kind of model traveling they want, and this is the chance for the travel agency to give support to the traveler by providing the tour packages (Oppermann, 1999). Tour preferences move as a guidebook which by using it we can find out and get what we want and it can be driven for people to do traveling as well (Abbey, 2004). It can be concluded that tour preferences are making easier for the traveler to choose the types of traveling they want. The last hypothesis is:

H5-The tour preferences have an effect on consumer intention to traveling.

MATERIALS AND METHODS

This study used a survey method. This research is explanatory and analyzed quantitatively, the primary data in this study were obtained from online and printed questionnaires. The raw data were subsequently proceeded using SmartPLS 3.2.7 for Windows to determine the frequency of responses from the respondents. Likert scale was employed to measure research variables in which the respondents were asked to indicate a degree of agreement and disagreement about the variables and ranged between 1–5, from very low to very high (Heffner, 2016). The research population was classified as infinite; hence, as the sample, this research used purposive sampling which was determined after the samples fulfilled certain criteria. The minimum sample size shall be 100–150 to ensure stable Maximum Likelihood Estimation (MLE). The total sample in this research was 100 respondents who were identified as a potential traveler (Hair et al., 2020). PLS began with testing the measurement model to test the validity of constructs and reliability of instruments. The validity test in PLS was implemented through convergent validity test, discriminant validity test, and Average Variance Extracted (AVE) test. Furthermore, the reliability test was used to measure the consistency of items in measuring the variables. It can also be used to measure respondents' consistency in answering instruments. Overall, the response rate for online surveys was higher than the paper surveys in this research.

Table 1. Measurement of constructs

Variable	Indicator	Item
Lifestyle (X1) adapted from González and Bello (2002)	Interest	I have an interest in inviting my family and friends to go traveling
	Opinion	My opinion and way of traveling make people around me want to go traveling
	Activities	Going traveling to beautiful places is a positive thing.
Travel motivation (X2) adapted from Kozak (2002)	Cultural motives	I have a motive for visiting cultural sites to go traveling
	Pleasure-seeking motives	I have an adventurous motive and seek pleasure to travel
	Relaxation-based motives	I have a motive to enjoy and relax to go traveling
	Physical motives	I have a motive for using physical activities and plunging into nature to go traveling
Tour preferences (Y1) adapted from Mohamad and Jamil (2012)	Cultural activities	I want to travel because there is a collection of activity visits to cultural sites and cultural exchanges
	Adventure activities	I want to travel because there is a collection of visiting activities that challenge my adrenaline in the wild.
	Business activities	I want to travel because there is a collection of visiting activities that have business opportunities
	Escape activities	I want to travel because there is a collection of visiting activities to calm myself and my mind in a quiet place.
Consumer intention to traveling (Y2) adapted from Ajzen (1991)	Willingness	If I have free time I am willing to go traveling
	Positive attitude	I look positively to visiting tourism destination
	Financial support	If I have enough money I want to go traveling

RESULTS AND DISCUSSION

Millennials are people born between the early 1980s and the early 2000s which mean all the respondent should be over 20 years old until 39 years old. This research presents profiles of female and male respondents who were identified as eligible to fill the questionnaires which are required to be millennials. All respondents should be domiciled in Pontianak city, and they also should have been traveling or they have an intention to travel in the future (Dimock, 2015).

The total number of female respondents and a male respondent is almost balanced, the male is 51% and the female is 49%. All respondents (100 informants) are interested in traveling activities, and most of them were undergraduate students 54%. Those below 35 years old were estimated to be accounted for 92% of the total respondents. It was also observed that most respondents earned less than IDR 3 million for their monthly incomes (74% of total respondents). The majority (48%) of respondents were college students. Table 2 illustrates a summary of the characteristics of the respondents.

Table 2. Characteristics of respondents (Source: author's calculating)

Category	Item	Frequency	Percentage
Gender	Male	51	51%
	Female	49	49%
Age	20 - 24	64	64%
	25 - 29	26	26%
	30 - 34	12	12%
	35 - 39	8	8%
Education level	High school	52	52%
	Diploma	10	10%
	Bachelor	26	26%
	Master/Doctor	12	12%
Income level	< Rp.1.000.000	43	43%
	Rp.1.000.000 – Rp.3.000.000	31	31%
	Rp.3.000.000 – Rp.5.000.000	16	16%
	> Rp. 5.000.000	10	10%
Occupation	Student college	48	48%
	Entrepreneur	8	8%
	Private employee	25	25%
	Civil servant	10	10%
	Other profession	9	9%

Table 3. Respondents by visited destination

Destination that have been visited	Frequency	Percentage
Jakarta	72	72%
Bandung	65	65%
Yogyakarta	30	30%
Bali	22	22%
Other destination	100	100%

Table 4. Respondent by destination wants to visit

Destination that will be visit	Frequency	Percentage
Jakarta	100	100%
Bandung	100	100%
Yogyakarta	56	56%
Bali	82	82%
Lombok	33	33%
Raja Ampat	40	40%
Padang	20	20%
Surabaya	15	15%
Semarang	7	7%
Europe	78	78%
USA	67	67%
Asia	85	85%
Australia	55	55%
Other destination	100	100%

Lifestyle does have a big influence on someone's traveling preferences, with different lifestyles making tour preferences indispensable to differentiate between travelers and this will greatly facilitate travelers when traveling. And also travel motivation has a significant relationship with tour preferences. The number of class divisions of the tour preferences in the travel agents is due to the differentiation between the motivations of the travelers who want to travel so that traveling motivation is a very close variable and cannot be separated from tour preferences. Different lifestyles of each group in society make many diverse habits, so it does not rule out when someone who has an independent lifestyle often travels alone, so his lifestyle can affect a person's intention to travel so that he can find something or someone he wants, however, travel motivation is still very influential on a person's intention to travel because when he already knows what motivation he has, it will be easy for him to decide to travel for himself, and clear tour preferences will make it easier for travelers to decide on to do traveling because they already know what they will get from the type or model of travel they are going to do. So the result from this research is all the variables have a significant relationship with each other, it can be concluded that all hypotheses also are accepted.From Table 3, all the respondents have high intention to do traveling. They conclude that Jakarta and Bandung have become the most popular destinations that respondents want to visit as well (Table 4). Furthermore, the data interpretation in this study included the outer model, inner model, mediating effect, and t-statistics test result. The outer model in PLS specified the degree of validity and reliability of the relationships between latent variables and indicators. Firstly, convergent validity occurred when the construct measurements were correlated with one another. As a general rule of thumb, outer loadings should obtain the value of 0.70 or higher, but still can be tolerated to 0.50. If it is below the value of 0.50, then it can be dropped from the analysis; while the 0.5 AVE score was considered satisfactory (Heffner, 2016). Items with outer loadings of 0.6 might be considered acceptable, while items with outer loadings less than 0.5 should be eliminated from analysis (Hair and Celsi, 2011). The results of the validity test are presented in Table 5, including outer loadings and AVE score.

Table 5. Convergent validity test (Source: author's calculating)

Construct	Measurement item	Loading	AVE
Lifestyle	LS1	0.799	0.628
	LS2	0.802	
	LS3	0.777	
Travel motivation	TM1	0.784	0.581
	TM2	0.829	
	TM3	0.801	
	TM4	0.616	
Tour preferences	TP1	0.652	0.688
	TP2	0.894	
	TP3	0.887	
	TP4	0.861	
Consumer intention to traveling	CIT1	0.849	0.676
	CIT2	0.870	
	CIT3	0.742	

Table 6. Discriminant validity test (Source: author's calculating)

(1)	(2)	(3)	(4)	(5)
LS1	0.799	0.489	0.370	0.492
LS2	0.802	0.568	0.481	0.531
LS3	0.777	0.427	0.503	0.606
TM1	0.523	0.784	0.344	0.315
TM2	0.550	0.829	0.414	0.409
TM3	0.470	0.801	0.459	0.389
TM4	0.308	0.616	0.192	0.182
TP1	0.423	0.535	0.652	0.607
TP2	0.480	0.350	0.894	0.870
TP3	0.512	0.397	0.861	0.660
TP4	0.496	0.397	0.861	0.660
CIT1	0.558	0.372	0.730	0.849
CIT2	0.480	0.350	0.894	0.870
CIT3	0.722	0.396	0.480	0.742

Invalid measurement could mystify the research objectives and data interpretations; hence, it should be removed to clearly investigate the correct measurement items and obtain desired results. Moreover, discriminant validity was an assessment to ensure that a reflective construct has the strongest relationship with its own indicators in the PLS path model (Sarstedt et al., 2017). The outer loadings and constructs were adequate yet valid, as illustrated in Table 6.

Notes in Table 6: (1) Item, (2) Lifestyle, (3) Travel motivation, (4) Tour preferences, (5) Consumer intention to traveling.

Finally, the reliability test is vitally important for both data stability and consistency. The measurement model with composite reliability above the threshold value of 0.70 for each construct was considered satisfactory. The reliable statement item also required a Cronbach Alpha value higher than 0.60 for all constructs (Cohen and Aiken, 2003).

Table 7. Reliability test (Source: author's calculating)

Variable	(1)	(2)	(3)	(4)
Lifestyle (X1)	0.706	0.835	>0.70	Reliable
Travel motivation (X2)	0.765	0.846	>0.70	Reliable
Tour preferences (Y1)	0.843	0.897	>0.70	Reliable
Consumer intention to traveling (Y2)	0.761	0.862	>0.70	Reliable

Notes in Table 7: (1) Cronbach alpha, (2) Composite reliability, (3) Scale, and (4) Description

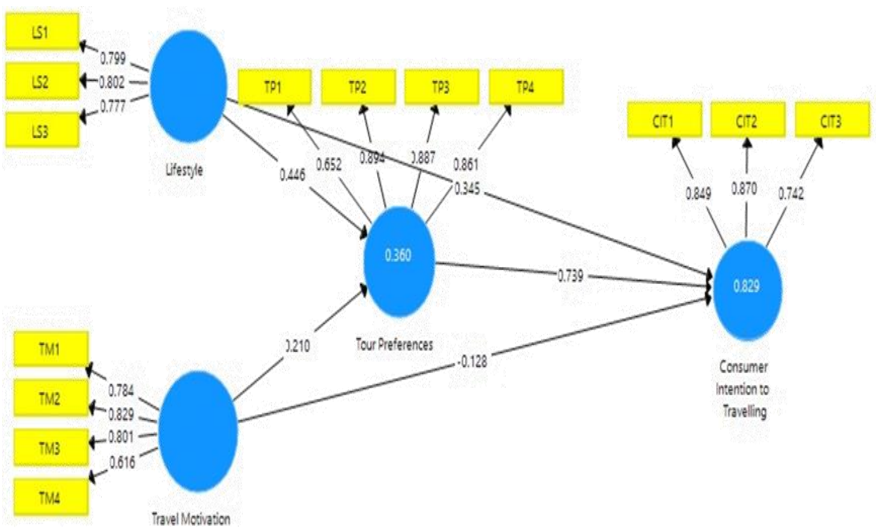

Figure 2. R-square test result (Source: author's calculating)

Composite reliability values for all constructs fulfilled the requirement of 0.70. The results displayed that lifestyle obtained 0.835, travel motivation was 0.846, tour preferences recorded 0.897, and consumer intention to traveling was 0.862. Thereby, high composite reliability values led to the consistency of Cronbach alpha scores for all constructs. Thus, it confirmed the reliability of measurement items. Meanwhile, the structural model was also acknowledged as an inner model. It emphasized the relationships between independent and dependent latent variables. The inner model evaluation consisted of R-square measurement and path coefficient results. The coefficient of determination (R^2) indicated the differing variance in endogenous latent variables from its independent latent variables (Table 7). Conversely, if the results of R^2 was 0.67, 0.33, and 0.19, it proved that the models were subsequently 'good,' 'moderate,' and 'weak' (Hair and Celsi, 2011). Figure 2 contains the illustration of R^2 test results based on SmartPLS 3.2.7 calculations.

A total of 36% specified the proportion of variance in tour preferences which was explained by lifestyle and travel motivation. R^2 of 82.9% measured the ability of dependent latent variables (i.e. consumer intention to traveling) to explain the variances of independent latent variables. It was also proved that R^2 was statistically significant. After assessing the quality of an outer model, it started from an evaluation of structural results by measuring path coefficient (Sanchez, 2013). Path coefficient test results offered theoretical measures of the relationship between constructs and indicators in the structural model. The numbers on the arrows in bootstrapping output were called path coefficients. The weight of different path coefficients represented the rank of each variable's relative statistical importance (Hair and Celsi, 2011). All path coefficients for each construct were positive, as illustrated in Figure 3.

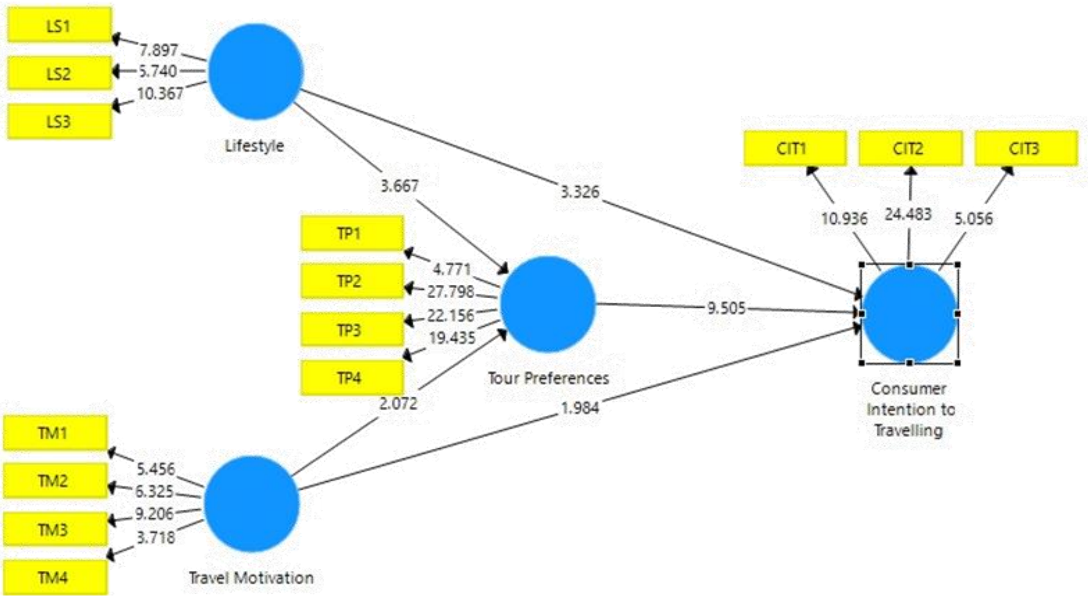

Figure 3. Bootstrapping test (Source: author's calculating)

A mediation could only occur when there was a causal effect between independent and dependent variables which is caused by an intervention or a mediating effect. In this study, the total indirect effects are shown in Table 8.

Table 8. Mediating effect (Source: author's calculating)

Item	Direct Effect	Indirect Effect	Total Effect	VAF
Lifestyle > Consumer intention to traveling	0.345			
Lifestyle > Tour preferences > consumer intention to traveling		0.330	0.675	48.89 % (Partial mediation)
Travel motivation > Consumer intention to traveling	-0.128			
Travel motivation > Tour preferences > Consumer intention to traveling		0.155	0.027	574% (Full mediation)

Table 9. Hypothesis testing (Source: author's calculating)

Item	(1)	(2)	(3)	(4)	(5)	(6)
Lifestyle (X1) > Tour preferences (Y2)	0.446	0.430	0.125	3.576	0.000	H1*
Travel motivation (X2) > Tour preferences (Y1)	0.210	0.225	0.098	2.151	0.032	H2*
Lifestyle (X1) > Consumer intention to traveling (Y2)	0.345	0.330	0.099	3.479	0.001	H3*
Travel motivation (X2) > Consumer intention to traveling (Y2)	-0.128	-0.120	0.063	2.038	0.042	H4*
Tour preferences (Y1) > Consumer intention to traveling (Y2)	0.739	0.746	0.078	9.495	0.000	H5*

Notes in Table 9: (1) Original sample, (2) Sample mean, (3) Standard deviation, (4) T-statistics, (5) P-values, (6) Description, and *accepted

The mediation test was to discover if a mediating construct can significantly carry the ability of an independent variable to a dependent variable (Cohen and Aiken, 2003). Generally, a mediator was a proportion of total direct effects of exposure on the causal relationship, which was interpreted by an indirect effect. However, the total indirect effect and direct effect were both significant. If the direct path was significant, it implied that there was a mediating variable; hence, the bootstrapping procedure shall be redone. If the indirect path was not significant after bootstrapping, there was no mediation. If it is significant, in order to examine the strength of the mediating effect, it was recommended to calculate Variance Accounted For (VAF). There are 3 types of VAF, first if a value greater than 80% represented a full mediation, second if a value between 20% and 80% indicated a partial mediation, and last if a value less than 20% meant no mediation (Hair et al., 2014). VAF was computed by dividing total indirect effect and total effect, then multiplied by 100. Meanwhile, the total effect itself was based on the sum of direct effect and indirect effect.

As illustrated above, Table 8 implied that the lifestyle variable has 48.89% it means the relationships were classified as partial mediation, and travel motivation has 574% it means the relationships were classified as full mediation. Mediating effect's results presented in table 8 explained that all variables had mediating effects on their relationships with dependent variables. It is important to recognize that hypothesis testing aimed to test some theoretical propositions. Hypothesis testing was frequently conducted through the calculation of t-statistics or p-values for each hypothesis. The significance threshold for t-values was 1.96 for a 95% confidence level (Hair et al., 2014). Hence, if the result of a p-value is less than 0.05 or t-statistics is more than 1.96 (with $\alpha = 0.05$ or 5%), then it is assumed that an alternative hypothesis was accepted.

Table 9 presents the outputs of the standardized path coefficient related to all variables. The hypotheses were accepted and had positive direct effects on related variables. This is supported by previous research where Chen et al. (2009) explain that lifestyle attribute is a very useful assessment of tourist psychology for market segmentation research and could render practical information of tourist behaviors in developing marketing strategies and tourism preferences. The overall relationship between lifestyle and tour preferences was supported ($\beta = 0.446$, t-statistic = 3.576, and p = 0.000), thus, H1 is accepted. The number of class divisions of the tour preferences in the travel activities is due to the differentiation between the motivations of the travelers who want to travel so that traveling motivation is a very close variable and cannot be separated from tour preferences. This is supported by previous research where Prebensen (2016) inform that motivations are the most influencing factor and improvement in the service attributes of the journey or tourist preferences, it would contribute to increased overall satisfaction with the journey. It was concluded that there was a significant relationship between travel motivation and tour preferences ($\beta = 0.210$, t-statistic = 2.151, and p = 0.032), thus, H2 is accepted.

Different lifestyles of each group in society make many diverse habits, so it does not rule out when someone who has an independent lifestyle often travels alone, so his lifestyle can affect a person's intention to travel so that he can find something or someone he wants. This is supported by previous research Bandara et al. (2016) they stated that lifestyles are the genesis for many vacation behaviors and additionally pointed out that lifestyle differences are more influential in determining vacation behaviors. The result indicated that lifestyle had a significant, positive relationship with consumer intention to traveling ($\beta = 0.345$, t-statistic = 3.479, and p = 0.001), thus H3 is accepted. Travel motivation is very influential on a person's intention to travel because when he already knows what motivation he has, it will be easy for him to decide to travel for himself. Based on the previous research by March and Woodside (2005) they stated that Travel motivation can drive people from the inside, it's a person's wants. People tend to move because of what they want, and that is how to travel motivation works, when they know what exactly they want it makes them easy to do traveling.

A significant, positive relationship between travel motivation and consumer intention to traveling was supported ($\beta = -0.128$, t-statistic = 2.038, and p = 0.042), thus H4 is accepted. A significant, positive relationship between tour preferences and consumer intention to traveling was supported ($\beta = -0.739$, t-statistic = 9.495, and p = 0.000), thus H5 is accepted. This is in line with the previous study by Ashworth and Goodall (1990) they stated travel preference is one of the options that can give an insight of the traveler to do travel with the kind of model traveling they want.

CONCLUSION AND LIMITATION

The level of respondent intention to traveling is progressively growing in recent years. As the internet offers the better speed connection it makes it easier for people around the world to share their life activities in social media, and they can manage to enhance their popularity among other with showing their picture especially traveling activities. Travel motivation adds more customer value to choose the traveling model they want, and it will make them easy to understand what they are searching for from these activities. Since tour preferences have the highest significant relationship towards consumer intention to traveling, the tourism businesses need to focus on efforts to generate consumers' memory about travel type specifications. Promotion efforts through advertising and public relation are recommended because there are still few advertisements related to tourist sites and especially for domestic destinations which enhance the tourism business sector in Indonesia.

This research also has some limitations. Firstly, it has geographical limitations. Secondly, it only has a small number of samples. Thirdly, few theoretical supports provide some limited space to explore this topic. More than that this research has lacks resources and we hope for future studies can add more variables and implement this topic for different places. A comparison between two or more different destinations is strongly recommended. Lifestyle is one of the most significant variables in this research. Hence, future studies can compare different types of lifestyles in each generation. Further study can add more variables to determine a causal relationship between tour preferences and consumer intention to travel.

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PARTICIPATION IN ECOTOURISM EDUCATION, GENDER AND PLACE OF RESIDENCE AS DETERMINANTS OF ATTITUDES TOWARDS SUSTAINABLE TOURISM

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Abstract: The aim of the research was examination of pro-environmental attitudes of the students participating in optional classes of Sustainable Tourism on the background of students who did not participate in such classes. In the research participated 126 students of tourism and recreation. From among 7 factors creating Sustainable Tourism Attitude Scale (SUS-TAS), 9 statements forming the first component of the scale of Environmental Sustainability – were used. The results do not confirm more positive attitudes of students realizing Sustainable Tourism. No differences were found either, in pro-environmental attitudes between respondents from a town or from a village. According to the expectations, women are characterized by more positive ecological attitudes than men. Educational contact with sustainable tourism and place of origin had no effect on environmental attitudes.

Key words: sustainable tourism, attitudes, gender, place of origin

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INTRODUCTION

Even though the crisis connected with the pandemic of COVID-19 causes huge financial losses for the whole tourist branch, it is also worth noticing positive aspects of this dramatic situation. These undoubtedly include the belief that leisure time activities can be sustained through a greater emphasis on sustainable tourism than has been the case to date. There is not and possibly for a longer period of time there will not be better occasion for reorganizing and thinking over our attitude to the tourist offer towards the sustainable direction than the moment when the most of potential tourists stay at home and dream about the journeys they will go on once the pandemic turns into unpleasant memory. In recent years, due to the excessive number of tourists some countries were forced to close temporarily some of their heavenly locations, e.g. Maya Bay in Thailand or the island Boracay in the Philippines (Balmford et al., 2015). In the effect the nature, devastated by mass visits and irresponsible attitude to using its resources – started to revive finally. Presently, though it was not planned, we observe similar closings all over the world. Nature got leave from mass tourism and offices of organizations responsible for its protection have ideal chance to apply for introduction of necessary changes. In case of mentioned here tourist centers it meant though many restrictions, setting limits of visitors and renewing infrastructure, but everything points out that such activities are achieving the desired effect (Sigala, 2020).

However, in the context of the expected end of the pandemic, this does not mean that all postulates for the development of nature-friendly tourism have become obsolete. This aspect, which relates to the development of regional identity, is one of the key areas of tourism policy, as can be seen, for example, from the information on the prospects for developing cross-border tourism in the Baltic Sea Region (Cerić and Więckowski, 2020). There are also other side effects of the pandemic which could be associated with the strategy of sustainable development. They include limitation of transport and in the result observed significant decrease of air pollution as an ecological effect. The limits concerning water transport also constitute a positive sign for maintaining quality of ecological resources within coral reefs, bays and rivers as well as canals in Venice. They may also decide to improve the subjective comfort of resting (Newsome et al., 2019). In many places like, for example, at constantly crowded Khao San Road in Bangkok, started necessary and scheduled long time ago, renovations. Even though, not all the popular places totally have been deserted, undoubtedly there are few tourists in comparison to regular situation. What is equally important, mass tourism will be surely returning to the most popular destinations gradually. When the restrictions disappear, and the air traffic returns, many of us will have unique opportunity to explore the tourist routes again. Governments and organizations will have chance to test the situation when the number of tourists is moderate. If the post pandemic reality becomes characterized with the idea of sustainable planning of tourism, the role of ecological consciousness of tourists will substantially grow. It seems to me that the best moment for its forming is the period of formulating life attitudes in childhood and youthfulness. An important role should be attributed to school and academic education (Keles, 2011; Boca and Saraçlı, 2019; Zachariou et al., 2020). Taking into consideration that ecological education creates relations between man and nature and explains total dependability of humanity on the environment and that it can influence building the desired social and individual attitudes opposing the destruction of natural environment, it is understandable that ecological issues are included in curriculum of majority of higher studies. However, since the role of a man in nature is undergoing continuous changes, more and more current information on functioning the system

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man-environment should be provided. Such a need is seen at each educational stage, during the studies as well. It was noticed in 1980, when the obligation of ecological education during studies was statutorily approved (art. 11 of Act on protection and shaping environment). Within lectures and classes on environmental protection, protection of nature and ecology, future specialists on Tourism and Recreation are getting prepared to take care of places where the leisure activity of a man is organized. In connection to knowledge of hygiene and physiology, the factors disturbing the homeostasis of an organism in case of exercising such activity in the conditions harmful for health are indicated. In the last decades of previous century, further studies on this issue resulted in working out educational materials for teaching ecology of students of Tourism, Physical Education and Public Health. The following handbooks were issued at the Academy of Physical Education in Poznań (Bogucki and Zątek, 1978), Kraków (Żmuda, 1983), Wrocław (Jethon, 1994) and Gdańsk (Riedl, 1998). Lectures and studies on Sustainable Tourism were aiming at acquiring new knowledge, and possibly arranging the existing knowledge. However, with knowledge of a given topic, there is directly connected cognitive component of attitude that may determine it on the same level as the emotional or behavioral component (Rogozińska-Pawełczyk, 2014). Furthermore, confidence of advantage of ecological attitude of women in comparison to men is strongly established in literature of the subject. First female organizations for nature, food, air and water protection, alike the suffrage movement in fight for voting rights of women, go back to the end of the XIX century in the USA, England and France. In the opinion of Mann (2011) the beginnings of eco-feminism should not be associated with feminist activities for the political rights of women, but with women originating from various racial and social background.

In the period of early industrialization, social class and race constituted the differential exposure factor to functioning in polluted environment and that is the reason why the first movements for environment were connected with the women's fight for safety of food and access to drinking water (Mann, 2011). The most questionable seems to be indication to stronger pro-ecological attitudes of respondents coming from one or two places of origin – town or village. Selective analyses on one hand indicate to more pro-ecological attitudes of country inhabitants (Garczewska et al., 2017), what is explained by closer contact with nature, arising from living in the village (Bednarek-Gejo et al., 2012). On the other hand, the direct neighborhood of transformed environment may lead to deeper ecological reflection. This relationship was seen among the inhabitants of relatively more degraded regions (Oleńska and Poskrobko, 1996). Purpose of the research was to assess attitudes towards sustainable tourism with consideration of such conditionings as including eco-tourist issues in the curriculum of academic classes, gender and place from which the subject students originated. Considering the above information, 3 research hypotheses were formed:

1. Environmental attitudes are more positive among the students choosing subject Sustainable Tourism.
2. Strength of pro-environmental attitudes is conditioned by gender with indication to advantage of women.
3. Place of living is not a decisive factor of difference in environmental attitudes.

MATERIALS AND METHODS

In the research participated126 students, including 66 persons who decided to participate in classes in the optional subject named Sustainable Tourism and 60 persons who did not participate in these classes. The subject group consisted of 55 men and 71 women. It was represented by 76 students from town and 50 from the country. From among 7 factors creating Sustainable Tourism Attitude Scale (SUS-TAS) (Choi and Sirakaya, 2005), 9 statements forming the first component of the scale of Environmental Sustainability – were used. Those attitudes were also examined under two other particular circumstances – gender and place of origin, regarding division in urban and rural environment. The participants were asked to respond to and indicate the degree to which they agreed or disagreed with each of a series of statements. Responses were recorded on a Likert-type scale, with the anchors being strongly agree = 5 and strongly disagree = 1. The content of the various claims was as follows:

1. Community environment must be protected now and for Environmental sustainability the future
2. The diversity of nature must be valued and protected
3. I think that tourism businesses should strengthen efforts for environmental conservation
4. Tourism must protect the community environment
5. Tourism needs to be developed in harmony with natural and cultural environment
6. Proper tourism businesses require that wildlife and natural habitats be protected at all times
7. Tourism development must promote positive environmental ethics among all parties that have a stake in tourism
8. Regulatory environmental standards are needed to reduce the negative impacts of tourism development
9. I believe that tourism must improve the environment for future generations

Researches based on test t-Student with application of program Statistica 10, was conducted in the years 2017-2021 with students of the faculty Tourism and Recreation at the Academy of Physical Education and Sport in Gdańsk.

RESULTS AND DISCUSSION

Decision on choosing or resigning from Sustainable Tourism as an optional subject was taken by the students whose ecological attitudes were already shaped. Supposedly, that was the reason that participating in classes concerning these issues did not result in more positive attitudes in comparison to the students who chose other subjects. The results of this analysis are presented in Table 1. Gender research as a determinant of environmental attitudes univocally indicate to stronger pro-ecological convictions of women in comparison to men. Only in one case the difference between groups was not statistically significant. The results are presented in Table 2. Environmental attitudes occurred to have no reference to the place of origin of the students participating in the research. None of the 9 opinions not even suggested the measures of statistical significance between the attitudes of urban and rural students. The results are presented in Table 3.

Awareness of interdependence of a man and natural environment is the basis of realization of the sustainable development rule. Ecological awareness focuses itself on three planes: cognitive, emotional and of activity (Albińska, 2005). Cognitive plane is environmental knowledge, relying on understanding processes and phenomena occurring in nature. Emotional plane is connected with personal feeling resulting from direct experience of negative effects of deteriorating environmental condition and it is expressed in attitude to nature and referring emotions. The plane of action is an active readiness to take action, expressed in active attitude for protection and shaping the environment. It is constituted by particular attitudes and undertaken activities.

Table 1. Ecotourism students' and other students' attitude towards sustainable tourism

Item	Ecotourism students (n = 66)		Other students (n = 60)		t	p
	Mean	SD	Mean	SD		
1	4,75	0,46	4,65	0,54	1,19	0,235
2	4,57	0,58	4,48	0,74	0,77	0,438
3	4,34	0,73	4,40	0,69	-0,40	0,686
4	4,46	0,76	4,31	0,91	1,02	0,308
5	4,51	0,76	4,33	0,83	1,27	0,206
6	4,48	0,72	4,45	0,74	0,26	0,791
7	4,57	0,58	4,50	0,59	0,72	0,472
8	4,42	0,74	4,43	0,72	-0,06	0,944
9	4,63	0,62	4,60	0,58	0,33	0,737

Table 2. Men's and women's attitude towards sustainable tourism

Item	Men (n = 55)		Women (n = 71)		t	p
	Mean	SD	Mean	SD		
1	4,60	0,56	4,78	0,44	-2,10	0,037*
2	4,36	0,72	4,66	0,58	-2,54	0,012*
3	4,21	0,71	4,49	0,69	-2,17	0,031*
4	4,16	0,89	4,57	0,74	-2,81	0,005*
5	4,16	0,83	4,63	0,72	-3,38	0,000**
6	4,20	0,77	4,67	0,62	-3,79	0,000**
7	4,43	0,60	4,61	0,56	-1,74	0,082
8	4,18	0,74	4,61	0,66	-3,47	0,000**
9	4,47	0,60	4,73	0,58	-2,43	0,016*

* $p \leq 0.05$; ** $p \leq 0.001$

Table 3. Urban students' and rural students' attitude towards sustainable tourism

Item	Urban students (n = 76)		Rural students (n = 50)		t	p
	Mean	SD	Mean	SD		
1	4,68	0,52	4,74	0,48	-0,60	0,547
2	4,52	0,66	4,54	0,67	-0,11	0,910
3	4,30	0,73	4,48	0,67	-1,37	0,172
4	4,40	0,78	4,38	0,92	0,18	0,856
5	4,39	0,81	4,48	0,78	-0,58	0,562
6	4,47	0,70	4,46	0,78	0,10	0,918
7	4,51	0,59	4,58	0,57	-0,62	0,534
8	4,43	0,73	4,42	0,73	0,10	0,915
9	4,65	0,57	4,56	0,64	0,88	0,376

In another approach, these planes can be identified with the basic factors of ecological awareness which consists of ecological knowledge expressed in comprehension and understanding the way of coexistence of a human and nature, ecological sensitivity as emotional attitude to nature and pro-ecological attitudes, that is activities undertaken for protection of natural environment (Kwiatek and Skiba, 2017). Tourism can coexist in conjunction with a developed ecological awareness, which corresponds ideologically to the so-called soft tourism (Krippendorf, 1982), although such awareness cannot be unequivocally excluded in people representing mass tourism, including sports tourism (Ratkowski and Ratkowska, 2018). Increase of ecological awareness at each of the recognized planes takes place in the process of ecological education, both the formal as part of curriculum in schools and informal, realized by community self-governments, nongovernmental organizations, institutions and ecological education centers of national parks, landscape parks or state–owned forests. These entities can successfully realize activities on the field of ecological education, on the basis of its material base while using professional knowledge and competences of the employees. The barrier for implementation of many pro-environmental solutions in tourism and obstacle in planning sustainable tourism is, however, low level of ecological awareness of tourist staff in various areas of activity (Stuczyński, 2013). To counteract this, knowledge needs to be shaped accordingly, as well as competences and skills of students of faculty Tourism and Recreation (Alejziak, 2014). Results of the research concerning ecological awareness of the Polish people (Strumińska-Kutra, 2011; Strumińska, 2010; Stanaszek and Tędziagolska, 2011) have shown positive effects since the years when educational activities started. Those changes took place both in mentality of our society, change of lifestyle as well as in the tangible effects of environmental measures. However, ecological awareness functions the best in the sphere of emotions, since generally, society has the right feel, convictions and represents declarative attitude. This fact, however is not reflected in the sufficient way in pro-ecological activities which would preserve and rationally use resources of natural environment (Kijowska and Poniży, 2013). The changes in the ecological awareness of the society towards an increased interest in the problems of environmental protection in the broad sense of the term influence the emergence of new motives for travelling, which underpin the development of Sustainable Tourism (Lewandowski, 2010), particularly in the areas naturally precious. This type of travel aimed primarily at expanding the participants' knowledge in a specific area and subject, Mikos von Rohrscheidt (2008) calls educational tourism, which is generally the deliberate choice of people with a high level of environmental awareness and sensitivity to the natural environment (Zaręba, 2000). According to the research conducted in Poland, high sensitivity for environmental problems, is noted in age group 39–45, what most probably results from the fact that people in this age do not think only about themselves, but having children they may feel problems concerning their or their family health. The group, which shows the lowest percentage of pro-ecological attitudes, are people in the age of 18–24 (7%), which is at odds with the natural expectations that are underpinned by the well-established presence of environmental content in the school education system. It may be prognosticated that in the next researches, influence of educational system will rise, since in age category -18–24, knowledge from school is indicated by 45% of respondents, and in the case of people aged 25–29, only 22% (Stuczyński, 2013). It turns out that in spite of numerous concerns, ecological education at school brings some effects which are not reflected though, in change of attitudes, since the youngest respondents do not dominate in pro-ecological group, just the opposite, they are the least numerous in representation (Bołtromiuk, 2010).

Higher education students of various faculties are distinguished by high level of ecological knowledge and they show interest with ecological problems. However, they have no awareness that through their professional knowledge they can improve ecological situation in the given region. However, they declare necessity of ecological education in the process of learning. It was stated that theoretical curriculum and professional practice of students of agriculture in majority of cases is not connected with particular issues of environmental protection and its rational usage. There is general demand for organizing postgraduate studies named „Sociological Ecology" for students of Higher Schools of various specializations. It has to favor: to deepen knowledge of the human impact on the environment, to learn about the mechanisms of rational use of nature, to evaluate natural resources and to shape the ecological outlook of future professionals of various specialties (Demeshkant, 2007). Majority of students of Health Department of Medical University in Poznań (72%), claimed that they are interested in problems of environment protection but for as many as 87% it is not raised often in Poland. For those students who were surveyed, the main source of information on protection of environment was the Internet (75.3%), television (67.3%) and activities at studies (66.7%) (Poniedziałek and Rzymski, 2010). Among the students of University of Economy in Katowice a positive trend in understanding the concept of "sustainable development" was noticed. Many of those interviewed no longer equate sustainable development with environmental protection in the narrow sense, but are convinced of the importance of environmental issues for society and the economy. Many subjects indicate also the need of introducing to school curriculum the subject concerning issues of sustainable development (Lorek and Słupik, 2009). Research conducted among students of University of Agriculture in Kraków showed that the period of studies is for a numerous group of students (17%) the decisive moment of forming their ecological awareness which is developed and deepened by subjects specific to the field of study. However, it is a worrying fact that in the received responses there was only one concerning positive role of students' internships in shaping ecological awareness and that nobody mentioned impact of suitable section of Student Research Club or Academic Ministry (Ziernicka-Wojtaszek, 2011).

Students of nature protection from the University in Warszawa, in spite of declaration on high level of their knowledge and behaviors in the field of environment protection, in majority were not able to explain the notion "sustainable development". Only 10% of respondents in defining this term gave multidimensional context: social, environmental and economic. Less than the half (40%) was convinced that it is only the environment that counts, a quarter indicated at economic aspects and the following 25% of respondents were not able to answer this question at all (Tuszyńska, 2007). One of the concepts of tourist education in higher school is basing it on four closely integrated and sustainable areas: professional activities, professional reflection, liberal reflection and liberal activities. The result of such a model of education is a graduate who is properly prepared for his profession and able to act holistically in the tourism market (Tribe, 2002). On the other hand, a holistic approach to nature education within tourism education is supposed to guarantee a better understanding of the relationship between a human and natural environment. It is also intended to trigger a new quality in the management of this environment and thus the effective implementation of sustainable development (Sandner, 2007). The research on relationship between gender and widely understood ecological awareness provides us with very interesting information (Brough et al., 2016). Such behavior as car share (carpooling) or sorting waste was mainly attributed to women. Customers who choose organic products are more likely to be rated as stereotypically more feminine, regardless of gender. During research they were reading a scenario where a person was checking an offer of greengrocer's having in hand plastic bag or textile bag. This person then had to be assigned characteristics from a list that included both masculine, feminine and neutral attributes. Both men and women were more ready to assign feminine features to a person with definite ecological behaviors. In addition, it was found that men are willing to go to extra trouble to avoid eco products and thus affirm their cultural masculinity. Something as innocent as pink gift card in eco department was enough to deter them.

But if the information on a product appealed clearly to their masculinity (e.g.do something "as a man") their reaction was different. Then they were eager to buy and eco was not a deterrent. Men, more frequently than women, spend their money on NGO named Wilderness Rangers that has a wolf in logo, than to Friends of Nature with light, green logotype. Yes, of course, one can wait until cultural patterns for women and men change, but then we may not have enough time to protect nature and we will become extinct before we shake off the tight corset of cultural roles and habits. That is why the authors of the research call for men to be "caught" in an eco-bait with such categories that effectively appeal to them (Brough et al., 2016). Indicated in the results of this research, lack of relations between the place of origin of respondents and their ecological convictions confirms other ambiguous messages on this issue. For some, stronger ecological sensitivity, is related due to closer contact with nature resulting from living in the country (Bednarek-Gejo et al., 2012; Garczewska et al., 2017) and in others, however, deepened ecological reflection is noticed due to living on the areas highly transformed (Oleńska and Poskrobko, 1996). Along the size of the inhabited place, rises also among respondents, the sense that waste creates one of the greatest environmental problems. It is the inhabitants of big cities who relatively more often pay attention to contamination of waters (NFOŚiGW, 2018).

CONCLUSION

The results of the study allow for an unequivocally positive verification of the hypothesis of a strong gender bias in pro-environmental attitudes. The assumption that there are no differences in the strength of these attitudes when taking into account the place of origin of the respondents also proved to be true. What is also important, the hypothesis on attitudes conditioned by knowledge transferred within lectures and classes in Sustainable Tourism was true as well.

Summing up the abovementioned considerations, it should be noticed that the knowledge transferred during the studies as well as the origin of the students seem to have lesser importance in shaping ecological attitudes than gender. Lack of noticeable impact of the classes Sustainable Tourism for current pro-environmental conviction, forces recognition of such value as ability to constant learning, self-development, self-organization and continuous updating of qualifications. To function effectively on a tourist market, nowadays there are necessary "multi-qualifications" as part of trans-disciplinarity and allowing the employees to join knowledge from various disciplines including those that are close to the broadly defined ecology.

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INTERNATIONAL TOURIST'S PERCEPTION OF THE DESTINATION IMAGE: A STUDY APPLIED TO LUANDA, ANGOLA

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Abstract: This investigation aims to study the perception of "foreign" tourists regarding the destination image of Luanda, thus evaluating the impact of place identity, optimal distinctiveness and authenticity on positive and negative emotions and how these emotions can influence satisfaction, affective attachment and the intention to revisit. For the analysis of statistical data, the Structural Equation Model was used. Results were based on a sample of 252 tourists. This research showed that place identity influences positive and negative emotions, while optimal distinctiveness and authenticity only impact the positive emotions of the tourist. It was further evidenced that positive and negative emotions have a positive influence on satisfaction, but only positive emotions have an impact on affective attachment and intention to revisit. This investigation shows how positive and negative emotions may link the tourists' perceptions when visiting Luanda to the relationship they want to maintain with the city and to their willingness to return.

Key words: tourist perception, positive and negative emotions, Luanda, place identity, optimal distinctiveness, authenticity

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INTRODUCTION

Tourism represents one of the most important industries in the world and plays a key role in the development and competitiveness of many regions. Tourism not only generates economic benefits; it also brings relevant socio-cultural gains (Teixeira and Ferreira, 2019). According to Loi et al., (2017), since 1995, the tourism sector has grown at an average rate of 4.1% and is expected to account for 1.56 billion international arrivals per year over the next 25 years (Loi et al., 2017). By consuming tourism and leisure services, tourists not only expect professional services, but also want to satisfy emotional experiences, so understanding tourists' emotions is crucial for service companies (Brunner-Sperdin et al., 2012). Therefore, it is not enough to guarantee and offer quality services that meet the standards, it is also important to consider the willingness of the tourist to acquire experiences and feel emotions that contribute to maximizing satisfaction (Tlili and Amara, 2016).

Prior literature, however, lacks consistent and appropriate instruments to help destination managers identify distinctive local characteristics (Truong et al., 2018). Furthermore, understanding and measuring tourists' emotional experiences with the destination and how these emotions influence affection to the place are little explored (Hosany, 2012). At the same time, the coexistence of positive and negative emotions and their impact on customer behaviour lacks further investigation, namely on customer satisfaction (Xu et al., 2019). There are few studies that have looked at tourists' behaviours towards visiting Africa, as this continent is an emerging destination choice that has not previously attracted applied research (Mlozi and Pesämaa, 2013).

The main objective of this study is to fill this gap, presenting a model that can help to understand how the place identity, optimal distinctiveness and authenticity can contribute to the tourists' emotions, and in turn, how the emotional feeling can affect satisfaction, affective attachment to the place and intention to revisit. To meet these objectives, cross sectional data was collected based on a structured questionnaire with 252 respondents. Structural equation modelling was used to test the hypotheses developed in this research to achieve the proposed objectives. This study presents itself as innovative, since it proposes a new relationship between the variables place identity, optimal distinctiveness and authenticity with positive and negative emotions and their role, linking these variables with the bonds tourists may establish with the place. Additionally, this investigation takes place in Luanda, Angola's capital. Luanda is the capital of Angola and is in the northwestern zone of the country and has 9 municipalities. Luanda is the third largest Portuguese-speaking city, after the Brazilian cities of São Paulo and Rio de Janeiro, and in 2014 the province had 6,945,386 inhabitants, according to the National Statistics Institute (Instituto Nacional de Estatística, 2018). In Angola, the tourism sector is relatively new, worth 3.5% of GDP (Ministério da Hotelaria e Turismo, 2018). The main reason for foreign tourist travel to Angola was "service" tourism, with a total weight of 59% in the biennium 2016 - 2017. Business, with 28%, and holidays, with 13%, were in second and third place, respectively (Ministério

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da Hotelaria e Turismo, 2018). According to the Ministry of Hospitality and Tourism (2018), Europeans are the ones who travel to Angola most, and Portugal is the largest emitter of tourists, in a movement that needs to be increased.

MATERIALS AND METHODS

Tourist Emotion

According to Yang et al. (2011), emotion is defined as a psychological state that arises from cognitive evaluations of events or thoughts. The authors reinforce that emotion has a phenomenological tone, which is accompanied by physiological processes and is often physically expressed (gestures, posture, facial features). Emotion is also considered as an affective state characterized by an intense feeling associated with something specific (such as a person, object, or event) that stimulates a specific response (Hosany et al., 2017). These authors suggest that the psychology literature refers to two main theoretical approaches to the study of emotions, namely categorical (emotion specificity) and dimensional (valence-based). For them, categorical approaches conceptualize emotions as a set of idiosyncratic affective states (e.g., joy, disappointment, surprise) while dimensional approaches conceptualize emotions using few dimensions, such as positive and negative or pleasure and arousal. Each emotional experience is influenced by the environment and represents the consumer's real perceptions and feelings about a service product (Deng et al., 2013). On the other hand, it is important to note that these authors highlight the existence of two types of consumer emotions, which are: positive emotions and negative emotions (Deng et al., 2013; Pestana et al., 2020). These authors also point out that the customer behaviour shows that both positive and negative emotions have significant positive or negative influence on consumer satisfaction. According to Del Bosque and San Martín (2008), emotions are necessary to understand consumer psychology and are expressed in terms of feelings about the service. Emotions can, moreover, be important in tourism because the experimental component and ambiguity of the experience are extraordinary: the bigger the gap between the tourist's expectations and the experience provided, the bigger will be the likelihood of the emotions generated (Xu et al., 2019). Regarding the formation of emotions, evaluation theories establish that the emotions of individuals are influenced by their evaluations and interpretations of a specific event (Del Bosque et al., 2008). In tourism, emotions are ubiquitous and play a central role in defining memorable experiences. Tourist emotional reactions are fundamental precursors of post-consumer behaviour (Hosany et al., 2015). According to appraisal theory Lazarus (1991), environment, context or situation leads the tourist through an evaluation process that triggers emotions and an emotional response that turns into positive (when emotions are positive) – desire to stay, to return, to explore, to enjoy - or negative (when emotions are negative) – to leave, not return, not explore, not enjoy – behaviours (Yang et al., 2011). Most of the past investigation tends to ignore the likelihood of the coexistence of positive and negative emotions and the fact that conflicting emotions may arise, especially in exceptional situations (Xu et al., 2019). In fact, they seem to be more frequent than expected, and tourism and the diverse experiences it may provide may be a very interesting field to investigate the formation and influence of positive and negative emotions.

ANTECEDENTS OF TOURIST EMOTION

Place Identity

A place is a setting to which are attributed meanings based on human experiences, relationships, emotions, and thoughts. The place consists of the physical environment, activities performed in that environment, and social or psychological processes (Wang and Chen, 2015). Identity is seen as a set of meanings attached to self that serves as a standard or reference that guides behaviour in situations (Wang and Chen, 2015). Thus, a place identity is determined not only by the physical components, but also by the meaning and association developed between people and place. Within that concept of place identity, Yuksel et al. (2010) clarifies that this variable defines the connection between the self and a particular place that consists of a collection of ''memories, interpretations, ideas and related feelings about physical settings as well as types of settings" (Yuksel et al., 2010: 276). The term "place identity" is thus used to capture a wide range of social relationships that contribute to the construction of a "sense of place", a sense that allows people to feel that they "belong" to a place, or that a place "belongs" to them (Kneafsey, 1998). Identities are culturally constructed, i.e., organized around a specific set of values whose meaning and shared use are marked by specific codes of self-identification: the community of believers, the icons of nationalism, the geography of the place (Lima et al., 2007). According to Kneafsey (1998) the place identity of the destination is created to meet the needs of tourists, because when tourists visit a place, they develop emotional ties with the place. According to Dias et al. (2017) people's emotional relationships with places contain a wide range of physical contexts and emotions. Knez et al. (2018) suggest that place identity may influence variables like well-being, through the effect of emotions.

Consequently, the following hypothesis is proposed:

Hypothesis1a: There is a relationship between place identity and positive emotions.
Hypothesis1b: There is a relationship between place identity and negative emotions.

Optimal Distinctiveness

In response to a heightened need for inclusion or differentiation, individuals engage processes such as emotional and trait self-stereotyping, altering judgments of group memberships, perceptions of consensus, and social comparison (Goldman et al., 2016). The optimal distinction can be defined as the level of freedom to remain different while still being part of the group's identity (Zenker et al., 2017). People are selective in finding similarities (e.g., age, gender, or social status) while still recognizing other differences to satisfy their need to remain recognizable as individuals (Zenker et al., 2017).

In the tourism sector, this variable represents the fact that a destination can be perceived as being unique, in other words, a destination that has distinct characteristics from other competing offers. This distinctiveness is crucial and the marketing strategy should reinforce it in the development of products and services related to the place, providing a unique and innovative experience, based on the local particularities (Truong et al., 2018). Therefore, the same authors point out that tourists recognize when destination specificity has been integrated into tourist products, and this affects satisfaction with the place they have visited, namely through its emotional value. The authors point out that tourists are satisfied when the destination provides them with unique moments that differ from other destinations, generating memorable emotions.

Consequently, the following hypothesis is proposed:

Hypothesis2a: There is a relationship between optimal distinctiveness and positive emotions.
Hypothesis2b: There is a relationship between optimal distinctiveness and negative emotions.

Authenticity

Cunha (2011) argues that the first motivation for travel is linked to the search for authenticity and that tourist knowledge is motivated by the desire for an authentic experience. According to Cunha (2011), the complex nature of authenticity in tourism can be classified into objective authenticity, constructive authenticity and existential authenticity, the first two being related to objects and the last to activities. Objective authenticity refers to the authenticity of objects (e.g., museums and monuments) and, in this case, authentic experiences are felt by the recognition that the objects visited are authentic (Ram et al., 2016; Cunha, 2011; Kim and Kim, 2020). In this sense, what the tourist seeks is a symbolic authenticity. Constructivists see authenticity as a dynamic concept in the sense that it can be attributed to a visited place that was initially perceived as inauthentic, and suggest that "tourist experiences can be authentic even when tourists are fully aware that reality it is staged (symbolic authenticity)" (Cunha, 2011: 16). Authenticity is recognized as a universal value and one of the driving forces that motivate tourists to travel, the search for authenticity being considered one of the keys to tourism trends (Cunha, 2011).

Authenticity as a "state of being" includes a philosophical discussion of the self in context (external world) and a reflection of how important it is to balance two parts of itself: rational and emotional. This perspective defines existential authenticity as an alternative tourism experience, focusing on how open the tourists are to their experiences in the threshold spaces that tourism offers (Ram et al., 2016). In tourist experiences people feel that they are much more authentic and freer than in their daily lives, not because they discover objects, but because they are engaged in activities free from daily constraints (Cunha, 2011). The context that influences experiences, the heritage value of destinations and the iconicity of tourist attractions can all affect the authenticity of visitor attractions. This is particularly pertinent to heritage tourism destinations, where visitors travel to experience the places, artefacts, and activities that authentically represent history and people from the past and present (Ram et al., 2016). The sense of authenticity as a traveller may be linked to the emotion produced by being the only foreigner among the natives, or on a beach, or on public transportation (Piscitelli, 2007). However, the most intense point of these sensations is reached through experiences and emotions (Piscitelli, 2007). In fact, Jang and Ha (2015) showed how authenticity could influence emotions, both positively and negatively. Consequently, the following hypothesis is proposed:

Hypothesis3a: There is a relationship between authenticity and positive emotions.
Hypothesis3b: There is a relationship between authenticity and negative emotions.

CONSEQUENCES OF TOURIST EMOTION

Satisfaction with destination

Each destination seeks to attract as many tourists as possible through its main tourism products, such as accommodations, entertainment packages, city infrastructure and transportation and experiences provided (Loi et al., 2017). Satisfaction depends on the experience of using services and has been treated as a one-dimensional construct that might vary over a range from dissatisfaction to satisfaction. According to the World Tourism Organization, satisfaction is a psychological state that involves a sense of well-being and pleasure resulting from obtaining a product or service. Tourist satisfaction is also considered as the result of comparing "a tourist's experience at the destination visited and the expectations about the destination" (Sukiman et al., 2013: 80). It is a key element in the success of a destination, as satisfaction leads to tourist loyalty (Chi et al., 2018). For this, it is important to understand what facilitates a satisfying experience. If visitors have a satisfying experience, they are more likely to return, and are also more likely to recommend a destination to others (Plunkett and Brooks, 2018). In this way we can see the fact that customer satisfaction has always been considered an essential objective in all markets, and this is also true for tourism (Garín-Muñoz and Moral, 2017). For Sukiman et al., (2013) a tourism product is any offer that can satisfy the need to travel and escape routine. It may consist of one or a combination of components, including physical goods, services, experiences, events, people, places, properties, organizations, information, and ideas that generate emotions, when used. Therefore, in tourist destination management, maximizing emotions and travel satisfaction is crucial to a successful business. Therefore, tourist satisfaction is one of the primary variables for sustaining competitive business in the tourism industry, as it affects destination choice and the consumption of products and services (Rajesh, 2013). Tlili et al., (2016) show that positive emotions during the service experience increase satisfaction, while negative emotions decrease satisfaction. In the same vein, Io (2018) shows that emotions may predict tourists' satisfaction. Therefore, the following hypothesis is proposed:

Hypothesis4a: There is a relationship between positive emotions and satisfaction.
Hypothesis4b: There is a relationship between negative emotions and satisfaction.

Affective Attachment

Social theorists believe that places are sources of identification and affiliation that provide meaning and purpose for life. Places are significant through their associated attitudes, values, and beliefs. Affective attachment to a place continues to be defined as the emotional bond between an individual and a particular spatial environment (Prayag and Ryan, 2012). Scannell and Gifford (2010) emphasize place attachment as a multifaceted concept that characterizes the bonding between individuals and their important places. Other authors define place attachment as a positive affective bond between an individual and a specific place, the main characteristic of which is the tendency of the individual to maintain proximity to that same place (Hidalgo and Hernández, 2001). Scannell and Gifford (2010) argue that affective attachment is a multidimensional concept involving psychological processes and place dimensions. According to these authors, the first dimension is centred on the individual. It consists of reflecting on the following questions: who is attached? To what extent is the attachment based on individually and collectively held meanings? The second dimension is the psychological process. It allows us to reflect on the following questions: how are affect, cognition, and behaviour manifested in the attachment? Finally, the third dimension is the object of the attachment and questions like what the attachment is and what the nature of that place is (Scannell and Gifford, 2010).

When tourists visit a place, they develop emotional bonds with it, and this is important for understanding their behaviour (Gu and Ryan, 2008). An experience in a tourist destination, in a place or accommodation, leads to memories, as tourism is concerned with "helping people build stories and collect memories" (Loureiro, 2014: 3). Thus, the place attachment is considered as an indicator of how tourists consider the place in their tourism experiences (Gross and Brown, 2006). Affective attachment is thus defined as being an emotional link to a particular environment (Yuksel et al., 2010). These affective experiences potentially modify consumer behaviour, creating or strengthening attachment to the place, and so consumers' affective experiences, while visiting a place, directly influence their behaviour (Orth et al., 2012).

According to Grisaffe and Nguyen (2011) there is a relationship between emotions and attachment and Hosany et al. (2017) show that positive emotions about a place reinforce a sense of attachment through person-place interactions. Emotions related to the destination experience contribute to the formation of place attachment. The authors also point out that tourism experiences are not devoid of negative emotions (Hosany et al., 2017; Ouyang et al., 2017). Thus, we assume that:

Hypothesis5a: There is a relationship between positive emotions and affective attachment.
Hypothesis5b: There is a relationship between negative emotions and affective attachment.

Revisit Intention

From the point of view of the consumption process, tourist behaviour is divided into three stages: pre-visit, during the visit and post-visit (Mat Som et al., 2012). The revisit intention consists of positive behavioural results from satisfactory tourist experiences. Satisfied tourists are more likely to revisit the destination (Huang and Hsu, 2009; Mat Som et al., 2012; Seetanah et al., 2020). Satisfied visitors have positive attitudes toward their destination. Satisfaction with the experience at a destination positively affects the intention to revisit (Huang and Hsu, 2009). In the tourism industry, there is empirical evidence that tourist satisfaction is a strong indicator of the intention to revisit and recommend the destination to others (Machado and Gosling, 2010). According to the same authors, reasons for why people return to their destination have been identified: 1) If the tourist is satisfied with his destination, he may return to the place in order to reduce the risk of going to another place he does not like; 2) In a destination already known, the tourist is already more familiar with the type of people he will meet at the place; 3) The tourist tends to show the destination to other people; 4) He explores and knows the destination more deeply and 5) There is an emotional and affective attachment with the destination. Su et al. (2014) consider that if a tourist destination can extract positive emotions and eliminate negative emotions at the same time, then it can be hypothesized that tourists are more likely to revisit the destination. In the same vein, Io (2018) shows how emotions might influence the intention to return.According to Mat Som et al. (2012) destination attributes affect perceived quality, which affects satisfaction, which in turn leads to the intention to revisit. The author also found that satisfaction influences the tourist's intention to revisit in the short term, while novelty-seeking influences the tourist's intention to revisit in the midterm, and long term. Similarly, Huang and Hsu (2009) demonstrated that the intention to revisit is determined by sets of interrelated stimuli (sources of information), psychological factors (sociopsychological motivation for travel) and images (perceptive or cognitive and affective images). Past travel experiences could also significantly influence the behaviour of tourists to revisit a destination (Huang and Hsu, 2009; Hosany et al., 2015). So, we assume that:

Hypothesis6a: H6.a: There is a relationship between positive emotions and revisit intention.
Hypothesis6b: H6.b: There is a relationship between negative emotions and revisit intention.
Hypothesis7: There is a relationship between satisfaction and revisit intention.
Hypothesis8: There is a relationship between affective attachment and revisit intention.

According to figure 1, the conceptual model presents the set of hypotheses that express the objectives of this investigation.

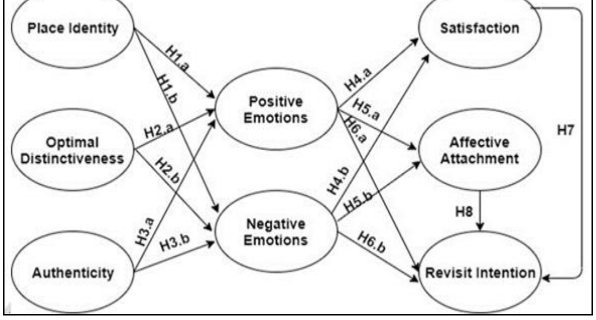

Figure 1. Conceptual model (Source: Self elaboration)

The sample population for this study consisted of tourists from various parts of the world who visited Luanda in the last 12 months. A total of 252 tourists agreed to participate in this survey. Data was collected between January and March 2019. The self-administered questionnaires were distributed at Luanda International Airport, at several different hotels and other touristic places in the city. Regarding the data collected, we found that the majority of tourists (59.1%) were male, 40.9% were female. With regard to age, 105 (41.7%) are between 36 and 45 years and the average is 40 years old. Regarding the academic level, it was observed that more than half of the respondents, 145 (57.5%) have a degree. 57 (22, 6%) have a Master's/PhD and 45 individuals (17.9%) have a secondary education. 82.9% have been in the city more than once.

The measures to assess each variable were collected and adapted from prior investigations. Place Identity was measured using the scale from Yuksel et al. (2010). Optimal Distinctiveness was measured using the scale from Zenker et al., (2017) and Authenticity was measured using the scale from Ram et al., (2016). Positive emotions and Negative emotions were measured according to the scale proposed by Hosany et al. (2016). Satisfaction was measured using the scale from Songshan et al. (2009) and Affective attachment was measured using the scale from Yuksel et al. (2010). Finally, Revisit Intention was measured using the scale from Songshan et al. (2009). To measure all the variables, the questionnaire was based on a 7-point Likert scale. The items used to measure each variable were translated from English to Portuguese and then from Portuguese to English to ensure the items remain true to the original. Subsequently, a pre-test was performed to ensure the comprehensibility of the questionnaire. Confirmatory factor analysis (CFA) was performed to assess the psychometric properties of the scales and the measurement model fit, using AMOS 25 and we concluded that the model shows a good fit (Incremental Fit Index = 0.958; Tucker Lewis Fit Index = 0.951; Comparative Fit Index = 0.958; Root Mean Square Error of Approximation = 0.071; Chi Square ($\chi 2$) = 2.245). After analysing Composite Reliability and Average Variance Extracted, it was found that all constructs used in the conceptual model presented values higher than 0.7 and 0.5, respectively (Hair et al., 2014). The discriminant validity of latent variables is evident if the squared correlation between them is lower than the average variances extracted (Fornell and Larcker, 1981). Therefore, considering that the squared correlations between the variables are, in this study, lower than the average variances extracted for all variables, it is concluded that there is discriminant validity (Table 1).

Table 1- Squared correlations. Cronbach alpha. Composite reliability. Average variances extracted

Variables	SD	X1	X2	X3	X4	X5	X6	X7	X8	AVE	CR
Place Identity (X1)	1.98	0.95								0.87	0.98
Optimal Distinctiveness (X2)	1.63	0.53	0.93							0.83	0.93
Authenticity (X3)	1.39	0.64	0.57	0.92						0.79	0.92
Positive emotions (X4)	1.72	0.82	0.59	0.70	0.97					0.82	0.97
Negative emotions (X5)	1.63	-0.33	-0.19	-0.25	-0.36	0.95				0.86	0.95
Satisfaction (X6)	1.72	0.65	0.51	0.59	0.79	-0.47	0.95			0.88	0.96
Affective attachment (X7)	2.15	0.78	0.45	0.58	0.82	-0.31	0.69	0.97		0.92	0.97
Revisit Intention (X8)	2.11	0.56	0.43	0.48	0.65	-0.25	0.60	0.65	0.98	0.92	0.98

Notes: Diagonal entries are Cronbach's alpha coefficients. SD- standard deviation. CR = Composite reliability. AVE = Average variance extracted

FINDINGS AND DISCUSSION

After establishing the hypotheses proposed in the investigation, the Structural Equation Model was estimated through AMOS (version 25). The model presents a good fit (Incremental Fit Index 0.955; Tucker Lewis Fit Index = 0.949; Comparative Fit Index = 0.955; Root Mean Square Error of Approximation = 0.072; Chi Square ($\chi 2$) = 2.300 (Table 2).

Table 2- Results

			Hyp	SRW	P
Place Identity	→	Positive emotions	H1a	0.601	***
Place Identity	→	Negative emotions	H1b	-0.29	***
Optimal Distinctiveness	→	Positive emotions	H2a	0.128	***
Optimal Distinctiveness	→	Negative emotions	H2b	0.009	n.s.
Authenticity	→	Positive emotions	H3a	0.247	***
Authenticity	→	Negative emotions	H3b	-0.078	n.s.
Positive emotions	→	Satisfaction	H4a	0.719	***
Negative emotions	→	Satisfaction	H4b	-0.222	***
Positive emotions	→	Affective attachment	H5a	0.819	***
Negative emotions	→	Affective attachment	H5b	-0.02	n.s.
Positive emotions	→	Revisit Intention	H6a	0.252	***
Negative emotions	→	Revisit Intention	H6b	0.024	n.s.
Satisfaction	→	Revisit Intention	H7	0.195	***
Affective attachment	→	Revisit Intention	H8	0.313	***

Notes: *** p <0.01; n.s: hypothesis not supported

Place identity has a significant impact on positive and negative emotions (SRW = 0.601, p <0.01), (SRW = -0.29, p <0.01), thus supporting H1.a and H1.b. It is recalled that place identity has been defined as a more emotional, or even symbolic, dimension of place attachment, which is formed and strengthened over time (Wang and Chen, 2015). According to Knez et al. (2018) emotions are the linking element that transfer the effects from place features, like identity, to attitudes and behaviours, like memorability, affect, revisiting, among others. These results suggest that the identity of the place must be an important factor in the perceptions of the characteristics of the destination in order to provide positive emotions and avoid negative emotions, to tourists. Regarding the relationship between optimal distinctiveness and positive emotions, the result is statistically significant (SRW = 0.128, p <0.01), thus supporting H2.a. However, the influence of the optimal distinctiveness on negative emotions (SRW = 0.009, p> 0.1) was not significant, not supporting H2.b. In fact, positive emotions appear to be determinant, more frequent and more decisive. When on vacation or in touristic activities, positive emotions may arise more easily and, somehow, there might be some openness to inconvenience or to "bad moments", waiting for the best moments and the biggest emotions provided by the experience. Perhaps, the tourist's good mood tends to mitigate the negative impacts and the negative emotions (Lee et al., 2008). In fact, the same authors found stronger effects with positive than with negative emotions. The relationship between authenticity and positive emotions is statistically significant (SRW = 0.247, p <0.01), which supports H3.a. The result of the relationship between authenticity and negative emotions is negative, as expected, but statistically insignificant (SRW = -0.078, p> 0.1), therefore, not supporting H3.b. Even if these relationships have so far been little explored, the results are similar to the previous hypotheses, showing how positive emotions might prevail in a touristic experience.

Positive emotions (SRW = 0.719, p <0.01) and negative emotions (SRW = -0.222, p <0.01) are related to satisfaction with destination, therefore supporting H4.a and H4.b. According to the study developed by Oliver (1993), emotions (positive and negative) influence the satisfaction with destination. The more frequent positive emotions are during the tourist experience, the higher the level of satisfaction (Io, 2018). And the less frequent negative emotions are during the tourist experience, the higher the level of satisfaction. Emotions occur as a result of cognitive and emotional assessments of the experience, that is, the satisfaction of the tourists is based on their own experiences. These relationships support the importance of the touristic managers' betting on the quality of the services and experiences they offer to tourists, in order to provide them with memorable emotions and avoiding the negative ones. The results also show a positive relationship between positive emotions and affective attachment (SRW = 0.819, p <0.01), supporting H5.a. Unlike what was predicted in our conceptual model, the data were unable to support the relationship between negative emotions and affective attachment (SRW = -0.02, p> 0.1), H5.b. At the same time, positive emotions contribute positively to the revisit intention (SRW = 0.252, p <0.01), but the negative ones have no significant influence on revisit intention (SRW = 0.024, p> 0.1), thus supporting H6.a, but not H6.b. Positive emotions were found to increase affective attachment and the likelihood of revisiting intentions, while negative emotions show the opposite but not significant influence. Apparently, as already suggested, positive emotions might be dominant or at least, more present and more influential on touristic experiences. In fact, the same statistical insignificant relationship between negative emotions and these desired outcomes have also been found by Lee et al. (2008) and Faullant et al. (2011).

There is a positive relationship between destination satisfaction and revisit intention (SRW = 0.195, p <0.01), supporting H7. This link had also been found by Huang and Hsu (2009); Mat Som et al. (2012) and Hosany et al. (2015), among others. Satisfaction is sometimes a prerequisite to loyalty and the intention to revisit: a destination that provides a pleasant and satisfactory visit and experience is more likely to attract the interest of its visitors to come back and try and discover new features and new experiences as well as to disseminate a positive word of mouth about the destination (Chi et al., 2018).

Additionally, this research shows that affective attachment to a place also has a positive impact on revisit intention (SRW = 0.313, p <0.01), therefore supporting H8. Many authors have previously established the relationship between affective attachment to a place and revisit intention (e.g., Yuksel et al., 2010; Loureiro, 2014). However, with this study it is once again argued that the greater the emotional connection between the tourist and the place, the greater the intention to revisit it, namely through affective attachment. In recent years, several studies have recognized the importance of emotions in tourism (Hosany, 2012). One of the reasons that has led to this growing demand has to do essentially with the fact that some models, essentially based on more rational variables, have failed to explain the relationship tourists feel with their destinations. This investigation was developed to investigate the antecedents and consequences of positive and negative emotions in order to understand the perception that international tourists have about Luanda. Results show that, somehow, tourists are looking for experiences that might provide strong and positive emotions that might mitigate the power and effects of negative emotions. This is one of the main highlights of this investigation, identifying how positive and negative emotions may act differently in the tourists' attitudes and behaviours. These results can be useful for tourism operators, managers and decision makers, as they identify the factors that provide positive emotions for tourists making it easier to create strategies that aim to meet the expectations of tourists and consequently increase the affective attachment to destination and revisit intention.

Theoretical and Practical Contributions

This investigation intended to identify how positive and negative emotions might link the tourists' perceptions about destination, to the relationship they want to maintain with it and to the willingness to return. Therefore, the results present 3 major contributions: (1) identifying the different action and effects of positive and negative emotions, which might act differently in touristic activities or experiences; (2) introducing the place attachment on the relationship between emotions and intention to revisit as well as an outcome of these emotions, especially when positive; (3) and identifying the chain of effects between the destination features and the way the tourists want to relate with the place and their intentions to revisit, through the effects of emotions and satisfaction. The results show how positive and negative emotions act differently giving new clues to investigation and practice. These results might also give important clues to managers and professionals acting in the touristic sector. The positive impact of satisfaction and affective attachment on the revisit intention, identified in this work, reinforces Loureiro's theory (2014), which argues that affective attachment implies identification with its physical attributes, but also the links developed in relationships with other people, claiming that social relationships are more important than physical attributes, providing stronger and more memorable experiences and emotions.

Therefore, a tourist with strong connections to a destination tends to revisit it and look to visit and experience new and different features, but it is important that tour managers rely on services that can ensure positive experiences and positive emotions in order to develop deep positive memories that will gradually reinforce the revisit intention. Accordingly, negative emotions are to be avoided, but these results are very interesting for tourist operators in Angola: not always infrastructure, staff, services and touristic offer are prepared to offer conventional services in the terms provided by other countries, especially in other continents. However, if the impressions, the experiences and the positive emotions provided are really strong and memorable, they might obliterate the possible negative effects of any negative emotion that might arise due to the country's specificities. We believe that knowing tourists' perceptions of Luanda as well as how their revisit intentions are created will enable managers to better plan and develop their strategies to meet tourists' expectations.

LIMITATIONS AND FUTURE RESEARCH LINES

This investigation is based on cross sectional data collected from a convenience sample with the obvious limitations in terms of generalizability and in terms of establishing a true causality between the concepts adopted. A longitudinal investigation might provide a better comprehension of the proposed relationships. Additionally, the measurement of emotions might introduce several difficulties and the lapse of time between the experience and the measurement might introduce significant bias. We therefore suggest the adoption of a qualitative investigation using, namely, ethnography, to capture emotions at the moment they are produced, identifying their nature and intensity. It might also be interesting to explore tourist perceptions of risk (insecurity / instability) provided by destination, especially in countries with a high level of poverty.

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DYNAMICS AND CAUSALITY AMONG ECONOMIC GROWTH, FINANCIAL DEVELOPMENT AND BUDGETARY ALLOCATION TO THE TOURISM SECTOR OF BANGLADESH

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Abstract: Tourism contributes to economic growth and financial development in many countries around the world. The aim of the study is to examine the cause and effect relationship between economic growth, financial development and budgetary allocation to the Bangladesh tourism industry during 2000-2019. Several methods such as Augmented Dickey-Fuller (ADF), Phillips-Perron (PP), Johansen-Juselius Cointegration, and Granger Causality tests have been applied to measure the associations between the variables. The results show that there is a cause and effect relationship between the budgetary allocations and economic growth and budgetary allocation also causes of financial development.

Key words: tourism, budgetary allocation, economic growth, financial development, and Bangladesh

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INTRODUCTION

Tourism, a growing industry of Bangladesh, has contributed 4.4% to the total GDP of the country in 2018 (UNWTO, 2019). Despite having a considerable contribution to the economy of the country the relative budgetary allocation to the tourism industry is considerably inadequate (Hasan, 2020). The government of the country has allocated BDT 34.88 billion in FY2019-20 to the tourism industry through the Ministry of Civil Aviation and Tourism. The allocation is more than double in relation to previous financial year that indicates that the Government is providing more priority to the Bangladesh tourism sector. But still, the allocation of tourism is only 0.67% of the national budget of FY2019-20. Due to the limited allocation in the national budget for decades, the tourism industry in Bangladesh is relatively staying behind than its neighboring South Asian countries such as India and Nepal (Shawon, 2017). With considerable natural and cultural tourism resources in Bangladesh, the country has high potentials to flourish domestic and inbound tourism depending upon budgetary allocation to the industry (Tuli, 2014). In Bangladesh, the tourism sector is extremely driven by SMEs (Small and medium enterprises), particularly in hotels, motels, restaurants, tour operators, travel agencies, and entertainment facilities providers. Except for a few international flagship hotels, most of the tourism businesses of the country are based on domestic investment by the private entrepreneurs. At present, the tourism industry does not receive any direct monetary supports like cash allowances, tax holidays and VAT deductions from the government of the country (Uddin, 2019).

In the financial policy of Bangladesh, other industries such as readymade garments, leather goods, and agriculture receive monitory support to grow and develop whereas tourism is widely ignored for years in the national budget. One of the core reasons for not allocating a significant amount of money in the national budget for tourism is not realizing the importance of the industry to the overall economy. The budgetary allocation influences any industry in terms of economic growth and financial development. If the increase of allocation results in affirmative changes in the economy then the budget is considered to be appropriately utilized. It is, therefore, important to access how the increase in budgetary allocation to an industry contributes to the economic growth and development (Kontsiwe and Visser, 2019; McGuire et al., 2020). The result of the assessment provides decision-makers whether the budgetary allocation to the industry is worthy. Researchers working on budgetary allocation and its impacts hardly looked at how much changes occur in the economy of Bangladesh due to changes in the budget of tourism. In order to address this research gap, the objective of the research is to examine the cause and effect relationship between economic growth, financial development and budgetary allocation to the

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Bangladesh tourism industry during the period of 2000-2019. To do so, this study utilized different econometric models on the time-series data of Bangladesh regarding budgetary allocation to tourism, economic growth and financial development.

Utilization of public finance can be assessed by addressing three Es criteria: effectiveness, efficiency, and economy. For being effective, the allocation of the budget to any industry such as agriculture, banking and tourism needs to be ensured that the financing will accomplish the desired contribution to the economy in terms of growth and development (Garidzirai and Pasara, 2020). Ineffective deployment of national finance discourages government to continue the allocation for the following fiscal years. Effective utilization of budgetary allocation is necessary but not sufficient for the betterment of an economy – ensuring efficient use of the money is also vital. If the allocated money for the industry cannot create reasonable functional benefit to the economy, then it is wise to utilize the money for other industries that can make sure efficient usage of the allocation. A monetary assessment can be a way to measure how the available financial resources can deliver optimum economic benefit. Efficient utilization of the budgetary allocation is likely to contribute to the health of GDP and growth.

The government of a country usually allocates the financial resources in the sectors where there are high growth potentials (Joshi, 2018; Rudnik and Romanova, 2017). Established industries that contribute to the GDP of a nation at a significant level receive more budgetary allocation than those which contribute less (Eze et al., 2020). Every country, even a developed nation, wants to allocate its budget such a way so that they can maximize their national production, GDP growth rate and infrastructural and procedural development. Besides, a range of factors such as public demands, immediate need-fulfilment requirements, high growth potentiality, governance policy, the relative importance of the sector for a nation are the determinants of what would be the amount of budgetary allocation for an industry (Baumgartner et al., 2017; Bondarenko et al., 2018; Rudnik and Romanova, 2017; Voronkova et al., 2020). There are some countries such as Maldives, New Zealand, and France where tourism is one of the top sectors which contributes to GDP, have high budgetary allocation of the tourism industry. Most of the countries that cannot recognize the indirect impact of tourism on national income do not assign reasonable finance for the sector (Abrahams, 2019; Joshi, 2018).

Tourism, as high yield financial sector, can contribute to economic growth and development in several ways. Firstly, it encourages technological advancement in the hospitality service production procedure that may lead to economic advancement (Akimov et al., 2009). Secondly, tourism accelerates investment in related production sectors and human capital development (Lemmetyinen and Go, 2009). Thirdly, tourism is likely to be a reason for industrial development due to the spillover effect (Cernat and Gourdon, 2012). Fourthly, travel and tourism can create new job opportunities and develops standard of living by promoting earnings of local residents of tourist destinations (Fredman, 2008; Lee and Chang, 2008). Last but not least, tourism accelerates infrastructural development which supports relevant industrial growth and development of nations (Croes, 2006). Inbound tourism is an emerging approach to export in many countries of the world and domestic tourism is proved means of financial development by increasing the velocity of money (Dolnicar et al., 2008; Alegre, 2010; Shahbaz et al., 2016). In context of many developing and developed countries, tourism belongs to one of the top important economic functions.

Many scholars including Kim and Chen (2006), Wang (2009); Yap and Allen (2011), Hung, et al. (2011), Pablo-Romero and Molina (2013); Kumar et al. (2015), Ridderstaat and Croes (2015); Brida et al. (2016), Utomo et al. (2020), address the association between allocation in the national budget for tourism and economic growth and financial development. Whereas, a group of scholars such as Bouzahzah and Menyari (2013), Ivanov and Webster (2012); Lee (2012); Matarrita-Cascante (2010) have found that economic growth has favorable influence on tourism, however, influence of tourism on economic growth is unrecognized by researchers community. While a group of other research results including Seetanah, (2011) and Yazdi et al. (2017) address that there is a lean type of connection between tourism development and economic growth. Again, a few other studies such as - Katircioglu, 2009; Tang and Jang, 2009 cannot find any association between economic growth and tourism. Lanza and Pigliaru (2000) and Singh (2008) find in their researches that countries with small land area are relatively more depended on tourism, while Sequeira and Nunes (2008) conclude that size of a country has no effect on tourism in terms of economic functions. Ekanayake and Long (2012) and Figini and Vici (2010) unearth that tourism is less visible in developing countries compared to developed nations in terms of economic growth (Cárdenas-Garcíaetal, 2015). Tourism has a positive influence on the economic growth in case of both developing and developed nations but developed countries are having more growth (McKinnon, 1964; Seetanah, 2011; Salmani et al., 2014).

Tourism, generally, is not considered as a prominent economic sector in Bangladesh (Mowla, 2019). The industry does not gain desired attention for years in terms of budgetary allocation as much as it should have (Hassan et al., 2013, Alauddin et al., 2014). There are two main reasons for this. Primarily, the true contribution of tourism to the economy is largely uncalculated. There are quite several sub-sectors such as - accommodation, transportation, food and beverage, and entertainment are involved in tourism (Divisekera, 2010; Hassan, 2012). There is no national policy to add the contribution of all sub-sectors together to determine the true contribution of the tourism industry to the economy. The country does not maintain any tourism satellite account (TSA) as a result the true contribution of tourism to the national economy of Bangladesh is largely unrecognized. Therefore, budgetary allocation for tourism is relatively lesser than other industries which have a visible contribution to the economy. Secondly, lack of immediate and direct revenue by tourism often discourages the government body of the country to allocate sufficient budget money in the industry. As a developing country, Bangladesh has a lot of poverty-related current social problem that takes more focus in the national budget than tourism.

In order to enhance budgetary allocation to the tourism industry in Bangladesh, a clear assessment of the current contribution of the industry to the economy is required. It also needs to reveal how the extension of the budget amount for tourism impacts on economic growth and financial development. If the government of the country finds a reasonable positive association between allocation to tourism and the growth of GDP, then it is more likely that the government will be encouraged to allocate money in the national budget (Lim et al., 2009; Rudez, 2008; Mullen and Arora, 2016). Relative contribution to economic growth is another aspect. With a particular amount of budgetary allocation, if tourism industry can contribute more to the growth than other industries then the tourism industry has a greater chance to receive the allocation. Besides, the budgetary allocation of tourism should ensure more velocity of money in the economy than that of another industry. Except for a few studies such as - the research regarding the relationship of the budgetary allocation in tourism and economic growth is largely ignored by the researcher communities. Addressing this research gap can provide an outline of how and why the government should allocate budget for tourism for increasing economic growth and financial development.

METHODS AND MODELS EMPLOYED

In order to address the cause and effect relationship between the three variables – economic growth, budgetary allocation to the tourism and financial development, this research employed the vector error correction model (VECM) theme. Before estimating the relationship among the variables, it is important to identify the presence of unit root and cointegration between the time series data. This process will accelerate the implementation of VECM schemes that assumes that all variables are endogenous.

1. Unit Root Test

To examine the status of three variables, this research applied a unit root test for the historical data series regarding economic growth, financial development, and budgetary allocation to tourism. The reason for using unit root test is to determine the nature of the variables – stationary or continuous. The test also examines the degree of integration between the variables. This research identifies the existence of unit root in the financial data by analyzing the Augmented Dickey-Fuller (ADF) test and Phillips-Perron (PP) test. The autoregressive unit root analysis is improved by Said and Dickey (1984) to satisfy autoregressive–moving-average (ARMA) frameworks with undisclosed sequences. The analysis of these frameworks is ADF test that results in examining the complementary regression (Dickey and Fuller, 1979; Said and Dickey, 1984).

$$y_t = \beta' D_t + \varphi y_{t-1} + \sum_{j=1}^{p} \psi_j \Delta y_{t-j} + \varepsilon_t$$

Here, D_t stands for a vector of inevitable terms (constant, trend and so on). ϕy_{t-1} is a coefficient of null hypothesis y_t. The ρ and Δy_{t-j} are applied to determine the errors related to ARMA arrangement, and ρ value is meant by the error ε_t that is sequentially uncorrelated. In this case, the ADF analysis uses parametric 'auto regression'. The error term is also assumed to be homoskedastic. The specification of the deterministic terms depends on the assumed behavior of y_t under the alternative hypothesis of trend stationary as described in the previous section. Under the null hypothesis, y_t is $I(1)$ which implies that $\phi = 1$. The PP analysis ignores the chronological correlation in case of testing regression. For the PP analysis, the test regression is:

$$\Delta y_t = \beta' D_t + \pi y_{t-1} + u_t \qquad u_t \approx I(0)$$

Here u_t is I(0) that can be heteroskedastic in nature. The PP tests have been used for chronological correlation analysis. The heteroskedasticity in u_t transforms the $t_{\pi=0}$ and $T\hat{\pi}$. These modified test statistics stand for Z_t and Z_π are given:

$$Z_t = \left(\frac{\hat{\sigma}^2}{\hat{\lambda}^2}\right)^{1/2} \cdot t_{\pi=0} - \frac{1}{2}\left(\frac{\hat{\lambda}^2 - \hat{\sigma}^2}{\hat{\lambda}^2}\right) \cdot \left(\frac{T \cdot SE(\hat{\pi})}{\hat{\sigma}^2}\right)$$

$$Z_\pi = T\hat{\pi} - \frac{1}{2}\frac{T^2 \cdot SE(\hat{\pi})}{\hat{\sigma}^2}(\hat{\lambda}^2 - \hat{\sigma}^2)$$

The terms $\hat{}\sigma^2$ and $\lambda\hat{}^2$ are consistent estimates of the variance parameters.

$$\sigma^2 = \lim_{T\to\infty} T^{-1}\sum_{t=1}^{T} E[u_t^2] \qquad \lambda^2 = \lim_{T\to\infty} \sum_{t=1}^{T} E[T^{-1}S^2_T]$$

where $S_T = \sum_{t=1}^{T} u_t$. The sample variance of the least squares residual $u\hat{}_t$ is a consistent estimate of σ^2, and the Newey-West long-run variance estimate of u_t using $u\hat{}_t$ is a consistent estimate of λ^2.

2. Cointegration Analysis

The theory implies the association of cointegration in a model has a regular equilibrium movement between the variables in the long-run. When the time-series are fixed at first difference, it is assumed that variables are integrated. The study employed the Johansen and Juselius (1990) cointegration model to identify the number of cointegrations vector(s). Johansen and Juselius (1990) multivariate cointegration model can be expressed as:

$$\Delta Yt = ¿\, \alpha o + \pi Yt-1 + \sum_{i=1}^{p-1} \pi i \, \Delta yt-i+\varepsilon t$$

Here, Π and Γi are the coefficient matrices, Δ is the symbol of difference operator and p is the lag order selected based on Schwarz Bayesian Criterion (SBC). Johansen-Juselius techniques use two likelihood ratio test statistics to obtain the quantity of cointegrating vector(s) known as the Maximum Eigenvalue test and the Trace test which can be computed respectively as:

$$\lambda max(r,r+1)=-T\ln(1-\lambda r+1)$$

$$T(r)=-T\sum_{i=ri1}^{n} ¿ (1-\lambda i)ni=r+1$$

Here, λi indicates the expected Eigenvalue of the characteristic roots and the size of the sample is notated with *T*. The null hypothesis of the Trace test investigates the quantity of *r* cointegrating vectors between the substitute of *n* cointegrating vectors. The null hypothesis of the Highest Eigenvalue test investigates the quantity of *r* cointegrating vectors between the substitute of *r+1* cointegrating vectors. So after performing the Johansen-Juselius test, it is concluded that there is a cointegration among the variables and long-run relationship exists among the variables.

3. Granger Causality Test

The Granger Causality test because of its large acceptability to investigate the degree of causality among economic growth, budgetary allocation to the tourism sector and financial development is applied in this research. The premise of the Granger Causality is that X reasons for Y if Y may be described by the current values of X compare to the past values of Y. The Granger Causality test is determined using regression equations provided by Granger (1969) and Freeman (1983).

$$Yt = \sum_{i}^{m} \beta i\, Yt-1+ \sum_{i}^{n} \varnothing\, i\, Xt-1+ \in t \qquad Xt = \sum_{i}^{m} \varnothing\, i\, Xt-1+ \sum_{i}^{n} \mu i Yt-1+ vt$$

here, ε_t and ν_t stand for noise error factor and m & n stand for the number of lags. The present value of Y is associated with past values and that of X; and Xt indicates to identical characteristics of X. For detailed explanation of the mentioned equations, see the paper of Granger (1969) and Freeman (1983).

4. Data Description and Analysis Technique

The research presented in this paper attempts to address the dynamics and causality among economic growth, budgetary allocation in Bangladesh tourism sector and financial development. Secondary source have been utilized in the analysis. The study used the annual figure for the period stretching from 2000 to 2019 representing the economic growth (a proxy variable of GDP per capita) and budgetary allocation and financial development. The inclusion of budgetary allocation and financial development are distinguished features of this study. In line with the recent study of Ohlan (2017) regarding the relationship between economic growth, tourism receipt and financial development. This study used share of broad money (M3) to GDP representing financial development. Data for GDP per capita and financial development were collected from the WDI (World Development Indicators) produced by the World Bank. The Bangladesh Bureau of Statistics (BBS) and Ministry of Finance (Bangladesh) are the sources of data regarding the allocation to the tourism sector in the national budget. Eviews 11.0 (the latest econometric software) and Microsoft Excel have been used for data analysis.

Table 1. Summary Statistics

	TA	FD	EG
Mean	50.10363	54.27502	873.3490
Median	23.96339	56.81381	741.7090
Maximum	417.8048	65.84829	1855.740
Minimum	0.121950	30.55399	413.0803
Std. Dev.	96.87574	10.11366	461.7307
Skewness	3.032675	-0.639376	0.809146
Kurtosis	11.73293	2.481608	2.395048
Jarque-Bera	94.21051	1.586616	2.487364
Probability	0.000000	0.452346	0.288321
Sum	1002.073	1085.500	17466.98
Sum Sq. Dev.	178313.3	1943.436	4050710.
Observations	20	20	20

EMPIRICAL RESULTS AND DISCUSSIONS

1. Analysis of Summary Statistics

The statistical summary of all indices used in this study is presented in Table 1. The summary reflects the significant features of growth domestic product per capita, budgetary allocation to the tourism sector and financial development mean standard deviation skewness and kurtosis. The classical performance measures the Jarque-Bera (JB) normality test statistics value. It is found from the Jarque-Bera test that the observation for financial development and GDP per capita are normal since the null hypothesis is not rejected, On the other hand, the data for budgetary allocation to the tourism sector is not normally distributed since the probability value is near to zero.

2. Analysis of Granger Causality test

2.1. Analysis of Augmented Dickey-Fuller (1981) Stationary Analysis

Both the ADF test and PP test are utilized in this research to find out the existence of unit root in all the time-series data. The outcomes emerged from the ADF and PP tests show that all the data are fixed. The result of the analysis is presented in Table 2 and Table 3. The analysis of ADF describes that the GDP per capita is considerable at 10% level of significance, which confirms GDP per capita is stationary in the first differenced series. Again the ADF result demonstrates that budgetary allocation to the tourism sector is statistically significant at 1% confidence interval and static at the 1st difference (both at Intercept and Trend & Intercept) test. Finally, the test result implies that financial development is stationary at first different at intercept and Trend & Intercept test. These results provide a ground to the assumption of the long-run association between the three variables of the study. The results of PP test, given in the Table 3, show that at the first difference, the factors GDP per capita is considerable at 5% significance level and confirms that GDP per capita is stationary in the initial dissimilar series, i.e., I (1) in all cases. Again, results of PP tests show the budgetary allocation to the tourism sector is statistically significant at 1% level and stationary at the 1st difference (at Intercept and Trend and Intercept) test. Lastly, Phillips-perrons test indicates that financial development has no unit root at the first difference I(1) both at Intercept and Intercept & Trend test. This is the foundation of long-run association between the three variables of the study.

Table 2. Integration analysis by using ADF test

Variables	**Augmented Dickey-Fuller** (Intercept)		**Augmented Dickey-Fuller** (Trend and Intercept)	
	Level	1st Diff.	Level	1st Diff.
InEG	0.872238	-2.942442*	-3.469999*	-3.107848*
InTA	-0.605091	-4.715582***	-1.448856	-4.567170***
InFD	-2.071518	-3.150105*	-5.191414***	-9.241912***

Notes: *** at the 1%, ** at the 5% and * at the 10% level of significance, indicating the rejection of the null hypothesis (variables are unit root/non-stationary); EG: Economic growth; TA: Budgetary Allocation in Tourism sector; FD: Financial Development

Table 3. Integration analysis by using PP test

Variables	**Phillips Perron (Intercept)**		**Phillips-Perron (Trend and Intercept)**	
	Level	1st Diff.	Level	1st Diff.
InEG	2.235846	-3.059385**	-6.578420***	-3.040184*
InTA	-0.139670	-5.059365***	-2.236083	-4.896007***
InFD	-1.041098	-8.655976***	-4.539713*	-11.55675***

Notes: *** at the 1%, ** at the 5% and * at the 10% level of significance, indicating the rejection of the null (variables are unit root/non-stationary); EG; Economic growth; TA: Budgetary Allocation to Tourism; FD: Financial Development

2.2. Cointegration Analysis

In this research Johansen-Juselius cointegration analysis is applied. As the ADF test shows that the data is static in initial difference and the variables are integrated in the same order, the Johansen-Juselius cointegration test is applied to determine the long-run equilibrium position of the variables.The purpose of the cointegration test is to describe the level of integration among the variables. If the critical value is less than the determined Trace statistic or Max Eigen Value, then the null hypothesis would be rejected which indicates there is no cointegration among the variables. Table 4 shows the rejection of the null hypothesis under the trace and maximal Eigenvalue test. In the trace test, the rejection of the null hypothesis exhibits there is no cointegration between the three variables (GDP per capita, financial development and budgetary allocation to tourism). As the coefficient of the test (37.68190) is greater than the calculated value (29.79707) at 95% confidence interval, so the null hypothesis is rejected. It indicates the long-run conintegration between the variables in any case.

Table 4. Unrestricted Cointegration Rank Analysis (Trace)

Hypothesized No. of CE (s)	**Eigenvalue**	**Trace Statistic**	**Critical Value (0.05)**	**Prob.****
None *	0.747820	37.68190	29.79707	0.0050
At most 1	0.492894	12.88485	15.49471	0.1191
At most 2	0.036120	0.662199	3.841465	0.4158

At the 0.05 level, the Trace test designates 1 cointegration; * shows rejection of the null hypothesis at the 0.05 level; **MacKinnon-Haug-Michelis (1999) p-values

Table 5. Unrestricted Cointegration Rank Test (Maximum Eigenvalue)

Hypothesized No. of CE(s)	**Eigenvalue**	**Max-Eigen Statistic**	**Critical Value (0.05)**	**Prob.****
None *	0.747820	24.79705	21.13162	0.0145
At most 1	0.492894	12.22265	14.26460	0.1025
At most 2	0.036120	0.662199	3.841465	0.4158

Notes are same as Table 4

As the coefficient of the test (24.79705) is greater than the estimated value (21.13162) at 95% confidence interval, so the null hypothesis is rejected. The Max-Eigen value demonstrates the existence of cointegrating association between variables.

The calculated coefficient of standardized cointegartion describes budgetary allocation to tourism can be described with the economic growth. In long-run, an increase 1% allocation to the tourism in the national budget can accelerate 0.06% in economic growth and 0.43% financial development. The connections between economic growth, budgetary allocation to the tourism sector, and financial development is considerably significant.

3.3. Granger Causality Analysis

Granger causality test has been applied to examine the case and effect association between the economic growth and budgetary allocation. Table 7 depicts the results of causal relationship:

Table 6. Long-run impact of TA and FD

Variables	**Normalized cointegrating coefficients**	**Standard Error**
EG TA	0.060415	(0.02737)
EG FD	0.430008	(0.00621)

Note- EG: Economic growth; TA: Budgetary Allocation to Tourism Sector; FD: Financial Development

Table 7. Granger Causality test

Null Hypothesis	**F-Statistic**	**p-value**	**Granger Causality**
In EG does not Granger Cause In TA	2.24304	0.1537	No
In TA does not Granger Cause In EG	4.11945	0.0494*	Yes
In FD does not Granger Cause In TA	2.06093	0.1704	No
In TA does not Granger Cause In FD	10.8322	0.0046*	Yes
In FD does not Granger Cause In EG	7.72997	0.0134*	Yes
In EG does not Granger Cause In FD	8.43813	0.0103*	Yes

Note: * at the 5% level of significant, EG; Economic growth; TA: Budgetary Allocation in Tourism Industry; FD: Financial Development

The Table 7 exhibits that budgetary allocation to the tourism sector is Granger cause of economic growth in Bangladesh. Conversely, economic growth is not granger cause of budgetary allocation. The unidirectional causality exists between the economic growth and budgetary allocation to the tourism sector. Besides, financial development is not a granger cause of budgetary allocation to tourism but the budgetary allocation is the granger cause of financial development. There is a unidirectional causality exist between budgetary allocation to the tourism sector and financial development. Financial development is granger cause of economic growth and economic growth is also granger cause of financial development. The result of the test indicates that there is an intertwined cause and effect relationship between the three variables.

3.4. Vector Error Correction Estimates

The presence of a co-integrating association is shown by the Johansen Cointegration between the dependent and independent variables. As shown in Table 8, the effects of the correction of vector errors include short-term and long-term coefficients as well as diagnostic statistics. Economic growth, expenditure allocation in the tourism sector and financial development are the variables at issue. The coefficient value of the probability statistics shows the general importance of the model explanatory variable. The long-term projections indicate that financial development is associated with economic growth in the long run. Budgetary allocation to the tourism sector, however, is not statistically important in shaping long-term economic growth. In the short-term, the first and second lagging importance of the tourism allocation in the tourism sector is optimistic and important in affecting the 5% likelihood level of economic growth. The initial lagging value of financial progress, on the other hand, is optimistic and substantially linked to economic growth. Financial development at a lagging second value is not correlated with short-term economic growth. The model's error correction coefficient (0.041552) has the predicted positive sign and is important at the 5% level of significance, validating that it has a long-run association between economic growth, budget allocation to the tourism sector and financial development.

Table 8. Vector Error Correction Estimates of Economic Growth in Bangladesh

Variable	Coefficient	Standard Error	statistic
Long-run			
Constant	-5.992719		
lnEG (-1)	1.000000		
lnTA(-1)	-0.106414	0.10798	-0.98550
lnFD(-1)	1.830863	1.79420	1.02043
Short-run			
Constant	0.038130	0.01825	
ΔlnEG (-1)	0.209252	0.34628	
ΔlnEG (-2)	-0.354348	0.35239	
ΔlnTA (-1)	0.006070	0.01279	
ΔlnTA(-2)	0.009738	0.00977	
ΔlnFD(-1)	0.252218	0.59683	
ΔlnFD(-2)	-0.056942	0.23582	
ECM (-1)	0.041552		

Note: EG; Economic growth; TA: Budgetary Allocation in Tourism Industry; FD: Financial Development

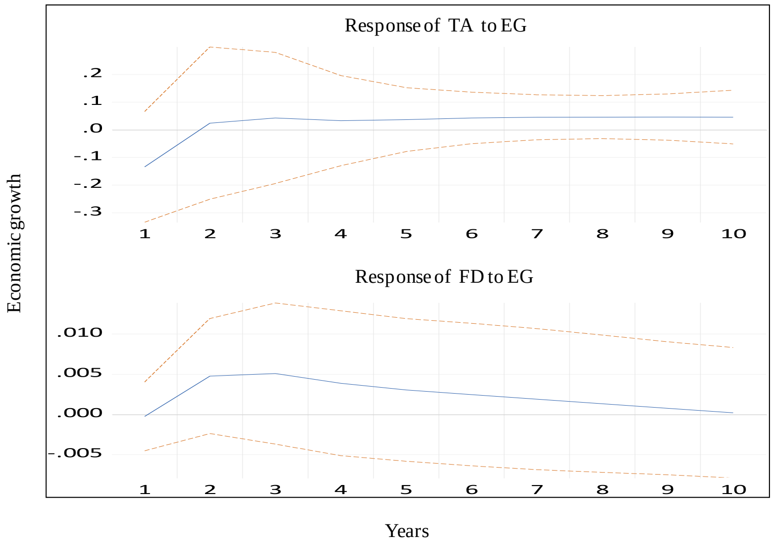

Figure 1. Cross-response of TA, EG and FD in case of Bangladesh

3.5. Impulse Response Function

The Impulse Response Analysis is applied to address the consequences of developments on economic growth in all variables of the system. The impulse responses of economic growth to the budgetary allocation in tourism and financial development based on standard deviation are shown in Figure 1.

The outcomes of the impulse response indicate that, firstly, the reaction of economic growth to the budget allocation in the tourism industry from year one to two is upward but negative. The economic growth response to the budget allocation in the tourism industry is positive after the second year and the response is stable from year two to ten. The reaction of economic growth to financial progress, on the other hand, is upwardly sloping and optimistic. The economic growth response has been declining from year 2 to 10, and it has been almost zero in the last year.

POLICY RECOMMENDATION AND CONCLUSIONS

The research presented in this paper has addressed whether the allocation in the national budget to the tourism industry influences economic growth in long-run and short-run and examined the causality connection among the budgetary allocation to the tourism sector, economic growth and financial development. It has been revealed that all the three variables are continuous at different levels, but all the variables of this study are stationary (not continuous) in nature at first differences. The finding developed from this research may accentuate the more reliable tourism allocation to take full advantage of the potential of tourism in economic growth. Aligning with the result of, the current research indicates that budgetary allocation for the tourism industry is a cause of economic growth in Bangladesh. Side by side, allocation in the national budget for tourism is a granger reason for financial development. The results of the test indicate that if the budgetary allocation in tourism industry increase, economic development will increase in the context of Bangladesh.

In addition, financial development is reason for economic growth and vice versa. It implies there is a two-way cause and effect relationship between economic growth and financial development in Bangladesh. The findings of this research may assist policymakers of Bangladesh to allocate for the tourism industry in the national budget every fiscal year. As the tourism industry is rising by trending continuous growth and its contribution to financial development for the economy is significant, the Government of the country can receive a desirable return from financial allocation.

The result of this study confirms that budgetary allocation to the tourism sector is a cause of the economic growth in the country from 2000 to 2019. In order to deal with the unemployment and other economic challenges, the government and policymakers can make the planned allocation in the national budget for tourism.

The paper exhibits that there is a long-run and short-run association between economic growth, budgetary allocation to the tourism sector, and financial development. It also discloses a similar result that budgetary allocation appropriately shocks the economic growth of Bangladesh. The paper uncovers that 1% raise in budgetary allocation to the tourism sector enhance 0.06% of economic growth. The positive influence of budgetary allocation on economic growth may accelerate GDP and financial development. The research of this paper has indicated budgetary allocation to the tourism sector and financial development to analyze the economic growth of Bangladesh.

The result suggests an abnormal conclusion compared to the past research findings, which have indicated a primarily affirmative influence on budgetary allocation to the tourism sector on economic growth in the country. By comprehending this impact on economic growth, the government of the country can rethink the national financial plan. In respect to the policymaking context, the findings of the study offer justification of budgetary allocation to the tourism sector.

The economic growth of Bangladesh is dependent on the tourism industry and policymakers may concentrate more on this sector. The tourism industry is observing a lack of competent human resource that is important for attracting domestic and international tourists. Besides, the tourism infrastructure of the country is insufficient and mostly outdated. Reasonable budgetary allocation in tourism for manpower and infrastructure development will uplift the economic growth of Bangladesh. This paper contributes to academic knowledge by consolidating widely acceptable theories regarding time-series data with the contextual national scale data of Bangladesh to approve the clear bond among three threshold variables budgetary allocation to the tourism sector, financial development, and economic growth. The economic growth is changed due to budgetary allocation under explicit conditions. This research used the ratio of broad money to GDP as a proxy of financial development. Future researchers can use the ratio of money supply to GDP as an indicator of financial development. The influence of budgetary allocation in a particular sector on relative economic growth might be explored by future researchers to access the efficiency of national financial plans.

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SUSTAINABLE TOURISM DEVELOPMENT IN HISTORIC CITIES OF ARID REGIONS WITH THE REVIVAL OF QANAT (YAZD CITY)

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Abstract: Qanat is one of the cultural and geological attractions in arid regions. Iran's Qanat has become the 20th UNESCO World Heritage Site in 2016. Since the Qanat is a cultural, historical, and ecological heritage in addition to its tectonic features, it can include geotourism and, it offers potentials in planning sustainable tourism. Therefore qanat tourism with emphasis sustainable tourism can cause conservation and regeneration of this local capacity. This research has been conducted with the aim of investigating the capabilities of qanats in Yazd from different aspects of tourism. Yazd city was registered as the World heritage city at UNESCO in 2017. According to the hydrologic and tourism experts, the Delphi model has been used, and the SWOT matrix has been formed. According to the AHP model, the results indicate the importance of the strengths and opportunities of the qanat of tourism in this city. The top strategies for tourism boom include investment, the participation of indigenous people, and the creation of museums and Qanatel in qanats.

Key words: qanat (aqueduct), sustainable tourism, historical city, Yazd, qanat tourism, desert

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INTRODUCTION

Tourism as an economic phenomenon has economic, social, cultural, personal, and ethical impacts on the hosting communities (Crossley et al., 2012; Othman and Rosli, 2011; Rathore, 2012). Tourism ranks second following the oil industry in its potential in export revenue generation (Othman and Rosli, 2011a; Ghanian et al., 2014). There are two main approaches to tourism planning that are defined about local capacities. In the first approach, tourism is independent of the native culture of each region, which is, in fact, a kind of massive modern tourism that follows a single model all over the world, independent of the geographic areas. The second approach considers tourism as dependent on the native culture, which is known as postmodern tourism, in which the local capacities are systematically involved in the tourism process, and this will ensure the dynamism and maintenance of these spots (Semsar Yazdi and Labbaf Khaneiki, 2014).

In international communities (Quebec Declaration on Ecotourism, 2002) and scientific studies (Bimonte and Punzo, 2003; Ko, 2005; Hashemi and Ghaffary, 2010), sustainable tourism, as a recent approach to tourism, is identified as a means to enhance local developments while protecting their environment, their natural resources, and cultural heritages and values. On the other hand, it means tourism design as a systematic interaction with native elements without damaging destination functions. Sustainable Tourism refers to the ability of the society, the ecosystem and other existing similar systems to operate continuously towards an unanticipated future, while also ensuring that the key resources are not depleted (Joseph et al., 2020). More specifically, water-based tourism around the world is one of the most diverse types of tourism truly representing sustainable tourism indices, which attracts the most number of tourists to bodies of water, such as seas, lakes, rivers, etc and Geotourism preserves the place's identity with the introduction of geomorphological landforms to tourists. However, there are few such tourism resources in desert cities. Qanat has been the source of technological advances in such desert areas in ancient Iran for about three thousand years ago whose main feature is exploiting underground water to the surface of the earth. It is an unique water resource with a high historical and cultural value along with its natural attractions. Since it creates a kind of human ecology, all elements of which have a systematic and sustainable relationship.

In tourism destinations, culture influences management practice. The core element in culture is the value in which the relationship between humans in a society is always influenced by the values that are part of the collective program of people's minds (Waridin and Astawa, 2021). The qanat also has cultural dimensions; because communities are always changing, and they relate to the symbolic dimension of life (Morar et al., 2020). The cultural space of the qanat is even comparable with the cultural places in Petra and Wadi Rum, recorded on the list of the Intangible Cultural Heritage of 2008 (Pineda and Brebbia, 2012). Qanats are considered as ancestral processes which are known under different names in 35 countries around the world. The best known of these are the Qanat in Iran (Goblot, 1963), Khettara in Morocco (Baali et al., 2002), Falj in Sultanate of Oman, and the Karez in Afghanistan (Hussain et al., 2008; Remini et al., 2014).

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The qanat of concern in tourism is a place whose geographic location and structural and non-structural features are suitable for attracting tourists. In fact, touristic potentials of qanat are not at least less than the aqueducts, rivers, and other sources of water, but other water resources have gained a much better position in the tourism sector. The potential of this type of tourism can be more in the field of heritage and nostalgia (Papoli Yazdi and Labbaf Khaneiki, 2000), which are one of the main components of postmodern tourism and could be considered as the symbol of a society's traditional culture in the past. Qanat tourism can be used in the category of cultural tourism. Most tourists in Yazd are cultural tourists whose main purpose is to visit the historical and cultural monuments of this city (Makiyan and Naderi, 2003).

Therefore, qanat as a new attraction in the post-modern age can help the tourism sector in Iran and particularly in Yazd, as a desert city in Iran, which was added to UNESCO's World Heritage List as UNESCO World Heritage Site in 2017. The social and civil evolution is deeply indebted to qanats, so urban tourism and qanat tourism are interwoven in this city. However, unfortunately, the use of qanats in the tourism sector of Yazd has not been much used so far. That is why the researcher in this study considers tourism as a feasible way to get qanats in Yazd more visible and more respected as a cultural heritage remained through centuries of human endeavors. Since tourists around the world are now seeking to visit places that are less visible or even unknown, and especially desert tourism is a priority for many of them, it seems that visiting the aqueduct, its structure, and function, an attractive destination for many tourists, especially geotourists and ecotourists.

Although qanat theme has attracted attention from academics and researchers in various sciences, this has been less noticeable in tourism. Mehrvaran (2005), for instance, has examined the impacts of the development of Shiraz city on the quantity and quality of Kooshk qanat water, who believes both the amount of water and its quality have changed during the development process. Another researcher (Sadeghirad, 2005) has tried to provide solutions with using the MODFLOW model and the qanat system structure for better use of groundwater in the Shiraz plain.

Nasiriyen (2006) has examined the factors affecting the sustainable development of irrigation system about the qanat system and believes that reforming the irrigation system can play an important role in the development and promotion of agriculture. In addition, Mustafa and Usman (2007) argued about irrigation changes from the traditional way to pumping of groundwater by tube wells that this problem can cause besides affecting environmental quality to an erosion of social capital and the loss of equity in rural regions. In another study by Hussain et al. (2008) provide a review of the global literature on the status and potential of karezes and presents case studies for Afghanistan, Iran, Pakistan, and Kingdom of Saudi Arabia (Figure 1). It offers syntheses of guide issues, lessons, options and proposed interventions for re-vitalizing the karez systems. The paper identifies criteria for prioritizing karez systems for rehabilitation and outlines significant conditions for their effective functioning and sustainability. Furthermore, Laghaei et al. (2012) by measuring all the qualitative variables of water in SangLage qanat of Tehran, the pollution of this water and other threatening factors have been revealed to them. Accordingly, strategies for the restoration and revitalization of this qanat have been presented as a sample for sustainable water management and the use of qanat capacities in the urban fabric. For instance, Abbasnejad et al. (2016) examine the hazards of qanats in the urban areas due to the structure of qanats (Figure 2), and they believe this problem can be considered as a specific type of geologic danger and have explained the causes, effects, and solutions to contrast this danger.

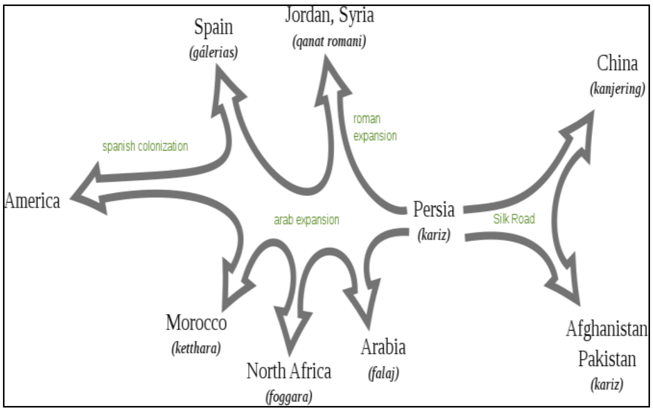

Figure 1. Probable diffusion and names of qanat technology (source:Vaughan, 2021)

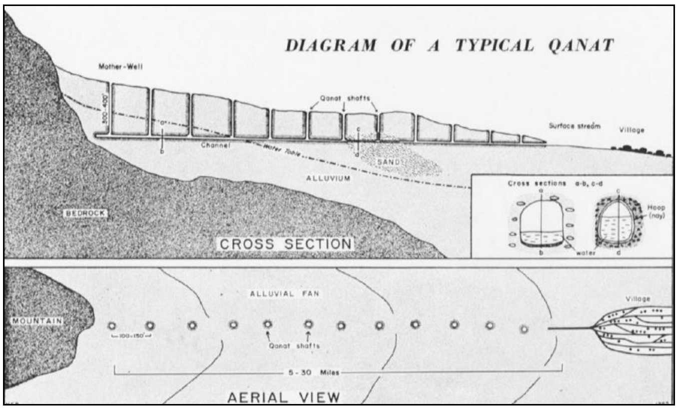

Figure 2. Diagram of a typical qanat (source: English, 1968)

According to Parise (2016)'s study, has made comments on the previous article and believes that qanat is not a geologic hazard, but qanat systems have the remarkable importance on the development of similar underground structures in many countries of the Mediterranean Basin, which this remarks the relevance of qanat as cultural heritage sites and the need for their preservation and valorization. Moreover, Goes (2017) has discussed the issue of the Afghanistan qanats in his article and has proposed strategies for the reconstruction of the qanats. He believes that although this is not economically feasible compared to digging deep wells, the qanats need special attention as a legacy for Afghanistan solidarity. Based on the above, several studies have explored various aspects of qanat for structure, water quality, hazards and it's capabilities, but limited research focused on the capacities qanat for tourism. In contrast, this paper focuses on the tourism aspects of the qanat and is attempting to present a sustainable tourism pattern in this regard. As a result, this study aims at providing an answer to the question of what potentials the qanats have in the city of Yazd and how these potentials can be deployed in the tourism sector and how can we achieve the sustainable development of tourism in Yazd by restoring the qanat tourism?

RESEARCH FRAMEWORK

A qanat is a gently sloping underground channel to transport water from an aquifer or water well to surface for irrigation and drinking, or an old system of water supply from a deep well with a series of vertical access shafts. The qanats still create a reliable supply of water for human settlements and irrigation in hot, arid, and semi-arid climates. The qanat technology was developed in ancient Iran by the Persian people sometime in the early 1st millennium BC, and spread from there slowly westward and eastward (Wilson, 2008). The qanat consists of the main components and dependent elements. The main parts includes the mother well, access shaft, qanat channel, and outlet. Figure 2 shows how the distribution of qanat water in a wide geographical range and its systematic linkages with elements of urban and rural life. On the other hand, these elements can be considered in the form of tangible and intangible values of a cultural and tourism attraction. Tangible values derive from the structural and physical characteristics of a space that they have historically, culturally or technically important or are unique. In contrast, intangible values are conceptual and nonstructural features that are rooted in social, economic, political, historical and artistic processes (Gravili et al., 2015). Human interaction involves the environment and society, and they do not have an outer shape. For example, the channel of the qanat is considered to be tangible, but indigenous knowledge is considered intangible for its maintenance. As a result, intangible values make up an important part of the tourist attractions, and tourists are searching for many of these values around the world (Semsar Yazdi and Labbaf Khaneiki, 2014a).

According to the expectations and interests of tourists, it is possible to divide the attractions of the qanat into five sections (Carrión and Fornes, 2016):

-Natural attractions: At the bottom of the qanat, the accumulation of calcium carbonate around the roots of the trees creates beautiful scenery that attracts everyone interested to nature. Also, due to the presence of some aquatic animal species, such as fish, crabs and shrimp in the qanat, this structure is more attractive to tourists.

-Cultural attractions: Recreating some of the ancient ceremonies that were held near the qanats in the past, like the marriage of Qanats and rain reading can attract tourists interested in the culture of civilizations. Other cultural attractions include water clocks and a means to measure the flow of water.

-Adventurous attractions: Landing in the qanat well, walking in the qanat gallery and the complex geometry of the qanats' interior can be an expression of geotourism.

-Technical Attractions: How to dig in the past with basic facilities, accurate calculations, regular routing, shaft-wells and tunnel bars, are the technical tips of the qanats that many people are looking for.

- Social Attractions: Access to qanat has been based on the social level of families in the past. In the sense that, higher-income families have access to water at the upper qanat, and families with lower levels have less chance of accessing water. This is important for those interested in sociology. Also, how to qanat managing and its water distribution is significant for tourism.

According to the above, it can be said that all the qanats in the world do not have the necessary characteristics to become a tourist destination. Tourism qanat should not only be appropriate regarding geographic location and structure for attracting tourists but also should be able to accommodate tourists. In such a way that the function of the qanats is not disturbed, and it will be profitable for the qanat.

THE LOCATION OF THE STUDIED AREA

The City of Yazd is located in the middle of the Iranian plateau, 270 km southeast of Isfahan (Safarabadi et al., 2015), close to the Spice and Silk Roads. It bears living testimony to the use of limited resources for survival in the desert. Water is supplied to the city through a qanat system developed to draw underground water. The earthen architecture of Yazd has escaped the modernization that destroyed many traditional earthen towns, retaining its traditional districts, the qanat system, traditional houses, Bazars, Hammams, Mosques, Synagogues, Zoroastrian temples and the historic garden of Dolat-Abad (UNESCO, 2017). This city has become the country's 22nd world heritage site after the World Heritage Committee voted in favor of it's in 2017. Yazd is now the only UNESCO-listed Iranian city where people still live (Figure 3).

Due to its dry climate, Yazd has been considered as one of the world's largest qanat centers since the past. The technology of the qanat is unique in this land and has been derived from the past generations. In Yazd, the most important elements related to the aqueduct include market, indigenous architecture, temples, agriculture, and urban gardening and the spatial arrangement of neighborhoods. Traditional markets and the orientation of historic neighborhoods largely follow the status of the source of water access. So Bunin considers the network of qanats as the main reason for the configuration of the Yazd city pattern (Bonine, 1979). Architectural interaction with the qanats is also two-sided, which means that on the one hand the qanat has come to the aid of architecture and has given new functions to it, and on the other hand, the structures associated with the qanat enjoy the same native architectural techniques. The manifestation of the aqueduct in the structure of the old houses is also well seen in the spring house, Payab and Basement.

Also, qanat and religious architecture have a long history. Water is considered one of the four holy elements of nature, and it has a high status in Zoroastrianism, so that water is supplied to the fire temples through the qanats, and this tradition has led to mosques in the city through Iranian culture. So that water is in the center of mosques and plays an important role in the prayers. Therefore, the qanats flowed like the body's arteries in the city of Yazd, and the movement of the qanat route made it possible for the tourists to visit several other monuments and bring him to the center of the old neighborhoods. In the past, there were over 70 qanats running beneath the city, and now there are at least 8 active Qatats in the urban vicinity, including the qanat of Qasem Abad, Qasem Naqi, Rahmat Abad, Hassan Abad, Zarch, Najaf Abad, Kheyr Abad, and Shehneh. It should be noted that the Zarch Qanat is the longest Iranian qanat with a length of more than 70 kilometers. Iran has had successful experiences in exploiting qanats for tourism purposes, for example, the underground city of Kish Island and the Mahan Arg in Kerman.

Considering the abilities of the qanats of Yazd, sure planning for them can certainly affect the city's tourism prosperity. Indeed, with the emphasis on the capacities of the Yazd city qanats, the strategic planning can be useful in boosting tourism.

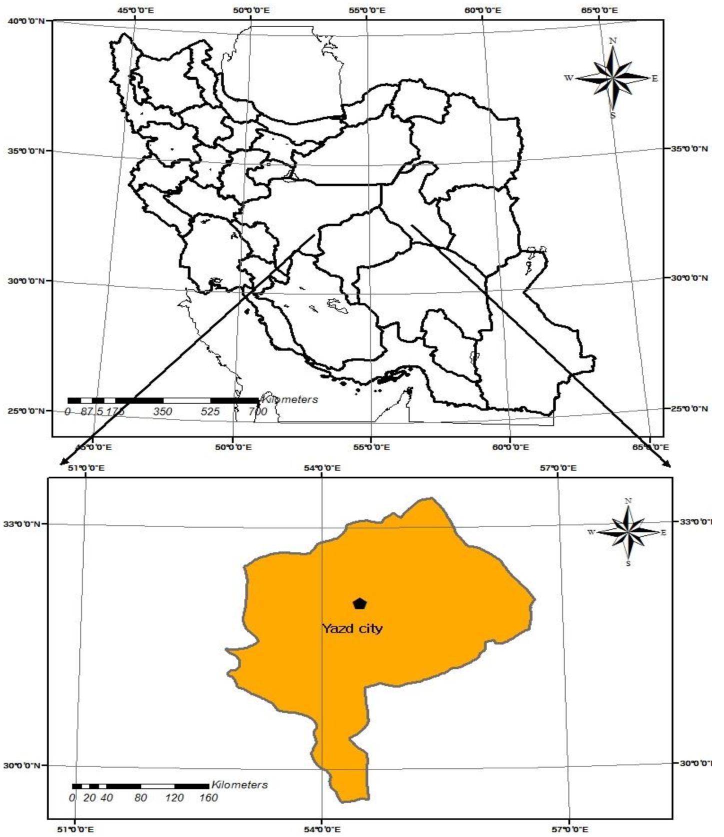

Figure 3. The location of the Yazd city in Iran (source: authors)

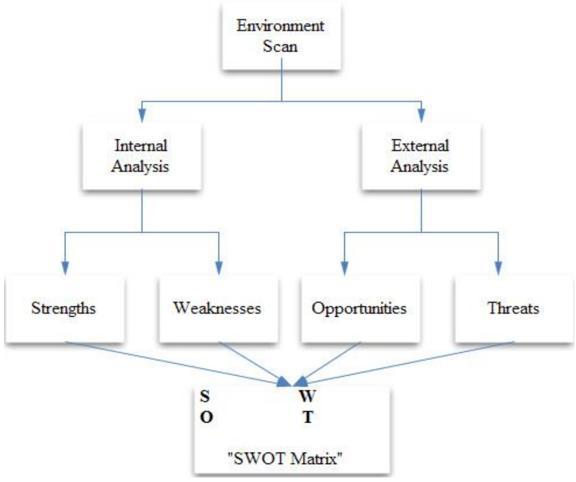

Figure 4. The SWOT analysis framework

Table 1. Pairwise comparison scale

Importance	Explanation
1	Two criterion contribute equally to the objective
3	Experience and judgment slightly favor one over another
5	Experience and judgment strongly favor one over another
7	Criterion is strongly favored, and its dominance is demonstrated in practice
9	Importance of one over another affirmed on the highest possible order
2,4,6,8	Used to represent the compromise between the priorities listed above

MATERIALS AND METHODS

The approach of this research is descriptive-analytic. To collect the required data, library and field studies are used, and according to the obtained data, the general status of the qanat tourism in Yazd city has been investigated. The technique used in this research is Delphi. Delphi participants are experts**.** They have four characteristics: knowledge and experience in the subject, the willingness, the time of cooperation and effective communication skills (Rowe and Wright, 1999). In the majority of cases, sampling is based on the purpose, but if experts are not identified, snowball sampling is also used. If experts are well-known and large, random sampling is used. The number of participants is usually less than 50 people and mostly 15 to 20 people**.**

Accordingly, in this research, among the experts in the cultural heritage of Yazd Considering the purpose of the research and the specification presented, non-random sampling was used and the sample number was 15, of which men were 40-50 years old and had a 15-year experience in tourism and qanat in Yazd. Next, according to the Delphi method, the views of experts on qanat tourism and its capabilities for Yazd city were examined. In the second stage, based on these views and SWOT analysis With the purpose of developing the qanat tourism in the Yazd city, the strengths, weaknesses, opportunities, and threats of this type of tourism were extracted. The SWOT compiles the most important results from the analysis of external drivers and the internal analysis competences of an organization. The objective of the SWOT is to determine to what degree the actual strategy is suitable and appropriate to meet the challenges and changes in the organization,s environment. Figure 4 shows how SWOT analysis fits into an environment scan (Kahraman et al., 2008).

In the next step, the AHP[1] model was used, which was the reason for using it to compare the paired strengths, weaknesses, opportunities and threats by the relevant experts. The prioritization mechanism is accomplished by assigning a number from a comparison scale (Table 1) developed by Saaty (1980) to represent the relative importance of the criteria. Pairwise comparisons matrices of these factors provide the means for calculation of importance (Sharma et al., 2008).

In typical SWOT analysis, the weightiness of the factors is not quantified to determine the effect of each factor on the proposed strategy alternatives (Yuksel and Dagdeviren, 2007). SWOT analysis does not provide a means of systematically determining the relative importance of the criteria or to assess decision alternatives according to these criteria. To handle this insufficiency, the SWOT framework is converted into a hierarchic structure, and the model is integrated and analyzed using the AHP with its eigenvalue calculation method (Gorener et al., 2012). In this study, the AHP structure results from the SWOT matrix and is separated in three parts: (a) goal to be achieved by the decision, (b) the SWOT groups and (c) the factors included within each SWOT group (sub-criteria). The hierarchical representation of the SWOT structure is shown in Figure 5.

Finally, the process of the theoretical framework of the research can be presented in Figure 6.

1. AHP is a multicriteria decision-making technique that can help express the general decision operation by decomposing a complicated problem into a multilevel hierarchical structure of objective, criteria, and alternatives (Sharma et al., 2008). AHP performs pairwise comparisons to derive relative importance of the variable in each level of the hierarchy and/or appraises the alternatives in the lowest level of the hierarchy to make the best decision among alternatives.

RESULTS DISCUSSIONS

As explained before, the research data is provided in a few steps through the questionnaire. The results of the first stage which are made up of open questions about the qanat and its capabilities, as well as its limitations and problems in the field of tourism. This process is done by Delphi technique and 15 expert comments.

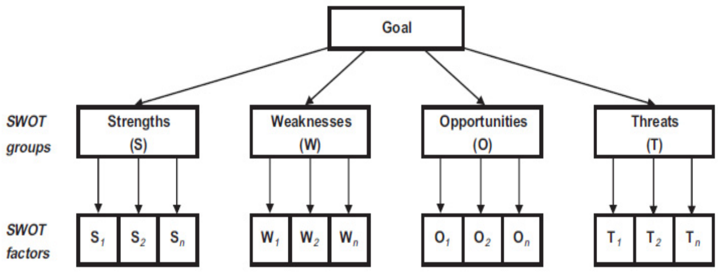

Figure 5. The hierarchical structure of the SWOT matrix

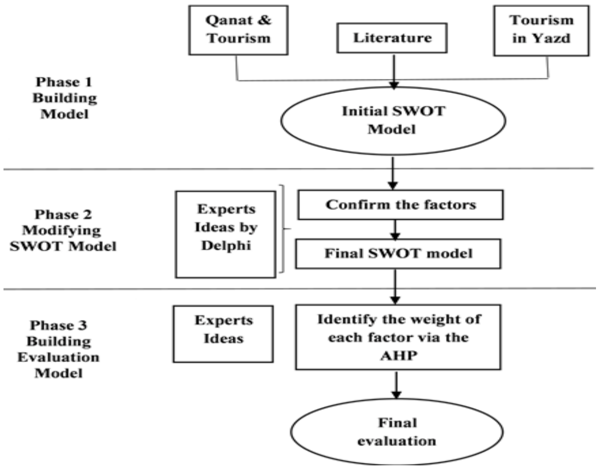

Figure 6. Phases of the proposed methodology (source: authors)

In the second step, by receiving these questionnaires, we tried to identify the strengths, weaknesses, opportunities, and threats and return them to the experts to identify the most wanted items in SWOT matrix. According to the relative frequency of each parameter, were identified as final strengths, weaknesses, opportunities, and threats. Table 2 shows the SWOT matrix.

Table 2. The SWOT matrix about qanat tourism

Strengths (S)	Weaknesses (W)
(S1) The unique technology of the aqueduct (S2) Ecotourism and Geotourism attractions (S3) The structural and functional significance (S4) Appropriate cultural perspective in the form of Zoroastrian and Muslim interaction in Yazd to exploit aqueducts in agriculture (S5)The systematic connection of Qanat with other historical attractions (S6) Easy access to the aqueduct and convenient access to its various parts (S7) The long civilization of the qanat (S8) Using the landscape of the desert in the manifestation of the qanat and the catacombs' landscape in the manifestation of the Yazd qanats	(W1) The proximity of the qanat to the Yazd city is problematic for technical reasons (W2) Uncertain route of the qanats in some parts of the city (W3) The destructive structural changes in the aqueduct as a result of unbridled excavations and the destruction of the authenticity of the qanat (W4) Impact of climate change and recent droughts on Yazd qanats (W5) Management weakness in the rehabilitation of qanats and connecting this civilization attraction to other places of Yazd (W6) The neglect of investing in Yazd qanats with the approach of tourism
Opportunities (O)	**Threats (T)**
(O1) Register Yazd city in the list of world heritage cities in UNESCO (O2) The first rank of Yazd qanats in Iran (O3) Historic, cultural and archeological attractions of the qanat for tourists (O4) Special Geomorphology Attractions of Yazd qanats (O5) Located in the cultural cycle of Iran (Isfahan-Shiraz-Yazd) (O6) Formation of the urban's structure and its expansion based on the qanat network (O7) Less damage to the environment and sustainable tourism (O8) The emphasis of international conventions on the preservation of native technology and knowledge	(T1) Unauthorized withdrawal of water from the aqueduct for water supply in various projects, especially tourism (T2) Contamination in the aqueduct (T3) Reducing people's participation in the maintenance and restoration of qanats (T4) The increase in land prices and the change in the use of agricultural land and the removal of aqueducts (T5) Lack of welcome to foreign tourists due to negative promotions (T6) The occurrence of landslide crisis in various cities of Iran and the creation of a crisis in tourism (T7) Lack of awareness of the visit of the aqueducts by tourists (T8) Lack of qanat rules and regulations for the maintenance of the aqueducts

Next, AHP is applied to the SWOT matrix. Firstly, pairwise comparisons of the SWOT groups, using a 1-9 Saaty s (1980) comparison scale, are made. The comparison results are shown in Table 3. Secondly, SWOT matrices elements are compared considering every SWOT group (Table 4, Table 5, Table 6, Table 7). All pairwise comparisons in the application are performed by the team of experts (15 people). The expert team was constituted from two department managers of the tourism and the water resources.

Table 3. Pairwise comparisons of SWOT factors

SWOT Groups	S	W	O	T	Importance Degrees of SWOT Groups
Strengths (S)	1	3	1	3	0.366
Weaknesses (W)	0.33	1	0.25	2	0.143
Opportunities (O)	1	4	1	2	0.371
Threats (T)	0.33	0.5	0.5	1	0.120
CR= 0.06					

Table 4. Comparison Matrix of Strengths Group

Strengths	S1	S2	S3	S4	S5	S6	S7	S8	Importance Degree
(S1) The unique technology of the aqueduct	1	2	0.2	0.25	0.25	0.5	1	0.25	0.05
(S2) Ecotouristic and Geotouristic attractions	0.5	1	1	0.33	0.5	0.2	0.5	0.33	0.059
(S3) The structural and functional significance	0.5	1	1	3	1	4	2	0.5	0.203
(S4) Appropriate cultural perspective in the form of Zoroastrian and Muslim interaction in Yazd to exploit aqueducts in agriculture	4	3	0.33	1	2	2	4	1	0.17
(S5)The systematic connection of Qanat with other historical attractions	4	2	1	0.5	1	1	2	0.5	0.118
(S6) Easy access to the aqueduct and convenient access to its various parts	2	5	0.25	0.5	1	1	4	0.33	0.118
(S7) The long civilization of the qanat	1	2	0.5	0.25	0.5	0.25	1	0.2	0.055
(S8) Using the landscape of the desert in the manifestation of the Qanat and the catacombs' landscape in the manifestation of the Yazd Qanats	4	3	2	1	2	3	5	1	0.227
CR= 0.1									

Table 5. Comparison Matrix of Weaknesses Group

Weaknesses1	W1	W2	W3	W4	W5	W6	Importance Degree
(W1) The proximity of the qanat to the Yazd city is problematic for technical reasons	1	1	0.2	0.25	0.17	0.14	0.037
(W2) Uncertain route of the Qanats in some parts of the city	1	1	0.25	0.2	0.25	0.17	0.042
(W3) The destructive structural changes in the aqueduct as a result of unbridled excavations and the destruction of the authenticity of the aqueduct	5	4	1	3	0.33	0.25	0.158
(W4) Impact of climate change and recent droughts on Yazd aqueducts	4	5	0.33	1	0.33	0.2	0.106
(W5) Management weakness in the rehabilitation of Qnats and connecting this civilization attraction to other places of Yazd	6	4	3	3	1	0.5	0.255
(W6) The neglect of investing in Yazd Qanats with the approach of tourism	7	6	4	5	2	1	0.402
CR= 0.07							

Table 6. Comparison Matrix of Opportunities Group

Opportunities	O1	O2	O3	O4	O5	O6	O7	O8	Importance Degree
(O1) Register Yazd city in the list of world heritage cities in UNESCO	1	7	3	3	1	5	1	1	0.18
(O2) The first rank of Yazd Qanats in Iran	0.14	1	0.25	0.2	0.25	0.5	0.14	0.17	0.024
(O3) Historic, cultural and archeological attractions of the Qanat for tourists	0.33	4	1	0.5	0.33	4	0.2	0.2	0.061
(O4) Special Geomorphology Attractions of Yazd Aqueducts	0.33	5	2	1	0.33	2	0.5	0.25	0.078
(O5) Located in the cultural cycle of Iran (Isfahan-Shiraz-Yazd)	1	4	3	3	1	4	0.25	0.25	0.125
(O6) Formation of the urban's structure and its expansion based on the qanat network	0.2	2	0.25	0.5	0.25	1	0.14	0.125	0.031
(O7) Less damage to the environment and sustainable tourism	1	7	5	2	4	7	1	0.5	0.22
(O8) The emphasis of international conventions on the preservation of native technology and knowledge	1	6	5	4	4	8	7	1	0.28
CR= 0.06									

Table 7. Comparison Matrix of Threats Group

Threats	T1	T2	T3	T4	T5	T6	T7	T8	Importance Degree
(T1) Unauthorized withdrawal of water from the aqueduct for water supply in various projects, especially tourism	1	2	2	0.33	0.2	0.5	0.2	0.25	0.049
(T2) Contamination in the aqueduct	0.5	1	0.5	0.33	0.25	0.25	0.2	0.33	0.034
(T3) Reducing people's participation in the maintenance and restoration of aqueducts	0.5	2	1	0.33	0.25	0.2	0.2	0.25	0.037
(T4) The increase in land prices and the change in the use of agricultural land and the removal of aqueducts	3	3	3	1	0.17	0.2	0.2	0.33	0.068
(T5) Lack of welcome to foreign tourists due to negative promotions	5	4	4	6	1	2	2	0.33	0.225
(T6) The occurrence of landslide crisis in various cities of Iran and the creation of a crisis in tourism	2	4	5	5	0.5	1	0.5	2	0.172
(T7) Lack of awareness of the visit of the aqueducts by tourists	5	5	5	5	5	2	1	2	0.223
(T8) Lack of adequate rules and regulations for the maintenance of the aqueducts	4	3	4	3	3	0.5	0.5	1	0.191
CR= 0.1									

Finally, the overall priority scores of the SWOT factors are calculated. Overall priorities are shown in Table 8.

According to the results of the table, the main strengths and weaknesses of the qanat tourism in Yazd city are S8=0.083, S3=0.0742, S4=0.622 and W6=0.057, W5=0.0364. In assessing the internal environment, identification the opportunities and threats facing qanat tourism, the most important opportunities and threats consider O1=0.0667, O5=0.0463 and T5= 0.027, T7= 0.0267. In the next step, we can propose the most important strategies of the identified factors, which are (Table 9):

SO Strategies (Maxi-Maxi) or Strategy of differentiated approach that provides marketing mix differently than competitive destinations (including S1/S2/S4/O3/O2).

WO Strategies (Mini- Maxi) or Strategy of shareholder involvement in tourism development that involvement of shareholders in decision-making, improve product quality and concern for consumers (including W2/W3/W4/W5/W6/O8/O2).

Table 8. Overall Priority Scores of SWOT Factors

Swot Group	Group Priority	Swot Factors	Factor Priority within the Group	Overall Priority Of Factor
Strengths	0.366	(S1) The unique technology of the aqueduct	0.05	0.018
		(S2) Ecotouristic and Geotouristic attractions	0.06	0.021
		(S3) The structural and functional significance	0.20	0.074
		(S4) Appropriate cultural perspective in the form of Zoroastrian and Muslim interaction in Yazd to exploit aqueducts in agriculture	0.17	.062
		(S5)The systematic connection of qanat with other historical attractions	0.12	0.043
		(S6) Easy access to the aqueduct and convenient access to its various parts	0.12	0.043
		(S7) The long civilization of the qanat	0.05	0.02
		(S8) Using the landscape of the desert in the manifestation of the qanat and the catacombs' landscape in the manifestation of the Yazd qanats	0.23	0.083
Weaknesses	0.143	(W1) The proximity of the qanat to the Yazd city is problematic for technical reasons	0.04	0.005
		(W2) Uncertain route of the Qanats in some parts of the city	0.04	0.006
		(W3) The destructive structural changes in the aqueduct as a result of unbridled excavations and the destruction of the authenticity of the aqueduct	0.16	0.022
		(W4) Impact of climate change and recent droughts on Yazd aqueducts	0.11	0.015
		(W5) Management weakness in the rehabilitation of qanats and connecting this civilization attraction to other places of Yazd	0.25	0.036
		(W6) The neglect of investing in Yazd qanats with the approach of tourism	0.40	0.057
Opportunities	0.371	(O1) Register Yazd city in the list of world heritage cities in UNESCO	0.18	0.067
		(O2) The first rank of Yazd qanats in Iran	0.02	0.009
		(O3) Historical, cultural and archeological attractions of the qanat for tourists	0.06	0.023
		(O4) Special Geomorphology Attractions of Yazd Aqueducts	0.08	0.029
		(O5) Located in the cultural cycle of Iran (Isfahan-Shiraz-Yazd)	0.12	0.046
		(O6) Formation of the urban's structure and its expansion based on the qanat network	0.03	0.011
		(O7) Less damage to the environment and sustainable tourism	0.22	0.082
		(O8) The emphasis of international conventions on the preservation of native technology and knowledge	0.28	0.104
Threats	0.120	(T1) Unauthorized withdrawal of water from the aqueduct for water supply in various projects, especially tourism	0.05	0.006
		(T2) Contamination in the aqueduct	0.03	0.004
		(T3) Reducing people's participation in the maintenance and restoration of aqueducts	0.04	0.008
		(T4) The increase in land prices and the change in the use of agricultural land and the removal of aqueducts	0.07	0.008
		(T5) Lack of welcome to foreign tourists due to negative promotions	0.22	0.027
		(T6) The occurrence of landslide crisis in various cities of Iran and the creation of a crisis in tourism	0.17	0.021
		(T7) Lack of awareness of the visit of the aqueducts by tourists	0.22	0.027
		(T8) Lack of adequate rules and regulations for the maintenance of the aqueducts	0.19	0.023
Overal sum				1

• The strategy of diversification of distribution channels: distribution channels have the power to influence it, "when," "where" and "how" people are traveling, and so to some extent, control how many people come to a destination (includes W3/W2/W5/W1 / O3/O2/O1/O3).

ST Strategies (Maxi-Mini) or Segmented marketing strategy with product modification: Segmentation identifies specific categories of homogeneous preferences among tourists (includes S1/S2/S4/S3/T2/T1).

• Proactive communication strategy: prevent the potential negative image in the minds of visitors, must be centralized, honest, transparent and informative (S1/S2/T2).

WT Strategies: Mini-Mini

• Launch efficient/ flexible marketing promotional strategies: creating confidence in the target market: special events, billboards, trade shows, TV programs, public relations, advertising are the best tactics for promotion (W3/T2/T1).

• Organizational interrelationships and work team: tourism is a set of variety services which include many parties. Therefore it is necessary to develop a network among them (W2/W1/W3/T2/T1).

At the first, the process of selecting the best strategy for qanat tourism planning based on the weighting of the four factors of SWOT concluding the weighting factor of the factors S= 0.366, W= 0.143, O= 0.371, T= 0.120 (Figure 7). Accordingly, opportunities get the highest points and then in order strengths, weaknesses and Threats. In the next step, to rank the strategies concerning the combined strategies, the points of the factors will be added together that SO= 0.733, WO=0.514, ST=0.486, WT= 0.263 (Figure 8).

Based on this, the SO strategies regarding the development of qanat tourism in Yazd could include:

- Private sector investment for qanats with tourism capacity in Yazd (Currently, private sector investment is limited to urban areas and traditional homes, and other types of tourism like qanat are unknown)

- Preparation of plans for the development of cultural tourism, especially qanat, for the development of various types of tourism such as urban tourism, ecotourism and geo-tourism (Major existing plans are a comprehensive urban plan, and there is no comprehensive tourism plan)
- Expansion of facilities for tourists (hotels, restaurants, dining rooms) near the main qanats of Yazd and qanatel (hotel in qanat)
- Creating a museum in qanats to provide tools related to this technology and showing its different parts
- Creating the right ads on the introduction of tourist attractions in the historic city of Yazd, especially the city's qanat
- Exploitation of the climate and architecture of the brick, desert areas and other attractions related to the qanat for sustainable development of the tourist canoes
- More efforts are being made to make effective decisions to identify the native culture of Yazd to tourists
- Returning the management of the qanats of Yazd to the indigenous people and directing the development of the city along the qanats for its sustainability
- Introduction of qanat technology to tourists in the form of advertising and virtual networks.

Table 9. SWOT/TOWS Matrix

	Strenghts	Weaknesses
Opportunities	S-O strategies	W-O strategies
Threats	S-T strategies	W-T strategies

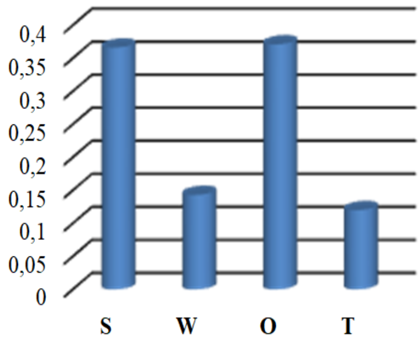

Figure 7. Prioritizing Fourth SWOT Factors

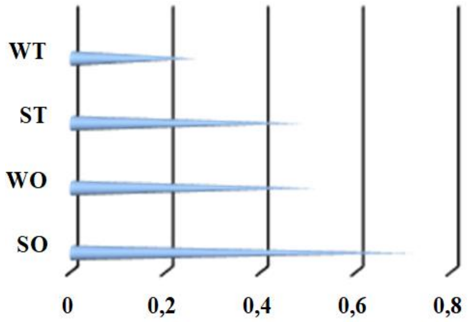

Figure 8. Prioritizing the strategies of development of qanat tourism in Yazd

CONCLUSION

Sustainable tourism is the concept of visiting a place as a tourist and trying to make a positive impact on the environment, society, and economy. There is now broad consensus that tourism development should be sustainable; however, the question of how to achieve this remains an object of debate. Since in the sustainable tourism approach, attention to local capacities is a priority, there is also an element such as qanat with a long history in the historical city of Yazd, which in the past has had many functions in the field of water supply in desert areas.

Due to the lack of proper use of this structure and its abundant capabilities, it seems that the subject of qanat tourism and the enjoyment of its technology, structure, beauty and natural and geological attraction can make it more sustainable. A lot of studies have been done on the Qanat and its functions include, Mehrvaran (2005), Sadeghirad (2005), Nasiriyen (2006), Mustafa and Usman (2007), Hussain et al. (2008), Laghaei et al. (2012), Abbasnejad et al. (2016), Parise (2016), Goes (2017), but the distinction between the research and the similar research is the attention to the qanat tourism aspect and the combination of the two SWOT and AHP models for the presentation of the strategy.

According to the use of the AHP model and experts' opinions, the results indicate that the strengths and opportunities in the field of qanat tourism in Yazd have been more important. Also, SO and WO strategies are the first priorities. As a result, the main strategies to create sustainable tourism in various dimensions of economic, social, cultural for the development and rehabilitation of the qanat for tourism can include investment, appropriate advertising, the creation of more tourist facilities and the use of indigenous people living in the vicinity of the qanats of Yazd city. As a result, it can be said that qanat is a cultural element for the historic city of Yazd, which can be effective in boosting tourism in this city.

Indeed, this issue is still at the forefront and it is associated with cultural, historical, social and natural topics. While natural crises such as drought and dehydration are related to the qanat, the topic of restoring qanats can be effective in countering these problems. It is said that qanat tourism can increase the attention of individuals to this civilization structure, and this also plays an important role in the reconstruction of it. It seems that future research should focus on the use of modern techniques and technology for utilizing the opportunities of the qanat and somehow the principles of the past have been updated and appropriate measures are being taken to further maintain the stability of the dry areas in order to further harmonize with the climate.

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AWAKENING LOCAL TOURISM BASED ON INDISCHE ARCHITECTURE IN INDONESIA. CASE STUDY KAJOETANGAN KAMPONG HERITAGE OF MALANG

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Abstract: Kajoetangan or Kayutangan kampong heritage is a new tourist spot in Malang that emphasizes the empowerment of local communities in realizing settlement-based sustainable tourism that existed during the colonial era which was composed of dozens of Indische architecture in the late 19th to early 20th centuries. Kayutangan heritage villages are composed of settlements with a small size with access in the form of a small footpath combined with a mural and various outdoor plants. The houses in the area have not changed for nearly a hundred years, which have been passed down from generation to generation. Descriptive qualitative method is used in this research by combining the data obtained based on in-depth interviews, survey and combined with literature studies. Purpose of this research is to explore historical sequences and processes of sustainable tourism management controlled by local residents with financial assistance from various partners. The results of the study show that the role of local communities is quite positive in efforts to support tourists either by being directly or indirectly involved by building supporting facilities for core tourism such as culinary spots and souvenirs. Collaboration with several government agencies, universities and banks also makes the additions and directions in making and using additional facilities more structured.

Key words: heritage, colonial building, indische architecture, kajoetangan

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INTRODUCTION

Kayutangan kampong heritage is located in the city of Malang, East Java Province, Indonesia which was formally inaugurated as one of the tourist destinations in 2018 by the Malang city government along with the Malang city tourism department. In general, this area is part of the CBD of Malang which is on the west side of Basuki Rahmat street in which connects the town square towards the city of Surabaya (*capital province*) in the north.

In general, the city of Malang itself has several spots for Dutch colonial resident settlements that were built in the early 20th century (Bogaers and Ruijter, 1983; Sumalyo, 1995; Handinoto and Paulus, 1996), considering that Malang itself was officially established in 1914 after separating from the Pasuruan region. This city is a mountainous area flanked by Mount Bromo in the east with an altitude of 2329 meters, as well as Mount Arjuno (northwest), Semeru (southeast) and Kawi (southwest) (Schaik and Diessen, 1996). This city developed in the recent phase after colonial settlements developed in the early stages such as in Jakarta, Semarang and Surabaya which existed in the early 17th to 19th century (Handinoto and Paulus, 1996; Roosmalen, 2013). Malang area has similarities with Bogor (*Colonial name: Buitenzorg*) which is 60 kilometers south of Jakarta (*Colonial name: Batavia*) as the seat of the VOC government (*Nederlands; Verenigde Oost Indische Compagnie*), which was founded in 1602, as a trading organization in the East Indies (Budiharjo and Sidharta, 1997;

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Pramono et al., 2020). Then in 1799, this organization was officially disbanded and replaced by the Dutch kingdom directly due to the high number of corruption cases in the private company (Handinoto and Paulus, 1996; Pramono et al., 2020). Below, inside the (Figure 1), showed the location of Malang municipality, in the eastern part of Java island (red point).

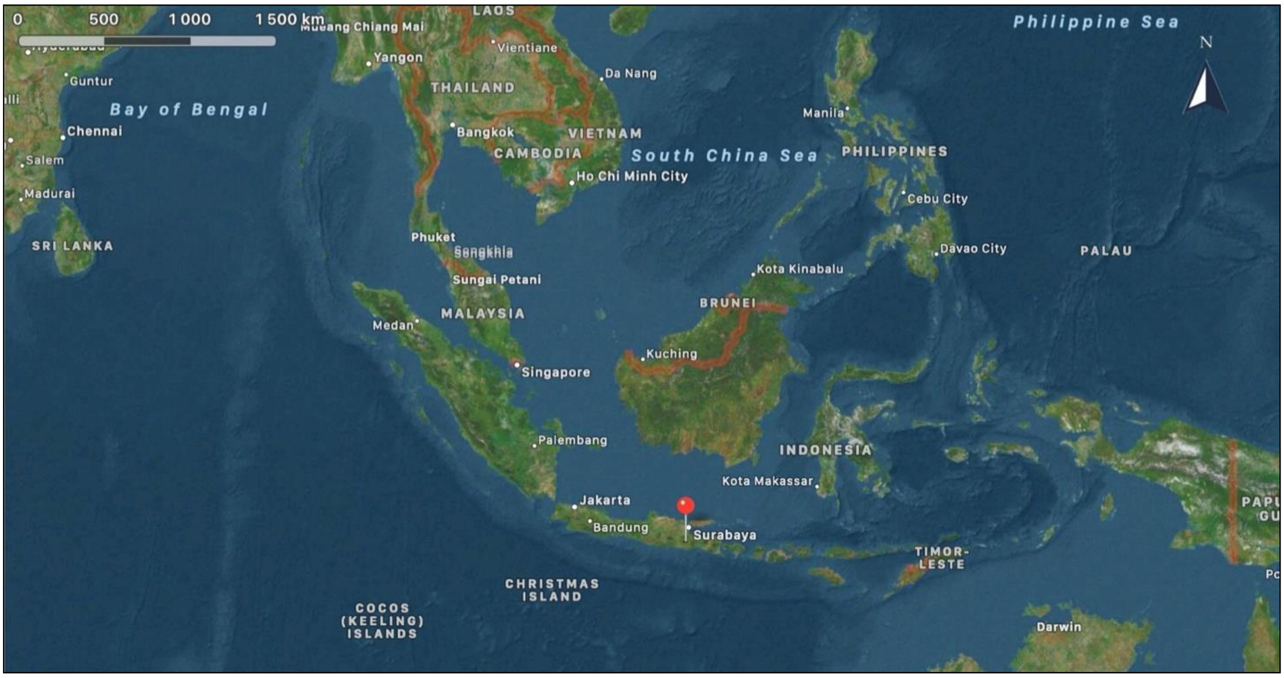

Figure 1. Malang is located 90 km in the south of Surabaya (the largest city in East India) (Source: iOS Maps, 2020)

Malang was seen as an ideal area in colonial times because it had a mild climate, so that many colonial settlements were built which were scattered in the areas of Buring Street, Idjen Boulevard, Tugu, Semeru Street, and Oro-Oro Dowo (Sumalyo, 1995; Schaik and Diessen, 1996; Handinoto and Paulus, 1996). This area is known as an elite area because of the size of the building which is quite large, with an *Indische* style (*a combination of European elements in an ornament adapted to a tropical region with high rainfall*), then has a large enough yard that is used for gardens with flowers and tropical fruits (Sumalyo, 1995; Marpaung, 2002; Handinoto and Paulus, 1996; Ching, 2008; Roosmalen, 2013).

Kayutangan area (the old Kajoetangan spelling) itself, it is part of the Oro-oro dowo which is then divided into two designations. The eastern part bordering Basuki Rahmat street was used for shops with Art Deco-style buildings in the late 19^{th} to early 20^{th} centuries (Akihary, 1990; Schaik and Diessen, 1996; Ching, 2008). The owners and residents were generally white Europeans. Meanwhile, the settlements in Kayutangan are dominated by local people (*Pribumi which consist of Java and Madura*) who occupied as worker class (Handinoto and Paulus, 1996; Laksono, 1985). Access to the Kayutangan settlement is more on narrow sidewalks with pedestrian access, and is different from the colonial settlements in the Buring region, and Idjen Boulevard which are designated for Dutch residents with high economic strata (Akihary, 1990; Sachari, 2007; Schaik and Diessen, 1996; Ching, 2008). Apart from being an area for recreational purposes, Malang is also developing because many plantations such as coffee and sugar cane were built, which later built several sugar factories such as the Krebet and Kebon Agung sugar factories which were once owned by the richest man in Southeast Asia of Chinese descent, Oei Tiong Ham between 19^{th} and 20^{th} centuries (Schaik and Diessen, 1996; Pramono et al., 2020). The colonial government itself divided the city area into specific loci based on ethnic background. Nationally, the social strata is divided into 3, namely the upper class which is filled by the Dutch as the holder of government control, the second strata is occupied by foreign immigrants from China, India and Arabia as the holder of the trade sector and indigenous groups or native people who play the lowest dominating position on agricultural sector (Koentjaraningrat, 2005; Pramono et al., 2020).

Kayutangan occupies 3 RW (*Indonesian; Rukun Warga*), namely 1, 9, and 10. Rukun Warga is a shared address system with RT (*Indonesian; Rukun Tetangga*) which was developed during the Japanese occupation, considering that not all houses in Indonesia have street numbers with a grid system. Some parts of the east, which are generally dominated by Art Deco buildings, (Ashihara, 1986; Shiryani, 1985; Budiharjo and Sidharta, 1997; Roosmalen, 2013) have now mostly undergone changes by demolishing old buildings and replacing them with new buildings that are intended for offices and shops. The old settlement is located on the inside which can be accessed through 2 doors on the east, two doors in the west, two doors in the north and two doors on the south side. Access to tourists can only be reached by walking along the existing corridors and enjoying old Indische-characterized buildings and some Jengki buildings which are taken from the Yankee word as the influence of the post-war modern style from America (Shirvani, 1985; Mulyandari, 2010; Roosmalen, 2013).

The three RWs in Kayutangan heritage village have at least 36 objects consisting of 20 buildings that were built during the colonial period for the purpose of settlements for local residents. The oldest building in Kayutangan was built in 1870 in an indische style which is still used today as a resident's house (Akihary, 1990; Ching, 2008; Roosmalen, 2013). The participation of various agencies in Kayutangan is mainly in the form of financial assistance which is realized by providing equipment such as garden lights, plants, flowers, directions board, ornaments, fences, murals, as well as detailed map containing objects that are highlighted in the kampong heritage of Kayutangan (Pendit, 2002; Howard, 2003).

Kayutangan is managed independently by local residents who are members of the Kayutangan tourism development group. They carry out various activities with partners from the government, banks, universities, and directly touch the implementation of the program and tourists who come to the location. Guidance from various parties as well as the public's willingness was discussed in a group discussion forum held before program implementation (Hadiwijoyo, 2012). Although this heritage village is classified as a new spot located in the city of Malang, the progress and number of visitors who come to kampong heritage Kayutangan from time to time have increased (exceptions in mid-2020 due to the Covid-19 pandemic).

This is in line with the development of heritage tourism objects in Indonesia in particular and in Asia in general (O'Hare,1997; Gordon, 2018; Macbeth, 2021), such as several building complexes in Ho Chi Minh City, Vietnam with French colonial building style, Yangon, Myanmar old city which has many British colonial buildings, Malacca by the Dutch and Portuguese in Malaysia, Penang and Phuket with British colonial buildings and Spanish colonial buildings in Vigan City, Philippines (Wood, 1980; Taylor, 2015; Yotsumoto and Vafandari, 2021). Data collection of several important objects that are highlighted is very necessary, considering the concentration of historic buildings in the Kayutangan settlement area is quite high. Even though in the middle of the threat, the function of the building was changed to a new, wider and more modern building. At the end, purpose of this research is to explore historical sequences and processes of sustainable tourism management controlled by local residents with financial assistance from various partners both public and private sectors.

MATERIAL AND METHODS

Descriptive qualitative method is used in this research by combining the data obtained based on in-depth interviews, survey and combined with literature studies. The literature used has a reference to the history of the development of the city of Malang in general, and is narrowed to the Kayutangan area, this is because the city of Malang is a municipality in East Java Province which was founded in the early 1900s, so that when compared to coastal areas, such as Jakarta and Semarang and Surabaya, it was considered as the latest development (Bogaers and Ruijter, 1983; Colombijn and Berwegen, 2005;). Sources mainly came from old literature material from the Netherlands and recent development by Indonesian writers. In-depth interviews were conducted with sources from various parties, including the Malang city tourism office, as well as several important figures in the kampong Kayutangan heritage. The results of the literature study and interviews were then analyzed and represented using tabular and descriptive data (Denzin and Lincoln, 2009; Kusmayadi and Sugiarto, 2000). The data obtained includes the history of the buildings in Kayutangan and their functions at that time, to their current functions and other changes including the layout (landscape) and development as a heritage village which began in early 2018, with support from the local government through the tourism department (Hadiwijoyo, 2012; Roosmalen, 2013). The combination of literature studies and in-depth interviews is used to increase the completeness of information and correct any discrepancies between the results in the field and the available literature. Although literature study is quite helpful, it needs to be sorted into a more specific section, considering that the heritage area in Malang study is very broad and includes several different functions (Hadiwijoyo, 2012). As shown in the illustration below (Figure 2), there are at least three stages in the research, which are consist of preliminary process (literature); survey and in-depth interview; analyzing and reporting the results.

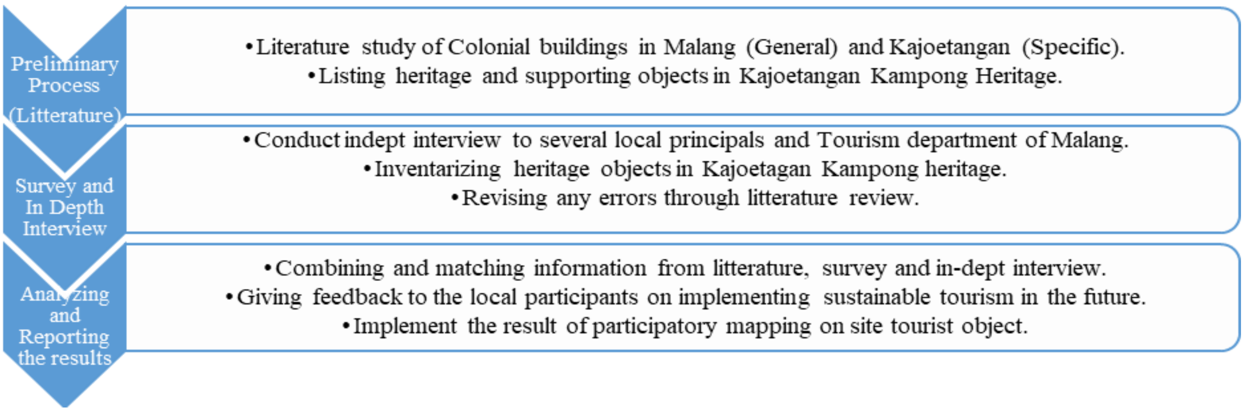

Figure 2. Data Analysis Process

RESULTS AND DISCUSSIONS

Malang is a city that has many colonial buildings in Indonesia, both which function as government offices, public facilities, or private buildings in the form of settlements (Birks et al.,1989; Akihary, 1990). One of the several colonial building spots is Kayutangan, with a heritage village inside. Kayutangan kampong heritage can be classified as a cultural landscape tourism object which is one of many other examples in Indonesia due to historical interactions in the past (Appadurai, 1986; Samsudin, and Maliki, 2015; Andhika and Putra, 2020), especially in the colonial era in the Dutch East Indies.

Kampong heritage Kayutangan includes several mainstay objects and supporting objects. Mainstay objects generally have a strong historical value and their buildings were built earlier than other parts. Kayutangan itself comes from the Javanese language which means (*kayu*; wood) and (*tangan*; hands) because in the past times, the area had a tree whose branches resembled hands (Schaik and Diessen, 1996; Akihary, 1990; Roosmalen, 2013). As a whole, Kayutangan area is the initial

CBD of Malang city which has complete public and trade facilities, although now the trade centers are scattered in several points where visitors can find modern shopping centers. In general, the Kayutangan area is north of the city square surrounded by colonial complex offices which centered in the Tugu area (Sumalyo, 1995). Important objects found in Kayutangan include the Kayutangan Cathedral and several Art Deco-style shopping complexes that still exist today. Conical to the Kayutangan heritage village area, the scope is narrower and is devoted to the part which is now still inhabited for generations by local residents. Most of the residents of Kayutangan heritage village are workers who migrated to Malang in the late 19^{th} and early 20^{th} centuries (Bogaers and Ruijter, 1983; Schaik and Diessen, 1996).

There are several focused objects in Kajoetangan kampong heritage namely Namsin house, Jengki house, house 1870, Rindu house, Chimney house, Nyi Aisyah house, Mbah Ndut house, rumah Kartini house, Dawet ireng house, Mr. Sutikno house, Mr. Sakirman house, Old house, Thousand stairs, Gubuk ningrat, Jacoeb house, Nyi Abas Akub galery, Punden house, Mr. Udin house, Mr. Eko galery, Ranuatmodjo house, Old mosque, Jamu house, and AEO galery.

Rumah 1870 is the oldest house in the kampong heritage of Kayutangan. This house has an indische-style exterior design, equipped with interior ornaments or furnishings that are still maintained as they were at that time. The colors used as external and internal paints are still the same, with a predominance of white and gray. Visitors can see the history of the house and see the interior with the owner's permission. This house is located in the middle of the Kayutangan settlement, besides that there are also photos and books that contain the history of Malang in general, including the Oro-oro dowo area, Buring, Idjen Boulevard, Semeru, Tugu, and Kayutangan (Handinoto and Paulus, 1996; Roosmalen, 2013). This house is similar to the Gubuk Ningrat, which is located not far from the place, but the state of the Gubuk Ningrat is better maintained.

Meanwhile, Namsin house, is one of the mainstay spots owned by the Kayutangan kampong heritage. This house is directly opposite the main street and the entrance to the heritage village in the east. Namsin house was once used as a shop, and was combined with a residence. Visitors can see the intact architecture that was built in the early 20^{th} century. However, it is not every day that Namsin house is open to the public, so coordination is required with the manager to be able to have a closer look at the interior side. The interior is still authentic as it is, dominated by furniture such as cupboards, tables and chairs made of teak and rattan. There is also furniture that is still intact and has high historical value. The building style also uses Indische with a two-story arrangement connected by wooden stairs. At the top there is a long table with chairs and wide windows, typical of the tropics (Mulyandari, 2010; Handinoto and Paulus, 1996). The owner of Namsin's house was originally a Dutch trader, who later experienced repatriation or repatriation of all personnel and Dutch descent from Indonesia after the post-Independence in 1945, the photograph of Rumah Namsin can be seen on Figure 3(b). As a result, all assets such as houses had to be abandoned by the owner, and this is very common not only in Malang but also in all major cities in Indonesia such as in Medan, Jakarta, Bandung, Surabaya, Semarang, Palembang, Ujung Pandang and Surakarta (Ching, 2008; Roosmalen, 2013).

The Punden house also has an indische style, the furniture inside has a high historical value and is still neatly stored. Visitors can take pictures in front of or go inside the house to see the interior of the indische building interspersed with a brief interview with the owner of the house they meet. In general, home owners who are met in Kayutangan Heritage Village will be very happy and voluntarily provide information to visitors who come, especially if the tourists visiting are domestic tourists. For foreign tourists, you can contact a tour guide service who translates into English. This is like the implementation of tourism villages in Bali (Urry and Larsen, 2012; Andhika and Putra, 2020), where people participate in tourism promotions and interact directly with tourists, such as in Panglipuran Tourism Village in central Bali (Putra, 2019).

There are also two very popular galleries in Kayutangan, namely AEO Gallery and Abas Akup Gallery, both of which have different specifications, Abas Akup Gallery focuses more on painting, so visitors can paint individually, or buy several existing collections. Meanwhile, the AEO gallery is more on decorating antiques for photographic purposes. Antiques that are lined up in front of the Indische-style house include several antic televisions, suitcases, old-bicycles and petromax lamp ornaments that existed in the 19th century. Here visitors can take photos independently or flash photo services on site.

For other main objects, the things offered are quite the same, namely the indische building style which is still maintained today. Based on interviews with tourists, especially local tourists, they visited Kayutangan kampong heritage for reasons of wanting to know more after obtaining information from social media. Although most of them are more interested in doing photography and rent some costumes provided by local people to take pictures in indische buildings without wanting to know more about the history of each object. This has similarities with visitors in several historical places in the world, such as in Europe, many visitors are more interested in objects of their architectural beauty without wanting to know more about their history (Burhalis, 2004; Monroe, 2003; Pitana, 2009; Park and Santos, 2017).

In addition, there are several support facilities, either in the form of facilities provided by local people or with banking cooperation such as chairs and murals for photography. The addition of this independent facility shows that the development of cultural tourism that emphasizes the cultural landscape, especially historical areas, will stimulate the emergence of entrepreneurship, especially government support, institutions providing capital in line with what was initiated by local communities (Conzen, 2004). With this the concept of sustainable tourism will be easier to achieve and will continue to develop in a positive direction (Shaw and Shaw, 1999; Samsudin and Maliki, 2015; Astawa et al., 2019). In tourism management, management is carried out independently by joining a tourism awareness group (*Indonesian; Kelompok Sadar Wisata or abbreviated as POKDARWIS*) consisting of local residents. They have the task of carrying out an inventory of historical buildings in Kayutangan. Then they tracked ownership from generation to generation which would later be needed for complete information from each existing building.

This tourism awareness group has the full support of the city government and the tourism office to create a sustainable heritage village. This is very important in the management of tourist attractions to synergize with many related elements to create sustainability and ultimately to the convenience of tourists themselves (Baud-Bovy and Lawson, 1998; Domosh, 2004).

Kayutangan management, which is directly supported by the tourism office, has become a cultural tourism package that is synergistically carried out in the city of Malang, either in association with the Idjen Boulevard, Celaket, or Jodipan village. Although specifically for the Kayutangan heritage village, tourists will come in direct contact with the residents, and this cannot be found in the Idjen Boulevard or Celaket areas, which are now occupied as luxurious residential buildings, restaurants, cafes, and guest houses, so it is not maybe tourists can dig up detailed information on the current owner.

In addition to information about the number of points highlighted in the social media accounts of the Kayutangan kampong heritage. Some of the company's CSR collaborations also help make plans to make it easier for visitors to recognize these tourist villages main objects. Previously, the map for pointing objects has been made two times in collaboration with banks and universities, but because it is only made using illustrations, the effectiveness of the map is reduced, so a location map is made that is taken from the image to give a real impression, and translated into the language of art design for splay and remove distracting objects that are less prominent on the map. The following is an illustration obtained from the conversion.

Figure 3. Figure (a) Kayutangan Church is a Catholic church built in 1905 as high as 33 meters by the Dutch architect Marius J. Hulswit during the colonial rule in Indonesia; Figure (b) Namsin house or Rumah Namsin photographed from the front fascia of Jalan Basuki Rahmat

Figure 4. (left) inside the blue shade is Kayutangan kampong heritage, surrounded by artery streets in Malang City, (right) The new pamphlet in Kayutangan kampong heritage after collaboration with Malang State University (Source: Google Earth TM and CorelDRAW, 2020)

The fee or entrance ticket for visitors is set at 5000.00 IDR or the equivalent of US$ 0.3 for one visitor. There are 7 entrances that can be accessed from various main roads around the site. Prices which are quite cheap in some cases have a positive impact on the promotion of new tourist objects, when compared to those that are more well-known and have a fairly high maintenance value (Tosun and Jenkins, 1996; Yang and Wall, 2009; Munroe et al., 2014). Although, only the entrance from the east provides the most complete facilities, such as pamphlets containing points of objects that may be of interest to tourists. On normal days, generally daily visitors can reach 250 to 300, while on holiday days it can reach 500 visitors per day. However, during 2020, starting in early March, activities in heritage villages began to decline and even locked down for several weeks. Below are the main objects in the Kayutangan kampong heritage.

The profit obtained from retribution is then managed by the tourism awareness group to increase additional facilities or maintenance of parts that need to be addressed. In the future, additional parks and cleaning of several spots so that they look more comfortable will also be carried out, although in some cases there are still obstacles in the cooperation or coordination of home owners with tourism awareness groups and local RT's principal. It should be noted that not all Kayutangan areas are included in the management of Kayutangan kampong heritage. Even though in some parts there are public objects that have very historical value such as shopping complexes, offices and churches, the coverage of heritage villages is only limited to residential groups on the western part of Basuki Rahmat street with the exception of the Toko Oen restaurant area which has become one of the culinary tourism icons that was established since the Dutch colonial period. The comfort of tourists is a top priority, so that supporting elements are needed in the Kayutangan heritage village. One of them is that the existence of this tourist village has stimulated the emergence of food and beverage businesses available in the tourist complex that carry traditional, authentic or modern concepts such as cafes. On certain special events, Kayutangan Village also holds a carnival with a colonial concept. Visitors can also rent Dutch colonial or Javanese costumes in the villages and can take pictures at several spots that they want. This is of course a special attraction or it can be said as a unique characteristic that is only obtained from the Kayutangan kampong heritage. Observers of tourism, history and architecture were also invited to collaborate in several forums held between tourism awareness groups and cooperation agencies, by providing future directions that had a positive impact. One of them is regarding the concept of a garden, signboards, information boards, lamps, chair styles, and paint used in building maintenance, as authentic as possible. In addition to information about the number of points highlighted in the social media accounts of the Kayutangan heritage village. Some of the company's CSR collaborations also help make plans to make it easier for visitors to recognize these tourist villages. In 2020, the State University of Malang will revitalize the map so that it can be used more flexibly because it combines geographical elements and combines it with animation to attract visitors to use it.

Table 1. Objects in Kampong Heritage Kayutangan and their status as heritage site or non-heritage site

Objects	Status
Namsin House	as heritage site (not all day opened)
Penghulu House	as heritage site (all day opened)
Jengki House	as heritage site (not all day opened)
1870 House	as heritage site (all day opened)
Gubuk Ningrat	as heritage site (all day opened)
Jamu House	non-heritage (all day opened)
Jacob House	as heritage site (opened with permission)
Tangga Seribu	additional spot-non-heritage
Nyi Abas Akub Galery	non-heritage (all day opened)
Rumah Punden	as heritage site (all day opened)
AEO Galery	as heritage site (all day opened)
Old Mosque	non-heritage (all day opened)
Ranuatmodjo House	as heritage site (not all day opened)
Mr Udin House	as heritage site (opened with permission)
Dawet Ireng	F and B facility
Nyi Aisyah House	non-heritage (all day opened)
Chimney House	non-heritage (all day opened)
Kartini House	as heritage site (not all day opened)
Sukirman House	non-heritage (all day opened)
Mbah Ndut	F and B facility

Figure 5. From (a) to (d); (a), a mural in Kayutangan Kampong Heritage as collaboration between the local and Bank of Indonesia (formerly known as De Javasche Bank) as a donor in tourism program; (b), Indische house with high ceiling and roof, large windows and doors for air circulation in tropical condition; (c), Jengki house in Kayutangan Kampong Heritage as awakening of freedom expression in architecture style, derived from United States of America which popular from 1950s to 1960s; (d), Kayutangan canal, with dense houses in Kampong heritage

During the one-year development of the kampong heritage Kayutangan, there have been many significant advances, especially in the completeness of the facilities needed to support tourist objects. In the case of the city of Malang, the development of the Kayutangan heritage village is motivated by the success of the Jodipan color village, which was first established. The local party, in cooperation with the city government, then initiated the idea of a heritage village, because of its uniqueness, which has a larg colonial residential density in residential areas. However, when compared to other parts of Malang, the Kayutangan area is not an elite area with large settlements of greater importance (Sachari, 2007).

The challenge that may be faced in the development of the Kayutangan kampong heritage is the loss of ownership due to the transfer of the building to a new owner, who then renovates the building which has a more modern design. As a result, the number of buildings with historical value is decreasing, plus the environment has become less cohesive in terms of building style, and this has started to appear in the Kayutangan kampong heritage in 2020.

CONCLUSION

The collaboration of the kampong heritage Kayutangan is not dominated by top down government regulations, but is also combined with bottom up by educating local residents to participate directly in efforts to realize sustainable tourism, even though in early 2020, with the Covid-19 pandemic, the number of visitors decreased drastically and the progress of upgrading the facility is slower.Improved facilities such as the addition of photo spots for tourists in the form of murals and parks add to their own attractiveness and uniqueness, especially for local tourists targeting teenage ages.

In addition, the use of social media, especially Instagram with insta-story features or photo uploads, can attract local tourists to visit locations that are open from 7 am to the evening. The tourists are more interested in photo spots in the form of colonial buildings and existing properties, murals, and man-made gardens, rather than tourists who want to know the complete history of Kayutangan. Information about the building is already available in front of the important site, although the information obtained is very limited. This can be overcome by using the internet independently or reading history books available at the Gubuk Ningrat in the Kayutangan heritage complex.

In the future, the collaboration of various parties is expected to encourage the realization of sustainable tourism and can attract tourists to visit the city of Malang, which has long been known as a transit city before taking a tour to Batu which is located approximately 20 kilometers in the western part of Malang. Even local residents through youth groups are also quite enthusiastic in supporting tourism activities as well as participating in data directly or indirectly by providing several supporting facilities such as cafeterias and souvenir outlets.

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CLIMATE CHANGE RISKS AND TOURISM IN SOUTH AFRICA: PROJECTIONS AND POLICY

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Abstract: The challenge of climate change and tourism is an evolving international knowledge domain. South Africa is one of the most vulnerable countries with respect to projected climate change. For the national tourism economy climate change is a significant topic of concern. The objectives in this article are to present climate change projections and potential impacts for South Africa's tourism economy and to critically analyse the policy landscape concerning national government's response to climate change as a whole and more specifically in relation to the tourism sector. It is shown key tourism assets of South Africa are at risk from the advance of climate change. The analysis discloses that the South African government has supported international efforts and obligations to address the challenge of climate change, commitments which have influenced policy development regarding tourism. Nevertheless, policy development towards climate change and tourism has not progressed greatly over the past decade. Arguably, this is an outcome of the overwhelming concentration in recent government tourism policy in South Africa towards issues of inclusivity and transformation.

Key words: climate change, climate risks, tourism policy, South Africa

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INTRODUCTION

With record-breaking weather events relating to rainfall extremes, global temperate trends, and the decade 2010-2019 being recognised as the hottest on record it is evident that our climate is changing (Conway and Vincent, 2021). The phenomenon of climate change is projected to fundamentally alter or undermine the natural resource base upon which many forms of tourism are built and reliant (Gómez-Martín, 2005; Saarinen et al., 2012; Kilungu et al., 2019). Importantly, its interactions and implications differ across space and time as climate change increases previously identified risk patterns whilst also unleashing new types of risk that extend to regions previously not considered as at risk (Mortreux and Barnett, 2009). As the tourism industry makes use of physical space and environmental conditions climate change has the capacity to impact and in some instances to undermine the development or continued sustainability of the industry at certain locations (Gómez-Martín, 2005; Tervo-Kankare et al., 2018). Indeed, climate change has critical ramifications most especially for tourism-dependent communities and livelihoods in locations where tourist-related development has become a critical component of local, regional and national economies (Scott et al., 2019). As one of the largest contributing industries to global warming, the tourism industry has an important role to play in reducing and mitigating environmental impacts in order to avoid extremely dangerous levels of climate change being reached while still crucially maintaining the growth and profitability that have made the industry such an important source of employment and economic development (Gössling et al., 2012). Over recent years the study and relationship between tourism and climate change is one that has triggered increased academic interest across several disciplines (Ruhanen and Shakeela, 2013; Hoogendoorn and Fitchett, 2016; Sinclair-Maragh, 2016; Pandy, 2017; Sifolo and Henama, 2017; Fang et al., 2018). For tourism scholars issues relating to climate change increasingly are leading items on the research agenda (Scott et al., 2019). The challenge of climate change and tourism is an evolving international knowledge domain (Hall, 2008; Scott, 2008; Becken, 2013; Pang et al., 2013; Shakeela and Becken, 2015; Nacipucha et al., 2017; Pandy, 2017; Mushawemhuka et al., 2018). Prideaux et al. (2020) aver that lessons from the COVID-19 pandemic should prepare global tourism for the economic transformation needed to combat climate change.

For the South African tourism economy climate change is a significant topic of concern. Geographers have been particularly at the forefront of tourism and climate change research (Rogerson and Visser, 2020). This paper extends a growing scholarship about tourism and climate change in South Africa (Steyn and Spencer, 2012; Hoogendoorn et al., 2016; Rogerson, 2016; Giddy et al., 2017; Pandy, 2017; Fitchett and Hoogendoorn, 2018; Hoogendoorn and Fitchett, 2018; Pandy and Rogerson, 2018; Fitchett and Mahlangu, 2019; Pandy and Rogerson, 2019; Dube et al., 2020; Pandy and Rogerson, 2020; Dube et al., 2021; Fitchett, 2021). The two aims for this paper are as follows. First, is to present climate change projections and potential impacts for South Africa's tourism economy. Second, is to critically analyse the policy landscape in South Africa concerning national government's response to climate change as a whole and more specifically in relation to the tourism sector. As is argued by Adu-Ampong et al. (2021) a focus on the climate change-tourism policy nexus is

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vital when reconsidering the agenda of sustainability for sub-Saharan Africa. In terms of sources and methods the projected implications of climate change for South Africa are critically reviewed by triangulating information from the Intergovernmental Panel on Climate Change (IPCC) and other climate science research on South Africa (Department of Science and Technology, 2010; Department of Environmental Affairs, 2013; Carabine et al., 2014; Department of Environmental Affairs, 2016). National government’s response is explored through investigating policy documents, a critical review and evaluation of the country’s climate change related policy and of specific policy developments related to tourism.

Climate Change Risks for South Africa

At the outset of examining climate change and tourism it is observed South Africa experiences a significant variety of weather and climate based conditions which in combination produce inter-annual variation across different regions of the country (Tyson and Preston-Whyte, 2000). As a result of being located between 35° south and 22° south, the country’s global location sees subtropical high-pressure systems influence South Africa’s overall rainfall patterns, while also being affected by the El Niño and La Niña climate cycles (Department of Science and Technology, 2010). Experiencing mean annual temperatures which exceed 17° C, South Africa is recognised as having a relatively warm climate which is influenced by a combination of location, topography, and the different ocean currents which surround the country (Davies, 2016). South Africa experiences seasonal variations in weather and climate as well. The country’s interior is predominantly elevated on a plateau which at its highest reaches a height of 1 250 meters above sea-level. The outcome of several factors is to create complex patterns of national, regional and local weather and in the long-term, climate (Department of Science and Technology, 2010), which in turn have significant implications for the types of tourism that can be undertaken within the country (Fitchett et al., 2017). Research by climate scientists assists understanding the impacts and implications of climate change on South Africa (Conway and Vincent, 2021). Studies examining five decades of climate based information from 1960-2010 reveal important trends for the country, most significantly annual temperatures have increased by 1.5 times the global average over this period (Golder Associates, 2012). The result is that South Africa’s annual temperature has increased at a faster rate than the world average for the same period (Ziervogel et al., 2014). Furthermore, such increases in temperature appear to have occurred across all seasons with the exception of a single zone within the country’s central interior. It is recorded that the highest rates of temperature increase occurred between 1970 -1980 and again between 1990 and the early 2000s (Department of Environmental Affairs, 2013).

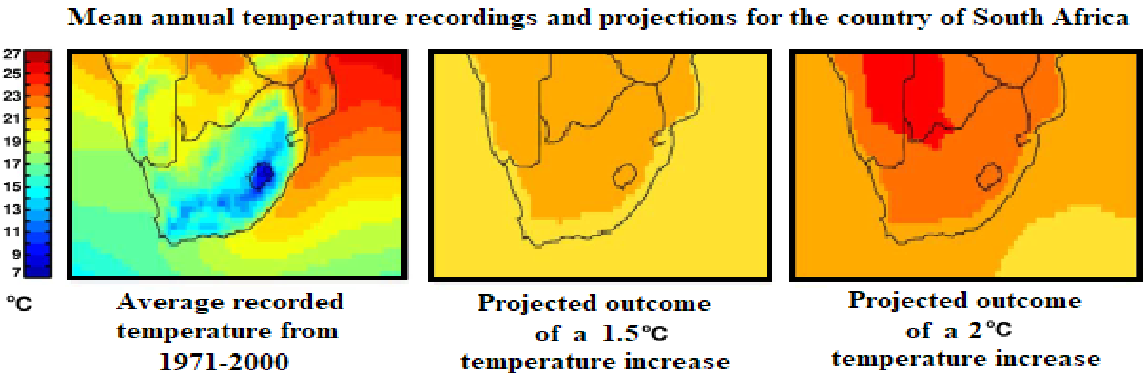

Figure 1. Mean annual values of the recorded temperatures for the region of southern Africa observed between 1971 and 2000, along with projected temperature increases of 1.5°C and 2°C (Source: Maúre et al., 2018)

The critical changes impacting South Africa’s weather and climate from 1960-2010 are the baseline observations used to project future climate outcomes for the country which use multiple climate models (Nicholson et al., 2018). Based primarily on the IPCC’s fifth assessment reports, localised South Africa’s General Circulation Modelling highlights specific challenges that the country faces with regards to rising temperatures, decreasing regional water availability and distribution, along with an increase in fire and flood based extreme events (Department of Environmental Affairs, 2013). The climate change based Long-Term Adaptation Scenario technical working group has focussed on four key potential scenarios as a consequence of climate change (Department of Science and Technology, 2017). The projections are for temperature increases within the central interior, while coastal regions are predicted to also see an increase in temperature albeit to a lesser extent (Romero-Lankao et al., 2018). It is suggested that in the short-term South Africa should prepare for temperature increase of between 1 °C and 2°C, while also facing a potential increase of 4°C in the long-term if emissions trends continue at their current rate (Carabine et al., 2014). Moreover, it is noted that in the instance that emissions trends increase at more than the current rate, long-term climate change scenarios predict that South Africa could see as much as a temperature increase of 7°C in some areas of the country with significant increase in the number of days throughout the year when temperatures regularly exceed 35°C (Engelbrecht et al., 2019). In seeking to better understand the relationship between temperature changes and the country’s precipitation, it was observed that direct comparisons taken over the same period tend to reveal weak overall trends as a result of the highly variable nature of annual rainfall (MacKellar et al., 2014). Such comparisons do, however, reveal a general tendency towards a decrease in the number of rain days experienced across all areas of the country, while also noting a disturbing increase in the levels of intensity associated with rainfall events. Overall, therefore, the observed trend is for a decrease in total rainfall throughout South Africa with increases in rainfall storm intensity (Rogerson, 2016). These findings are mapped on Figures 2 and 3 below. It is critical to note that the western parts of the country traditionally rely on the winter-based precipitation whilst the eastern half of

South Africa predominantly relies on summer rainfall (Steyn and Spencer, 2012). A number of climate models project a significant decrease in rainfall for the western half of the country largely depending on (among other factors), the extent of future carbon emissions globally, real time temperature increases, and global circulation patterns (Department of Environmental Affairs, 2016). For an already water-stressed country, these critical projections for rainfall decrease have enormous potential consequences for South Africa's population and economy, and not least for the tourism industry (Department of Environmental Affairs, 2011).

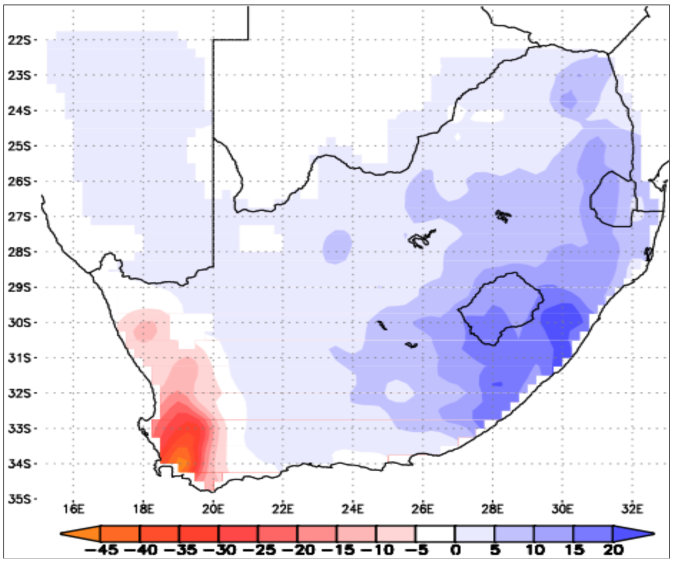

Figure 2. Projected total precipitation for South Africa's winter month of July (Source: Department of Environmental Affairs and Tourism, 2007)

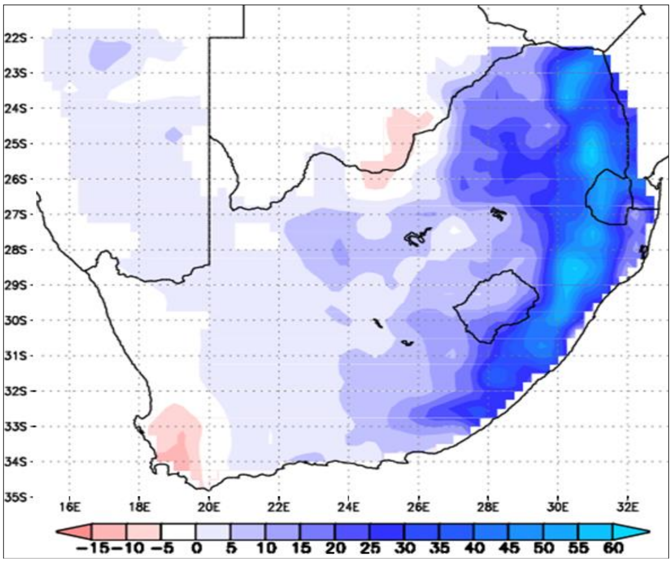

Figure 3. Projected total precipitation for South Africa summer month of December (Source: Department of Environmental Affairs and Tourism, 2007)

It is documented widely that climate change will have a wide range of impacts on urban, rural and coastal areas throughout South Africa (Ziervogel et al., 2010). Predicted flooding for certain urban areas of South Africa has significant ramifications for infrastructure and disruption to transport networks (World Bank, 2018). Further, as a result of increased temperatures, it is projected climate change has the potential to significantly reduce the levels of air quality by trapping high concentrations of pollution which cities produce in significant quantities (Bai et al., 2018). In assessing the impact of climate change on rural areas, it should be highlighted that rural economies in South Africa are seen as being "primarily dependent on agriculture, herding, and tourism" (Department of Environmental Affairs, 2013: 36), which with mining provide the majority of formal sector economic opportunities for rural populations.

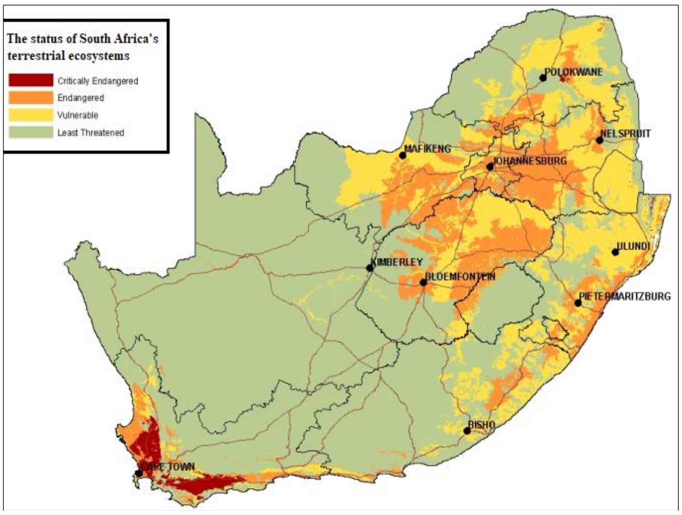

Figure 4. The status of South Africa's terrestrial ecosystems (Source: Driver et al, 2004)

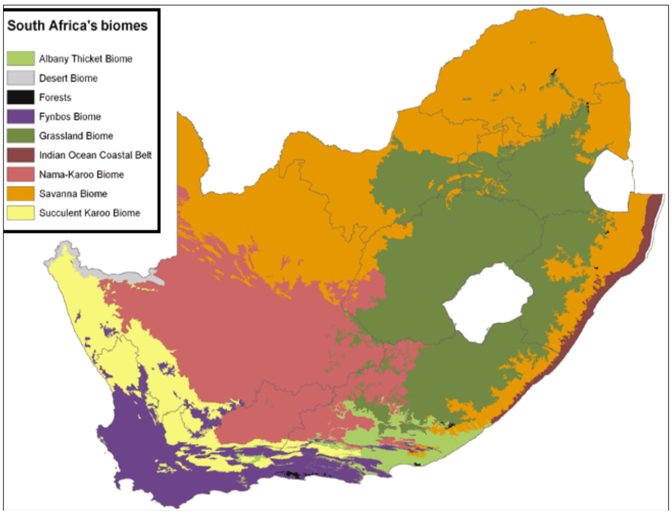

Figure 5. South Africa's Biomes (Source: Department of Environmental Affairs, 2018)

Rural areas are observed to face similar issues to cities in terms of damage and disruption caused by climate change related events, albeit face higher levels of vulnerability given their infrastructure deficits, constrained financial resource base and capacity shortcomings of local governments (Ofoegbu et al., 2017; Conway and Vincent, 2021). Moreover, as tourism in rural areas in South Africa places particular emphasis on products which are closely reliant on the natural environment, such segments of tourism are highly vulnerable to the impacts of climate change projected to adversely affect the country's biodiversity (Rogerson, 2016). It has been recognised by the Department of Environmental Affairs (2013) that climate change related impacts which serve to damage or degrade the country's national environment, its beauty and the function of key biomes or ecosystems represent a significant threat to South Africa's overall tourist economy. Madzwamuse (2010: 7) records that the impact of climate change on animal life in natural environments may be affected and see a decline "by as much as 10% due to drought, bush encroachment, malnutrition and disease". A critical outcome is to negatively impact the country's international tourism image around outdoor and unique nature-based experiences (Hoogendoorn and Fitchett, 2018).

Figure 4 reveals the status of the country's terrestrial ecosystems according to the country's first National Spatial Biodiversity Assessment (Driver et al., 2004). It is evident ecosystems nearest to the South Africa's major urban areas face increasing pressure. Of special significance is the ecosystems around the city of Cape Town; here some ecosystems are classified as critically endangered which raises key concerns for the country's most popular and iconic international tourism destination (Driver et al., 2004). Figure 5 maps the distinctive biomes of the country. From the perspective of biodiversity, South Africa which relies heavily on the natural environment as a key component of the country's tourism product, is ranked as having the third highest level of biodiversity in the world (Driver et al., 2004). Although the country represents only "2% of the world's land area", South Africa is still "home to nearly 10% of the world's plants and 7% of the reptiles, birds and mammals" (Driver et al., 2004: 3). This makes essential the assessment, planning and implementation of climate change related mitigation and adaptation, not least because both the country's population and tourists rely on the existence of healthy functioning ecosystems, which provide a range of critical services that healthy populations require (Department of Environmental Affairs, 2013). Indeed, healthy ecosystems play a critical role in the catchment and subsequent storage of water, clean air, and in some instances erosion and flood control. The country further requires healthy ecosystems in order to provide basic resources which underpin the South African economy, while many of the country's poor also rely on access to commonly available resources as a means of basic survival as well (Madzwamuse, 2010). In unpacking the projected impacts of climate change, coupled with unsustainable socio-economic activities, the country's Grassland biome and the Indian Ocean Coastal Belt biome have been identified as being the two biological communities at the greatest level of risk. Climate change in South Africa represents a threat also to thousands of plant and animal species, some of which are unique to the country and represent major assets for the tourism economy. This diversity of vegetation types is a central tourism asset for South Africa which requires serious consideration in order to ensure that such a natural base is kept intact (Department of Tourism, 2011a). From a conservation perspective there are challenges which derive from the fact that when the country's earliest conservation areas were first established many were based in or around areas with little economic importance. As a result, the majority of the country's protected areas were not established to conserve significant proportions of the country's nine biomes. As a consequence this leaves many key segments of the natural environment, and key biomes formally unprotected (Driver et al., 2012).

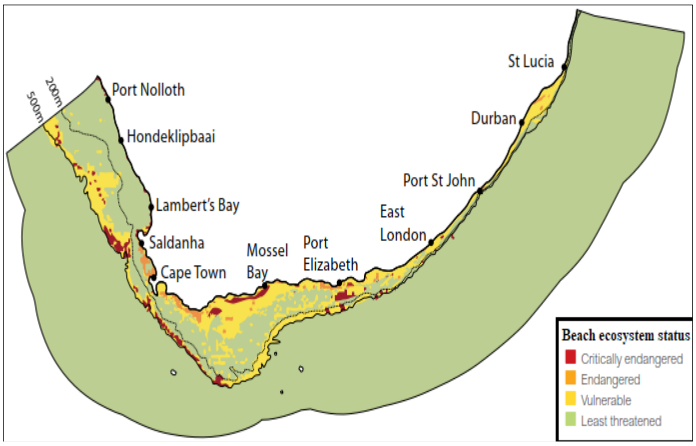

Figure 6. The status of South Africa's beach based ecosystems (Source: Driver et al., 2004)

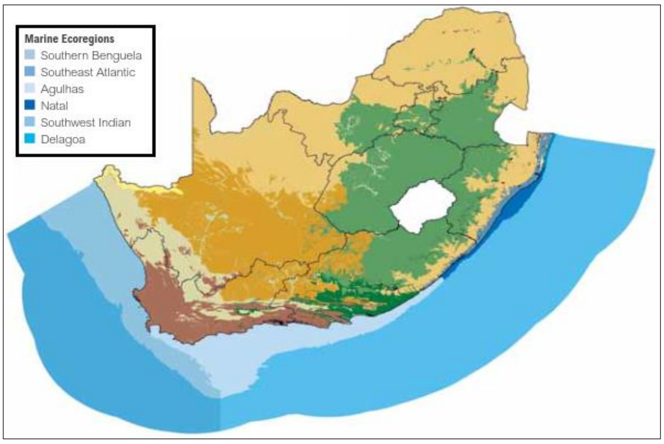

Figure 7. South Africa's Marine-based Ecoregions (Source: Driver et al., 2004)

Certain specific climate change related challenges are projected to impact the country's coastal and ocean based marine ecosystems (Rogerson, 2020; Dube et al., 2021). South Africa's coastal areas and oceans represent a vital resource for the country's tourism economy (Rogerson and Rogerson, 2020). In this regard it has been estimated that in the pre-COVID-19 period beach and ocean based marine tourism alone contributed an estimated R 13.5 billion annually in South Africa (Driver et al., 2012). Marine and coastal tourism activities include beach leisure, whale and dolphin watching excursions, shark cage diving, SCUBA diving and recreational fishing (Giddy and Rogerson, 2018; McKay, 2020; Rogerson and Rogerson, 2020a). In discussing the potential impacts of climate change on South Africa's coastal terrestrial areas it is important to note the projected issues associated with sea-level rise and increases in extreme events such as larger and more frequent storm surges with dangers for coastal flooding (Department of Tourism, 2011a; Dube et al., 2020, 2021). Such events while directly impacting immediately on tourism by discouraging coastal based activities, are also projected to have a range of other issues and impacts such as damaging crucial infrastructure which tourism makes use of, the introduction of salt water into fresh water resources, and increased erosion of beaches (Driver et al., 2004). Further, there are several low-lying tourism locations which are projected to be impacted including beaches along the Western Cape Garden Route, and sections of the KwaZulu-Natal coast (Department of Environmental Affairs, 2011). The outcomes of climate change may have severe consequences for the many tourism dependent destinations in such affected areas (Figure 6). Beyond South Africa's terrestrial biomes, the country has also been identified as having six key marine ecoregions which include 136 different types of marine habitats within the country's international boundaries (Figure 7). It is calculated that 41% of these offshore ecosystem types are threatened (Driver et al., 2004). Moreover, it is observed that the most threatened of all habitats near to the shoreline tend to be those associated with rock shores or reef habitats, while the offshore ecoregions of the Southern Benguela and Agulhas are in the greatest threat of increasing sea-temperatures which will have profound consequences for plants and animal life (Carabine et al., 2014).

Table 1. Climate risk factors and potential impacts (Source: Department of Tourism, 2011a)

Projected Change	Services and energy	Human Health	Food security, water and agriculture	Business continuity	Biodiversity
An increase of O –1.5°C in daily maximum temperatures for January and 0 – 1.5°C in daily minimum temperatures for July	▪ Increase in requirements for cooling (air conditioning in summer) ▪ Decrease in heating requirements in winter ▪ Higher rates of refuse decay – more frequent waste collection required ▪ Greater number of fires – service disruption and damage	▪ Increase in heat-related vector and water-borne illnesses ▪ Possible spread malaria to previously unaffected areas (dependent on maintenance of spraying programmes) ▪ Increase in requirements for cooling (air conditioning in summer) ▪ Decrease in heating requirements in winter ▪ Heat stress ▪ Deteriorating air quality due to different dispersion patterns ▪ Exacerbation of poverty, crime ▪ Greater number of fires – safety hazard	▪ Damage to crops ▪ Need for better food hygiene (refrigeration) ▪ Land use conflicts between agricultural land and conservation areas used for tourism ▪ Changes in demand, supply, and quality of water ▪ Increased demand for water for irrigating green spaces (golf courses, parks) ▪ Loss of certain crops	▪ Larger numbers of visitors to coastal areas due to these areas having less extremes in temperatures – pressure on infrastructure and services	▪ Impacts on species /ecosystem goods and services which affect tourist attractions ▪ Increase in the number and extent of invasive species in natural areas ▪ Altitudinal migration of species ▪ Extended range of pests and diseases
Increased frequency and intensity of short duration heavy rains	▪ Local flooding, storm water overflow and ground and surface water pollution ▪ Stress on sewage	▪ Basement and foundation level flooding ▪ Breeding of malaria and cholera vectors in ponding water	▪ Damage to crops and reliability of harvest food supply ▪ Changes in demand, supply, and quality of water ▪ Affected ability of dams to store and capture water ▪ Erosion and sedimentation in green areas	▪ Golf courses, open space systems and other tourism infrastructure at risk of flooding ▪ Disruption of access routes ▪ Increased insurance claims or inability to obtain insurance ▪ Increase in business risk and emergency situations	▪ Parks and green spaces provide flood attenuation
Prolonged periods with no rain and heat waves	▪ Stress on sewage systems ▪ Infrastructure heat stress ▪ Increased cooling energy demand ▪ Reduction in heating requirements ▪ Increase in emergency services	▪ Increase in cooling load ▪ Increase in individual and family risk and emergency situations ▪ Increased load on health care facilities	▪ Reduced food production ▪ Changing disease vectors and possible increase in food poisoning ▪ Increased water demand and purification requirements ▪ Increase in water borne diseases	▪ Fewer visitors due to higher temperatures and drought ▪ Business risk to reduced water availability	▪ Stress on green spaces and the critical loss of flood attenuation amongst other services
Sea level rise	▪ Increased erosion, and coastal flooding of infrastructure – access routes, buildings, services	▪ Inundation of coastal resorts	▪ Salination of agricultural lands – lower productivity ▪ Disruption to estuarine functioning – change in marine ecosystems and attractions ▪ Water supply and wastewater disposal disruption	▪ Impact on beaches/tourist attractions ▪ Inability to obtain insurance	▪ Permanent inundation of some natural ecosystems ▪ Expected coastal erosion will increase the impacts on coastal vegetation which could potentially include destruction and displacement of sensitive dune vegetation leaving coastal infrastructure vulnerable
Carbon pressures	▪ Pressure to reduce energy and carbon emissions (could be positive in terms of energy cost savings) ▪ Carbon taxes could affect facility profitability ▪ Carbon pressure on long haul flights could reduce passenger numbers coming to SA (especially from traditional markets of UK and Europe)	▪ Pressure to use less energy (lower service delivery levels, air conditioning, transport, electricity supply)	▪ Import of food constrained ("food miles")	▪ Need for changes in transport modes (away from motor vehicles) ▪ Carbon taxes could discourage people from utilising private vehicles	▪ Atmospheric carbon affecting species distributions – woody and invasive species favoured and encroachment into grassland areas, affecting traditional tourist attractions and game viewing

Climate Change and Risks for Tourism in South Africa

Overall, the most detailed baseline assessment of the impact of climate change on South Africa's tourism economy is the report produced by Golder Associates (2011) which was commissioned by the national Department of Tourism in order to inform its policy responses to climate change. The implications of climate change for South Africa's tourism economy according to this influential report, are substantial and multi-faceted. These are summarised on Table 1.

In a workshop held with key tourism stakeholders several key conclusions emerged about the potential implications for climate change for South Africa's tourism economy. In discussing the potential impacts associated with climate change on the tourism industry with a cross-section of the country's tourism stakeholders it was highlighted that the majority of private tourism operators and organisations had limited or no engagement with the issue of climate change. It was recorded "climate change issues are not discussed at the various levels within the sector" and instead are frequently drowned out by a range of other issues that are seen as taking greater priority (Department of Tourism, 2011a: 32). The primary reason related to the state of the tourism economy at the time, and the fact that a number of stakeholders in the industry were experiencing increasing financial pressures as a result of decreasing tourist numbers with downturns in both domestic and international tourism. Moreover, the industry also appeared to be focused on complying with national government driven transformation initiatives which sought to make the tourism industry more inclusive (Abrahams, 2019). Within this policy context the industry stakeholders viewed climate change-based sustainability initiatives as nothing more than 'a nice to have' rather than being essential to the long-term survival or profitability of the tourism industry (Pandy and Rogerson, 2018, 2020).

In discussing climate change related topics within the context of mitigation initiatives such as recording, reporting and ultimately reducing the tourism industry's carbon emissions footprint, it emerged that an action such as carbon emissions reporting was "perceived to be largely for internal purposes, as an ethical initiative" and nothing more (Department of Tourism, 2011a: 32). It was suggested by industry stakeholders that a great deal of 'uncertainty' surrounding how to calculate carbon emissions accurately exists, along with a lack of surety as to how to report such emissions effectively. This said, it was disclosed that members of the tourism industry felt optimistic that over time as such initiatives become increasingly common and the requisite stakeholders gain experience that actions such as carbon emissions recording and reporting would become entrenched as a standard industry practice. This is not to suggest that no action had been forthcoming or undertaken by the tourism industry with regards to reducing carbon emissions, but instead that the main motivating factors behind such efforts had little to do with climate change-based considerations. Instead, it was revealed industry action that resulted in reduced carbon emissions emerged as 'a lucky by-product' of initiatives undertaken to primarily reduce operating costs incurred as a result of significantly rising energy prices throughout the country (see Rogerson and Sims, 2012; Ismail and Rogerson, 2016). Furthermore, it was acknowledged that the majority of industry-based training initiatives specifically focussed on cost-cutting initiatives within the bounds of hospitality focussed skills and knowledge development, with climate change or sustainability based initiative going largely ignored. Golder Associates (2012) attempted to understand the position of key South African tourism stakeholders regarding the issues of climate change vulnerability and the potential need for adaptive actions by industry organisations and service providers. In paying cognisance to the types or locations within South Africa's tourism regarded by the industry as being particularly vulnerable to climate change related impacts, stakeholders identified the coastlines of KwaZulu Natal and the Eastern Cape, along with marine related wildlife and attractions spread out along South Africa's coastal waters. In addition, the risks posed to the natural environments that make up some of the country's iconic conservation park areas as the Kruger National Park were pinpointed. In the Western Cape Province, concern surrounding the province's rare and famous fynbos related flora, fauna and conditions for wine estates or wine-based tourism. In the Northern Cape's Namaqualand based conservation areas concerns related to the natural environment. Other issues of concern surrounded disruption of the transport sector, water shortages, food availability and spread of vector-borne diseases, most notably of malaria. The direct impacts associated with increases in average daily temperatures, which the industry associated with increasing energy costs as infrastructure related demands as well as higher levels of discomfort for tourists (Golder Associates, 2012).

In a recent report the World Bank (2018) identifies 'climate risks' as one of the core challenges for addressing what it calls South Africa's 'incomplete transition' and the accompanying legacy of racial exclusion. The Bank identifies the potential of the tourism sector for poverty alleviation and for achieving a more pro-poor development trajectory which underlines the importance of understanding the impacts of climate change in South Africa as a whole and specifically for the country's expanding tourism economy. Several projections have been offered as to the possible impacts on South Africa of climate change and global warming (Ziervogel et al., 2014). The World Bank (2018: v) argues climate change "will impose considerable costs on South Africa" and not least for the sector of tourism. It maintains that the country already "suffers the effects of climate change and vulnerability" (World Bank, 2018: 25). The country's risk exposure to climate change is elaborated as follows: "While temperatures in South Africa are expected to increase, rainfall patterns remain uncertain. Climate models project that South Africa's mean temperature will rise by about 0.5^{o}C in coastal regions and 1^{o}C in the interior in the coming decades. Toward the end of the century, even under a best-case "high-mitigation" future, average temperatures in the interior could increase by up to 4^{o}C. Precipitation changes would cause drier conditions across the country under a "low mitigation" future (that is, the worst-case scenario), with regional variability possible. Under a "high-mitigation" future, models indicate wetter conditions in the central and eastern interior, and drier conditions over the rest of the country" (World Bank, 2018: 29).

Policy Responses

This section turns to review the national government's shifting policy response to climate change in South Africa as a whole and then specifically with reference to the tourism sector. Two sub-sections of material are provided relating to climate change policy as a whole and then towards tourism in particular.

The Development of Climate Change Policy and Responses in South Africa

At the broadest level of policy discourse it should be recognized that South Africa has a relatively long-standing history of environmental focus. In 1996 the country formally recognized the importance of the environment and sustainable development in the post-apartheid Constitution. The South African constitution holds specifically that the environment be protected “for the benefit of present and future generations, through reasonable legislative and other measures” (Republic of South Africa, 1996: 9). This places a constitutional mandate on various spheres of national, provincial, and local government to ensure that all South Africans are afforded the opportunity to live in a safe environment for which the outcomes and impacts associated with climate change threaten to undermine. In acting upon this mandate the National Environmental Management Act was passed in 1998 to provide a guiding policy framework. The Act, which attempts to incorporate key elements of best international practice, accords significant emphasis to issues of environmentally sustainable development and growth as a result of South Africa’s socio-economic challenges (Republic of South Africa, 1998).

Since the introduction of South Africa’s post-apartheid constitution and the National Environmental Management Act, the country has continued to commit itself to environmental based sustainability practices and included climate change related mitigation undertakings by endorsing several international agreements (Patel, 2014). The most important is the United Nations Framework Convention on Climate Change which South Africa became a signatory of on 15 June 1993 and ratified on 29 August 1997 (Koch et al., 2007). Having committed to the United Nations Framework Convention on Climate Change, South Africa further elected to sign the Kyoto Protocol which sought to bind signatory states to undertake concrete action to reduce key emissions identified as being primarily responsible for anthropogenic or human induced climate change (Heuberger et al., 2007). The South African government further committed to the progress and fulfilment of the United Nations Millennium Development Goals (2000) (subsequently the Sustainable Development Goals) of which the seventh goal focusses specifically on environmental sustainability, the protection of key environmental resources, and the reduction of key biodiversity loss (Saarinen et al., 2011). In 2009 South Africa championed the Copenhagen Accord which officially acknowledges the dangers of climate change and the importance of the continuation of the work begun by the Kyoto Protocol in reducing carbon emissions (Lau et al., 2012). South Africa also took part in the development of the Cancun Agreements by submitting a national plan to begin the process of recording emissions, undertaking mitigation and adaptation-based actions to reduce the impacts and implications of climate change (Bhagwati, 2004). On 2 November 2016 South Africa ratified the Paris Agreement, after joining the landmark treaty in December 2015 following decades of international lobbying to see climate change taken seriously on the international stage (Bodansky, 2016). Overall, having consistently lobbied for recognising the importance of climate change the national government has enacted a range of climate change related policy initiatives. The most significant of these include the National Climate Change Response White Paper (2011), the Draft Climate Change Bill (2018), the Carbon Tax Act (2019), and the Draft National Climate Change Adaptation Strategy (2019).

Within such policy developments, the National Climate Change Response White Paper is regarded as the primary national policy document which aims to set out the key principles and overall strategic approach needing to be taken in order to respond to the issue of climate change. Nine overarching principles are set out by the National Climate Change Response White Paper in dealing with climate change:

1) Ensure that all international, national, provincial and local measures which focus on the issues associated with climate change are aligned in order to ensure effective mitigation and adaptation actions are undertaken.

2) Oversee the fair allocation of resources needed to adapt to the impacts and implications associated with climate change, as well as ensuring that the requisite costs of climate change are not disproportionate.

3) Consider those most vulnerable to the impacts and implications of climate change and seek to put in place measures to ensure that key groups such as women, children, the aged, sick, and physically challenged are accounted for.

4) Seek to continue to uplift and empower the poor and vulnerable within society while also ensuring that actions are sustainable socially, economically and environmentally.

5) Ensure that all actions and measures undertaken are sustainable in the long-term in order to ensure that key resources are still available for future generations.

6) Take a risk-averse approach to confronting climate change, and specifically apply a precautionary principle in the decision making process.

7) Enforce the polluter pays principle, which seeks to ensure that those who do undertake actions that emit carbon into the atmosphere pay the costs used to support or remedy the damage which takes place as a result.

8) Place increasing emphasis on public awareness surrounding the climate change issue in order to ensure informed participation to ensure support for mitigation and adaptation based undertakings.

9) Recognise the importance of a healthy environment and ecosystems which are invaluable in the manner in which they underpin a sustainable economy needed for socio-economic upliftment and stability.

In South Africa’s Draft Climate Change Bill (2018) it is acknowledged the core purpose is to provide a coordinated direction for all spheres of government in dealing climate change. Such an undertaking is particularly important given the widespread scope of impacts and issues associated with the phenomenon, and in such regard a coordinated and well-integrated approach by all spheres of government is essential. The Draft Climate Change Bill also attempts to outline the key actions and parties necessary to increase South Africa’s overall adaptive capacity, resilience and mitigation ability. The Bill attempts to specifically outline the key roles and responsibilities of provincial governments and local municipalities, which are set to be reviewed every five years given the shifting nature of climate change related challenges. The Carbon Tax Act (2019) represents one of the instruments outlined in the National Climate Change Response White Paper which seeks to play a role in reducing carbon dioxide based greenhouse emissions as part of the country’s international commitment to act on climate change. Such an intervention makes use of the user pays principle which seeks to use the funds acquired by those whose activities contribute to increased carbon dioxide levels in the atmosphere for the purpose of funding initiatives that seek to remedy the impacts of emissions. It is the goal of such an instrument to strategically encourage the efficient use of energy and the appropriate incentive to reduce excessive energy consumption. Such a tax has specifically been imposed on activities that involve the combustion of fossil fuels, industrial processes that produce carbon emissions directly, and activities that produce fugitive emissions indirectly. The Act came into effect on 1 June 2019. The Draft National Climate Change Adaptation Strategy (2019) attempts to establish a clear pathway of objectives, actions or interventions, as well as final outcomes that are required in order to institutionalize adaptation-based initiatives as a means of reducing the risks associated with climate change. Table 2 summarises the key objectives identified by the Draft National Climate Change Adaptation Strategy. Of note is that it accords significant emphasis to risk reduction, capacity building, and resilience enhancement. This attempts to reinforce the importance of effective climate change adaptive policy, planning and action in long-term sustainable growth. The Draft National Climate Change Adaptation Strategy further outlines a suite of necessary provincial and local level adaptive actions.

Table 2. Summary of Key Objectives, Planned Interventions and Outcomes of the National Climate Change Adaptation Strategy (Source: Republic of South Africa, 2019)

Objectives	Interventions	Outcomes
Objective 1	**Intervention 1**: Reduce human, economic, environment, physical and ecological infrastructure vulnerability and build adaptive capacity.	**Outcome 1.1**: Increased resilience and adaptive capacity achieved in human, economic, environment, physical and ecological infrastructure vulnerability.
	Intervention 2: Develop a risk, early warning, vulnerability and adaptation monitoring system for key climate vulnerable sectors and geographic areas.	**Outcome 2.1**: An early warning and monitoring system for key climate vulnerable sectors and geographic areas developed and implemented.
Objective 2	**Intervention 3**: Develop vulnerability and resilience methodology framework that integrates biophysical and socio-economic aspects of vulnerability and resilience.	**Outcome 3.1**: An adaptation, vulnerability and resilience framework developed and implemented across 100% of key adaptation sectors.
	Intervention 4: Facilitate mainstreaming of adaptation responses into sectoral planning and implementation.	**Outcome 4.1**: An effective adaptation planning that covers at least 80% of the South African sectors.
		Outcome 4.2: Achieve 100% coverage of climate change considerations in sectoral operational plans.
Objective 3	**Intervention 5**: Promote research application, technology development, transfer and adoption to support planning and implementation.	**Outcome 5.1**: Increased research output and technology uptake to support planning and implementation.
	Intervention 6: Build the necessary capacity and awareness for climate change response.	**Outcome 6.1**: Capacity building and awareness for climate change response enhanced
Objective 4	**Intervention 7**: Establish effective governance and legislative processes to integrate climate change in development planning.	**Outcome 7.1**: Adaptation governance defined and legislated through the Climate Change Act once approved by parliament.
		Outcome 7.2: Institutional support structures for climate change adaptation strengthened.
		Outcome 7.3: Enhanced public-private-civil society collaboration and stewardship.
	Intervention 8: Enable substantial flows of climate change adaptation finance from various sources.	**Outcome 8.1**: Adequate financial resources of national adaptation priorities from national fiscus and international sources.
	Intervention 9: Develop and implement a monitoring and evaluation (M&E) system that tracks implementation of adaptation actions and their effectiveness.	**Outcome 9.1**: A national M&E system developed and implemented.

Tourism and Climate Change Policy

In the context of climate change and tourism policy development, it should be noted the South African government has acknowledged climate change represents one of the greatest threats to sustainable development (Department of Tourism, 2011a, 2011b). Moreover, policy-makers have conceded that if left unabated the potential threats associated with climate change have the potential to undo or undermine many of the positive advances made by South Africa in terms of expanding the country's tourism industry, and the subsequent jobs and economic growth that has come about as a result of the growth and development in the tourism sector (Rogerson, 2016). In the 2016 version of South Africa’s National Tourism Sector Strategy document, it is observed that “South Africa’s natural environment is one of its greatest tourism resources, and, therefore, the tourism industry needs to be actively involved in conserving and protecting it” (Department of Tourism, 2016: 8).

The Golder Associates report (2011) was a benchmark investigation in terms of formulating of tourism policy in South Africa. It provided the assessment baseline which led to the preparation of the country’s first specific policy statements relating to the tourism sector. Such recognition is embodied in the Draft National Tourism and Climate Change Action Plan (2011) which seeks to give specific direction to key players within the tourism industry in terms of the actions that are necessary for dealing with climate change, and the issues that may directly or indirectly impact on the tourism industry. The key purpose was to begin the process of implementing actions to reduce climate change related threats. Its focus included improving industry understanding of its climate change vulnerability while also attempting to encourage the greening of the tourism economy with reduced carbon emissions. It was conceded that as a continual challenge, South Africa needed to continuously monitor and evolve the approaches taken to combating climate change within the confines of tourism.

Overall, it is made clear in government policy documents that "climate change matters to South African tourism" (Department of Tourism, 2011a: 4). The pressing need to consider climate change impacts upon tourism stems ultimately from concerns about the competitive strengths of South African tourism (Reddy, 2011). In 2011 national government stated as follows: "Our geographic location away from most of our key markets, the heavy reliance we place on South Africa's environment in our positioning, and therefore in our visitor's expectations and experience, as well as the high proportion of fuel and energy costs in our product mix all mean that climate change is an issue of relevance for the sector" (Department of Tourism, 2011a: 74). National government thus has acknowledged the need for policy and action in relation to tourism and climate change in South Africa (Rogerson, 2016). It is recognised that the challenges presented by climate change cannot be the sole responsibility of one government department because effective integration of adaptation and mitigation measures demands the buy-in and prioritisation of climate change by all government departments and across all three spheres of government in South Africa. Indeed, it is conceded that effective action must also go beyond the scope of the tourism sector itself and more particularly given the highly diverse nature of the tourism economy as a result of the wide scope of products and services that underpin it. Stakeholder engagement through the process of public participation is not only encouraged but is in fact enshrined in South African legislation (Department of Environmental Affairs, 2011). More specifically, the country's concerns surrounding the issue of climate change and tourism are expressed in the National Tourism Sector Strategy the guiding policy framework for tourism development in the country along with the National Tourism and Climate Change Action Plan (Department of Tourism, 2011a). These national policy documents envision and essentially set forth the goal of establishing a low carbon and climate resilient tourism sector. Such a vision, however, is also crucially acknowledged to require an "ongoing", and "dynamic climate change policy environment" that prioritizes and is dependent upon five key outcomes. First, it involves an improved understanding of the vulnerabilities of tourism to the physical impacts of climate change in order to build resilience and adaptive capacity. Second, is a reduction in tourism based greenhouse gas emissions. The third depends on a fully informed tourism industry which will be brought about by consistent and effective industry outreach and communications. The fourth pertains to the crucial need to have a consistent, inclusive and cooperative approach to policy and framework implementation. Finally, the fifth outcome sees the country maintain an effective positioning within the county's key markets (Department of Tourism, 2011a, 2011b).

CONCLUSION

Globally climate change raises a number of critical questions and challenges for national governments and for the tourism industry as a whole, in particular for stakeholders and businesses (Becken, 2013; Nacipucha et al., 2017; Sifilo and Henama, 2017; Tervo-Kankare et al., 2018; Pandy and Rogerson, 2020). One recent study by the Organisation for Economic Co-operation and Development (OECD) concluded that "South Africa is one of the most vulnerable countries in the world with respect to projected climate change" (Glocker and Haxton, 2020: 30). The objective in this paper was to analyse climate change projections, and review the significance as well as potential ramifications of climate change for the South African tourism industry. In addition, the discussion sought to chart the shifting contours of national government policy towards climate change risks in South Africa in general and relating to the tourism sector more specifically. It is disclosed the threats of climate change are particularly concerning for several of South Africa's iconic tourism assets around nature-based tourism, biodiversity and coastal tourism. Overall the findings point to a conclusion that climate change presents a serious threat to South Africa, and potentially devastate much of the natural environment upon which key segments of the tourism economy are reliant.

The analysis discloses that since democratic transition in 1994 national government of South Africa has been at the forefront in supporting international efforts and obligations to address the challenge of climate change. This commitment has fed into specific policy development regarding tourism. Nevertheless it is observed also that policy development by national government specifically towards climate change and tourism has not progressed markedly since the appearance of the 2011 policy documents. To a large extent this lack of progress is an outcome of the overwhelming concentration given by recent government tourism policy in South Africa towards issues of inclusivity and transformation. Arguably, as shown by the COVID-19 crisis, there is an imperative need for a return to a broader policy perspective in South Africa, one which might seriously re-engage with the implications and threats posed by climate change to the country's increasingly fragile tourism sector (Rogerson and Rogerson, 2020b). Although the need to mainstream climate change issues into tourism policies has been recognised at national government level it remains that implementation measures are hampered severely both by capacity constraints and weak climate change measures at the local government level in South Africa (Rogerson, 2016; Glocker and Haxton, 2020; Pandy and Rogerson, 2020). In final analysis this supports the view expressed by Adu-Ampong et al. (2021) of the significance for undertaking further research on the nexus of climate change and tourism policy in sub-Saharan Africa.

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THE "PUTTING TERRITORIES INTO TOURISM", A TOURISM DIAGNOSIS TOOL CASE OF THE WILAYA OF ALGIERS

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Abstract: Putting territories "on the tourism" seems to have become an unavoidable practice for all countries, regions and cities that wish to receive a share of the manna generated by tourism. This is the case of Algiers, the capital of Algeria, which has a proven but unfortunately badly exploited tourist potential. The objective of this study is to propose another approach in the elaboration of the strategy of tourist development of the wilaya of Algiers. The article thus aims at identifying effectively the real tourist dimension of the territory of Algiers.To do this, the method developed by the Equipe MIT was used, based essentially on a precise diagnostic tool integrating relevant variables, both socio-economic and environmental. Thus, the study of these ten variables showed that even if certain factors go against the development of tourism, such as the weak reactivity of the public authorities or a rate of tourist function almost null, the majority of these variables are favourable to the development of the tourist activity and to the " putting in tourism " of this territory. Thus, the wilaya of Algiers is a city with a tourist function and meets all the conditions of success for its development as a tourist destination.

Key words: Putting "into tourism", territory, variable, destination, Algiers

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INTRODUCTION

Nowadays, tourism uses territories as a show. A stage where important events unfold and reveal a rich heritage, mythical places and memorable landscapes. This is why tourism is considered an important tool for the economic regeneration of the city. The cities, especially the large cities, form the most important touristic destination in the word; therefore, they receive local and international tourists (Benghadbane and Khries, 2020). In Algeria, we can say that global territorial strategies have only been present since 1989 with development schemes on a national and regional scale (Ministry of Spatial Planning, Environment and Tourism, 2008). The development of tourism strategies through instruments such as the Tourism Development Master Plan "SDAT" and the Wilaya Tourism Development Master Plans "SDATW" are today at the heart of the action plans for the redeployment of the national economy (Alloui-Ami Moussa, 2015). The tourism has become a national priority, with the consolidation of a master plan for tourist development, which focuses on the establishment of seven tourist centers of excellence (Kherrour et al., 2016). It is the greatest challenge facing the Algerian economy today (Rahal et al., 2020). However, the development of tourism in Algeria, in each wilaya, involves new questions of spatial, economic, social and cultural nature, which must henceforth be faced. Tourism activity and the tourist function should be an integral part of the policy and strategy of national development and local authorities (AOM INVEST-ANDT, 2019). The territory provides tourism with the resources to develop a tourist offer and an image of the destination, based on the combination of these resources. In terms of infrastructure development and equipment, the territory of the wilaya is largely endowed. It is constantly changing, and these developments are challenges for the organisation of space, the preservation and enhancement of natural resources, and economic development through the creation of jobs and activities for the populations. In this context, one wonders how a territory such as the ilaya of Algiers, which is endowed with innumerable tourist facilities, can benefit from them? And to what extent can its "tourism development" bring added value in the implementation of its tourism strategy for 2030?

LITTERATURE REVIEW

The territory: the first resource of tourism

In the classical approach, the territory is called "space" and is considered as a support that offers resources that can be transformed into assets. In fact, these activities are based on a set of attractions which include natural attractions such as scenic moutain and valleys, parks, lakes, wildlife, caves, and underground formations. What characterises a territory is both the range of landscapes it offers for visual discovery, and the heritage and culture it harbours. We are moving from an approach where the territory is defined as an environment, i.e. as a set of historical-socio-cultural factors that are established in the local community and institutions, to an approach where the territory is above all a network. In other words, the space-territory is not the only one that creates the behaviours of the actors; the latter in their diversity also participate in the creation of this space-territory not only through their own behaviours but also through the interrelations they build between them (Merasli, 2012; Lascu et al., 2018). Murphy in 2013, states that the continued attractiveness of a territory is articulated through material and functional changes that challenge traditional political-territorial arrangements. Thanks to its landscape, topographical and

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human components, the territory can be considered as the real raw material of tourism. The resource territory, taken here as an example, gathers unavoidable factors such as accessibility, water, healthiness, reception capacities, sites and socio-cultural heritages. Other forms of resources include cultural events, festivals and vintage buildings (Lozato-Giotart et al., 2012; Rajesh, 2013; Rajesh, 2014). Therefore, the tourist attractiveness of territories must be understood in its double dimension: attracting and retaining income or the populations that generate this income. Moreover, the attraction of external income is one of the stages of territorial development (Hellal, 2017). Thus, 'the territory is the object of a marketing strategy because it is a question of promoting and enhancing it in order to attract and retain different targets. It becomes the object of an abranding strategy, where the development of a specific identity is targeted and the management of its image is planned for the more or less long term' (Vuignier, 2018:23). It is always useful that policy interventions in the field of tourism must take into account the specific issues of the territories to be implemented in order to promote desirable impacts (Niavis et al., 2021).

From territory to destination

The concept of destination is widely used in tourism both in the professional and scientific community (Kadri et al., 2011). In a geographical approach to tourism, the tourist destination would designate the place where the promoted, recognised and elected space allowing individuals to escape from constraints through tourist mobility (Bédard, 2011). In the long term, the competitiveness of tourism depends on the sustainable use of territorial assets: the differentiation of destinations depends on the integration of land-based cultural natural resources in the tourism offer, but also on their preservation over time (Romão et al., 2017). However, the difficulty of conceptualising the notion of destination is not without consequences for managerial practices (Roult et al., 2019). Indeed, the perimeter of a destination is equivalent to administrative boundaries (nation, region) if they reflect strong cultural orientations, but the destination can also represent specific geographical characteristics or particularities. However, it is questionable whether these boundaries are the most desirable spatial configurations for facilitating tourist flows and service management in a geographical area (Paulino et al., 2021). Territory is therefore a complex, multidimensional and constantly evolving concept. Zerouali Ouariti and Jebrane (2019), point out another aspect of the destination is its attractiveness, which according to them is not limited to the stage of destination selection, but also influences the behaviour of tourists in general. Indeed, the attractiveness of a destination is determined by its attributes. The importance of these attributes helps people to assess the attractiveness of a destination and to make destination choices. The more a destination is able to satisfy the needs of its visitors, the more attractive it is perceived to be and the more likely it is to be chosen as a final destination. According to Tsiotas et al. (2021), one major property of tourism that affects almost all destinations in a diverse way should also be taken into consideration, namely that related to the phenomenon of (so-called) seasonality of tourism and that concerns the uneven distribution of tourism demand over the period of the year. In another context, the focus is now on 'smart destinations' (SDs), which are considered by Gretzel et al. (2015), as a key element of the smart tourism ecosystem, which is mainly based on the widespread use of technology and data by different agents. However, and according to Ivars-Baidal et al. (2021), to date there is no system of indicators to measure the progress of destinations against the expectations and goals set by the smart tourism literature and discourse.

The "putting into tourism": A diagnostic tool

Generally speaking, the expression "Putting into tourism" refers to the process of transformation of a place through tourism. The term "putting into tourism" is preferred to "touristification" because in the confusion surrounding the process and the frequent invocation of natural interventions (Ojeda and Kieffer, 2020)."Putting into tourism" has the advantage of emphasising the dynamic and human character of the action, according to Dewailly et al. (2005), the process and the resulting state of a more planned, more voluntarist, controlled, if not mastered development applying to the same objects. The role of local decision-makers and actors, apart from individuals and private companies, seems more important in the elaboration of the decision-making processes which provoke or accompany the development of tourism. In the end, for a place to become a tourist destination, a system of actors must function, through the junction between the initiatives of the first tourists and those of the other actors, including the State. Landel et al. (2014), explain that the analysis of the role of tourism in the construction of territorial resources is very instructive. The revelation of objects with attributes specific to a territory and prized by foreigners contributes to the construction of a tourist destination combining both market and non-market goods. Non-market goods can be used to develop "alternative" forms of tourism. The emergence of tourist territories across the planet makes us observe that the transformation of places for tourist purposes (called putting into tourism) seems to have become an unavoidable practice for all countries, all regions and all cities that wish to receive a share of the manna generated by tourism. This tourism development is appreciated first of all according to an economic process through the contribution of foreign currency and space through the development of places, while its implications also, if not more so, concern the society within which this process is organised (Kadri et al., 2019). Thus, culture, history, economy, architecture, landscape, social development as well as infrastructure combined in a unified whole as an identity of the territory, can be sold and accepted by everyone as a brand image (Miftahuddin et al, 2021).

METODOLOGY

The object of the study is to examine the situation of the development of tourism in the wilaya of Algiers. To do this, we opted for a territorial diagnosis highlighting the state of the territory of the wilaya of Algiers in terms of attractive potentialities which constitute the real tourist offer of this territory and whose stakes are essential in any construction of a new tourist destination (Gollain, 2019). In this diagnosis of the territory, we have adopted the method of the EquipeMIT (2000), whose relevance is still relevant according to the work carried out by Knafou in 2018. This method is a tool which targets the most significant aspects of a territory's tourism endowments and allows the conditions for successful tourism development to be analysed. It is based on the study of 10 variables selected as significant indicators, both socio-economic and environmental, and each of these variables is evaluated according to three levels of assessment, either quantitative or qualitative. The results obtained will be represented on a diagram made for this purpose (Figure 3). Thus, the aptitudes of the various places of Algiers to be "put in tourism" will be clearly identified.

SITE OF THE STUDY

Algiers, capital of Algeria, is a territory with a natural site and an urban history. It occupies the heart of the northern region of the country with a surface area of 809.22 Km², organised administratively into 13 Daïras grouping 57 Communes. It is situated globally on the strip limited by the Mediterranean Sea on the one hand and by the Tellian Atlas on the other. In terms of the shape of the natural site, it evolves around a crescent-shaped bay with two peaks, the Casbah and Tamenfoust. It is also a sloping configuration, with the lowest altitudes on the sea side. This is what gives Algiers this amphitheatre shape, with the coastal part as a stage, and the terraces which are the extensions of the city centre, and on the heights certain secondary centres of Algiers (Côte, 2006; ONT, 2011) (Figure1a and 1b).

Figure1a. Geographic location of Agiers'wilaya (Chenki & Baaziz, 2020)

Figure1b. Geographic location of the study site (Source: Alloui-AmiMoussa & Lazri in Ceneap, 2017, Personal treatement for researchers, 2021)

ANALYSIS OF VARIABLES

Variable 1: The tourist function rate

This index is a very useful tool for examining tourist activity in areas where most accommodation is in the form of hotels and motels (Keogh, 1984). A tourist operating rate equal to 100 means that the place in question can receive as many tourists as permanent inhabitants; this means that it therefore doubles its population in high season, which is why it is chosen as a significant threshold. A tourist operating rate of less than 100 means that the place in question is not able to receive a good number of tourists in high season (Equipe MIT, 2000). This rate (formula 1) refers to the ratio between the total capacity of tourist accommodation and the number of permanent inhabitants of a place, as its explained by (Simon, 2019).

Formula 1 by Simon (2019): $$\text{Rate Tourist function} = \frac{(\text{total capacity of tourist accommodation x 100})}{\text{number of permanent inhabitants of place.}}$$

According to the Directorate of Tourism and Handicrafts of Algiers' wilaya, the total capacity of tourist accommodation in the wilaya of Algiers for 2019 has been estimated at 34,000 beds, while the overall population for the same year was 3, 732,209 (ONS, 2020). In the case of Algiers's wilaya, a rate of tourist function equal to 0.910 is at a really lower level compared to the significant threshold set at 100, and evokes a situation of very low "touristicity" of our territory.

$$\text{Rate Tourist function} = \frac{(34000\text{x}100)}{3732209} = 0.91$$

Variable 2: Tourist numbers

The presence of tourists in a place is not necessarily related to an accommodation function, a place cannot be touristic without tourists, hence the need to know the tourist attendance in a place (Leroux and Pupion, 2014). Based on the Equipe MIT case studies, it was shown that when attendance was below 10,000 people per year, the sites mainly hosted only visits from the local population. Between 10,000 and 50,000 visitors, the share of tourist visits becomes significant. Above 50,000 visitors per year, the site can be considered as tourist. As far as our case study is concerned, the wilaya of Algiers is frequented for its cultural, seaside, urban and Meetings, Incentives, Conferencing et Exhibitions tourism. It counted nearly 943,110 national tourists and about 689,365 foreign tourists, a total of 1,632,475 tourists. (Directorate of Tourism and Traditional Industries of Algiers's wilaya, 2020). On the basis of the figures given above, the wilaya of Algiers is therefore considered as a tourist city in terms of attendance.

Variable 3: Weight of secondary residence

The presence of second homes counts in the apprehension of tourist areas. Areas that are already tourist areas generally have more than 50% of second homes in the total housing stock. Three thresholds have been defined to characterise non-tourist areas (Equipe MIT, 2000):

- Second homes account for less than 25% of the total, which means that we are really in living spaces,
- Second homes account for 25% to 50% of the total, we are in transitional spaces between permanent living spaces and tourist areas,
- Second homes account for more than 50% of the total, they are tourist places, including holiday homes and not just weekend homes.

In our case study, there are no official figures on second homes. However, according to the estimates of the Algiers's tourism and crafts directorate, there are no secondary residences dedicated to holidays, but secondary residences used for renting to the populations living and working in the wilaya of Algiers. The percentage of these secondary residences is then estimated at less than 25% of the total housing stock, which shows us that the wilaya of Algiers is a living space.

Variable 4: Economic dynamics

Tourism is unlikely to develop in areas that do not have an economic need for it. Where agriculture or industry is thriving, tourism development can be counterproductive. On the other hand, if the dominant sector runs out of steam, tourism development becomes possible, and may accelerate the decline of the former activity. This occures because in our world economy, the weight of the productive sectors is decreasing while the share of services (including tourism) is growing (Kolosinska et al., 2018). Then, if the dominant sector is in crisis, tourism becomes the activity of the last chance. As far as the wilaya of Algiers is concerned, and on a larger scale, in Algeria, tourism is considered as one of the alternatives to the hydrocarbons sector, a vector of development of the economy, in a period when there are hydrocarbon price crises (Hadjiedj, 2008). The development of new services will generate new employment opportunities for the improvement of local revenues (Kherrour et al., 2020). Algiers is considered to be the most dynamic and attractive territory in terms of population and investment flows (Ceneap, 2019). This centrality makes it:

- The focal point of national political-administrative life. As such, it exerts a strong tropism on its regional and national environment.
- The hub of the non-hydrocarbon economy, which has unrivalled productive capacities, hosts the main strategic decision-making centres, concentrates the centres of higher education and research and attracts the bulk of the FDI, which is heading for Algeria.
- The major centre of cultural influence, due to the density and diversity of its heritage, the density of its culinary and musical traditions and the richness of its event offer, which make it a rising metropolitan tourist destination, due to its provision of large-scale urban development and world-class hotel facilities (UNWETO-PNUD, 2020). The territory of Algiers is equipped with several functionalities having a direct relationship with the services and takes advantage of the tourist flows that frequent its territory. Tourism therefore contributes to the economic dynamics of the capital of the country.

Variable 5: The evolution of the tertiary labour force

This evolution is another relevant criterion, since tourism implies a strong development of the service field. This evolution is generally distinguished in the comparison of the last two censuses of the country, concerning employment. Three scenarios were selected:

- The proportion of this active population in the tertiary sector has remained or become less than 50 % of the total: the situation is not a priori favourable to the rapid development of tourism.
- The proportion of the active population in the tertiary sector has become more than 50% of the total: This may mean that the activity (agriculture or industry) that used to be dominant is experiencing a decline.

Table 1. The active population of the wilaya of Algiers
(Source: made by the author based on ONS, 2015 & 0NS, 2019)

Criteria / Year	2015	2019
Total labour force	1382 713	1562 785
Tertiary labour force (trade and services)	639 952	739 220
Percentage (%)	46,28%	47,30%

- The propotion of the active population in the tertiary sector has been and remains above 50% of the total : These are, in the broadest sense, urbanised areas or areas in contact with cities or tourist locations.

The distribution of the occupied population by branch of activity in the wilaya of Algiers was estimated for the year 2019 on the basis of the reference year of 2015 and statistical data from the national statistics office (Table1).

We note that the share of this population was and remained below 50%, we conclude that the situation is not a priori favourable to the rapid development of tourism in Algiers.

Variable 6: Change in net migration

When a place loses inhabitants, it goes through a period of crisis, which offers the possibility of a change of use, with the remaining population seeking solutions so that the place can continue to exist and be open to innovation; but conversely, the decline of a place can correspond to a radicalisation of the remaining inhabitants, rejecting an outsider considered to be the author of this decline. Three scenarios can be retained according to the variation between two censuses (Equipe MIT, 2000):

- The migratory balance has remained negative, or a positive balance has become negative : the place is emptying or has been emptied, the space is undergoing transformation;
- The balance, previously negative, has become positive ; this reversal can mean at least three possibilities:

✓either a certain number of tourist actions have already been launched and they are beginning to have an effect on the settlement of permanent population;

✓or the setting up of a company of any kind boosts the economic activity of the place and thus the installation of people ;

✓or the place is affected by the redistribution of the population; in any case, the place in question becomes or becomes again a place to live; but tourism must be developed in a place where the tourist dynamic is already underway or in a place where a new use is being put in place;

- The balance remains positive, the place continues to attract. According to national statistics office:

✓Population of the wilaya of Algiers at the time of the 1998 RGPH: 2,562,428 inhabitants.

✓Population of the wilaya of Algiers at the time of the 2008 RGPH: 3 032 967 Inhabitants.

✓Population of the wilaya of Algiers in the year 2018: 3 658 228 Inhabitants.

✓Population of the wilaya of Algiers in the year 2019: 3. 732 209 Inhabitants.

- Migration balance (1) = $Population\ in$ 2008− $Population$ in 1998
- $Net\ migration$ (1) = 3032 967− 2 562 428= 470 539 inhabitants
- Migration balance (2) = $Population\ in$ 2018 – $Population$ in 2008
- Net $migrati$on (2) = 3 658 228− 3 032 967 = 625 261 habitants
- Migration balance (3) = $Population\ in$ 2019− $Population$ in 2018
- Net $migrati$on (3) = 3 732 209− 3 658 228 = 73 981 habitants

Over the 3 periods studied (2008, 2018 and 2019), it can be noted that the migratory balance of the wilaya of Algiers has been and remains positive, therefore that the wilaya of Algiers is an attractive city capable of attracting tourists.

Variable 7: Role of local actors

The role of elected representatives can be divided into three main families of behaviour when faced with a tourism development project: hostility or passivity; a project carried by elected representatives; and the intervention of a high level leader, i.e. the political personality who, through a network of knowledge and relations resulting in the arrival of subsidies, is able to ensure the tourism development of the place or area for which he is elected. Actually, urban interventions have led to a shift in the style of life (Nogués-Pedregal, 2019). Thefore, elected representatives are open to any proposal that would allow the development of tourist activity, however they have always lacked personal initiative (Chenki and Baziz, 2020). However, some exceptions are useful to point out, in fact, we note that during the period of the minister-governor of Grand Algiers (1997-2000) who was the initiator of the "development of the Bay of Algiers" project, several operations were launched, then this project was put on stand-by for about 14 years. Afterwards, it was relaunched with the arrival of the wali of that time (2013-2019). We have thus recorded the finalisation of many projects included in the strategic plan of Algiers 2029 (Parquexpo, 2016), such as the leisure space of La Sablette, the recreational forest of Ben Aknoun and the business district of Bab Ezzouar where the large Trust Hotel & Resorts-Marriott complex is located. In October 2020, it is the great project of Djamaa El Djazair which was received. In spite of these praiseworthy initiatives, today we note that the involvement of local officials in the tourist development of Algiers remains insufficient.

Variable 8: Attitude of the local population

Space as a resource is intensively used by both tourism and the local community. If a place becomes touristy, it is because part of the local population wants this type of development (Ouellet, 2015) Therefore, the state of tourism development needs to be measured over time, as well as the attitudes of the local population, to determine the impacts and the pressure that tourism development may continue to exert (Marković and Klarić, 2015). The attitude of residents reflects the mindset or disposition of residents towards a tourist destination and hospitality constitutes an essential factor in the selection of destinations (Kelfaoui et al, 2021). According to Dangi and Petrick (2021), tourism helps to promote cultural preservation and community pride and fosters a sense of mutual respect and understanding among visitors and stakeholders. Needing and depending on the situation, the attitude of the local population can be defined as hostile, indifferent or favourable. The population of Algiers is increasingly looking for leisure activities, relaxation and entertainment. They have always been enthusiastic about meeting people from different backgrounds. Since the country's security has improved in Algeria, society has become very favourable to the creation of tourist and leisure infrastructures. The Algiers' inhabitants, like all Algerians, are hospitable by nature and aspires to make visitors to his city discover his culture and history. They show no reluctance to meet foreigners. The Algiers' population is therefore favourable to the development of tourist activity in their wilaya.

Variable 9: Geographic location

The assessment of the geographical location of the place is measured in relation to its distance from a potential market. Three possibilities have been considered: the situation in relation to the urban market, to a major thoroughfare or to other tourist locations. The three criteria can be met (total proximity), or only one or two (partial proximity), or none (remoteness). The latter situation may not be definitive and may even, in some cases, prove to be an asset: relative inaccessibility and isolation are qualities for some tourist populations. The wilaya of Algiers occupies a central position, which gives it a proven advantage, due to the proximity of the large basins emitting tourist flows and its role as a link and confluence point in its area of belonging. The site effect enjoyed by the wilaya of Algiers constitutes an undeniable competitive advantage, which remains however notoriously undervalued in terms of tourism, as demonstrated by the weak performance of the destination (Ceneap, 2019). This geographical positioning, potentially favourable, remains a precious asset for the tourist future of the wilaya. Thanks to its status as a capital, Algiers attracts many visitors both nationally and internationally. Also, since it represents one of the most important metropolises of the country, through its infrastructure and tourist facilities, it is a very popular city among the Algerians. Algiers also occupies a strategic position in the Mediterranean basin and is situated close to its first emitting tourist market, which is Europe.The wilaya of Algiers thus benefits from a total proximity thanks to its geographical situation.

Variable 10: Landscape character

It is not a question of the meaning and symbolism of a landscape, or even its picturesque dimension, but rather its ability to be walked through: where it is maintained, widely or totally accessible; where it is semi-open, combining accessible and non-accessible spaces; or where it is closed, due to exclusive activity.

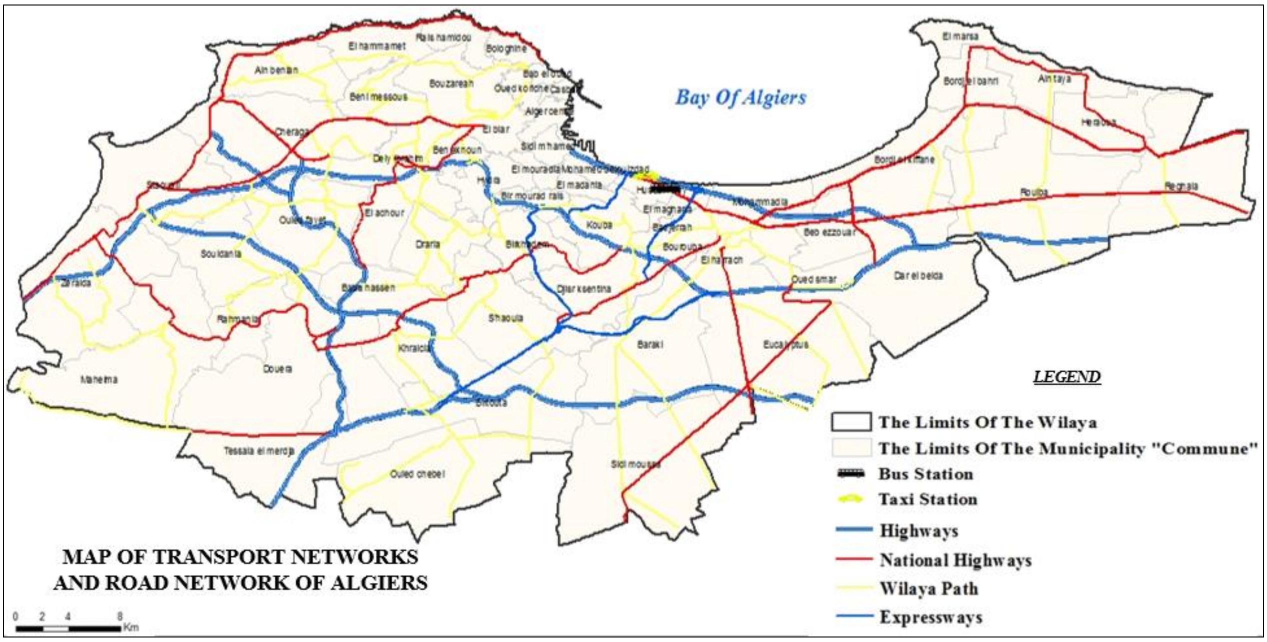

Figure 2. The accessibility of the Algiers territory (Source: Alloui-Ami Moussa & Lazri in Ceneap, 2017, Personal treatement for researchers, 2021)

Explanation of some Variables

Evolution of the Migratory Balance
Nb: negative balance
Pb: positive balance
Geographic Situation
Complete Promixity Means the Proximity of a large urban market and touristic places or an urban thoroughfare
Partial promixity: Two of the Three Critera
Isolation: None of the Three Critera

Figure 3. The target of the conditions for the success of the "putting into tourism" of the wilaya of Algiers (Source: made by the author on the basis of the Equipe MIT, 2000)

Table 2. Tourist dimension of Algiers's wilaya (Source: made by the author based on the work of Equipe MIT, 2000)

Criteria / Assessment	STRONG	MEDIUM	WEAK
Rate Tourist function			+
Tourist attendance	+		
Place of the second home			+
Proximity	+		
Low tourist function rate + low second home location + high occupancy + total proximity = city with tourist function			

However Accessibility does not mean only the transport part, also includes access to the tourist's needed information (Biswas et al., 2020). The wilaya of Algiers is well endowed in terms of transport equipment. For air transport, the international airport of Algiers is the most important of the country's airports. The port of Algiers, for its part, enjoys a privileged geographic position in the Mediterranean basin. Internally, Algiers is accessible by road thanks to the East-West motorway and the various localities of Algiers are well served and accessible thanks to the capital's public transport macro-mesh; a collective road, tramway and cable car (Ceneap, 2017). The wilaya of Algiers thus benefits from total openness and accessibility (Figure 2).

SUMMARY OF RESULTS

None of the criteria is decisive in the development of tourism in a place. As soon as several favourable elements are brought together, an element of weight can be missing without compromising the operation. Finally, it is the combination of all these elements which makes it possible to apprehend the conditions for the development of tourism and its possible success (Equipe MIT, 2000). According to Knafou (2018), it is a simple and evolving reading grid, both operational in the majority of practices and open to the complex situations that our tourism system tends to produce. So, using the ten criteria and their internal division into three classes, and following Equipe MIT's methodology, we developed a target-like figure (Figure 3). At the heart are the tourist spaces and places. The closer the values for a given place are to the centre, the more favourable the conditions for tourism. For most of the criteria, a quantitative or qualitative progression from the periphery towards the centre is to be noted. Only the migratory balances and the economic dynamics propose an inverse logic. Algiers is therefore suitable for tourism as attested by 8/10 of the variables, only variables 5 and 1 need to be improved. As a result, it is a city with a tourist function (Table 2).

CONCLUSION

Through the analysis of the target of the conditions of success of the « Putting into tourism » the wilaya of Algiers, it will be noted that the majority of the variables are in favour of the development of tourist activity and the touristification of Algiers's wilaya, which is undeniably a city with a tourist function. However, some factors are against a « putting into tourism », such as the growing increase in the population within the city, the low reactivity of the public authorities, the absence of second homes and finally a rate of tourist function which is almost nil. However, it should be noted that these constraining factors are for the most part taken care of and are being improved between now and 2030, through the construction of facilities serving tourist activity and by developing geotourism areas and places of visits as envisaged by the action plan of the Master Plan for Tourist devloppment of Algiers's wilaya (Ceneap, 2018). The image and perception of the destination "Algiers" are closely linked to the overall competitiveness of tourism. It should be emphasised, in this respect, that the strengthening of its presence on the markets to be conquered, requires a better visibility and increased legibility of the destination and its various components. Today, despite the progress recorded in recent years, the tourist image of Algiers still remains blurred in the imagination of potential visitors. It is strongly impregnated by the summer activity, with uncontrolled effects, and a business movement devoid of tourist sense, during the rest of the year.

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THE IMPACT OF COVID-19 ON SUPPLY CHAINS OF ALL-INCLUSIVE HOTELS

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Abstract: The restrictions that started with the Covid-19 outbreak have dramatically affected global supply chains. These issues also were reflected in the operations of many companies in different sectors. This study aims to investigate the impact of COVID-19 outbreak on the supply chain of all-inclusive accommodation companies. To that end, a semi-structured interview questionnaire is used to interview the purchasing directors of twelve different hotels. The study concludes that companies did not face significant challenges, while supplying local food products, but had a hard time, when it came to finding imported food products. Accommodation companies also had issues in certain periods in terms of the supply of hygiene products, especially such as gloves, masks and disinfectants. Moreover, these products have been influential in the supplier selection of companies.

Key words: Purchasing, Supply chain, Supplier selection, All-inclusive hotels, COVID-19

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INTRODUCTION

An important revenue source for highly visited countries and a key player in international trade, tourism is in a constant state of growth (UNWTO, 2019). The tourism industry has varying positive effects on countries of inbound and outbound tourists; at the same time, it is known as one of the industries that is highly affected by negative situations due to its delicate nature, such as terrorist attacks, political conflicts, wars, natural disasters and outbreaks (Çıtak and Çalış, 2020: 111).

Having started in the city of Wuhan in China and later spread across the world, COVID-19 outbreak brought along many negatives, such as the cancellation of reservations, the limitation decisions of countries of outbound tourists and as a result, the closing of touristic companies, severely affecting the countries, which are heavily visited by tourists. As a country that went through a number of crises, especially in the recent years, Turkish tourism industry had to face COVID-19 outbreak, without becoming entirely free of the effects of said crises, and accordingly lost tourists with a 72.5% rate compared to the same period of the last year as of the month of October (KTB, 2020). Additionally, this process also had negative impacts on the countries of outbound tourists, in relation with the positive sociological effects of such visits on tourists (Demirbulat, 2012: 53).

COVID-19 outbreak affected myriad companies and institutions, as well as financial markets and the global economy, causing an extremely rare crisis (Nicola et al., 2020: 187). Significant malfunctions occurred in the supply chain, in relation with the problems arising from the restrictions during COVID-19, since individuals could not go to work, and from the changes in consumer preferences (Karlı and Tanyaş, 2020: 174; Gonzales-Torres, 2020: 1). Although companies restarted their activities gradually after the restrictions, the lack of raw materials and parts acquired from foreign countries and the spread of virus amongst employees resulted in the quarantine of some departments, slowing down or putting a stop to production (Shen et al., 2020: 96). Especially China, where the outbreak originated, affected global supply chains, for it is one of the most important suppliers in the world with respect to raw materials, semi-finished and finished products. The spread of the outbreak across the world and the issues, arising from the global supply chain, also had negative influences on local supply chains (Karlı and Tanyaş, 2020: 174-180). Emerged in the production industry, supply chain piqued the interest of a number of researchers and practitioners in different industries, but not in the tourism industry (Zhang et al., 2009: 346). However, the intersecting, interdependent and fragmented structure of tourism products force firms to cooperate with many suppliers, distributors, competitors and other firms in the industry. This cooperation is viewed as the driving force of agility, flexibility and organizational performance, demonstrating the importance of the supply chain for touristic enterprises (Gonzales-Torres, 2021). Still, the particular nature of tourism and its characteristics must be taken into account, while the specific supply chain practices for the tourism industry are determined (Zhang et al., 2009: 346). This is largely due to the structure of the tourism industry, where the tourism products are manufactured and consumed in the same place (Palang and Tippayawong, 2019: 1193).

This study aims to investigate the impact of COVID-19 process on the supply chains in all-inclusive accommodation companies. Supply chain has specifically a deep impact on the costs and quality of firms that purchase large numbers of products (Zhang et al., 2009: 346). In this context, the large amount and variety of the products purchased by all-inclusive accommodation companies illustrate how important supply chain is for them. Furthermore, globalization and the rapidly changing business practices drive touristic companies to not only reduce costs, but also constantly improve product and service quality, as well as delivery performance. Due to the growth and the increasing competition in the tourism industry, accommodation companies must provide better services than their competitors and ensure customer satisfaction (Mohanty and Gahan, 2012: 319). The most important factor to provide a competitive edge to accommodation companies is customer

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satisfaction (Forozia et al., 2013: 4329). In such companies, the number of customers increase in direct proportion with customer satisfaction and the improvement in both customer satisfaction and loyalty would ensure that the company will be preferred by new customers more frequently (Taplin, 2013: 238). In this context, selection of suppliers and supply chain management become critical subjects during the process of service of especially all-inclusive accommodation companies (Vatansever and Tellioğlu, 2020: 139). That is because supply chain management contributes to financial indicators such as cost and profitability, in addition to non-financial ones such as customer satisfaction (Țigu and Calaretu, 2013: 106). The fact that the importance of supply chain in such companies and the impact of COVID-19 on the supply chain of all-inclusive accommodation companies are not studied, display the significance of this study. From this perspective, the findings from this study are hoped to contribute to the literature to a large extent. Furthermore, the findings will be guiding the directors in the tourism industry as well as other stakeholders in taking preventative measures, in the event that other crises arise in future. The research study is conducted in the Alanya district of Turkey. In addition to being one of the most important tourism destinations in Turkey, Alanya commonly hosts a large number of all-inclusive accommodation companies. Therefore, the research section of this study includes the interviews with the purchasing directors of twelve different all-inclusive hotels in Alanya via semi-structured interview questionnaires. The study uses case study approach from amongst qualitative research designs.

LITERATURE REVIEW

The Impact of COVID-19 on the Tourism Industry

An unmatched crisis on a global scale, COVID-19 outbreak had extensive impact on almost all industries (Deloitte, 2020). This process affected all sectors, especially those regarding health, agriculture, food, transportation, logistics, education and tourism (Karlı and Tanyaş, 2020:180). Originated in the city of Wuhan in China, the outbreak rapidly spread throughout the globe, causing the closing of borders, cancellation of flights and the closing down of many touristic enterprises due to travel limitations, resulting in the tourism industry taking the most damage from this outbreak because of its delicate nature (KTB, 2020).

Overall, COVID-19 led to international distortions in the tourism sector and severe declines in hotel occupancy rates (Nicola et al., 2020: 188). According to the data from March 2020, occupancy rates declined in Japan (by 62 %), South Korea (by 74 %), Italy (by 75 %) and China (by 76 %) (Skift, 2020). The outbreak built a barrier before the travel and tourism expenses of individuals across a number of countries in the world, regardless of their socio-economic statuses (Aydın and Doğan, 2020: 98). Therefore, many employees in the tourism industry lost their jobs. Marriott hotel chains with 174,000 employees across the world put many of their employees on temporary leave without pay (USA Today, 2020). Accor Group, on the other hand, declared that 80 percent of its 25,000 employees in China are now working remotely from home (Skift, 2020). World Travel and Tourism Council issued a warning, stating that COVID-19 outbreak may cause 50 million workers around the world in travel and tourism industries to lose their jobs (World Economic Forum, 2020). As can be inferred from this data, no other crisis has affected the world tourism industry as much as this outbreak has (UNWTO, 2020).

One of the significant tourism destinations across the world, Turkey is also known as a country of tourism, where all-inclusive accommodation companies are quite widespread. Having been affected by terrorist attacks and political factors in the country on multiple occasions and therefore lost a significant number of tourists, the Turkish tourism sector (Çelik and Karaçuka, 2017: 33) had to face the outbreak, just when it started to recover. As an important touristic destination with approximately 50 million tourists annually, Turkey, much like other tourist destinations, was severely affected by this process (KTB, 2020). Table 1 includes the illustrating number of tourists from the last three years.

Once Turkey entered into the process of normalization in the month of June, the domestic travel restrictions first and the international travel restrictions for certain countries later were removed. In order for individuals to travel freely and go on vacations, The Ministry of Culture and Tourism prepared “Safe Tourism Certification Program” with the contributions of the Ministries of Health, Transportation, Interior Affairs and Foreign Affairs, representing one of the first of its kind in the world, thanks to the cooperation of all stakeholders in the industry. Turkey’s very own Safe Tourism Certification Program defines a number of precautions, suggested to be employed on a wide scale, ranging from transportation to accommodation, even including the health statuses of both hotel employees and guests for all Turkish citizens and foreign visitors, who are to spend their vacations in Turkey (TGA, 2020b). These precautions were highly praised in both national and international press (Hurriyet, 2020; Express, 2020). Thanks to these regulations, countries such as Russia, Germany and Britain, which are important for Turkish tourism, issued decisions, making sure that their citizens visit Turkey. As can be observed in Table 1, the number of tourists as of the month of July witnesses an increment in numbers, compared to past months; still, a comparison with past years also reveal severe losses with some even reaching 99 percentage rates in certain months.

The Impact of COVID-19 on Supply Chains

Supply chain encompasses the process of bringing together the raw materials, auxiliary products and production instruments to be used in the production process and the delivery of the products to end users with optimal costs and conditions (Timur, 2013: 4). Generally, put, supply chain involves the moving of goods, services and information from raw material to end user (Monzka et al., 2009: 10). It can be expressed that as the global economy gradually becomes more competitive, the firms that handle their supply chains well may become those with the most advantages in the business world (Presutti, 2003: 219).

Introduced with COVID-19 outbreak, restrictions caused many enterprises in different sectors to experience problems by affecting their global and local supply chains (Nicola et al., 2020: 187; Karlı and Tanyaş, 2020: 174; Gonzales-Torres, 2020: 1). Precautions in various countries such as lockdowns, bans on opening one’s workplace and traveling **restrictions** to prevent the spreading of the disease reduced production and even brought it in some industries to a complete halt (Eichenbaum et al., 2020). Simultaneous cutbacks also occurred in supply, demand and logistical infrastructures during other outbreaks of SARS, MERS, Ebola and Swine Flu; yet none of them was as effective as this one on the global scale (Ivanov, 2020: 2). Businesses under the influence of COVID-19 experienced a number of issues in procuring raw materials and parts (Shen et al., 2020: 98). Especially since China is one of the most significant suppliers in the world with respect to raw materials, semi-finished and finished products, the impact of COVID-19 on the global supply chain was substantially felt (Karlı and Tanyaş, 2020: 174-180). Furthermore, problems in the workforce, arising from the exclusion of infected employees for some time, in addition to the problems in the supply chain, gave way to the supply of a limited number of products (Shen et al., 2020: 98).

Table 1. Number of inbound tourists visiting Turkey by years and months (KTB, 2020)

Months	2018	2019	2020	Change % (2019-2020)
January	1.461.570	1.539.496	1.787.435	16,11
February	1.527.070	1.670.238	1.733.112	3,76
March	2.139.766	2.232.358	718.097	-67,83
April	2.655.561	3.293.176	24.238	-99,26
May	3.678.440	4.022.254	29.829	-99,26
June	4.505.594	5.318.984	214.768	-95,96
July	5.671.801	6.617.380	932.927	-85,90
August	5.383.332	6.307.508	1.814.701	-71,23
September	4.792.818	5.426.818	2.203.482	-59,40
October	3 755 467	4.291.574	1.742.303	-59,40

Table 2. Respondent Profiles

No	Age	Sex	Marital Status	Hotel of Employment	Experience (in years)
1	52	M	Married	Five-star	24
2	45	M	Single	Four-star	10
3	44	M	Married	Five-star	15
4	47	M	Married	Four-star	20
5	31	M	Married	Four-star	10
6	42	M	Married	Four-star	17
7	41	M	Married	Four-star	12
8	41	M	Married	Five-star	13
9	39	M	Married	Five-star	20
10	45	F	Single	Four-star	18
11	35	M	Married	Resort	12
12	40	M	Married	Five-star	18

METHODOLOGY

The purpose of this study is to identify the disruptions in the supply chains of all-inclusive hotels that kept their services ongoing during COVID-19 outbreak, as well as the changes in their selections of products and suppliers. The study adopts the case study approach from amongst qualitative research designs. Case study is a research method, which studies a current phenomenon in its own real life framework, where the boundaries between the phenomenon and the setting, in which it finds itself, are not quite clear (Yin, 1984; as cited in Yıldırım and Şimşek, 2018: 289).

The working group for this study comprises five-star and four-star accommodation enterprises and resorts that operate in Alanya district of the city of Antalya. As of 2019, there are eighty-six five-star hotels, one hundred and four four-star hotels and five holiday villages in Alanya (ALTSO, 2019). Within the scope of the study, a semi-structured interview questionnaire was conducted with the purchasing managers of all-inclusive accommodation companies that kept is services in the summer of 2020. The number of respondents for these interviews are determined with the strategy of "theoretical saturation". According to Strauss and Corbin (1998), information acquired from the interviews must achieve theoretical saturation to reach sufficient numbers of respondents in qualitative research studies. Within the scope of this study, interviews with twelve respondents are conducted, providing data at a level of contribution for the study. Basic information of the participants is shown in Table 2. The sampling for the study, on the other hand, is selected as random sampling. According to this method, the researcher designates a random sample group from the population and selects a smaller subgroup, about which the researcher thinks to be of greatest contribution for the study (Tashakkori and Teddlie, 2010, as cited in Baltacı, 2018: 258). There is only one interview that was conducted with a female respondent due to the very few number of female purchasing directors at accommodation companies in Alanya. Criteria for the selection of respondents for this study included acting as a purchasing director at a company that was active during COVID-19 and a minimum of ten years' experience in the tourism industry. The designated authority and experience of the respondents ensured to acquire findings in a larger scope. In addition to the vast experience of the individuals in the tourism industry, their posts at different hotels in different categories and their different levels of education enrich the findings, acquired within the scope of the research study. The interview questionnaire includes, first and foremost, questions about the interviewee and the company of employment. The following questions concern the product procurement, supplier selection and the designation of critical products for these companies during COVID-19 outbreak. Interviews with the respondents are carried out vis-à-vis within the scope of the research and respondents' consent for the recording of interviews are obtained. A total of twelve questions were asked to the respondents and the interviews took between 15 and 35 minutes in duration. Conducted within the scope of the research study, all interviews were recorded in Turkish and later transcribed.

This study uses descriptive analysis from amongst qualitative research methods. A descriptive analysis reveals what the collected data says about the research problem and what outcomes are inferred from said data (Yıldırım and Şimşek, 2018). On the other hand, Wolcott (1994) suggests three main methods regarding descriptive analysis. According to one of these methods, the opinions of the respondents of the study are to be relayed to the readers as direct quotes. This would preserve the original state of the acquired data and the results would therefore be in close proximity of each other.

FINDINGS

This section scrutinizes the findings of the study in different categories as per the three aspects of the study:

Findings concerning the difficulty of availability of some products

Findings concerning supplier preferences

Findings concerning critical product preferences

Thus, categories are formed under these three different aspects.

Findings concerning the Difficulty of Availability of Some Products

Respondents are asked questions regarding the products with which they had difficulty in procuring, in this section of the study. According to the findings as per the responses, sub-headings are formed as below.

Issues in finding highly demanded products

Due to their high purchasing volumes, all-inclusive accommodation companies had challenges in finding large amounts of certain products. Relevant comments from the respondents are as follows:

"When we first opened the hotel, we had a really hard time finding sanitizers, masks, gloves and visors, which are products that were used most frequently during this process; we even had to purchase them with really high prices. But as time went on, we started having less problems in procuring these products. Also, their prices declined over time"K3

"We opened earlier than other hotels; still, it was a bit hard for us to find masks and gloves at the time. I guess there was much demand for such products from abroad as well"K5

"We did not have many problems in food products. The only thing was yeast; it was really hard to find. Still, we had issues in finding large amounts of hygiene products. Sometimes it was masks, sometimes gloves and sometimes cologne that was hard to find"K8

Consumers displayed excessive demands for some products in supermarkets, while there were issues in production, leading to the lack of production of certain goods, which caused problems in the supply of certain products. One of the respondents commented on it as below: *"For example, there is one product that would never occur to you – yeast. It was very difficult to find. It was easy to understand why sanitizers, cologne, masks and gloves were hard to find, but we just could not figure out why yeast was so rare. Then we found out that people started making bread at home due to the lockdown and restrictions and yeast became highly demanded. That was why it was difficult for us to find it" K12*

Declining prices due to declining supply for some products

Even though some highly demanded products were difficult to acquire, some wholesale products did not meet expected sales numbers, for some of the companies were closed, which was why vendors faced challenges in selling these products. The respondent comments on it can be found below:

"Hotels usually use shock-frozen meat products and since hotels were closed, these firms were stuck with substantial surplus. We were able to find these products in large amounts and they had more reasonable prices than recent years. Especially chicken and turkey prices declined"K2

"Shock-frozen turkey and chicken vendors had a lot of products in their warehouses. As their expiration dates approached, these firms had to sell their products at a loss. The prices for such products were very reasonable"K4

Issues in finding imported products

Challenges in the global supply chain caused problems in especially the procurement of imported products. The respondent comments on it can be found below:

"We could not procure the spare parts of the imported floor cleaning machine we use inside the hotel. This has never happened before, therefore we did not have these spare parts of the machine in stock. But we will definitely keep spare parts in hand from now on. Because we had a lot of problems at the time, when that particular machine was not functioning"K5

"It was not difficult for us to find products, since not all hotels were open; but it was difficult to procure imported food products. So we used whatever imported products we could find and did not use the ones we could not"K10

Findings concerning Supplier Preferences

This section of the study includes questions concerning whether or not there are differences in the selection of suppliers during Covid-19 in comparison with past years and companies work with various suppliers. Categories, formed according to the findings derived from the answers to said questions and respondent comments are provided below.

Not taking the risk of changing suppliers

Respondents highlight that switching suppliers at such times is quite risky. The respondent comments on it are as follows:

"We did not make any changes with regards to our suppliers, because we are satisfied with the performance of the suppliers with whom we work and we have been working with the same names for years. If you change your supplier, you cannot be sure whether or not this new supplier will bring the products to you in time or they are going to be reliable. These are all risks"K12

"We would not simply switch suppliers, we have been working with the same suppliers for years. Due to this stability we show, our suppliers always prioritize us. Therefore, we did not have any difficulties – even with rarer products. However, when it came to masks, we acquired them from a firm in Istanbul to buy them for a cheaper price. For the other products, we worked with the same suppliers"K2

Critical products driving towards various suppliers

As per the circumstances brought along by this process, some respondents declared they switched suppliers. Their comments about it are as below:

"We mostly opted for firms in Alanya due to COVID-19. Because we had sudden product demands. But we also continued to be in business with some firms we trust in Antalya. We purchased masks from firms in Istanbul"K7

"We worked with more corporate suppliers because of the outbreak; smaller suppliers had difficulties especially in procuring gloves, masks, sanitizer and visors. However, big firms were able to purchase these goods in larger volumes and keep stocks because of their strong connections and they were able to deliver them to us without huge challenges. Still, we did not work with suppliers, who do not have product certificates and do not have enough documents"K1

Findings concerning Critical Product Preferences

This section of the study includes questions for respondents regarding what products are critical during COVID-19 and whether or not packaging structures or sizes are different in comparison with past years in order to serve under more hygienic circumstances. Categories, formed according to the findings derived from the answers to said questions and respondent comments are provided below.

Certain products becoming critical due to legal obligations

Respondents emphasized the importance of products such as masks, gloves and sanitizers during the time of COVID-19, stating that they became critical products. Respondent opinions about this topic are as below:

"When it was decided that the hotel was going to be opened, the first products we searched for were masks and gloves. You could not open your hotel without them, because it was the very first prerequisite for safe service criteria. There was extreme attention towards these products during that time, which was why we had challenges in finding them at certain times"K11

Another respondent stated that critical product preferences changed this year, compared to past years:

"Staple food products such as oil, sugar, flour and meat were very important for us before COVID-19. But after this outbreak, the most important products are now masks, gloves and sanitizers. We also used plastic and carton cups more frequently"K6

Increased Demand for Disposable Products

Respondents stated that they turned to disposable products to reduce contact between individuals and serve in a safer environment during this time. In this context, human health was paid utmost attention, while waste management became of secondary importance during the outbreak. The respondent comments are as below:

"We were not able to use disposable products before due to green star criteria, but after COVID-19, breakfast foods such as jam, honey and butter, as well as spices such as salt and black pepper, had to be used in disposable forms"K12

"We were told in audits before this period that disposable ketchup-mayonnaise, plastic cups or plastic cutlery are not to be used. However, in this period it became the exact opposite – we turned to disposable products to serve under more hygienic circumstances"K4

RESULTS AND DISCUSSION

A limited number of accommodation companies started to operate in the summer of 2020 with the removal of the restrictions in Turkey, but they were forced to provide their services within the scope of the "Safe Tourism Certification Program" due to COVID-19 outbreak. While accommodation companies attempted to serve according to the criteria designated within the scope of said program, they simultaneously tried to avoid any issues in their procurement of products. But, COVID-19 outbreak has already become a crisis, affecting the supply and demand of all products (Deb and Nafi, 2020: 1491). Approached within the scope of this study, all-inclusive accommodation companies especially have to eliminate any issues in their procurements of products due to their usage in large amounts and great variety (Tellioğlu, 2020: 181). That is because a touristic product is the product of an intensively coordinated industry, comprising of various products and services brought together (Zhang et al., 2009: 347). The topic of analysis of this study is the impact of the problems, which emerged in supply chains during COVID-19 outbreak on all-inclusive accommodation companies. The findings of the study conclude that problems in the supply chain during COVID-19 affected product procurement, selection of suppliers and critical product preferences of accommodation companies that remained active during this time.

Within the scope of the "Safe Tourism Certification Program", accommodation companies became obligated to have masks at hotel entrances for both customers and employees, have all of their employees use masks, have all food and beverage employees wear gloves and bonnets and offer sanitizers at multiple points (TGA, 2020a). These products became critical for accommodation companies during the outbreak, for they could not operate without them. However, especially in the early stages of the outbreak, consumers showed intense demand towards such products in a state of panic and with the limited supply of products, their procurement became challenging (Nicola et al., 2020: 185). When they went back to their activities in June (2020), accommodation companies had difficulties in acquiring these products and had to purchase them with higher prices. Moreover, many companies resorted to finding various suppliers to specifically find said products. The challenges in supply for these companies were not limited to this issue either. Due to the problems in the global supply chain, imported food products and spare parts for particular machines were difficult to be supplied as well. The most important factor as to why there were not supply issues in many other products, on the other hand, is the closing of numerous companies during COVID-19 and the low occupancy rates in others in operation, causing them to consume smaller amounts of products. Thus, the supply in a number of products did not yield any issues, for the accommodation companies consumed less than they did in previous years. This decline in demand even caused surplus in shock-frozen meat product stocks in warehouses and these vendors attempted to sell these products before their expiration dates with low price policies.

The "Safe Tourism Certification Program" recommends the use of disposable products for every product possible in order to minimize contact between persons (TGA, 2020a). However, this practice contradicts the criteria in the Environment Friendly Establishment Certification of the Ministry of Culture and Tourism (KTB, 2008). This certificate recommends avoiding the use of disposable products (T.C. Resmi Gazete, 2017). The increasing use of disposable products also causes increments in packaging wastes (Sharma et al., 2020; Zambrano-Monserrate et al., 2020). Therefore, a substantial increase in the packaging wastes of accommodation companies is expected until the outbreak comes to an end. Accommodation companies have also contributed to the increase of environmental issues in the past years (Patwary et al, 2021), but it is predicted that these effects will increase with the Covid 19 outbreak. In addition, the increase in disposable products did not only occur in the accommodation industry. For example, a popular coffee company started to use porcelain mugs instead of the disposable coffee cups within the scope of waste management, but due to COVID-19, the very same company had to temporarily ban the usage of reusable mugs (Zambrano-Monserrate et al., 2020). Thus, COVID-19 outbreak does not only harm human health, but also the environment by bringing along new challenges to waste management (Silva et al., 2020).

Managerial Implications

The findings of this study indicate that during COVID-19, touristic establishments experienced issues in their supply chain, had difficulties during certain periods in procuring highly demanded products, had differing preferences in terms of critical products and changed their supplier preferences in order to procure these products. Findings of this study, investigating the impact of COVID-19 on the supply chain of all-inclusive accommodation companies, may guide managers and other stakeholders in the tourism industry to face potential problems that may arise in future crises. While supply chain carries paramount importance for especially all-inclusive accommodation companies, many of them did not place sufficient attention on it. However, issues in the supply chain of some products, arising from COVID-19 outbreak, have drawn the attention of managers to it. Facing various cutbacks because of COVID-19, companies must extensively consider the addition of back-up suppliers to their supply chain, collaboration with more corporate and bigger suppliers and the adoption of smart production technologies, based on cooperation on all levels of the business. This way, the endurance and viability of the company would be improved, helping the company cope with the effects of the outbreak or any other emergencies (Shen et al., 2020: 97).

Another significant finding of this study is that COVID-19 has been as harmful for the environment as human health. The rules, designated for accommodation companies during this time, caused disposable products to be used more. In this context, these companies have to place more importance on waste management. It is assumed that once this process is over, people will not behave as they used to and they will be more careful about their hygiene, favoring disposable products above others. Therefore, companies must train their employees in waste management and make announcements to their customers too in order to raise awareness about this matter. Once COVID-19 outbreak comes to an end, supply chain stakeholders will have to identify, in order to avoid similar issues in a future crisis; what worked in supply chains during the crisis, what caused the failures and how they can build stronger supply chain partnerships. In addition, steps must be taken to reduce consumer behaviors of panic buying and stocking for similar crises in future. Studies to have a better understanding on consumer motivations in this sense and their impact on food supply chains must be conducted to lessen the effects of such behavior (Hobbs, 2020: 175).

Limitations and directions for future research

Results of this study includes limitations originating from its methodological design. The qualitative research method employed in this study does not allow us to understand the case, examined in other contexs, or draw foreseeable conclusions regarding other industries (Gonzales-Tores et al., 2021). Additionally, the research study was conducted only in the destination of Alanya and other destinations were not included within the scope of this study due to restrictions of time and budget. Analyses concerning other issues, arising from the COVID-19, for accomodation companies are recommended for future studies. For instance, increasing waste in accomodation companies represents a threat for sustainable tourism during this process of COVID-19. Therefore, studies of various researches in this subject would be important for the sake of drawing attention to this issue.

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AN INSTITUTIONAL REINFORCEMENT MODEL FOR THE PROTECTION OF MANGROVES SUSTAINABLE ECOTOURISM IN INDONESIA

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Abstract: This study aims at examining the sustainability of mangrove ecotourism at Cengkrong Mangroves Ecotourism in Indonesia. A quantitative approach was adopted to capture the complexity of the phenomenon. The study was conducted in an area with most mangroves in Indonesia, including Cengkrong Ecotourism in Trenggalek, East Java. Sustainability is achieved when each stakeholder makes a positive contribution to others in ecology, economy, social, institutional and law enforcement, and technology. Using multi-dimensional scaling and Monte Carlo approach, the findings of this study indicate that Cengkrong mangrove ecotourism is classified as "sustainable" (76.20%). The highest dimension is ecology due to the minimum level of pollution in the area. Even Cengkrong beach mangrove is a tourist destination which is potentially polluted by the tourist; however, the area is not densely populated. Nevertheless, amongst the other indicator, social is the lowest (67.95%).

Key words: Ecotourism development; Institutional reinforcement model; Mangroves reforestation; Rap Ecotourism analysis; Sustainable ecotourism

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INTRODUCTION

Indonesia is the sixth country with the largest mangrove area in the world behind Malaysia, Brazil, Australia, Mexico, and Nigeria which providing nearly 23 percent of global mangrove cover (Hamilton and Casey, 2016). One of Indonesia's most extensive mangrove forests is Cengkrong Beach in Trenggalek of East Java (Purwanti et al., 2017a). Mangroves are an essential ecosystem in providing a wide range of goods and services that significantly promote to the society (Santos et al., 2017). In addition to provide raw materials, mangroves forest also presents as a breeding ground for various types of fish, crustaceans, and mollusks, thus preserving biodiversity and demonstrating their interdependence to the nearby ecosystems such as seagrass beds and coral reefs (Mumby et al., 2004; Barbier et al., 2011).

This situation is beneficial to the local communities in enhancing the income sources (Satyanarayana et al., 2013). The underlying reason is that the mangrove ecosystem has a variety of potentials in terms of biological wealth, such as biology, economy, and tourism (Turisno et al., 2018). In addition to these advantages, mangroves also promote various indirect advantages in the term of coastal protection and wave attenuation, in the event of physical effects such as tsunamis (Feagin et al., 2010). In the wider perspectives, mangroves are the link between terrestrial and marine ecosystems. It also plays an essential role in regulating nutrient cycles and carbon storage (Donato et al., 2011). Despite mangroves have provided beneficial for human life, however, it is threatened by various anthropogenic activities. Mangrove cover has escalated remarkably since 1970 (Giri et al., 2011; Richards and Friess, 2016), and mangrove forests remain under pressure from clear-cutting, land-use change, hydrological alterations, chemical pollution and climate change (Lee et al., 2014).

Mangrove Forest Pancer Cengkrong is located at coordinates 8°17'52''S 111°42'25''E in Trenggalek district, East Java province of Indonesia, located 500 meters from the coast of the Cengkrong area which has a rainfall of 3.094 mm and an average temperature of 23°C (Figure. 1). This area suffered severe damages as a result of cleared land and conversion into coconut plantations. In 2008, the local Maritime and Fisheries Department undertook a hectare (ha) restoration project and formed a Community Monitoring Group called Kejung Samudra to conserve mangrove forests at Cengkrong Beach. The area mangrove forests has increased every year due to the community watch group conducts monitoring and reforestation every year (Nguyen

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et al., 2016). In the next three years the trees grew nearly tenfold. In 2012, the local Maritime and Fisheries Department introduced the concept of a mangrove forest education tourism by building a wooden bridge (Purwanti et al., 2017a). They also provide boat donations to make tourists enjoy the attractions by exploring the mangrove forest to the Cengkrong estuary.

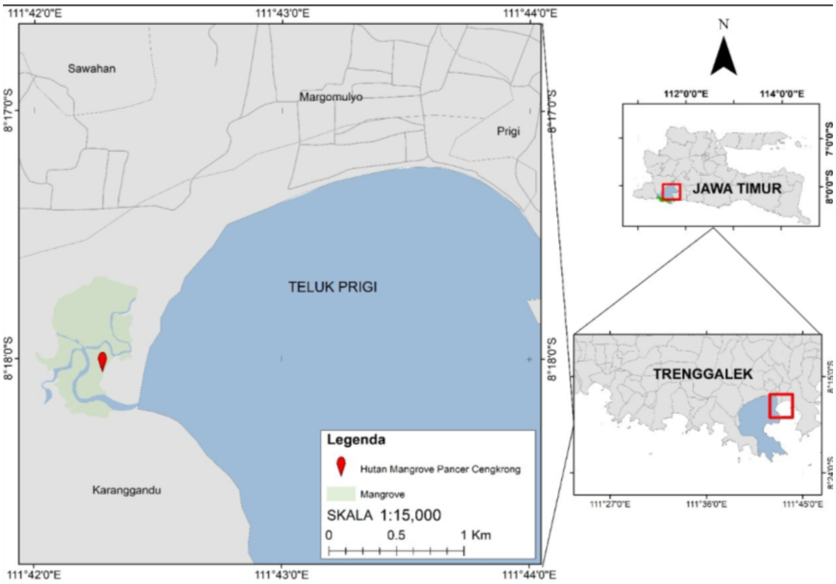

Figure 1. Sketch of Mangrove Forest Pancer

Kejung Samudra, as a community monitoring group, not only succeeded in strengthening the mangrove area into an ecotourism area but also became a universal adapter between the people of the Prigi Bay and the local government. Unfortunately, while various existing institutions have not fully supported Kejung Samudra, there are even indications of a struggle over the management and utilization of resources (Purwanti et al., 2017c). The basic reason is that the ecotourism-based community is a dominant form of tourism in developing countries, where the local communities are involved in the management (Mitchell and Faal, 2007). Rapid tourism growth affects tourist arrivals and benefits the local economy, but excessive tourism activities can reduce the quality of tourism itself (Lin and Yang, 2016). For example, in some mangrove forests in Indonesia called Bontang, the management of ecotourism activities did not follow the requirements of sustainability (Anggoro et al., 2019). Ecotourism activities have significant advantages for education, protection, and conservation of mangrove forests (Friess, 2017). Preservation of mangrove forests must involve local communities as they require the existence of sustainable mangrove forests to meet their needs and have the local wisdom in preserving mangrove forests (Eddy et al., 2016). Sustainable mangrove management requires ecotourism and involves local communities. Hence, the development of ecotourism needs to consider the sustainability of natural resources. In Cengkrong Beach, mangrove reforestation is successful and profitable for tourism destinations due to the excellent management of Kejung Samudra. Notwithstanding, the rapid growth of mangrove tourism in Cengkrong Beach has raised fears of overexploitation. As a consequence, it will reduce the quality of mangrove forests as a place of education. In the long term, it does not rule out the possibility of damage to mangrove forests in Cengkrong Beach. Furthermore, many local government institutions do not fully support community monitoring groups; there are even some indications of a power struggle in the management and utilization of resources between the two parties (Purwanti et al., 2017b). Dealing with sustainable mangrove management has been a global challenge primarily related to institutional conflicts (Ghazoul, 2007). In this context, social-ecological assessments, particularly in institutional reinforcement, serves as a vital tool for coastal management, as it enables them to translate social-ecological information into policy decisions. This decision-making process connects mangrove-dependent communities and managers (Young et al., 2018). Numerous antecedent studies on sustainable ecotourism development have examined among scholars (Carandang et al., 2013; Cormier-Salem and Panfili, 2016; Thompson et al., 2018). A great deal of previous studies has focused on economic valuation in mangrove management. In contrast, other studies by Martinez-Espinosa et al. (2020) noted that collaborative management at Mangrove Forest Reserve is very much needed to maintain sustainability. However, there is minor attention of scholars that examining sustainable ecotourism mangrove by using the institutional reinforcement model. Therefore, the purpose of this study is two folds: first, this study provides insight into strengthening the social dimension, which requires institutional reinforcement in mangrove ecotourism, e.g., establish collaborative management among all stakeholders in the distribution of benefits. Second, this study *evaluates the sustainability of mangrove ecotourism at Cengkrong Mangroves Ecotourism in Indonesia using Multi-Dimensional Scaling Rap-ecotourism (MDSR-ecotourism) in 2019 and to propose the model which can be maintaining and improving the sustainability.*

MATERIALS AND METHODS

Description of the study area and context

A quantitative approach was adopted to capture the complexity of the phenomenon. The area study was chosen for its most mangrove in Indonesia, including Cengkrong Ecotourism in Karanggandu village of Trenggalek, East Java. The data of this study were collected through questionnaires with scale ranging from 0 to 10 by conducting in-depth interviews with stakeholders, and Focus Group Discussions (FGD) at the village levels. The questionnaires are needed to provide an assessment of the sustainability of the ecosystem in each of its dimensions and indicators. This study used purposive sampling on the basis of determining experts to be respondents using three criteria: being a mangrove ecotourism manager, being a resident who knows the condition of mangrove ecotourism, having experience in planting, maintaining and monitoring mangrove activities. Using Rap-ecotourism, scores can be given by experts, individuals, communities according to the number of research needs (Pitcher and Preikshot, 2001). The participants in this study were recruited from stakeholders with a total of 17 people which meets the criteria. Stakeholders consist of community watch groups, villagers, and government agencies represented by the forestry department and local government. Furthermore, the data were analysed using Rap-ecotourism, which is the adjustment method of Rapfish (Rapid Appraisal of Fisheries) (Pitcher and Preikshot, 2001; Pitcher et al., 2013).

Variables measurement

The sustainability aspects are determined by five dimensions, namely ecology, economics, social, law, and institutional (Table 1). There are several stages in the analysis data. First, Multi-Dimensional Scaling (MDS), the ordination technique is analyzed with MDS to determine the position of good and bad points. Meanwhile, Monte Carlo (MC) aims to evaluate the impact of random errors made in estimating the ordination value used; Leverage, to find out the sensitive attributes of each sustainability dimensions used. Besides, Rap-ecotourism analysis is apply using software tool R. The sustainability index of mangrove forest ecosystem management in the data analysis is group into four categories of sustainability status, which provided in Table 2.

Table 1. Multidimensional scaling dimensions and indicators

No.	Dimension				
	Ecology	Economy	Social	Law and Institution	Technology
1	Support system	Counselling and training	Education Facilities	Local culture	Water supply technology
2	Conservation zone	Utilization Zone	Ecosystem Damage	Government Policy	Electrical supply technology
3	Habitat Changes	Production Inventory	Knowledge and Perception	Officer	Technology for seed nurseries
4	The diversity of organism	The opportunity of livelihood	Participation	The punishment and law enforcement	Waste management technology
5	Environmental pollution	Income	Awareness	The management planning	Liquid waste management technology
6	Erosion barrier		Conflict Mechanism	The obedience and compliance	Environment friendly technology
7	The species diversity of mangrove		conflict in mangrove usage	The management mechanisms and rules	
8	the availability of mangrove seeds			communication and coordination	
9	The suitability of mangrove area			The institution participation	

Table 2. Sustainability status

Index	Category
0 – 25	Unsustainable
25.5 – 50	Insufficient sustainable
50.5 – 75	Moderate sustainable
75.5 – 100	Sustainable

RESULTS AND DISCUSSION

The Sustainability of Ecotourism Management in Indonesia

Ecotourism is a form of sustainable tourism in the natural and cultural heritage area. Ecotourism allows tourists to see the life of local communities, conserved natural resources, the culture, and indigenous knowledge, daily practices, environmental education, and ethics. The implementation of ecotourism must be in line with the fundamental principles that aim to reduce adverse environmental impacts.

Besides, ecotourism should contribute to the economic benefits of conservation and community well-being. It also has a positive effect on owners and tourists, enhancing local community empowerment, national culture, socio-economic and political characteristics (Das and Chatterjee, 2015; Ghorbani et al., 2015). By looking at sustainable tourism, we encompass a wide range of tourism stakeholders that play critical roles in creating a sustainable tourism ecosystem. The area mangrove forests has increased every year due to the community watch group conducts monitoring and reforestation (Nguyen et al., 2016).

The area of mangrove in 2015 to 2018 had increased to more than 50 percent from 101.79 to 164.43 ha. Behind the fact for this movement is that the Cengkrong is a famous area for mangrove forest ecotourism, then the mangrove planting is carried out every year. It is in line with the implementation of the Community-Based Conservation (CBC) approach through adaptive co-management between local communities, government agencies, and NGOs as recommendations to develop mangrove conservation in Malaysia. This awareness came after the Tsunami disaster in 2004 (Abdullah et., 2014). Not only in Malaysia and in the Koh-Mak community in Southern Thailand, but the key to sustainable tourism development is also the participation and empowerment of local communities (Suwanno et al., 2017).

The impact of mangrove replanting and managing under the community monitoring group felt to start in 2012 due to the construction of a wooden bridge by the Department of Marine and Fisheries; then, tourists start visiting to enjoy the mangrove plants. In addition, they also provide boat donations to make tourists enjoy the attractions by exploring the mangrove forest to the Cengkrong estuary. Kejung Samudra, as a community monitoring group, not only succeeded in strengthening the mangrove area into an ecotourism area but also became a universal adapter between the people of the Prigi Bay and the local government. Unfortunately, while various existing institutions have not fully supported Kejung Samudra, there are even indications of a struggle over the management and utilization of resources (Purwanti et al., 2017c).

The ecotourism-based community is a dominant form of tourism in developing countries, where the local communities are involved in the management (Mitchell and Faal, 2007). Community-based natural resources management practices have identified the resident community as an essential player in conserving natural resources. It highlights the importance of community ownership and community livelihoods in the conservation and management of natural areas and resources (Stone and Rogerson, 2015). This circumstance has not reflected yet in Cengkrong Beach. Nevertheless, this ecotourism brings economic benefits in the form of parking services, animal feeding services, bathroom services, umbrella/hat rental, food and beverage stalls, and grilled fish stalls (Purwanti et al., 2017a). This economic benefit is the different factors affecting the willingness to pay (25% level), including education, income, and information (Carandang et al., 2013). It supports the concept of forest-based tourism, which is a useful tool in Bangladesh for the conservation of forest resources and sustainable biodiversity, which can generate income in the form of ecotourism (Alam et al., 2010).

The communities also obtain profit from productive activities for capturing mangrove crabs and fishing. The community watch group develops activities for mangrove crab farming, Annadara sp mussels, mangrove tree nurseries, and manufacture of mangrove syrup. In the long run, the financial calculation of the business of mangrove crab farming, the cultivation of Annadara sp mussels, mangrove tree nurseries, and the manufacture of mangrove syrup have an excellent profit value and can be developed (Purwanti et al., 2017b). Therefore, the index value of ecological, economic, social, legal, and institutional sustainability, and technology from the MDS Rap-ecotourism analysis shows that in the management of Cengkrong coastal mangrove ecotourism in a sequence of 83.19% (sustainable), 73.46% (moderately sustainable), 67.95% (moderately sustainable), 81.34% (sustainable) and 75.07% (sustainable) (Figure 2). Multidimensionally, the sustainability status of Cengkrong beach mangrove ecotourism management in the sustainable category is 76.20% to maintain or improve the status of need to pay attention to sensitive indicators. The figure is obtained from the sum of all dimensions, then divided by five dimensions. Table 2 shows that the mangrove ecosystem is multidimensional in a sustainable status. However, this value is still in low rank, even it is close to 75%. Then, it is still necessary to make improvements in mangrove forest management.

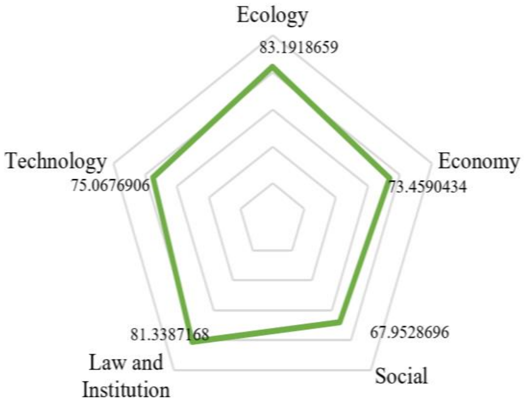

Figure 2. Kite diagram of a multidimensional sustainability index Cengkrong beach mangrove ecotourism

Table 3. The difference in the value of MDS and MC

Sustainability index	Ecology	Economy	Social	Law and Institution	Technology
MDS (Multidimensional Scaling)	83.1918659	73.4590434	67.9528696	81.3387168	75.0676906
MC (Monte Carlo)	83.1918529	73.4590412	67.9528647	81.3387059	75.0677000
Difference	0.00001294	0.00000218	0.00000492	0.00001089	0.00000942

Using Monte Carlo, it is proven that the little difference in the value of the sustainability index between the analysis results from MDS and MC shows the effect of errors can be avoided (Wibowo et al., 2015). The MDS value compared to the MC resulted in a low difference value. This indicates that the MDS value has a high level of confidence because of the minimum procedural errors or understanding of indicators and the variation in scoring, which can be seen in Table 3.

Sensitivity sustainability of Cengkrong Beach ecotourism management

The sensitivity to the sustainability of mangrove forest management from each dimension indicators using leverage analysis (Karlina et al., 2016). As shown in Figure 3, the indicators that need to be considered in the management of Cengkrong coastal mangrove ecotourism in ecological dimensions are the pollution of mangrove ecosystems, the diversity of flora and fauna populations, and the ability of mangroves to resist abrasion. Cengkrong beach mangrove is a tourist destination, so the potential for liquid and solid waste pollution is a factor to be aware. This is due to the fact that if there is an irresponsible tourist, it will cause pollution. Cengkrong coastal mangrove area was initially damaged; however, with the increasing public awareness, mangrove forests will become more sustainable. The area is not densely populated; therefore, no pollution is caused by excess industrial waste. However, organic residues in the household can help the growth of mangroves or fertile soil. Cengkrong beach mangroves preservation works to prevent stream erosion in the middle of the mangrove area, while the coastline distance with the mangrove is relatively far. The stakeholders are preserving the mangrove ecosystem due to that ecological dimension is related to their economic growth.

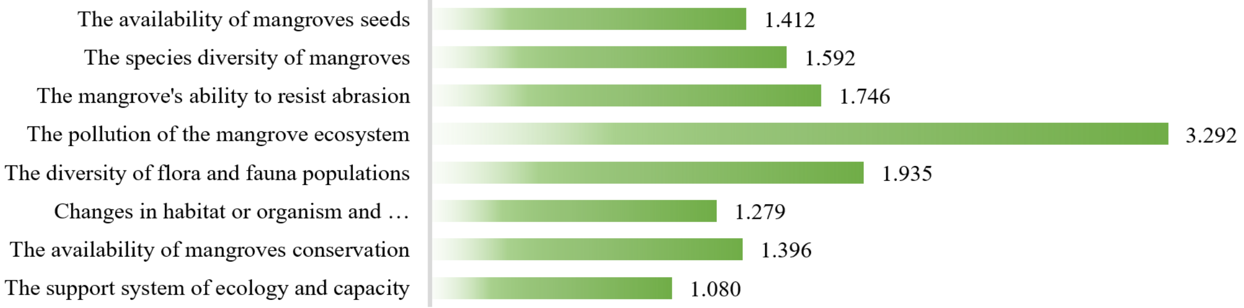

Figure 3. Leverage scoring for ecological dimension

The analysis results in the economic dimension perspective are presented in Figure 4. In general, the most pressing concern is the production inventory, while the lowest score is the income value-added from the mangrove ecosystem. The community's main interests in the economic dimensions are inventory of products from mangrove activities, employment opportunities, assisting and training in mangrove ecosystems. The recording of the use of flora and fauna obtained by Cengkrong beach ecotourism must be conducted to understand the value of benefits and to supervise it. Then it will not damage the ecosystem. The job opportunities from mangrove sustainability have an impact on the community or management team. Therefore, it will be non-destructive activities on mangroves. Alternative development of employment opportunities can be through assisting and training in mangrove utilization. The excellent condition of the mangrove forest ecosystem has an impact on employment opportunities for the community (Purwanti et al., 2018). The economic benefits enjoyed by the community watch group include mangrove tourism management, mangrove crab farming, shellfish cultivation, and mangrove nursery business (Purwanti et al., 2017b). The establishment of mangrove-based program socialization activities received quite a response from the community. They are enthusiastic and have a will to develop mangrove preparations. This activity is intended to enhance the awareness of participants dealing with the economic benefits of mangroves. Furthermore, this mangrove fruit can be used as flour, which can be used as a necessary ingredient of brownies and steamed bread (Purwanti et al., 2017c). Mangroves are not only for food but can also be used as keychains (Sueb et al., 2020).

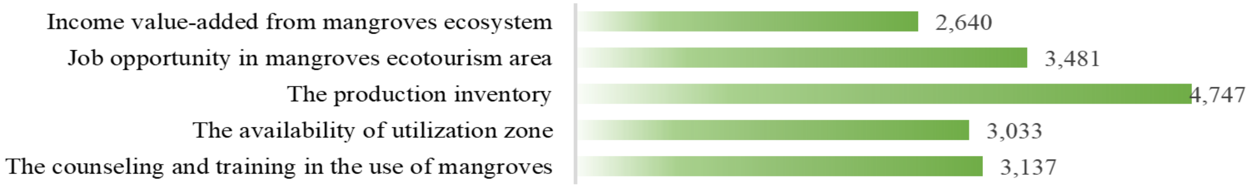

Figure 4. Leverage scoring for economic dimension

Figure 5 depicts the levering score for the social dimension. Sensitive indicators that are the priorities attention to the social dimension are community awareness, knowledge, and conflict resolution mechanisms. From the figure, it is known that public awareness to conserve mangrove ecosystems is the most sensitive indicator in the social dimension. This finding is in line with previous studies that public awareness of the function and benefits of mangrove forest ecosystems has a positive effect on improving mangrove forest conservation (Muluk, 2010). Meanwhile, the lack of public knowledge and awareness about the functions and roles of mangrove vegetation, and the damage of mangrove ecosystems are affected by land conversion into settlements, markets, and terminals in inadequate management of mangrove ecosystems (Rudianto et al., 2020). The knowledge of community about mangrove forests will increase if the government and universities provide assisting to them so that it affects the increase in participation in the preservation of mangrove forests (Cesario et al., 2015). Besides, coastal community groups understand the benefits of mangrove forests as a buffer for living ecosystems so that they try to preserve sustainability (Aulia et al, 2020). Moreover, community-based supports sustainable use of marine resources and offers an entry point for low-resource coastal communities to take part in the blue economy (Phelan et al., 2020).

Figure 5. Leverage scoring for social dimension

Figure 6 presents the summary analysis of levering scoring for law and institutional dimensions. It can be seen from the data in the figure that the legal and developmental dimensions are punished, and law enforcement, mangrove management planning, and institutional activeness of mangrove management are sensitive indicators that invited priority attention. The conflicts of interest in not only between institutions due to differences in interests between mangrove forest managers and local governments but also for the economic benefits of mangrove forests and conservations (Sodikin, 2014). Proper management and attention to the balance of mangrove ecosystems to minimize mangrove forest degradation and conflicts between the utilization of mangrove resources (Agusalim and Hartoni, 2014). However, the Cengkrong mangrove area has no conflict management mechanism. The availability of conflict handling mechanisms through collaboration between local governments and community monitoring groups is expected to resolve conflicts of interest. Institutional reinforcement through strengthening relationships between local government and community monitoring groups can enhance the implementation of sanctions for communities that damage or change the function of mangrove land so that it has a deterrent effect for actors. The activeness of the mangrove ecosystem management agency affects the sustainability of the mangrove ecosystem. Although the community watch group began in 2008 to actively rehabilitate and develop mangrove areas into ecotourism, the local government's support will further strengthen public awareness of the importance of mangroves for life. Furthermore, the openness between the two parties is also expected to enhance institutions and management to minimize damage to the mangrove ecosystem.

Community-based mangrove management strategies through persuasive strategies are carried out in the form of coaching; educational strategy carried out in the way of training and facilitative strategy in the form of providing business assistance which is one of the efforts in increasing community participation in mangrove rehabilitation (Turisno et al., 2018).

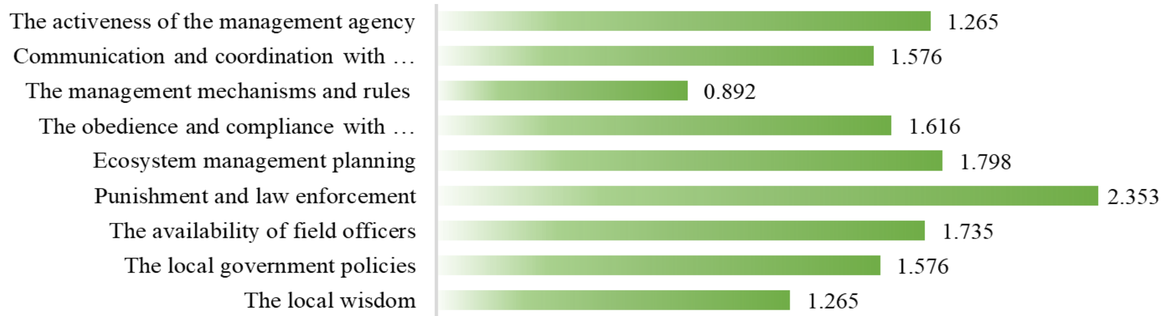

Figure 6. Leverage scoring for law and institution dimension

Figure 7 provides information on leverage scoring for the technology dimension. Based on the figure, the sensitive indicators which are the critical dimension of technology concern are solid waste management technology, availability of electricity supply, and mangrove seed nurseries. The development of mangrove ecotourism areas was using an environmentally friendly technology. The bridge-building that crosses the mangrove area is made of wood raw material and does not damage the mangrove. Tourism activities cause the impact of environmental pollution in the form of solid and liquid waste if there are no procedures or regulations to visit Cengkrong ecotourism. Tourism activities in the Cengkrong mangrove produce wastewater from households and plastic waste that has not been appropriately managed. Waste that is not appropriately managed will impact environmental pollution and affect the cleanliness and comfort of tourist areas (Dewi, 2017). A recycling process can do organic waste processing. This process aims to produce a variety of new products in the form of bags, wallets, doormats, decorative lamps, photo frames, and various other handicraft products while processing organic waste into compost and biogas through the making of biodigesters. The remaining untreated organic and inorganic waste can be further processed using an incinerator. With proper waste management, it is expected that electricity needs in the area can be met. It is caused by the high electricity demand that must be paid when using an electricity company. Apart from processing waste, appropriate technology can also be applied through solar power to improve safety and tourism at night. According to Hayat et al (2018), solar energy is environmentally friendly energy that is renewable as future energy and free of pollution so that the negative impact on the environment is minimal. Evaluation of mangrove rehabilitation's causes is not successful. It is the lack of mastery of rehabilitation technology, as well as the absence of periodic monitoring and maintenance of seedlings that have been planted (Mukhlisi et al., 2014). Although the community watch group has the expertise to plant mangrove trees, they need technology to accelerate mangrove growth. Plasma technology accelerates seed growth by 43%, and the hatching time has been cut to 2.4 months to minimize costs, maintenance personnel, and increase community profits (Nur et al., 2013).

Figure 7. Leverage scoring for technology dimension

The management of mangroves in Cengkrong in improving sustainability should pay attention to the economic, social, and technological dimensions, primarily social because it has the lowest value of sustainability index. Also, the ecological dimension, which has the highest sustainability index to maintain by maintaining environmental pollution, does not occur. Furthermore, Cengkrong Beach Mangrove ecotourism community awareness is an indicator of the sustainability of mangrove ecosystems. The primary cause of damage to the mangrove area is the low level of coastal community knowledge about mangroves' functions and benefits. Then, the uncertainty of mangrove management rights that causes conflicts of use that requires conflict handling. Moreover, the management must disclose factual data about the implementation of mangrove ecosystems to the local government so that transparency about the accuracy of the data on the contribution and benefits of mangroves can be known by all parties involved. This is because this area requires grants made by the community and local government to create a database in accordance with Law No. 27 of 2007. The latest data can be considered to increase production or use mangrove resources to provide livelihood opportunities. Another problem in the area that has not yet been resolved is the potential of waste from tourist activities that are not properly regulated to produce pollution in order to minimize the need for waste management technology (Siringo et al., 2020). The hope is that the potential of treated waste can meet the electricity needs using solar technology at Cengkrong Beach Mangrove ecotourism for lighting at night at low cost with the aim of developing investment and security. The positive thing that has been done by the manager is that the development of job opportunities can be done through counseling and training to improve the skills and abilities of the community which gives an increase in the income increase. In addition, the manager initiated a mangrove nursery to provide benefits for extensive mangrove development in the Cengkrong Beach Mangrove ecotourism.

Proposed institutional reinforcement model

In general, mangrove ecotourism in Cengkrong shows a modest performance in five sustainability relationships. Law and institutions are the highest values in the mangrove ecotourism sustainability performance (Figure 2). The government, through the Department of Marine and Fisheries, has over the region bypassing several regulations. Among the regulations issued in the management of the Cengkrong coastal mangrove, which are regulated under Law No. 41 of 1999 (Forestry), Law No. 26 of 2007 (Spatial Planning), Law No. 45 of 2009 (Fisheries), Law No. 32 of 2009 (Environmental Protection and Management), and Law No. 01 of 2014 (Management of Coastal Areas and Small Islands). The regulation was established to preserve the mangrove forest ecosystem. Additionally, a community monitoring group was formed to carry out management and preserve the mangroves of the coastal area. Furthermore, there is substantial room for improvement to the 'sustainability' category via more effective interaction with stakeholders and resolving the negative impact each party may have caused the other. To ensure that ecotourism activities are sustainable, pro-poor, and improve the sustainability relationship with the community (Cobbinah et al., 2017; Rivera and Gutierrez, 2018), it is necessary for foster linkages between the different stakeholders (Government agencies and tourist, community monitoring group). It aims to form partnerships with private actors and stimulate the local economy, promote integration and active involvement of local communities, and emphasize sustainability, taking into account environmental and socioeconomic factors (Cobbinah, 2015). The integration of local communities and local governments in this institutional reinforcement through active participation. With this action, the effect of threatening tourism brought to the conservation of the environment can be minimized if tourists, local communities, and government agencies, including community monitoring groups, play their roles accordingly. First, strengthen relationships between government agencies and community monitoring groups for strict enforcement of laws and regulations, including restricting the mangrove ecotourism capacity, increasing the number of staff/officers on duty, and raising the financial transparency between both parties. Second, residents and operators should educate tourists on appropriate activities when in the mangrove ecotourism to reduce any negative impact on the mangrove's ecosystem and actively get the tourists involved in conservation work. Lastly, tourists should play their roles as responsible visitors, not to pollute the mangrove area, and fully follow the tracks suggested by operators. Therefore, there are several points to make a model in institutional reinforcement, first, providing decisions about the clarity of boundaries so that everyone is easy to identify and know it. Second, making rules in line with local conditions is marked by the existence of appropriate regulations for the benefit of resource conservation, protection of the local economy, strengthening social systems, and easy enforcement and monitoring. Third, arranging and managing rules by the community in the form of prohibition of mangrove crab capture, the prohibition of picking mangrove plants, the prohibition of littering. Fourth, strengthening local institutions in managing ecotourism.

Fifth, choosing supervisors who are respected by the community, marked by the community having its instruments and mechanisms of supervision with supervisory actors who have the community's legitimacy. Sixth, imposing punishment can be applied in mangrove ecotourism if violations occur, including social, administrative, and economic punishment. If there are violations known by the community, the community will report to the head of the community monitoring watch and the village head to impose punishment. Sanctions are given by the head of the village, which has a bundle of power in the form of authority over the village. The punishment was in the way of community service to clean the mangrove area for one day, fines, to more severe punishment in the form of eviction. In addition, it is related to a formal conflict resolution mechanism. Conflicts that occur after the development of ecotourism management are in the form of land conflicts. Unclear boundaries and the absence of land certificates encourage land conflicts. Land conflicts have occurred in the form of recognition of land management rights between community monitoring watch and the Forest Department in the area. The resolution of this land conflict will be achieved if the community monitoring watch is willing to work together and establish open relations with the local government to manage the mangrove area stronger than legally. Furthermore, strengthening recognition from the government could be in the form of law and regulation. Lastly, strengthening bridging social capital with the university and linking social capital with the private sector.

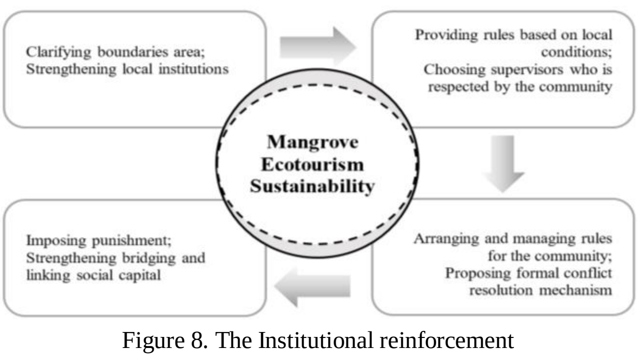

Figure 8. The Institutional reinforcement model in mangrove ecotourism sustainability

Moreover, institutional reinforcement is provided in Figure 8, it is hoped that there will be institutional strengthening that will make the community more motivated to protect the mangrove forest so that the social dimension will increase. Therefore, institutional reinforcement supports two theories that explain the relationship between ecotourism and conservation. First, ecotourism produces preservation; the local community must feel the economic benefits. Besides, another theory holds that apart from economic benefits, social benefits must be present (Salafsky and Wollenberg, 2000; Stronza and Pegas, 2008). Existing theories identify tourism revenues as a critical component in ensuring that ecotourism results in environmental conservation.

CONCLUSION

This study pays attention to the stakeholder approach sustainability assessment. It presents the process of assessing the ecotourism sustainability of Cengkrong Beach Mangrove using the MDSR-ecotourism framework. Overall, Cengkrong Beach Mangrove achieved a sustainability level of 76.20 percent and performed moderately on five indicators (ecology, economy, social, law and institutional, and technology). The highest dimension is ecology due to the minimum level of pollution in the area. Even Cengkrong beach mangrove is a tourist destination potentially polluted by the tourist; however, the area is not densely populated. Therefore, no pollution is caused by excess industrial waste. If this condition can be maintained, the mangroves area will work to prevent stream erosion. The dimension that must be considered is social due to its lowest index. The social dimension in mangrove management is community awareness, community knowledge and perception, and conflict handling mechanisms. To strengthen the social dimension, it requires reinforcement in the institution in mangrove ecotourism. Therefore, it is necessary to establish collaborative management among all stakeholders with a fair distribution of benefits. Besides, skills training and socialization of ecotourism management are needed to view the governance of relations between stakeholders. With the role of good governance, policy integration mechanisms are required in terms of vertical and horizontal coordination; local communities can access transparent public consultation and the involvement of sustainable management. As the scoring was done by experts' judgments based on reports from the region and their personal experiences, it did not necessarily need new quantitative data for the attributes, although the analysis would definitely benefit from that.

Indeed, for robust management advice, new quantitative data from the field are beneficial. Further empirical research to improve the accuracy of the attribute scores is required. Nevertheless, this preliminary research result can be used to improve mangrove ecotourism Pancer Cengkrong management and identify characteristics of the mangrove ecosystem and the society to measure in the field. This information provides crucial guideline where financial, human and institutional resources for mangrove ecosystem are very limited, as in the Pancer Cengkrong. This study has a limitation in measuring the effectiveness of community management to maintain resource use and livelihood support. Notwithstanding this limitation, the study suggests for further research to involve evaluation and development research to gain more comprehensive findings.

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ATTRIBUTIVE-SPATIAL TOURIST CLUSTERATION OF REGIONS OF UKRAINE

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Abstract: Ukraine is positioned as a country with a strong tourism potential, much of which still remains unrealized. The main task of the study is to segment the regions of Ukraine according to the level of their tourism development. Attribute-cluster analysis using k-means and k-means ++ technologies was used to solve the problem. Territorial distribution showed clear priorities for the development of certain types of tourism in geospatial context: northeast direction – priority development of business tourism; southern direction – priority development of recreational tourism; western direction – priority development of health tourism; center – emphasis on the development of cultural and historical tourism.

Key words: tourist region, cluster analysis, tourist cluster, k-means clustering, k-means++ clustering, spatial clustering

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INTRODUCTION

Ukraine has significant natural and recreational (in particular, water, balneological, forest, landscape), as well as historical and cultural (archaeological, architectural, sacred) resources. At the same time, the socio-economic component of Ukraine's tourism potential is at an early stage of development. Transport accessibility, the level of tourist service, infrastructure in the field of hospitality, training of tourism professionals have been criticized by tourists for decades. The financial and economic crisis of 2014-2015, the annexation of the Autonomous Republic of Crimea, hostilities in Donetsk and Luhansk regions, the COVID-19 pandemic led to a decrease in Ukraine's popularity as a tourist destination, reducing the level of tourism potential in domestic and foreign markets. The initial stage on the way to solving systemic problems in the field of tourism in Ukraine is the local positioning and ranking of regions in terms of tourism potential and efficiency of its implementation with reference to the administrative-territorial division of Ukraine into 24 regions, 1 Autonomous Republic of Crimea and 2 cities with special status. Understanding the level of tourism development in the regions of Ukraine is especially important in the context of decentralization reform, which consists in the gradual transfer of powers and finances from public authorities to local governments, and has been taking place in Ukraine since 2014. The regional specificity of the tourist market of Ukraine is due to the difference between natural and recreational and historical and cultural resources, as well as different levels of general economic development of the territories. An effective means of assessing the homogeneity of regions and the proximity of their tourism development is cluster analysis, which is to divide the regions into relatively independent groups – clusters.

Clusters can be considered from two points of view:

1) industrial (according to Michael Porter) approach, in which the cluster is considered as a group of geographically located interconnected companies and organizations in a particular industry. Enright and Roberts (2001) believe that economic reasons for the geographical concentration of certain industries include the availability of unique natural resources, economies of scale, proximity to markets, labor pooling, availability of local suppliers of raw materials and equipment, shared infrastructure, reduced transaction costs and other localized externalities. This approach can be used to form clusters in many sectors of the economy, as demonstrated in (Vysochan et al., 2020);

2) broad approach – a cluster is a set of any interconnected localized objects, united by a number of common features. In this case, the association can take place at the micro, meso and macro levels and does not have to be geospatially organized. Often such groups are informal and are used to empirically study phenomena or processes common to objects as a whole. This approach will be used in our study.

Clustering is a long process, each phase of which requires deep preparation. For this reason, regions wishing to increase their competitiveness should have a strategic plan for managing the clustering process (Yalçınkaya and Güzel, 2019). An element of

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such a clustering strategy is the analysis, which allows to assess the regions by the level of their tourism development by determining the tourism potential and the level of its use in the administrative-territorial and geospatial sections. The resulting clusters can be the basis for the formation and / or adjustment of tourism development strategies and resorts of the country for the long term, taking into account the characteristics of tourist regions and their priority types of tourism. A separate value of such an analysis is the possibility of using its results to build a regional policy of regulation of the tourist complex to increase the investment attractiveness of a particular area. The main aim of this study is segmentation the regions of Ukraine according to the level of tourism development by some indicators, such us the number of collective accommodation facilities, the number of museum visitors per year, the paid tourist tax and the number of entities engaged in excursion activities. Based on the relevance of the topic and the issues raised in the article, the emphasis is on answering the following practically important questions:

RQ1: Is it possible and, if so, which groups of regions of Ukraine by the level of tourism development can be distinguished?

RQ2: What types of tourism can be recognized as a priority in the geospatial organization of the tourist market of Ukraine, based on the tourism potential of individual regions?

To answer the questions raised, the literature review presents examples of effective research on the topic of spatial clustering of tourist regions in different countries in general and Ukraine in particular. After the literature review, the methodology of primary data processing and their cluster analysis using k-means and k-means++ technologies is considered. The following are the results of clustering the regions of Ukraine by attributes of the number of collective accommodation, the number of museum visitors per year, paid tourist tax and the number of entities engaged in excursion activities using software for statistical data processing R and geospatial visualization QGIS. In the future, the obtained results are compared with the results of research by other scientists on the tourist clustering of regions of Ukraine. At the end, detailed conclusions are presented with the characteristics of regional tourism clusters of Ukraine, as well as the established priorities for the development of certain types of tourism in geospatial context.

LITERATURE REVIEW

The concept of clustering can be successfully applied to tourism, as tourist attractions can be grouped into clusters to optimize the combination of factors for added value (Andria and di Tollo, 2015). In this regard, in recent years in the world scientific community, the topic of research related to tourism clustering has become especially popular. Clustering is carried out in terms of groups of tourists (Xiao-Ting and Bi-Hu, 2012; Munoz et al., 2019), one region or natural object (Sarrion-Gavilan et al., 2015; Rodriguez-Rangel and Sanchez-Rivero, 2020), sets of cities (Yang and Wong, 2013), regions (Morozova et al., 2016; Vieira and Santos, 2017; Litvinova, 2020) or countries (Chavez et al., 2016; Korol, 2017; Sclyarenko and Khanova, 2018; Batista e Silva et al., 2020; Baymenova et al., 2020). This is important because much of the clustering research has been criticized for being applied to the macro-regional environment rather than to the local or micro-environment (Weidenfeld et al., 2011). The generalization of research on attributive-spatial and socio-economic tourism clustering is presented in Table 1.

Table 1. Examples of successful implementation of the procedure of separation of tourist segments by means of cluster analysis in the last decade (Source: author's generalization)

Source	Localization	Basic clustering criteria	Selected clusters
Xiao-Ting and Bi-Hu, 2012	Summer Palace, Beijing, China	Temporal behaviour factors, spatial behaviour factors, activity choice factors, path characteristics factors	Seven clusters of spatial-temporal behaviour patterns
Yang and Wong, 2013	China's cities	Inbound and domestic tourist flows	Beijing-Tianjin cluster, Yangtze River Delta cluster, Fujian coast cluster, Pearl River Delta cluster, Chengdu cluster
Sarrion-Gavilan et al., 2015	Andalusia, Spain	Number of tourist beds available in a destination, Total number of permanent residents	Littoral, Urban interior, Rural interior
Chavez et al., 2016	APEC countries	Total contribution to GDP, tourism contribution to employment, total investment on tourism	4 clusters
Morozova et al., 2016	65 regions of Russia	Performance indicators of the tourism industry by regions	High tourism effectiveness regions, average tourism effectiveness regions, low tourism effectiveness regions,
Korol, 2017	51 world's countries	Tourist arrivals and receipts fron inbound tourism	8 clusters
Vieira and Santos, 2017	Portugal	Accommodation capacity, overnight stays	Algarve region, Greater Lisbon, Greater Porto, North Portugal, Centre Portugal
Sclyarenko and Khanova, 2018	28 EU countries	Level of development of the tourism industry	2 clusters with a high level of development and 5 cluster with an average level of development
Munoz et al., 2019	Jotunheimen National Park and Utladalen Protected Landscape, Norway	Set of markers representing different place-based values: biological, clean water, cultural, gathering, hunt/fish, recreation, scenic, social, special place, spiritual, therapeutic, wilderness	13 clusters
Rodriguez-Rangel and Sanchez-Rivero, 2020	Extremadura, Spain	Tourist supply and demand	Badajos, Merida and Caceres (best adjustment between supply and demand), Trujillo-Miajadas-Montanchez and Villuercas-Ibores-Jara Geopark (worst adjustment between supply and demand)
Batista e Silva et al., 2020	EU NUTS3 regions	Nights-spent, tourism intensity, share of foreign tourist, seasonality	Cities, coastal, mountain and nature, rural, urban mix
Baymenova et al., 2020	CIS countries	Incidence rates regarding major classes, levels of healthcare organization, transport infrastructure, tourist services, information and communication technologies	2 large and 4 small clusters considering development of medical tourism

The success of clusters in developed countries has quickly spread to developing countries, attracting the interest of scientists, practitioners and politicians (Ferreira and Estevao, 2009). With the beginning of the decentralization process in Ukraine, interest in regional clustering in the field of tourism has grown sharply among scientists in the country. The issue of choosing indicators to be used as signs of clustering of tourist regions came to the fore: the volume of tourist flows of inbound and domestic tourism (general or in terms of purpose of stay), as well as indicators of legal entities and individual entrepreneurs – entities tourism (Leontyeva and Vlashchenko, 2012; Yurchenko, 2012; Ocheretin, 2015; Lipjanina, 2016; Nazarova, 2016; Gorina, 2017; Druzhynina, 2017; Neshchadym and Tumchyk, 2017; Pokataieva and Kucherova, 2017; Borblik, 2019; Dutka et al., 2019; Gorina et al., 2020; Zbarsky and Gribova, 2020), index / level of tourist attractiveness (Davydova, 2015; Antonets and Kharchenko, 2016; Bilogur, 2019); inbound and / or outbound tourists by volume of tourist flows (Kondratska, 2019; Kondratska et al., 2019); the level of tourism potential for ecotourism development (Zyma and Holub, 2015). At the same time, the analysis of literature sources showed a significant shortage of completed publications on regional clustering of tourism, taking into account the attributive (in terms of tourism development) and spatial (in terms of regions of Ukraine) components and opportunities to use the results of such analysis to identify priority areas for tourism.

MATERIALS AND METHODS

The sequence of actions in the implementation of attributive-cluster analysis is as follows.

Stage 1. Establish the nomenclature of attributes (descriptive features) by which the clustering, information collection and spatial distribution of clustering objects will be carried out. As the latter, 24 regions representing administrative-territorial units of Ukraine were selected, with the exception of the Autonomous Republic of Crimea, for which data do not seem possible to obtain due to the annexation of the territory. Tourism development of the regions is characterized by a number of indicators, some of which are presented in Table 2. Indicators of the number of collective accommodation facilities, the number of museum visitors per year and the number of entities engaged in excursion activities are obtained from statistical observations conducted by the State Statistics Service of Ukraine (http://www.ukrstat.gov.ua/) annually and published in free access. The rate of paid tourist tax is calculated by the Ministry of Economic Development, Trade and Agriculture of Ukraine (https://www.me.gov.ua/) according to the State Fiscal Service of Ukraine for a period of six months and a year and are published in free access. Since we do not aim at a clear quantitative measurement of tourism development in each region of Ukraine, but only a qualitative assessment of its level, the list of attributive features is enough to include basic statistics (Table 2). If it is necessary to detail information on individual regions, the list of indicators can be expanded.

Table 2. Indicators for assessing the tourism development of regions (Source: developed by authors)

Indicator	Characteristic	Source of information	Why it is important
Number of collective accommodation facilities, units	Number of hotels and other accommodation in a particular region	Collective accommodation facilities in Ukraine (legal entities, separate divisions of legal entities). Statistical information	The indicator allows you to assess the tourist potential of the region in terms of accommodation for tourists arriving for more than 1 day
Number of museum visitors per year, pers.	Number of visitors (individual and in a group) of research and cultural-educational institutions in order to review the museum collections of a particular region	Institutions of culture, physical culture and sports of Ukraine. Statistical collection	The indicator provides information on the realization of the cultural and historical potential of the region
Paid tourist tax, UAH million	The amount of paid local tax to persons who are temporarily accommodated in the places of residence (overnight stay) of a particular region	Information on financial and economic indicators of tourism and resorts (according to the State Fiscal Service of Ukraine)	The indicator allows to separate the share of tourists from the share of persons who come to the territory of a certain region for non-tourist purposes (eg, on business trips); characterizes the realization of tourist potential
Number of entities engaged in excursion activities, units	Number of excursion bureaus and individuals – entrepreneurs who have the necessary accreditation for the preparation, organization and conduct of excursions in a particular region	Tourist activity in Ukraine. Statistical collection	The indicator provides information on the presence of active players in the market of professional excursion services in the region; characterizes the tourist potential

Stage 2. Gradation of the state of the basic features of clustering.

The grouping of the analyzed set of indicators that characterize the level of tourism development in the regions, on an attribute (descriptive) basis, the question of the number of groups is solved based on gradations of this feature: "low", "below average", "above average", "high". Given the equality of the intervals, their value depends on the scope of variation of the feature and the number of the population and is determined by formula (see Pedchenko, 2018):

$$int = \frac{x_{max} - x_{min}}{g} \quad (1)$$

where, int – the value of the interval;
x_{max} – the maximum value of the feature in the data set;
x_{min} – the minimum value of the attribute in the data set;
g – optimal number of groups.

Stage 3. Establish the optimal number of data clusters.

Modern packages of applied statistical programs allow you to implement several dozen methods for determining the optimal number of clusters. In the work of Charrad et al. (2014) provides a comprehensive description of the following indices that will be used by us to establish the number of clusters of tourist regions of Ukraine: kl, ch, hartigan, ccc, scott, marriot, trcovw, tracew, friedman, rubin, cindex, db, silhouette, duda, pseudot2, beale, ratkowsky, ball, ptbiserial, frey, mcclain, dunn, hubert, sdindex, dindex, sdbw. To solve the question of the optimal number of clusters, you can apply the rule of simple majority or use the tools only as an aid, choosing the number of groups based on the purpose and needs of the analysis.

Stage 4. Direct clustering.

K-means is one of the most commonly used clustering techniques, which is to minimize the root mean square distance between points in a cluster. K-means is implemented using Lloyd's algorithm (Lloyd, 1982). The disadvantages of this technique are to eliminate the technique of k-means++ (Arthur and Vassilvitskii, 2007), which, in contrast to the k-means algorithm implements a specific method of selecting cluster centers. The algorithm is executed in several steps:

Step 1a. The selection of the initial center c_1 is sequentially random from the set of data points X.

Step 1b. Select the next center c_i, selecting $c_i = x' \in X$ with probability $\frac{D(x')^2}{\sum_{x \in X} D(x)^2}$.

Step 1c. Repeat step 1b until the total number of centers k is selected.

Step 2. For everyone $i \in \{1, \dots, k\}$, set for the cluster C_i of points in X, which are closer to c_i than to c_j to all $j \neq i$.

Step 3. For everyone $i \in \{1, \dots, k\}$, we install c_i behind the center of mass of all points in C_i: $c_i = \frac{1}{|C_i|} \sum_{x \in C_i} x$.

Step 4. Repeat steps 2 and 3 until C is no longer changed.

Steps 2-4 are similar to the k-means algorithm.

Stage 5. Checking the internal validity of clusters.

Validation makes it possible to answer the question of the acceptability of the configuration of the clusters obtained as a result of the analysis, to solve the tasks. One approach to validating clusters is to use internal criteria. It makes it possible to evaluate the results of the clustering algorithm using information that includes the vectors of the data sets themselves. Internal criteria can be divided into two groups: 1) those that assess the correspondence between the data and the expected structure and 2) those that focus on the stability of the solution (Rendon et al., 2011). The first group includes Connectivity, Silhouette width, Dunn's index, the second – Average proportion of non-overlap (APN), Average distance (AD), Average distance between means (ADM) and Figure of merit (FOM). The use of specialized software facilitates calculations and allows you to present the results of the analysis in a graphical and understandable informative form. Arranging the set of values of objects that characterize the development of tourism, using the methods of k-means and k-means++ can be effectively done in the environment of software products R and QGIS, and visualize the results geospatial using QGIS.

RESULTS

Input data for assessing the tourist development of the regions of Ukraine are obtained from official sources of the State Statistics Service of Ukraine, the Ministry of Economy, Trade and Agriculture of Ukraine and the State Fiscal Service of Ukraine and are reduced to a single measure by normalization (Table 3).

Table 3. Input data for clustering of tourist regions of Ukraine (Source: processed statistical data, 2020)

ID	Region	Number of entities engaged in excursion activities		Number of collective accommodation facilities		Number of museum visitors per year		Paid tourist tax	
		initial	normalized	initial	normalized	initial	normalized	initial	normalized
1	Vinnytsya	2	0.03278689	21	0.046728972	717300	0.159415857	483,8	0.009665421
2	Volyn	7	0.11475410	61	0.233644860	229500	0.035094426	584,6	0.012531777
3	Dnipropetrovsk	0	0	106	0.443925234	726700	0.161811555	2523,5	0.067666479
4	Donetsk	2	0.03278689	88	0.359813084	328300	0.060274741	1224,4	0.030725177
5	Zhytomyr	2	0.03278689	19	0.037383178	368600	0.070545658	544,8	0.011400022
6	Zakarpattya	3	0.04918033	59	0.224299065	694300	0.153554043	3802	0.104021998
7	Zaporizhzhya	7	0.11475410	133	0.570093458	548600	0.116420725	3665,9	0.100151849
8	Ivano-Frankivsk	7	0.11475410	64	0.247663551	470600	0.096541530	3699,4	0.101104457
9	Kyiv and Kyiv	42	0.68852459	225	1	4015500	1	35310,5	1
10	Kirovograd	4	0.06557377	37	0.121495327	259000	0.042612840	259,3	0.003281523
11	Luhansk	2	0.03278689	11	0	91800	0	143,9	0
12	Lviv	61	1	130	0.556074766	1928100	0.468002141	13417,6	0.377451900
13	Mykolayiv	1	0.01639344	103	0.429906542	341100	0.063536968	1832,6	0.048019996
14	Odesa	31	0.50819672	187	0.822429907	576900	0.123633305	11550,7	0.324364596
15	Poltava	0	0	44	0.154205607	605300	0.130871371	1341	0.034040823
16	Rivne	9	0.14754098	18	0.032710280	256100	0.041873742	355,7	0.006022760
17	Sumy	2	0.03278689	21	0.046728972	254900	0.041567908	332,2	0.005354513
18	Ternopil	9	0.14754098	15	0.018691589	479200	0.098733338	402	0.007339350
19	Kharkiv	8	0.13114754	73	0.289719626	830300	0.188215205	2979,6	0.080636172
20	Kherson	9	0.14754098	88	0.359813084	109900	0.004612993	3690,4	0.100848532
21	Khmelnytsky	10	0.16393443	31	0.093457944	523700	0.110074674	731,5	0.016709036
22	Cherkasy	2	0.03278689	55	0.205607477	830700	0.188317150	724,1	0.016498609
23	Chernivtsi	2	0.03278689	13	0.009345794	302100	0.053597370	527,2	0.010899547
24	Chernihiv	1	0.01639344	24	0.060747664	920800	0.211280169	599,4	0.012952631

A cursory review of the indicators of tourism development of the regions of Ukraine makes it possible to draw a conclusion about the significant scatter of their values and the crystallization of areas that can be attributed to the leaders in the field of tourism. For example, the number of hotels and other accommodation facilities, which is a basic indicator for assessing the level of tourist potential of the region, in Kyiv and Kyiv region is 20 times higher than in Luhansk (Figure 1-2).

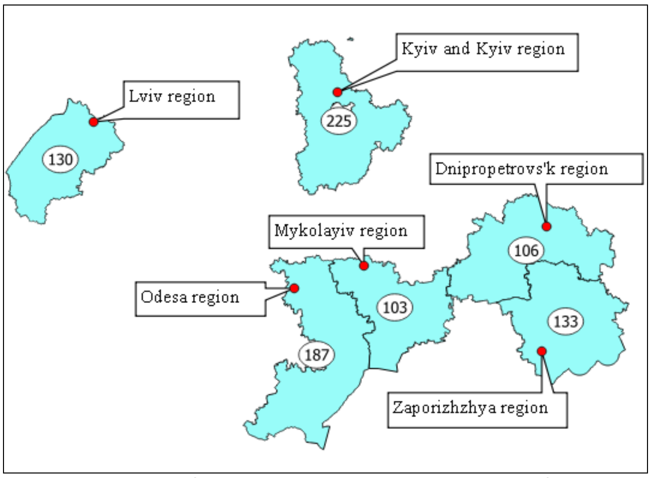

Figure 1. Regions of Ukraine with the largest number of collective accommodation facilities (units) as of 2019 (Source: developed by authors)

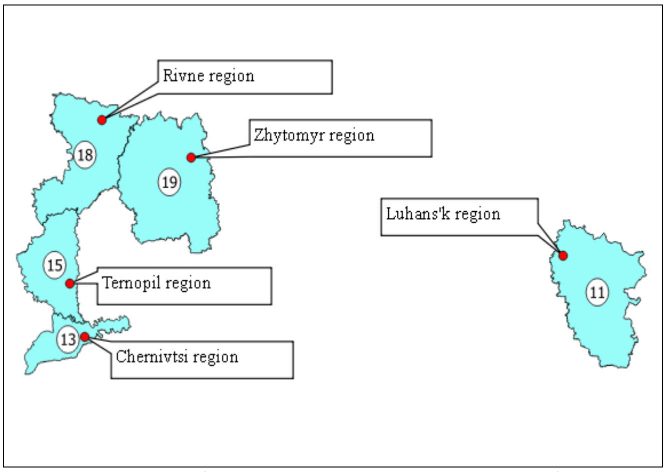

Figure 2. Regions of Ukraine with the lowest number of collective accommodation facilities (units) as of 2019 (Source: developed by authors)

Such an imbalance between the leading regions and regions with medium and low rates of tourism development is especially noticeable on the example of the indicator "Number of entities engaged in excursion activities".

While in Lviv region this indicator, which characterizes the tourist potential, is at the level of 61 units, in Kyiv and Kyiv region – 42 units, in Odesa region – 31 units, in all other regions it is less than 10 licensed excursion bureaus.

The values of indicators of tourist development of the regions of Ukraine are grouped by distinguishing three groups by descriptive features: "low", "medium" (combining the attributes "below average" and "above average"), "high". Since the range of values of the quantitative features of the survey varies widely, unevenly, it is advisable to use unequal intervals of groups, taking into account the following sequence of actions:

Step 1. The flagship region is set for each indicator, the value of this particular indicator of tourism development is significantly higher than the value of a similar indicator of the nearest competitor.

Step 2. Determining the previous number of groups g taking into account the gradations of the attributive feature: "low", "below average", "above average", "high" (g = 4).

Step 3. The value of the range of values for each indicator of tourism development is determined by the modified formula (1) minus the value of the indicator of the flagship region (Source: developed by authors):

$$int = \frac{x_{max-1} - x_{min}}{g} \qquad (2)$$

where, x_{max-1} – the second largest value of the feature in the data set after the maximum.

Step 4. Clarification and unification of the number of groups and the interval of their data, taking into account the unevenness of the change of features: combining attributive features "below average", "above average" into one – "average" (Table 4); expanding the range of data on the basis of "low" to 0, on the basis of "high" – to ∞.

Table 4. Attributive features and data ranges for indicators of tourism development of the regions of Ukraine (Source: author's own calculations)

Indicator	Range of values		
	Low	Average	High
Number of collective accommodation facilities, units	up to 55 inclusive	56 – 143 inclusive	more than 144
Number of museum visitors per year, million people	up to 0,55 inclusive	0,56 – 1,46 inclusive	more than 1,47
Paid tourist tax, UAH million	up to 3,4 inclusive	3,5 – 10 inclusive	more than 10,1
Number of entities engaged in excursion activities, units	up to 15 inclusive	16 – 45 inclusive	more than 46

Optimal g = 4: "low", "medium", "high", "flagship". The flagship value of the indicator is a benchmark for other regions to improve performance in a particular area of tourism development.

The distribution of regions by the level of achievement of tourism development indicators is presented in Table 5.

The results of in-depth analysis using the software environment R for 26 indices showed: 9 methods offer 2 clusters as the optimal number; 2 methods offer 3 clusters as the optimal number; 10 methods offer 4 clusters as the optimal number; 2 methods offer 6 clusters as the optimal number; 1 method offers 8 clusters as the optimal number; 1 method offers 9 clusters as the optimal number; Method 1 offers 10 clusters as the optimal number. Thus, the closest to describe the real state of affairs with the regional tourism development of Ukraine is the use of two-cluster and four-cluster models (Figure 3-4).

Table 5. Distribution of tourist regions of Ukraine according to the criteria of achieving “low level”, “medium level”, “high level”, “flagship level” in terms of tourism development indicators (Source: developed by authors)

Indicator	Qualitative characteristics of the value of the indicator			Flagship
	Low	Average	High	
Number of collective accommodation facilities, units	Vinnytsya, Zhytomyr, Kirovohrad, Luhansk, Poltava, Rivne, Sumy, Ternopil, Khmelnytsky, Chernivtsi, Chernihiv, Cherkasy	Volyn, Dnipropetrovsk, Donetsk, Zakarpattya, Zaporizhzhya, Ivano-Frankivsk, Lviv, Mykolayiv, Kharkiv, Kherson	Odesa	Kyiv and Kyiv region
Number of museum visitors per year, million people	Volyn, Donetsk, Zhytomyr, Zaporizhzhya, Ivano-Frankivsk, Kirovohrad, Luhansk, Mykolayiv, Rivne, Sumy, Ternopil, Kherson, Khmelnytsky, Chernivtsi	Vinnytsya, Dnipropetrovsk, Zakarpattya, Odesa, Poltava, Kharkiv, Cherkasy, Chernihiv	Lviv	Kyiv and Kyiv region
Paid tourist tax, UAH million	Vinnytsya, Volyn, Dnipropetrovsk, Donetsk, Zhytomyr, Kirovohrad, Luhansk, Mykolayiv, Poltava, Rivne, Sumy, Ternopil, Kharkiv, Khmelnytsky, Cherkasy, Chernivtsi, Chernihiv	Zakarpattya, Zaporizhzhya, Ivano-Frankivsk, Kherson	Lviv and Odesa	Kyiv and Kyiv region
Number of entities engaged in excursion activities, units	Vinnytsya, Volyn, Dnipropetrovsk, Donetsk, Zhytomyr, Zakarpattya, Zaporizhzhya, Ivano-Frankivsk, Kirovohrad, Luhansk, Mykolayiv, Poltava, Rivne, Ternopil, Sumy, Kharkiv, Kherson, Khmelnytsky, Cherkasy, Chernivtsi	Odesa	Kyiv and Kyiv region	Lviv

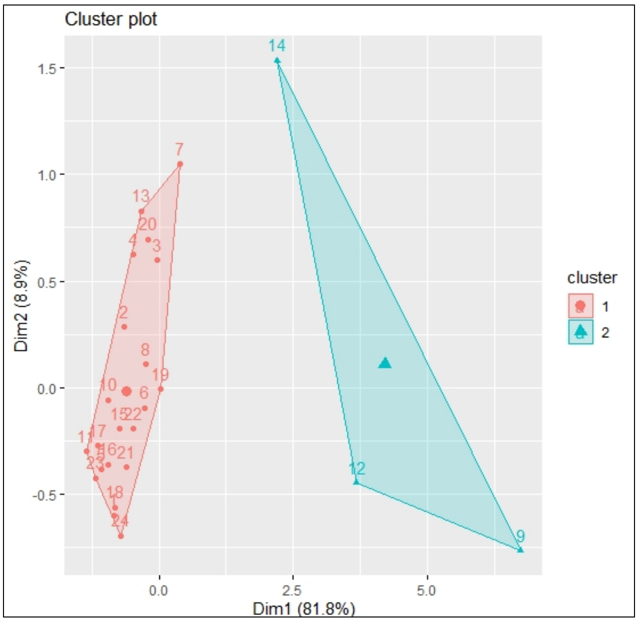

Figure 3. Clustering of regions of Ukraine by level of tourism development using k-means technology (k = 2) (Source: developed by authors)

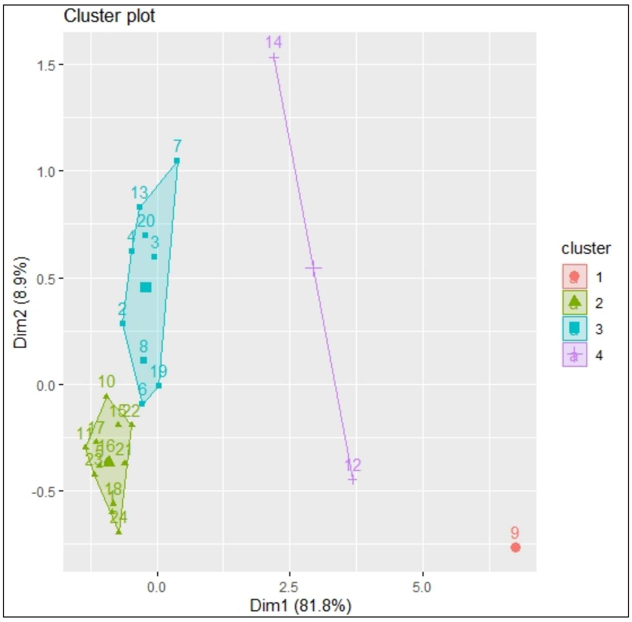

Figure 4. Clustering of regions of Ukraine by level of tourism development using k-means technology (k = 4) (Source: developed by authors)

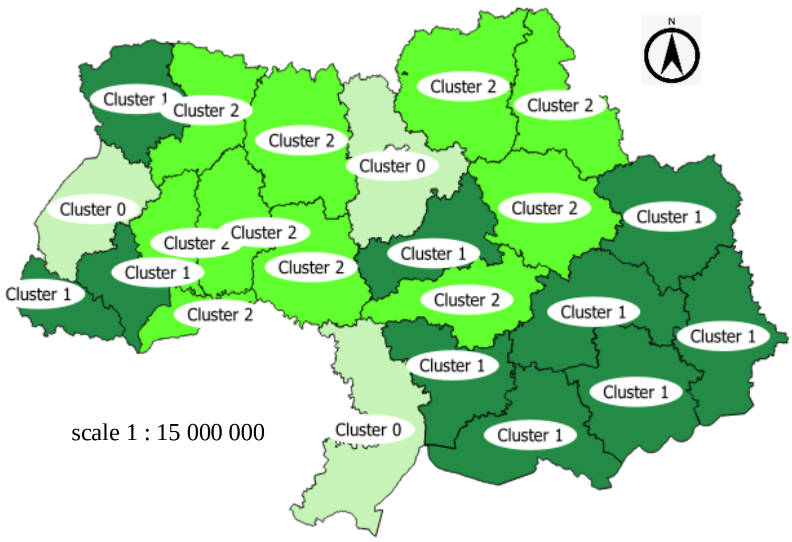

Figure 5. Clustering of regions of Ukraine by level of tourism development using k-mean++ technology (k = 4) (Source: developed by authors)

Note: the map does not show data on the Autonomous Republic of Crimea, reliable information for the calculation of tourism development which could not be obtained and Luhansk region, which forms a separate cluster with the lowest rates of tourism development

Clustering of tourist regions of Ukraine, carried out using the k-means++ algorithm using the Attribute based clustering module of the QGIS system, developed by Kazakov (2016), confirmed the relevance of using a four-cluster model of grouping regions by level of tourism development (Figure 5). Attribute clustering highlights the numerical characteristics of objects (as opposed to the spatial characteristics required for spatial clustering of objects in GIS). The main result of the module is to create a new (or overwrite the existing) attribute of the vector field with an entry in it for each object of the cluster number to which the object was assigned as a result of calculations (Kazakov, 2016).

The imposition of attributive and spatial planes of cluster analysis makes it possible to obtain a visual representation of regional tourism clusters of Ukraine (Figure 6-9).

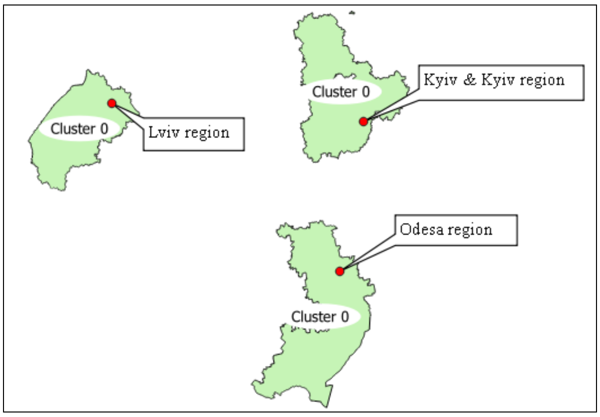

Figure 6. Regions of Ukraine with high tourist potential and high level of its realization (cluster 0) (Source: developed by authors)

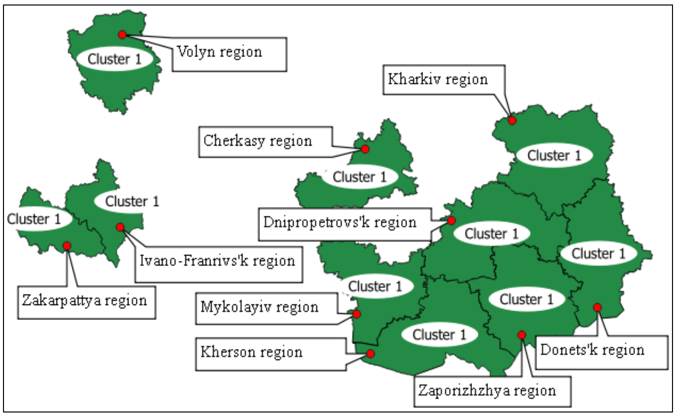

Figure 7. Regions of Ukraine with average tourist potential and high level of its realization (cluster 1) (Source: developed by authors)

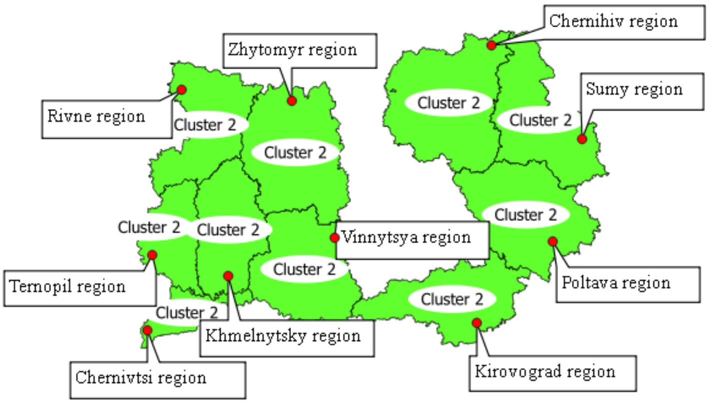

Figure 8. Regions of Ukraine with average tourist potential and low level of its realization (cluster 2) (Source: developed by authors)

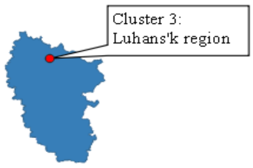

Figure 9. Region of Ukraine with low tourist potential and low level of its realization (cluster 3) (Source: developed by authors)

The results obtained after using both clustering methods are summarized in Table 6. The k-mean++ technology implemented in the QGIS system made it possible to separate the region-outsider of tourism development (Luhansk region) into a separate cluster, while k-mean (a four-cluster model built in the R environment) provided convincing data on Ukraine's flagship tourism activity – Kyiv and Kyiv region. Comparison of four-cluster models formed using k-means and k-means++ technologies for clusters with average indicators of tourism development shows comparability of results, except for Cherkasy region, which in the first case is assigned to the lower category, and in the second – to the highest. However, such incomparability is insignificant due to the borderline indicators of tourism development of this region in both clusters and their proximity to the average values by region. Assessment of the validity of the created clusters of tourist regions of Ukraine requires the calculation of a number of indices, summarized in Table 7. We see that the four-cluster model shows better validity, surpassing the two-cluster in terms of stability assessment (AD, ADM and FOM) and slightly inferior to the other two indicators of internal assessment (Connectivity and Silhouette coefficient).

Table 6. Comparison of the results of clustering of tourist regions of Ukraine by k-means k-means++ methods (Source: developed by authors)

k-means				k-means++		Characteristic
two-cluster model		four-cluster model		four-cluster model		
cluster	ID regions	cluster	ID regions	cluster	ID regions	
1	9, 12, 14	1	9	0	9, 12, 14	Regions of Ukraine with high tourist potential and high level of its realization (flagship region and leading regions)
		2	12, 14			
2	1, 2, 3, 4, 5, 6, 7, 8, 10, 11, 13, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24	3	2, 3, 4, 6, 7, 8, 13, 19, 20	1	2, 3, 4, 6, 7, 8, 13, 19, 20, 22	Regions of Ukraine with average tourist potential and a high level of its realization
		4	1, 5, 10, 11, 15, 16, 17, 18, 21, 22, 23, 24	2	1, 5, 10, 15, 16, 17, 18, 21, 23, 24	Regions of Ukraine with average tourist potential and low level of its realization
–	–	–	–	3	11	Regions of Ukraine with low tourist potential and low level of its realization (outsider regions)

Table 7. Evaluation of the validity of regional tourist clusters of Ukraine (Source: author's own calculations)

Evaluation indicator	Indicator value		The model for which the indicator is the best	
	for a two-cluster model	for a four-cluster model	a two-cluster model	a four-cluster model
Internal measures				
Connectivity	5.8369	8.7869	+	
Silhouette coefficient	0.7247	0.6054	+	
Dunn's index	0.3988	0.9395		+
Stability measures				
Average proportion of non-overlap (APN)	0.0278	0.1290	+	
Average distance (AD)	1.3256	0.8651		+
Average distance between means (ADM)	0.3075	0.1996		+
Figure of merit (FOM)	0.7480	0.3921		+

DISCUSSION

There are different approaches to the analysis of tourism development in Ukraine using a set of indicators grouped by principle:

1) "top-down" – tourism development is assessed by a system of macro-indicators of the region: GRP per capita, revenues from the payment of tourist tax, price index for transport services, price index for hotel services, the volume of tourism services for the organization domestic tours (Zbarsky and Gribova, 2020); number of administrative-territorial units, natural resource potential, number of monuments of national importance, number of persons who are rehabilitated in sanatoriums, number of persons served in hotels and other places for short-term stay, number of sanatoriums, number of rooms in hotels, restaurant chain (Antonets and Kharchenko, 2016); the level of tourist load on the population (Bilogur, 2019).

2) "bottom-up" – tourism development is assessed by a system of indicators of the functioning of tourism entities – legal entities and individuals: the average number of full-time employees (Gorina, 2017; Gorina et al., 2020; Pokataieva and Kucherova, 2017; Dutka et al., 2019), income from the provision of tourist services (Gorina, 2017; Gorina et al., 2020; Pokataieva and Kucherova, 2017; Borblik, 2019; Dutka et al., 2019), the amount of commissions, agency and other fees (Dutka et al., 2019), the number of sold tourist vouchers (Gorina, 2017; Gorina et al., 2020; Pokataieva and Kucherova, 2017; Borblik, 2019; Dutka et al., 2019), the cost of sold tourist vouchers (Gorina, 2017; Gorina et al., 2020; Pokataieva and Kucherova, 2017; Borblik, 2019; Dutka et al., 2019), number of tourists on realized tourist vouchers (Dutka et al., 2019), number of tourists and excursionists served by tourist enterprises (Gorina, 2017; Gorina et al., 2020; Pokataieva and Kucherova, 2017; Borblik, 2019; Dutka et al., 2019), operating costs (Dutka et al., 2019), costs of tourism entities for the services of third parties (Pokataieva and Kucherova, 2017; Dutka et al., 2019). The number of tourism entities (Gorina, 2017; Gorina et al., 2020; Pokataieva and Kucherova, 2017; Borblik, 2019; Dutka et al., 2019) or the number of tourism entities used as an indicator that ensures the transition to a macro-assessment of tourism development in the region collective accommodation facilities (Borblik, 2019) in terms of regions of Ukraine;

3) a combination of previous approaches – a combination of macro indicators and generalized indicators of tourism enterprises: revenues from tourism services, expenditures of tourism entities and the flow of tourists for the purpose of their trip (Lipjanina, 2016); effective indicators of the region's development in the field of tourism, indicators of demography and labor economy, quantitative and qualitative composition of employees of tourism enterprises, economic indicators of the tourism market (Druzhynina, 2017); performance indicators of tourism enterprises in combination with tourist flows for the purpose of travel, the number of tourism entities, the income of the population of the region (Nazarova, 2016).

At first glance, it is the first approach to assessing the tourism development of the region can be considered basic, but, in our opinion, it contains only indicators that help determine the tourism potential of the region, and not the degree of its implementation. The latter allows us to assess the indicators of financial and economic activity of the tourism market. The second approach, in our opinion, can not be used to assess the tourism development of the region, as many indicators (income from travel services, the amount of commissions, agency and other fees, the number of trips sold, operating costs) involved only indicate about the level of profitability of tourist companies in a particular region, whose activities are aimed not only at the growth of incoming, but also (and sometimes mostly) the growth of outgoing tourist flows.

Table 8. Regions-leaders of tourism of Ukraine according to researches of various scientists (Source: author's generalization)

Authors	Research horizon	Methods of cluster analysis	Sign of clustering	Regions are leaders					
				Dnipropetrovsk	Ivano-Frankivsk	Kyiv and Kyiv region	Lviv	Odesa	Kharkiv
Leontyeva and Vlashchenko, 2012	Not specified	Hierarchical, k-means	Resources, volume of services provided, number of tourism entities	Not installed					
Ocheretin, 2015	2013-2014	K-means	Incoming and outgoing tourist flows, the purpose of the trip	Not installed					
Antonets and Kharchenko, 2016	Not specified	K-means	The level of tourist attraction	–	–	–	+	–	–
Lipjanina, 2016	2011-2014	Self-organizing map	Revenues and expenditures of tourism entities, tourist flows, purpose of the trip	–	–	+	–	–	–
Nazarova, 2016	2014	Hierarchical	Tourist services	–	–	+	–	–	–
Pokataieva and Kucherova, 2017	2014	Hierarchical, k-means	Performance indicators of tourist enterprises	+	–	+	–	–	+
Gorina, 2017	2015	Hierarchical (threshold–0.5)	Performance indicators of tourist enterprises	–	–	+	–	–	–
Druzhynina, 2017	2015-2016	Hierarchical, k-means	Effective indicators of the region's development, demography and labor economy, quantitative and qualitative composition of employees of tourist enterprises, economic indicators of the tourist market	–	+	+	+	+	–
Neshchadym and Tumchyk, 2017	2016	Self-organizing map	The main indicators of tourism enterprises	Not installed					
Borblik, 2019	2016	Hierarchical, k-means	Indicators of development of markets for tourist services	+	–	–	+	–	+
Dutka et al., 2019	2017	Hierarchical	Performance indicators of tourist enterprises	–	–	–	+	–	–
Gorina et al., 2020	2018	Hierarchical (threshold–0.5)	Performance indicators of tourist enterprises	–	–	+	–	–	–

The combined approach seems to us to be a priority, as it allows us to combine macro indicators, such as tourist flows and tourist load by region, with indicators calculated by statistics of economic entities – attendance of cultural monuments, congestion of collective accommodation, etc. Statistical processing of the values of indicators of tourism development in the region by means of cluster analysis using hierarchical, k-means and self-organizing maps allowed researchers to identify regions that are leaders in tourism in Ukraine (Table 8).

In general, the results of our study correlate with similar achievements of Ukrainian scientists in the field of tourism, especially in relation to the separation of three regions – Kyiv and Kyiv region, Lviv and Odesa regions as leaders in the tourism industry of Ukraine. At the same time, we managed to obtain empirical evidence of the gradual transformation of the city of Kyiv into the sole flagship of Ukrainian tourism, especially in the field of business tourism. On the one hand, it provides a benchmark for the development of other regions, on the other – creates unnecessary socio-economic risks associated with the disproportion of labor markets, additional pressure on infrastructure, deteriorating environmental situation in the region, which can be viewed through the prism of existing systemic problems in the tourism industry of Ukraine. This was discussed in more detail in Vysochan and Glushko (2011).

CONCLUSION

Attributive-spatial cluster analysis confirmed the existence of four clusters into which the regions of Ukraine are grouped according to the level of their tourism development: cluster 0, which contains the flagship region of tourism in Ukraine in recent decades – Kyiv and two leading regions – Lviv and Odesa; clusters 1 (north and east of Ukraine) and 2 (center of Ukraine and several western region) with an average level of tourism development and cluster 3, which includes the outsider region – Luhansk, which are not least due to hostilities in this direction. We believe that the formation of such clusters, among other things, due to the types of tourism most developed in specific destinations. Despite the fact that the basic type for the economy of Ukraine is cultural and historical tourism, the specialization of the southern regions in recreational tourism, western – in health, and eastern – in business is confirmed by our research and determines the priority of such localization for domestic tourism (Figure 10).

The segmentation of priority types of tourism by geographical destinations has demonstrated the diversity of regional interests:

- North-Eastern direction – priority development of business tourism with centers in Kyiv, Dnipro, Donetsk and Kharkiv (flagship region – Kyiv and Kyiv region);
- Southern direction – priority development of recreational tourism with centers in Odesa, Zaporizhzhya, Mykolayiv and Kherson (leading region – Odesa region);
- Western direction – priority development of health (medical) tourism with centers in Lviv, Uzhgorod, Lutsk and Ivano-Frankivsk (leading region – Lviv region);

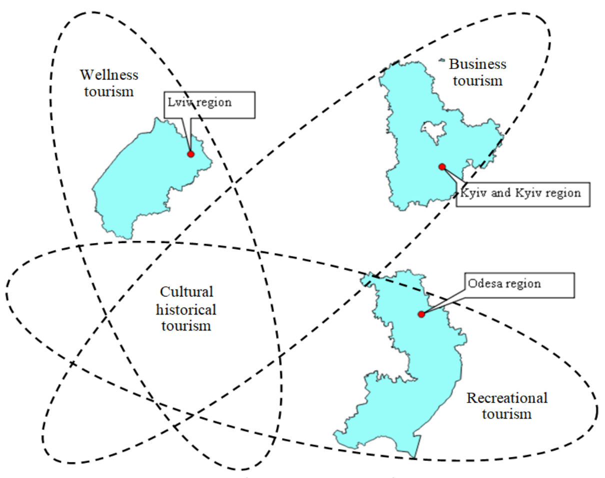

Figure 10. Segmentation of priority types of tourism in the leading tourist regions of Ukraine (Source: developed by authors)

- Center – emphasis on the development of cultural and historical tourism – Cherkasy, Poltava, Chernivtsi and other regions (the leading region – no).

These areas are a priority, but not exclusive, the development of other types of tourism in the regional and national dimensions is to be welcomed. Prospects for further research on the topic presented in the article are an attempt to determine the contribution of each regional tourist cluster in the overall socio-economic development of the country ("bottom-up" assessment), as well as to identify areas for improvement of tourism strategy and resorts in Ukraine. At the same time, it should be borne in mind that the presented study has a number of limitations, which are mainly related to the presence of errors in the obtained input data that arise when compiling tourism entities, according to current legislation in Ukraine, statistical reporting on key indicators own activity, especially Reports on tourist activity and Reports on activity of collective means of accommodation.

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TOURISTS AND LOCAL COMMUNITY OF THE CASE STUDY AQABA SPECIAL ECONOMIC ZONE AUTHORITY (ASEZA)

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Abstract: The research aims to examine the shared effect of tourism in Aqaba and the Jordanian host culture. Despite the presence of preferences and developments in tourism opportunities and problems, despite the fact that these circumstances are marked by, uncertainty, and personal shifts, the local community's behaviour and attitudes towards the tourism industry are highly dependent on them. A questionnaire was circulated to a group of (1200) people living in Aqaba to accomplish this goal. From 1/1/2019 until 30/12/2019, the allocation and restitution took one year, taking into account the low and high tourism seasons. In order to assess the most important facets of the socio-cultural and economic impacts of tourism in these regions, the questionnaire was circulated to the survey participants in order to measure attitudes towards tourism. This analysis is an exploratory, empirical study that follows the process of obtaining and reviewing knowledge to draw conclusions. To assess the degree of significance for the study questions, the researchers used the arithmetic mean, standard deviation, T-test and ANOVA test. The findings revealed that the economic sub-scale was the highest degree of attitudes towards tourism, while the lowest was the social sub-scale. This research provides a better understanding of the social and cultural effects of tourism and the host culture in Jordan, in order to establish a holistic growth of sustainable tourism in Aqaba. It is possible to submit and further test the new model at another destination in Jordan.

Key words: attitude, host community, mutual impact, Aqaba Special Economic Zone Authority (ASEZA)

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INTRODUCTION

Tourism has been a social, cultural and economic event for both the tourist and the host. It is understood that the most enticing tourist draw for tourists is proximity to various areas of the country, different lifestyles and new cultures.In this context, the current study aims to understand the expectations of residents about the impacts of tourism in Aqaba, Jordan, namely: effects, social impact, cultural impact and economic impact, and to examine, if any, the variations in the perceptions of residents across various citizen groups.The literature review indicates that several observational tourism research have looked at the effects of the industry on local community development (Chigora et al., 2020; Harilal and Tichaawa, 2020; Alfandi, 2020). But these studies are uncommon and much less use multidimensional community property assessments. An ideal geographic position in the middle of the Red Sea between Asia and Africa, has rendered the port of Aqaba significant since time immemorial. Elath, which was once known as Elā in both as well as Ailah and in other languages. It was strategically located, as well as the close proximity to copper mines, during the Chalcolithic era. At the time of the Byzantine Empire's reign and afterwards, the area around the city of Aqaba was called "Aila;" the word Aqaba is post-era is Latin. Arabs became victorious in the at the Battle of Aqaba in the movie Lawrence of Arabia because of this rebellion. Luxury resorts in the Tala Bay provide facilities 20 km south of here cater to those who arrive for relaxation as well as scuba training. However, this facility also takes advantage of its desert position by offering programs including sand art therapy and sand art therapy. One of the most common places to use for relaxation is the Turkish bath (hamam) constructed in 306 AD, in which the locals and tourists alike enjoy soaking in warm water after a long day in the sun (Jawabreh, 2017).

The new meta-study (focusing on poverty) alleviation at the local level and gathering multi-dimensional data depends on expectations of impacts by neighborhood and tourism operators. In particular, they argued for local effect studies gather primary data through various approaches and the use of multi-dimensional growth measures. Tourism analyses and their relationship with indigenous communities appear to use qualitative methods, as well as secondary analyzes of geographical, economic and ecological evidence introduced since the start of tourism ventures. There are little, often suspect, community benefits from tourism that seem to disapprove of resources and influence in the political-economic process of interaction between the two countries (ÇavuĢoğlu et al., 2020; Gorochnaya et al., 2021; Maaiah and Wouhoush, 2020; Hermann et al., 2020).The environmental effect of tourism is possible, since tourism is always developed utilizing natural resources in vulnerable settings (Zeng and Ryan, 2012). The possible negative and positive impacts of any tourism growth activity on the local ecosystem are associated with (Smeral, 2015). Nevertheless, the negative influence of tourism outweighs its positive effects as it leads to two main phenomena, namely contamination and the loss of natural resources (Peng and Yuan, 2019). In addition, tourism growth is assumed to have a direct influence on the ecosystem as it leads to an improvement in the production of visitor facilities and amenities. As a core concept of the theory of social exchange, the economic reliance of people on tourism has a strong influence on their understanding of the consequences of tourism.

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Empirically (Lekgau and Tichaawa, 2020), the economic vulnerability of citizens in the tourism sector has often had an effect on their perception of the effects. It also means that people are more likely to establish positive views towards it if they profit from tourism partnerships. In other terms, people working in tourism-related occupations are more prone to establish positive perceptions and perceptions about their benefits and to have less worry about the detrimental effects of tourism development. Many other reports, such as Tohmo, 2018; Garidzira and Pasara, 2020; Li et al., 2005; Hwang and Lee, 2015; Song et al., 2012; Gozgor and Ongan, 2017; Song and Li, 2008, reported similar facts. It may also be concluded that the larger the economic reliance on tourism, the more likely it is for people to see the beneficial results of tourism.

The purpose of this study is to clarify the social and cultural effects of tourism and the host community in Jordan. In order to create a healthy, sustainable growth of tourism in Aqaba, we should recognize the attitudes of the local community towards the tourism process and compare the social perception of the city with the importance of its social and cultural influence of tourism. Jordan's only port on the Gulf of Aqaboun is in the whole world is Aqaba.

LITERATURE REVIEW

Perception of tourism impact on the local community is one of the most researched subjects in tourism. Many studies have discussed the economic, social, cultural, and environmental impacts of tourism development as perceived by community negative economic impacts, such as increased living costs, speculation, and tax burdens, are perceived by residents. Perceived adverse social and cultural impacts include increases in divorce rates, alcoholism and drug abuse, prostitution, political corruption, bankruptcy, and crime. Tourism development can also cause the disappearance of local tradition, materialistic orientation, gambling addiction, and decrease in children's motivation to study. Local people's perception of the environmental impacts of tourism development is generally negative. Perceived adverse environmental factors include noise level, water or air pollution, littering, traffic congestion, environmental destruction, and overcrowding. Economic benefits and city development are the main gains, and various social, cultural, and environmental effects are the losses. Most studies indicate residents' overall support for tourism development can be enhanced as the extent of individual economic reliance on tourism growth directly affects household income (Abujamous et al., 2018) reported the contribution of the tourism industry to the economy of Jordan. Kontis et al. (2020) indicated the importance of residents' community participation in planning. Older people tended not to approve tourism development compared with the young generations. A more recent research by Alrwajfah et al., 2019 in Jordan confirmed that residents' optimistic perception of the economic influence of tourism is also validated. The positive economic effect is seen as the primary explanation for the growth of tourism in any region, it is argued. A large body of research has investigated the effect of tourism on the impact of tourism as well as residents' attitude. Because it is hard to separate economic effects from social causes, social influences are considered objectively the most challenging phenomenon for researchers to measure (Anderson, 1981).

Many scholars have used the economic 'gain' concept to objectively measure and analyze social effect events (Marlina et al., 2021; Morar et al., 2020; Setokoe, 2020; Wardana et al., 2020). Since then, the term 'social cost' has been a prevailing tool for describing the severity and meaning of social impacts. However, this method, which relies on the economic effects of evaluating and addressing social costs, has contributed to a variety of controversial debates in the social sciences on what social costs are and what social costs can be described (Mohale et al., 2020; Nzimande and Bob, 2020). The literature review shows that some observational tourism analysis has looked at the impact of the industry on local economic growth, but such a study shows that some observational tourism research has had an impact on local economic growth. Attitude is a psychological characteristic that is expressed in the appraisal of a particular individual with some degrees of gain or loss (Jawabreh, 2019; Eagly and Chiaken, 1993).

Thus, awareness of the mentalities of local communities is critical because recognizing the attitudes of local communities enables tourism stakeholders to introduce an appropriate response mechanism to the negative impacts that arise from local communities (Sammawe,1999; Shannaq, 1996; Show, 1992; Ruby, 1984). Due to tourism activities, both the host and the tourist prosper similarly economically, so developing countries are centered on economic growth by tourism. But, with this significant economic change, both positive and negative results are certain. The notion of tourism is represented in a different way by interested tourism researchers Kolenate, 1991; Nash, 1979). In brief, the literature review illustrates the need for methodological creativity to explain the effect of tourism on the economic development of the community and cruise tourism in particular. Multi-method analyzes focused on the local public could add transparency and detail to this literature instead of macro-level findings and indicators based on the capital asset approach of Escart, 1994.

In the region of destination, the host group is the resident population.The relationship between tourism, tourists and the host culture has been the focus of debate in development planning circles. The vital role of participation and ownership of society at all levels of tourism growth is emphasized. Tourist sector hosts are the people with whom visitors come into touch when visiting the area. Tourism is an important socio-economic practice in today's country. Tourism is now recognized as an industry with a number of social and economic benefits. It promotes national cohesion and economic understanding, contributes to infrastructure improvements, offers employment growth and raises foreign exchange earnings (Kelfaoui et al., 2021; Adhika and Putra, 2020; Hadian et al., 2021; Joseph et al., 2020). Tourism is as variable as any other related socioeconomic function. Because it is arduous to separate economic impacts from social influences, social impacts are regarded as the most difficult phenomenon for researchers to measure scientifically (Goliath-Ludic and Yekela, 2020). Many studies have utilized the economic concept of “cost” to objectively measure and analyze social impact phenomena; thus the term “social cost” has become the dominant medium to identify the strength and dimension of social impacts. However, this approach, which is based on the perspective of economic impacts to analyze and discuss social cost, has triggered many controversial debates of “what social cost is” and “what the definition of social cost should be” in social science. Many scholars conclude that attitudes represent the tendency or structure of feelings, knowledge and behaviors of persons (acting components) as a definition. Studying attitudes therefore allows to understand the actions of individuals, to predict the responses of individuals in the future, and to provide us with the opportunity to track and guide conduct across the planning and training processes (Lord, 1997; Leea and Chang, 2008; Lepp, 2006; Mansfield and Jonas, 2006; Pan and Li, 2006; Pizam et al., 1991; Abdel-Rahman, 1992). The main aim of this research is to analyze the connection between the involvement of local populations and the essence of the relationship with sustainable tourism (ethnic, economic and environmental). Clarify the degree of transition in the social patterns and attitudes of the local community in the city of Aqaba, and the results of the analysis are very significant to the planners (Al Hamme, 1988).

METHODOLOGY

Researchers questioned 1200 people live in Aqaba. Actually retrieved from the circulated questionnaire. From 1st January 2019 to 6th April 2020, delivery and refund took one year when low and high tourist seasons were taken into consideration. Ras Al Khaybar is the only coastal region in Jordan and the most populated place on the shores of the Gulf of Aqabah. Aqaba, the administrative center of the Aqaba Governorate province, is located in southern Jordan. miles, giving it a population density of about the same as Jamaica (144.8 sq mi). Aqāb is an important for the Jordanian economy because of its central location and active trade and tourism sectors. Other countries in the area use the Port of Aq port.

The questionnaire was distributed to the survey participants in order to define, as a predictor of perceptions towards tourism, the most important facets of the socio-cultural and economic effects of tourism in these areas. According to the 5-Likert scale, there are 29 questions: 1-strongly unhappily 2-dissatisfied 3-neutral 4-agreed 5-strongly agreed and quantitative research was carried out on the basis of the questionnaires. Aqaba is the only coastal city in Jordan and the biggest and most populated cities in the Gulf of Aqaba. Aqaba is the administrative base of the Government of Aqaba, situated in the southernmost portion of the Jordan. In 2015, the town had a population of 148,398 and 375 square kilometers (144,8 sq mi) of the property. Today, with its booming trade and tourism sectors, Aqaba plays a key role in the development of the Jordanian economy. The Port of Aqaba is also represented by other countries in the region (Jawabreh, 2020). The strategic location of Aqaba on the north-eastern tip of the Red Sea, between the continents of Asia and Africa has made its port significant for thousands of years. The ancient city was called Ayla, which was adopted as Aela in Latin and Ayla in Arabic. Its strategic position and proximity to copper mines made it a regional hub for the processing and exchange of copper in the Chalkolithic period. Under Byzantine control, Ayla became a bishopric and then became a Latin Catholic titular see after the Islamic conquest about AD 650, when it became known as Ayla. The name of Aqaba is a late medieval name (Jawabreh, 2017). The Battle of Aqaba of the Great Arab Revolt, represented in the Lawrence of the Arab Revolution, culminated in the triumph of the Arab powers over the Ottoman defenders. The positioning of Aqaba, next to Wadi Rum and Petra placed it in the Golden Triangle of Jordan, which boosted the location of the city on the world map and made it one of Jordan's major tourist attractions. The region is managed by the Aqaba Special Economic Zone Authority, which has turned Aqaba into a duty-free, low-tax city, attracting several mega-projects such as Ayla Oasis, Saraya Aqaba, Marsa Zayed and the Aqaba Port expansion. In the town, it is expected to turn the region into a major tourist hub.

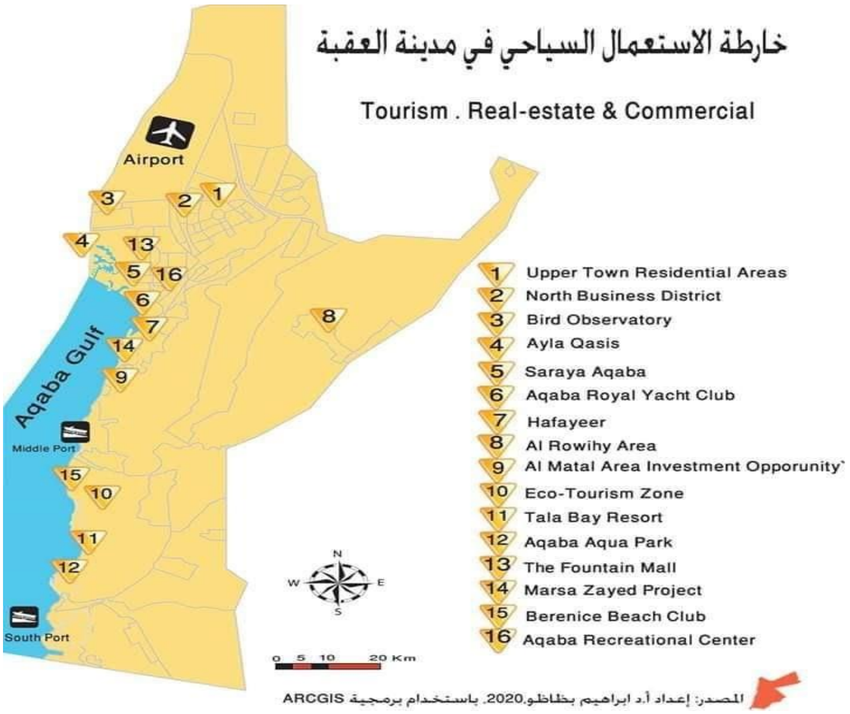

Figure 1. Tourism Real-estate and Commercial of Aqaba, Jordan (Bazazo, 2020)

Table 1. Distribution of sample of the study of other variables

Variable	Level	Frequency	Ratio
Gender	Male	552	65.4%
	Female	292	34.6%
Job	Public sector	308	40.7%
	Privet sector	448	59.3%
Education level	Elementary education	64	7.6%
	Secondary education	156	18.6%
	Diploma	256	30.5%
	University education	332	39.5%
	Post graduation	32	3.8%
Age	20 and less	232	27.5%
	21- 30	444	52.6%
	31 – 40	132	15.6%
	41 and More	36	4.3%
Income	150 and less	228	30%
	151 – 200	164	21.6%
	201 – 250	140	18.4%
	251 - 300	124	16.3%
	More than 301	104	13.7%

Hypotheses

1-The interaction of cultural and tourist factors is statistically significant for the local community of Aqaba.

2-Social and tourism factors are statistically closely related to the local community of Aqaba.

3-A statistically relevant correlation exists with the local community of Aqaba between economic and tourism factors.

ANALYSES

The characteristics of the survey participants: the demographic specifics of this sample, the results of the analysis of the characteristics of the participants suggest that there were 65.4% males and 34.6% females by sex. As far as the profession is concerned, 40.7% of the sample works in the public sector, while 59.3% works in the private sector. The effects of the distribution of the sample according to other variables are seen in the Table 1.

Table 2.The level of acceptance on cultural field

N	Item	Strongly agree	Agree	nutrNl	disagree	stongly disagree
1	Tourism facilitates the diffusion of cultural heritage.	82 38.7	114 53.8	10 4.7	5 2.4	1 0.5
2	Tourism applies to and affirms the universal norm of presentation.	67 31.6	122 57.5	19 9	4 1.9	
3	Tourism represents a high respect for people.	82 38.7	96 45.3	18 8.5	11 5.2	4 1.9
4	Tourism is helping to learn new international languages.	78 36.8	98 46.2	27 12.7	3 1.4	3 1.4
5	Tourism opens up new horizons for tourists to experience people's cultures and cultures.	70 33	112 52.8	17 8	7 3.3	3 1.4
6	Tourism closes the relationship between traditions and practices of various societies.	42 19.8	104 49.1	35 16.5	23 10.8	6 2.8
7	Tourism closes the relationship between traditions and practices of various societies.	48 22.6	106 50	32 15.1	16 7.5	6 2.8
8	Tourism has a national uniform for all cultures.	75 35.4	88 41.5	29 13.7	16 7.5	1 0.5
9	Tourism makes tourists conscious about, and teaches them about their native tongue.	78 36.8	110 51.9	13 6.1	4 1.9	1 0.5
10	Tourist craft contributes to the preservation of the national heritage.	52 24.5	105 49.5	33 15.6	13 6.1	5 2.4
11	Tourism seeks to find technological and tourist rehabilitation centers for locals.	65 30.7	96 45.3	20 9.4	22 10.4	5 2.4

The study has been split into three areas: economic, social and cultural. The following is a mathematical description of problems in each of these fields. Cultural fields: The results of the Table 2 indicate that most of the respondents either approved or agreed with all of the paragraphs in this portion of the questionnaire. In order to measure the degree of approval in general, the ratio of importance was calculated in the table below. Successful outcomes involve refining cultural practices and reinforcing cultural identity. This cultural sophistication and recognition has been seen to increase the pride of people and to strengthen their cultural identity. The detrimental cultural implications of tourism ,involve sacrificing local cultural practices, altering the personal appearance of visitors and weakening local identification. One group of researchers merged the social and cultural impacts of tourism into a similar structure labelled as sociocultural impacts, whilst another group of researchers argued that research into the social and cultural impacts of tourism in isolation provides a much stronger and more holistic perspective. The ratio of priority of the paragraphs in the cultural sector is seen in the Table 3.

In the first position, the results indicate that 82.1% of respondents comply with the field paragraphs. This may apply to the imitation of such cultural characteristics by groups of tourists. They mimic the traditions, food and clothing of the local community. For e.g., when they reach the city, you can see in Aqaba the eagerness of visitors to wear popular fashion. In the other hand, 15% disagreed and 11% neutral. In order to determine the most important paragraphs, the means and standard deviations of the paragraphs in that domain is calculated and then arranged in the order of importance as Table 4.

The findings indicate that the first paragraph on "Tourism can promote and disseminate national heritage" was the most important in this field. The mean and standard deviations of this paragraph are 4.27 and 0.704 consecutively. Paragraph 9 'Tourist craft contributes to the survival of national heritage.' This paragraph has a mean and standard deviation of 4.26 and 0.704 consecutively. The less important paragraph was the sixth: 'Tourism will offer various practices and cultures' Tourist crafts lead to the preservation of national heritage. Together, close.

Table 3. The level of the ratio of importance in the field

Level acceptance	The ratio of importance
Strongly agree	32.1
Agree	50
Neutral	11
Disagree	5.4
Strongly disagree	1.5

Table.4 The means and standard deviation for the importance cultural field

	Item number	Mean	Standard deviation
1	Tourism facilitates the diffusion of cultural heritage.	.704020	4.2783
2	Tourism applies to and affirms the universal norm of presentation.	.704840	4.2621
3	Tourism represents a high respect for people.	.669060	4.1887
4	Tourism is helping to learn new international languages.	.813940	4.1722
5	Tourism opens up new horizons for tourists to experience people's cultures and cultures.	.813630	4.1435
6	Tourism closes the relationship between traditions and practices of various societies.	914780	4.1422
7	Tourism closes the relationship between traditions and practices of various societies.	.920970	4.0526
8	Tourism has a national uniform for all cultures.	1.02401	3.9327
9	Tourism makes tourists conscious about, and teaches them about their native tongue.	.931660	3.8942
10	Tourist craft contributes to the preservation of the national heritage.	.964200	3.8365
11	Tourism seeks to find technological and tourist rehabilitation centers for locals.	.996470	3.7286

(The value of F is statistically significant at the level of significance $\alpha = 0{,}05$)

Cultural Sector

A T-test, as seen in the Table 5, was performed to confirm this hypothesis:

Table 5. t- test in cultural field

T value	Degree of freedom	The Significant value
29.939	211	.005

According to the T-test ($p<0.05$), the results suggest that there is a strong, statistically significant correlation for the Aqaba community between cultural and tourist influences. The mean and standard deviations for this region are typically 4.00 and 0.489 sequences. This indicates that, in addition to the consideration and concern paid to the sharing of local history by these organisation's tourism opens up different horizons for locals to see people's actions and to draw a stunning picture of the region. According to this analysis, the outcomes of the growth of tourism are varied, including improved community life, a positive environment, a positive cultural effect, economic benefits, tourism preparation and a better family life (Atsız et al., 2020; Doe et al., 2021; Faraji et al., 2020). Generally, the local population of Aqaba viewed the beneficial effect of the growth of tourism in the city of Aqaba. Similarly, residents of Aqaba city that they perceived high quality of life, such as public protection, leisure time, family harmony, group building, the environment of society, health status, economic margins, and living costs. Interestingly, the enhancement of public protection by the growth of tourism contributes to improved community life, a positive atmosphere and a better family life, as community security is directly connected to the perception of happiness among community people. In Aqaba, more leisure time is correlated with more favorable cultural effects, economic benefits and improved family life, as residents appreciate cultural opportunities or economic activities and spend their leisure time with their families.

The social field:

The results in the Table 6 indicate that most of the respondents either strongly agreed with or agreed with all paragraphs in this field. In general, the value ratio was determined in the table below in order to know the degree of acceptance. In the social sector, the value ratio of the paragraphs is represented in this table:

Table 6. The level of acceptance on social field

No	Item	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree
12	For tourists, the purpose of tourism is to boost environmental consciousness.	67 31.9	113 53.8	18 8.6	10 4.8	2 1
13	Tourism promotes the expansion of excavation and study into national antiques.	65 30.7	108 50.9	22 10.4	13 6.1	
14	Tourism aims to characterize the private standard of the person.	41 19.3	114 53.8	37 17.5	13 6.1	4 1.9
15	Tourism's practices and behaviors are diminishing as a product of human conformity.	40 18.9	81 38.2	37 17.5	34 16	12 5.7
16	Tourism leads to the spread of patterns and ethical practices	50 23.6	71 33.5	36 17.0	30 14.2	19 9
17	Tourism weakens the bonds of friendship between the party's leaders.	38 17.9	85 40.1	45 21.2	30 14.2	8 3.8
18	Tourism promotes people's religious inclination.	37 17.5	44 20.8	49 23.1	43 20.3	37 7.5
19	Tourism is hindering the faith of man.	42 19.8	73 34.4	37 17.5	33 15.6	24 11.3
20	Knowledge of shrines and religious places will add to the understanding of particular faiths.	26 12.3	49 23.1	46 21.7	58 27.4	30 14.3
21	Some social norms, such as gender separation, are dominated by tourism.	54 25.5	72 34	38 17.9	22 10.4	18 8.5

Table 7. The ratio of relativeimportance in the social field

Ratio of Acceptance	Relative importance
Strongly agree	22.2
Agree	39
Neutral	17.6
Disagree	13.8
Strongly disagree	7.4

Table 8.. The mean and standard deviation of the importance social field

Item number	Mean	Standard deviation	
For tourists, the purpose of tourism is to boost environmental consciousness.	4.1095	.81985	1
Tourism promotes the expansion of excavation and study into national antiques.	4.0817	.81534	2
Tourism aims to characterize the private standard of the person.	3.8373	.87834	3
Tourism's practices and behaviors are diminishing as a product of human conformity.	3.5980	1.23384	4
Tourism leads to the spread of patterns and ethical practices	3.5583	1.07022	5
Tourism weakens the bonds of friendship between the party's leaders.	3.5049	1.15540	6
Tourism promotes people's religious inclination.	3.5000	1.26008	7
Tourism is hindering the faith of man.	3.3636	1.28296	8
Knowledge of shrines and religious places will add to the understanding of particular faiths.	3.0048	1.35370	9
Some social norms, such as gender separation, are dominated by tourism.	2.9187	1.25885	10

The findings Table 7 reveal that 39.0 percent of respondents agree with this domain's paragraph, and 22.2 percent strongly agree. While as there was 13.8 percent opposed, 7.4 percent firmly opposed and 17.6 percent neutral.

And in order to evaluate the most relevant paragraphs, the means and standard deviations of the paragraphs in this domain were measured and then ordered in an order of significance as Table 8.

Second, the results indicate that Topic No.12 'Tourism Encourages Prolonged Exploration and Research of National Monuments' was the most important paragraph in this area, with a mean of 4.10 and a standard deviation of 0.81. Second, the results indicate that paragraph 20, 'Getting details on shrines and religious places would lead to raising understanding about particular faiths,' with an average of 2.91 and a standard deviation of 1.25, was less important.

Social Field

A t test was conducted as Table 9 to verify this hypothesis.

Table 9. t test in social field

T value	Degree of freedom	The significant value
11.642	210	0.00

The findings show that for the people living in Aqaba, there is a statistically important connection between social and tourism influences. In this area, the general mean was 3.48 and the standard deviation was 0.60.

The Field of Economy:

The findings in the Table 10 reveal that most respondents either strongly agree with all the paragraphs in this area or agree with them. In general, in order to know the degree of acceptance, the ratio of value has been determined in the table below. This table illustrates the ratio of the economic relevance of the paragraphs:

Table 10. he level of acceptance on economic field

N	Item	Strongly agree	Agree	Neutral	sagreedi	stongly disagree
22	Tourism substantially decreases the number of unemployed persons.	80 37.7	96 45.3	19 9	10 4.7	3 1.4
23	Tourism promotes the multiplicity and diversity of work openings.	103 48.6	84 39.6	12 5.7	2 9	4 1.9
24	Tourism is contributing to raise national wages.	98 46.2	93 43.9	8 3.8	6 2.8	3 1.4
25	Tourism plays an important part in improving the quality of raw materials (food and clothing).	76 35.8	105 49.5	18 8.5	8 3.8	2 9
26	Tourism is opening up modern investment projects.	55 25.9	97 45.8	40 18.9	11 5.2	4 1.9
27	Tourism is contributing to the protection of the national capital.	50 23.6	117 55.2	29 13.7	8 3.8	5 2.4
28	Tourism is drawing international towns.	93 43.9	94 44.3	12 5.7	7 3.3	2 9
29	Multinational companies are attracted to tourism.	91 42.9	101 47.6	10 47.6	7 3.3	

Table 11. The level of relative importance in the economic field

Level acceptance	Relative importance
Strongly agree	38.8
Agree	47.3
Neutral	8.9
Disagree	3.5
Strongly disagree	1.5

With respect to the Table 11, the results indicate that 47.3% of respondents agree with paragraphs in this area and 38.8 per cent strongly agree, although 3.5 per cent strongly disagree with 1.5% and 8.9% neutral. The most relevant paragraphs, means and standard deviations of the paragraphs of this domain were calculated with a view to disclosing them, and were arranged in an order with regard to the sense as Table 12. The most significant paragraph in this area, as shown in the Table 13, is question No. 23, 'Tourism contributes to a rise in national income,' with an average of 4.36 and a standard deviation of 0.80. No. 26, 'Tourism opens fresh insights for investment projects,' is, the less significant side, with an average of 2.91 and a standard deviation of 1.25.Hypothesis of the economic field. In order to verify this hypothesis T test was used the following:

Table .12. The mean and standard deviation for the importance economical field

Item Number	Mean	Standard deviation	
Tourism substantially decreases the number of unemployed persons.	4.3659		1
Tourism promotes the multiplicity and diversity of work openings.	4.3317		2
Tourism is contributing to raise national wages.	4.3206		3
Tourism plays an important part in improving the quality of raw materials (food and clothing).	4.2933		4
Tourism is opening up modern investment projects.	4.1722		5
Tourism is contributing to the protection of the national capital.	4.1538		6
Tourism is drawing international towns.	3.9522		7
Multinational companies are attracted to tourism.	3.9082		8

Table 13. t test in cultural field

T value	Degree of freedom	Significant value
26.954	209	0.00

The results suggest that the Aqaba community has a statistically relevant association between economic and tourism variables. In general, the mean is 4.14 and the standard deviation is 0.6155.

CONCLUSION

The present study indicates three conclusions as follows: as is apparent from the results of the analysis, the economic sector falls to the first degree with an acceptable level of 86.1% of the survey group. The second degree is the cultural sector with an approval ratio of 82% and, ultimately, the social field with an approval ratio of 61.1%. This demonstrates that the local population of Aqaba is directly aware of the monetary benefits of tourism activities in its region. According to the survey, about one third of the sample in the social sector is either opposed or neutral. In contrast, "Tourism concerns ruins through the process of exploration" is the most important paragraph in this area. Researchers find that about 7% of the study's allocated participants indicated that the negative change in tourism activities will bring about the local culture of community members in Aqaba. Unlike other industries, tourism includes travelers visiting the places where citizens operate, thus the involvement of tourists increases the likelihood of friction between tourists and residents. It is also important that citizens' opinions on the effects of tourism are carefully observed and documented. This will help to settle on an optimal preparation for the growth of tourism while at the same time attenuating the detrimental impact of this production on the residential community.

The connection between the attitude of tourism (culture) and the influence of tourism in Aqaba is statistically relevant. If tourism promotes the spread of national heritage, represents a good reputation for people, allows to acquire modern international languages, broadens new horizons for citizens recognize the customs of cultures and rituals, and closes links between the customs and traditions of different communities. Presents national uniformity among all cultures, makes the person aware of and recognizes his/her native language, contributes to the preservation of national heritage, contributes to the exploration of citizens' technical and visitor centers and promotes the return of heritage. In contrast, the results show that citizens are oblivious to the cultural impact of tourism. Similar results are reported in Dawlish, UK, Tosun, 2002, Williams and Lawson, 2001; Wilson,1997, who noticed that people may not attribute much importance to the cultural effects of tourism.

This could be attributed to the lack of awareness on the part of the community regarding the negative social and cultural costs expected by the growth of tourism to gain economic benefits. The connection between tourism (social) attitudes and the influence of tourism in Aqaba is statistically significant. Thus, in the sense of quality of life, it can be concluded that there is a clear divide between educated and uneducated citizens, with educated people getting a more optimistic view of the impact of tourism. Finally, the cultural influence indicates that the disparity in interpretation is motivated. The findings are reflective for individuals, where it helps to increase environmental consciousness, encourages increased discovery and analysis of national antiques, helps to understand the individual's personal features, decreases the individual's adherence to norms and rituals, helps disperse habits and ethical values, weakens social relations between community members, according to Robin Study (Robin and Haywantee, 2011; Lindsay and Kerstetter, 2014). This could be attributed to the sensitivity of locals to the detrimental social and cultural costs of the economic gains predicted from the rise of tourism. In addition, studies show that locals adversely align tourist development with quality of life. This ensures that people link variables such as elevated traffic and crowds in the area, unhygienic public spaces and facilities, environmental pollution and habitat degradation.

Kannapa, 2011, noted the position of local leader and collaboration between tourism stakeholders in planning and execution that led the community to follow the growth of local tourism, Mansfield and Jonas noted that the effect on citizens living farther away from the tourist areas was more negative (Mansfield and Ginosa,1994). However Sheldon and Var, 1984 said that residents in areas with higher tourist density were more optimistic about the rise in tourism (Marphy,1982; Kannapa, 2011; Timothy et al., 2013). Hinders' theological efficacy, which contributes to a greater comprehension of the religion of an individual, reinforces societal practices such as gender division, and confirms respect for women in public places. Furthermore, the findings suggest that locals have a good feeling about the economic effects of tourism growth (Rafi and Herdiansyah, 2020). The connection between tourism (economic) attitudes and the influence of tourism in Aqaba is statistically significant. Where the degree of unemployment is reduced, the multiplicity and diversity of work prospects are encouraged, contributing to an improvement in national income, the effect of tourism studies has been confined to economic studies and benefits for the area. It is fair to believe that the positive economic effects of tourism have led to the development of a positive image of tourism among local residents. In the other side, tourism development is criticized for its detrimental effects, such as increasing living costs, inflation in land and house prices, insecure and low-paid employment. However, these positive economic impacts have been seen to promote the growth of tourism in the region. Concern has recently been posed about the existence of harmful consequences (Pizam, 1978) assess their comprehension about how tourism impacts different realms, they were interviewed. By combining the scores of each respondent, the Attitude-Index was created (Abed al Jabber, 1996). Comparisons have been made between the perceptions of the respondent towards tourism and their dependency on tourism for their livelihoods. However, studies suggest that locals have a strong sense of the economic influence of the growth of tourism. For example, a variety of studies show similar findings.

As well as employment, schooling has remained a clear predictor of citizens' awareness and perceptions towards the effects of tourism. People of higher education standards are considered to have a more optimistic view of the impact of tourism. Several research has shown, empirically, both in industrialized and developing countries, that citizens with higher education have a more favorable view of the effects of tourism, such as Among resident groups of differing levels of education, and different levels of perception are also expected. Those with a higher level of education will see the outcomes of tourism more positive than those with a lower level of education. Lindsay draws on the knowledge of locals who have grown used to the rise of surf tourism facilities and services. The trend of tourism firms and regional tourism industries is that wages, incomes and tax collections quantify their value to the host group, even as any member of that community is impacted on a regular basis by a wide variety of impacts (Bob et al., 2019; Timothyet al., 2013; Lindsay and Kerstetter, 2014; Hair et al., 2012).

It plays an important role in improving the quality of raw materials (food and clothing), opening up new possibilities for investment projects, helping to maintain domestic resources, attracting external capital, attracting international corporations, helping to enter the country in foreign currency, leading to the growth of new trade routes, fostering the capacity of the air fleet and the qua. In addition, Amyan et al., 2011, find that tourism development has a negative impact on the natural environment and is closely related to an increase in air and water emissions (Sima˜o and Moˆsso, 2013), who noticed in Sal Island that locals believed that tourism development had detrimental effects on the host community, have published similar results. It therefore indicates that, if the demands of the people are not adequately met, the future prospects for growth in tourism in Kashmir could face significant challenges. The association between the attitudes of tourism (political) and the results of tourism in Aqaba is statistically significant. Where it promotes the development of international relations with other countries, strengthens the country's unity, contributes to democratic prosperity, enhances social cohesion, stimulates equality in the country, contributes to raising citizens' political understanding, and enhances national party government programs.

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GEOGRAPHY OF NATURAL AND RECREATIONAL FACILITIES IN THE DEVELOPMENT OF ECONOMIC INTEGRATION OF THE BORDER AREAS OF NORTHERN KAZAKHSTAN AND THE RUSSIAN FEDERATION

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Abstract: This study presents the natural and recreational prerequisites for the formation and development of the cross-border tourism industry in the Kazakh-Russian border region in the context of modern integration processes. The purpose of the research is to identify the main natural and recreational resources in the border regions of Northern Kazakhstan, among which the border regions are Kostanay, Pavlodar and North Kazakhstan regions, and the constituent entities of the Russian Federation bordering on them. The scientific significance of the article is determined by the fact that it analyzes the natural and recreational resources of 10 regions of the Kazakh-Russian borderland as a basis for the formation and development of joint tourist destinations. The main research method is a spatial analysis of the location of natural and recreational resources of border areas using modern software, as a result of which maps of natural and recreational resources in the study area were compiled. In the course of the study, it was revealed that the Pavlodar and North Kazakhstan regions of the Republic of Kazakhstan and the Altai Krai, Novosibirsk and Omsk regions of the Russian Federation have the greatest potential for the development of cross-border tourism.

Key words: cross-border tourism, border area, economic integration, Kazakh-Russian border area, Northern Kazakhstan

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INTRODUCTION

In the era of globalization, the dominant trend of world development is regional integration, which results in an intensive exchange of goods, services, capital and labor resources. One of the types of services that, in turn, strengthen integration processes, being one of the factors of economic integration, are tourist services and a special category of the tourism industry is tourism of "border areas", since the development of this type of tourism is determined by the nature of border processes, socio-cultural relations and trade and economic relations. The mutual location of such large States as Kazakhstan and Russia in the common economic space of the Customs Union, the presence of the longest land state border between the countries, the common historical, cultural and socio-economic development, modern integration processes and a political strategy aimed at expanding and deepening these processes contribute to the stable development of the tourism sector of the economy. Although the current epidemiological situation in the world and regions hinders the further development of tourism, but the right to tourism remains with people. Therefore, the further development of tourism is certain, but requires adaptive measures in the context of modern changes. In the conditions of economic integration of countries, so-called cross-border tourist territories are formed. This is a territorial entity consisting of two or more neighboring or closely located countries or their regions that have a mutual interest and desire for the development of international tourism (Grudinin, 2016).

Geographical problems of studying the tourist and recreational space are the most important area of work of recreational geography – the search and evaluation of territories that are promising for the development of the recreation industry, sports, and recreation. In this respect, the cross-border area has a special perspective and value (Evstropyeva, 2009). Supporting the global trend of integration of border areas of neighboring States (for example, Euroregions) in the Russian-Kazakh cross-border region, the search for ways and forms of cooperation for the formation of joint economic structures that allow

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developing border economies and implementing common projects is underway (Sereda, 2014). Most often, cross-border territories are formed on the basis of a common tourist resource - a common natural or historical and cultural heritage, the joint use of which becomes more attractive for tourists and more beneficial for participants in such cooperation. Thus, these countries gain competitive advantages over regions that do not participate in cooperation with foreign neighbors (Soldatenko, 2015). The economy and attractiveness of commercial tourism in the border regions, the establishment of relations between neighboring countries, families and people living in the border regions are also the engines of socio-economic development (Sharifzadeh Aghdam et al., 2020). Despite the important role of cross-border tourism cooperation, this is hindered by problems associated with differences between states and border territories (Dunets et al., 2019) and tourism can also become one of the mechanisms for starting the development of cross-border cooperation with the subsequent transformation into a diversified economic center due to the multiplier effect and favorable investment climate (Korneevets et al., 2019).

Geographical proximity, trade, economic and humanitarian ties, technological production and enterprises with developed infrastructure strengthen the importance of cross-border cooperation (Sansyzbayeva et al., 2020). Models of cross-border territorial systems can serve as guidelines for defining strategies for cross-border cooperation (Ilieş et al., 2011). Cross-border tourism is an important tool for the harmonization of interethnic relations (Karatabanov et al., 2020). Cross-border cooperation is of particular importance for stable regional development and integration. The development of cross-border relations and cooperation is an important tool for overcoming the negative consequences of the peripheral nature of border regions (for example, more than 70% of border subjects of the Russian Federation are considered depressed) (Korneevets et al., 2019).

Regional monitoring of domestic tourism is necessary for timely identification of problems and highlighting solutions that will accelerate its development. Assessment of the socio-economic efficiency of tourism using a set of indicators is very important and leads to the development of possible strategies for the development of inbound tourism as an economic direction. Indicators must meet certain requirements: an objective assessment based on statistical data, the elimination of duplicate data, data availability. As the aim of the study is to identify the main natural and recreational resources in the border regions of Northern Kazakhstan, among which the border regions are Kostanay, Pavlodar and North Kazakhstan regions, and the constituent entities of the Russian Federation bordering on them. In most cases, assessing the socio-economic performance of tourism requires detailed data that are not fully available in emerging developing countries such as Kazakhstan, since they have not been included in national statistics. The indicators of the socio-economic development of this young country with 30 years of history, published mainly at the regional level, determine the limitations for a detailed analysis of the impact of tourism (Aliyeva et al., 2019a).

MATERIALS AND METHODS

The first study of the role of borders in tourism development was published abroad in the late 1970s in the work “Borders and tourism: fundamental connections” (Matznetter, 1979). This research topic was developed more widely in the 2000s. Using the approach of D. Matznetter, the American scientist Timothy (2001) in his monograph “Tourism and political borders” identified three types of interaction between borders and tourism: the border as a barrier, a tourist destination and a modifier of the tourist landscape. Hampton (2009) conducted a study on cross-border tourism in one of the economic growth triangles in ASEAN, which unites the border zones of three States-Singapore, Malaysia (Johor state) and Indonesia. In Russia and Kazakhstan, studies of cross-border territories and their interrelations have appeared relatively recently (Akhaev, 2019). The theoretical and methodological basis of the study is based on the methods and results of research by Western, Russian and domestic scientists in the field of socio-economic geography, tourism, economic integration and cross-border cooperation of regions. In the literature, the concepts of border territory have become increasingly used (Prescott, 1987; Vardomskiy, 1982; Fedorov et al., 2009; Baklanov, 2008, 2018; Katrovsky, 2017). The study of the Russian-Kazakh border in the border areas is devoted to the works of a number of scientists (Golunov, 2005; Bozhko, 2014, 2016). Russian and foreign researchers show great interest in the study of tourism in the border area (Więckowski, 2010; Stepanova, 2017; Ismagulova, 2019).

The theoretical aspects of studying the problem of the development of cross-border territories from the standpoint of geography, economics, ecology, politics and the search for options for their effective practical solution are in the field of view of scientists. The surge of interest in them was manifested with the emergence of the need to delineate the powers of the center and the subjects of the Russian Federation to deepen cross-border cooperation and solve environmental problems.

The regulatory framework of the study is based on agreements and agreements on cooperation between the two countries, which currently number about 400. The main ones are: The Treaty of friendship, cooperation and mutual assistance of 25.05.1992; the Treaty on further deepening of economic cooperation and integration of the Republic of Kazakhstan and the Russian Federation of 28.03.1994.; Declaration on eternal friendship and Alliance between the Republic of Kazakhstan and the Russian Federation, oriented to the XXI century, dated 06.07.1998. In early 2010, work began on the development of economic turnover of the Republic of Kazakhstan, the Russian Federation and the Republic of Belarus within the Customs Union. In September 2011, the program of long-term economic cooperation between the Government of the Russian Federation and the government of the Republic of Kazakhstan (until 2020) was signed. This study was conducted using the methods of comparative geographical analysis, cartographic method, processing of statistical data, official documents and literary sources, SWOT analysis etc. Spatial analysis and data synthesis were performed using the geographic information system ArcGIS 10.1 (Chashina, 2020). With the help of these research methods, data were collected on the presence and location of natural recreational objects and specially protected areas, on the basis of which the main tourist zones of the studied territories were determined. With the help of cartographic and comparative-geographical methods, territories with the highest natural reserve fund have been identified. As a result, the analysis of the location of natural and recreational resources was carried out and the regions with the most promising prerequisites for the development of integration processes in the field of tourism were identified (Issabayev et al., 2016).

STUDY OBJECT

The study covers the border regions of Northern Kazakhstan and Russia, located along the state border. The length of the border between Kazakhstan and Russia (7500 km) is considered the longest land border in the world (Statistics Russia, 2018). Northern Kazakhstan borders on six regions (Orenburg, Chelyabinsk, Kurgan, Omsk, Tyumen, Novosibirsk) and the Altai Krai of Russia (Figure 1). Northern Kazakhstan is represented by 4 large administrative-territorial units: North Kazakhstan, Akmola, Kostanay, Pavlodar regions. But at the same time, according to this map, only 3 regions are bordering: North Kazakhstan, Kostanay, Pavlodar regions. Akmola region and the city of Nur-Sultan are not bordering, as being located in the central part of Kazakhstan, they do not border the Russian Federation. For Kazakhstan, which is an active participant in the integration processes, cross-border territories with neighboring states are of particular importance, since 12 out of 14 regions of the republic are border regions. In connection with the above, in the aspect of border regions, Akmola region and Nur-Sultan city are not considered in this study. The border regions of Northern Kazakhstan and Russia are presented in Table 1.

Figure 1. Border regions of Northern Kazakhstan and the Russian Federation
(Political and administrative map of the Russian Federation / Political map of the world, 2018)

Regions of Northern Kazakhstan bordering with the subjects of the Russian Federation	Subjects of the Russian Federation bordering with Northern Kazakhstan	Length of the border
North Kazakhstan region	Kurgan, Tyumen, Omsk regions	1160 km
Pavlodar region	Omsk, Novosibirsk region, Altai Krai	978 km
Kostanay region	Orenburg, Chelyabinsk, Kurgan regions	1517

Table 1. Regions of Northern Kazakhstan and border regions of the Russian Federation (Mazhitova et al., 2020)

RESULTS DISCUSSIONS

Tourism, being a segment of the economy, on the one hand, forces border regions to compete and on the other – contributes to the strengthening of cooperation in the cross-border region. The border regions of different countries are competitors in attracting tourists, but cooperation is possible between them in order to fully use the tourist and recreational potential and effectively organize cross-border routes. Thus, the cooperation of tourist organizations and management bodies of these territories allows you to get competitive advantages in comparison with other regions that are more remote from the border. Cross-border cooperation is a natural function of border areas and one of the main factors of their development. Cooperation in the field of tourism and the involvement of integration partners in joint innovative projects for the development of communications and the use of the natural resource potential of the participating countries is possible only with mutually beneficial cooperation and the interest of both parties. Russia and Kazakhstan have all the necessary prerequisites to become an example of close cooperation in the field of tourism, this is facilitated by the following areas:

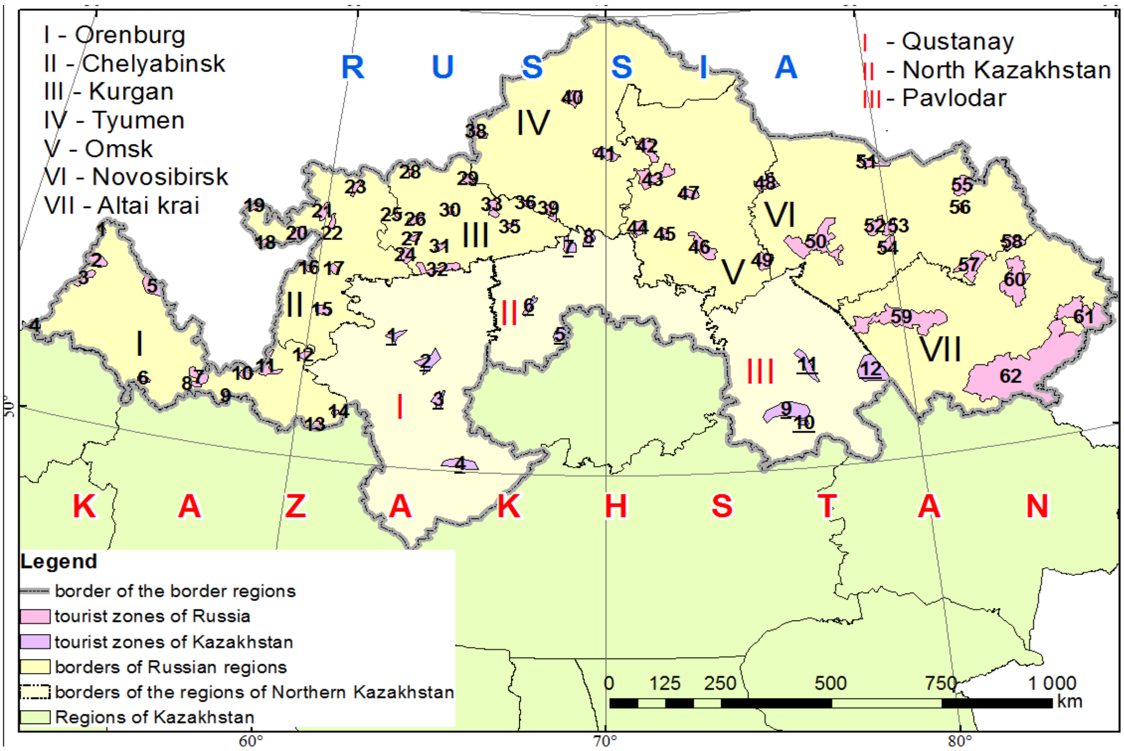
- international meetings where the further development of the tourism sector of the Russian Federation and the Republic of Kazakhstan is discussed;
- creation of tourist infrastructure facilities on transport routes;
- development of rural areas in order to promote rural and agricultural tourism, as well as folk crafts and souvenirs;
- development of ecological tourism in specially protected natural areas;
- mutual simplification of the visa regime and visa formalities for tourists, implementation of visa-free tourist exchange;
- implementation of measures to support small and medium-sized businesses in the field of tourism, culture, folk crafts, souvenirs and etc (Aliyeva et al., 2019b).

Also, one of the factors in the development of interethnic tourism in border areas is “price discrimination”, this is when different prices are indicated for the same product in different places. A number of products are cheaper to buy in Kazakhstan than in Russia. Tourists are attracted to the border area by duty-free trade, a large selection of goods, and lower prices. Another significant factor in the development of tourism in border areas is the availability of unique tourist resources, which can be explored when traveling from the border area of a neighboring country. For example, residents of the Pavlodar region often come to Lake Yarovoe, the resort of Belokurikha, which are located in the Altai Krai. In addition, tourists from Kazakhstan are increasingly attracted to Siberian ski resorts (Shumkina, 2015). The basis of the recreational potential of the territory and the development of the tourism industry is the natural and recreational resources of the territory, which, having a certain degree of tourist attraction, serve as ways to attract tourists and recreants (Kropinova et al., 2020).

Table 2. Natural and recreational resources of the border regions of the Republic of Kazakhstan and the Russian Federation (collected by author)

<table>
<tr><th colspan="3">KAZAKHSTAN</th><th colspan="3">RUSSIA</th></tr>
<tr><th colspan="2">Recreational facilities</th><th>Specially protected areas</th><th colspan="2">Recreational facilities</th><th>Specially protected areas</th></tr>
<tr><td>Kostanay region</td><td>Nauruzum, Tersek, Amankaragay pine forests, lakes (Kushmurun, Saryoba), Turgay hot springs, Turgay geoglyphs, Karatomar reservoir</td><td>Nauruzum nature reserve, Altyn Dala reserve, 3 nature reserves (Tounsor, Zharsor-Urkash, Mikhailov), 10 natural monuments (“Tract Stone lake”, “Olshanniki”, etc.)</td><td>Orenburg region</td><td>Landscapes of the southern Urals, mountain objects, group of lakes Sol-Iletsk (Razval, Tuzluchoye, Dunino, Novoye, Bolshoye and Maloye Gorodskoye), Iriklin reservoir, floodplain of the Ural river, Talov steppe, Burtin steppe, Aytuar steppe, Ashchisay steppe</td><td>336 specially protected areas:
nature reserves (Orenburg Shaytan-Tau), national parks
(Buzuluk Bor),
nature reserves (“Svetlin”, “Karagay-Guberlin gorge”, “Guberlin mountains”), 330 natural monuments</td></tr>
<tr><td>North Kazakhstan</td><td>Lake Imantau, and Shalkar, Maybalyk, Olkhov forest cottage, Ayutas the hill, Bear stone, Sergeev reservoir</td><td>part of the state national Park “Kokshetau”, 4 reserves: Smirnov, Sogrov, Mamlyut, Orlinogor</td><td>Chelyabinsk region</td><td>Landscapes of the southern Urals, mountain objects (Ilmen Mountains, Allaks), caves (Kiselev, Kurgazak, Sikiyaz-Tamak complex), lakes (Turgoyak, Zyuratkul, Itkul), coniferous and mixed forests (Karagay, Shershnev)</td><td>Over 200 specially protected areas:
Nature reserves (Ilmen, Arkaim, East Ural, South Ural), national parks: Zaratkul, Taganay; 23 nature reserves; 183 natural monuments</td></tr>
<tr><td rowspan="6">Pavlodar region</td><td rowspan="6">Zhasybay Lake, Sabyndykol, Toraigyr, Birzhankol, stone figures (Kempirtas, Nayzatas, etc.), caves (Konyr-Auliye, Auliye, grotto of Dravert), the slopes of Myrzashoky, springs (Auliyebulak, Teleubulak), gorge (Aymanbulak, Stone wonders, Rakhay, Ushsala), Shalday, Beskaragay belt forests, curative mud lake Moyyldy, Lake Maraldy, floodplain of the river Yertis</td><td rowspan="6">Bayanaul national Park, Kyzyltau nature reserve, state forest nature reserve “Yertis Ormany”, Paleontological nature monument “Gusinyy perelet”, Natural state reserve “Floodplain of the Irtysh river”</td><td>Altai Krai</td><td>Mountain landscapes of Altai, lakes (Telets, Kulundin, Bolshoye and Maloye Yarovoye, Malinovoye, Peschanoye, Bolshoye Topolnoye, Kuchuk Tanatar, Mormyshan, Gorkoye, Gorkoye-Peresheyechnoye, Zavyalov); reference landscapes of relict ribbon pine forests (Barnaul, Kasmalin), various hunting and fishing grounds;
mineral healing springs of Belokurikha, caves (Denisov, Tavdin, Muzeynaya), cascades of waterfalls (river Shinok, Peshcherskiy), rock formations (Tserkovka, Chertov palets, Shlyapnaya)</td><td>112 specially protected areas:
reserve “Biosfera”, “Tigirek”, “Katun”, national parks “Salair”, “Aya” and “Predgorye Altaya”, “Belukha”, “Saylyugem”, “Uch-Enmek”;
38 nature reserves (Kulundin, Lebedin, Sumultin, Shavlin, Aleus and Zavyalov),
72 natural monuments (waterfall “Avrora”, mount Semipeshchernaya with a cave Mrachnaya, Babyrgan, Sinyukha, Strashnaya cave, Yashchur cave, Chetyre Brata rock, Shimolin bor, etc.)</td></tr>
<tr><td>Omsk region</td><td>lipnyak Baksheyev, floodplain of Ertis lake, Esil, Bolshaya Tava, Bicha, Bolshoy Uvat, lakes (Yebargul, Tatyn, Svyatoye), mixed aspen-birch forests, pine forests</td><td>national park “Ptichya Gavan”, Batakovo, 16 nature reserves (Bairov, Stepnoy), more than 100 natural monuments (Bereg Dravert, Pyat ozer, Petropavl pine forest, etc.</td></tr>
<tr><td>Kurgan region</td><td>Pine forests, lakes (Chernoye, Stekleney, Malyye Donki, Gorkoye, Medvezhye), peat mud, the flood-plain of Tobol lake, mineral springs (Shchadrinskoye, Krasno-Nivinskoye, Kurganskoye)</td><td>19 nature reserves (Kurgan, Belozer, Almenev, Dalmatov), 99 natural monuments (Lake Murtaza, Tanrykul swamp, Ryabinovyy Dol, Suyerskiy bor, Chudo-derevo, Ivanov kamen, etc.)</td></tr>
<tr><td>Tyumen region</td><td>Therapeutic mineral waters (Ishim, Chechkin, Pokrov, Shaim, Surgut), sapropel mud of Siberian lakes, lakes (Svetloye, Chernoye, Akhmanka, Bolshoy and Malyy Taraskul)</td><td>38 nature reserves “Tyumen”, “Belozer”, 58 natural monuments (Yuzhakovskiy, Sistema Chernokovskikh ozer, Ozernyy, Marino ushchelye), wetlands of international importance “lakes of the Tobol-Iset forest-steppe”</td></tr>
<tr><td>Novosibirsk region</td><td>The Salair ridge, boreal spruce-pine forests (Kashlam bor, Kudryashov, Suzun), birch groves, lakes (Chany, Krasnozernoye, Gorkoye, Ostrovnoye, Serebryanoye), radon water, mineral water (Karachi, Dovolen, Duplen), the cave (Barsukovskaya, Yegoryevskaya), Belov waterfall</td><td>Part of the Vasyugan nature reserve, 27 nature reserves (Kazatov, Mangazer, Manuylov, Chanov), more than 80 natural monuments (“Volchya griva”, “Dendrologicheskiy park”, “Berdskiye skaly”, “Bugotakskiye sopki”, “Chernevyye lesa Salaira”)</td></tr>
</table>

The majority of recreational activities of the population is reduced to recreation within or near the place (region) of permanent residence, and short-term outside trips for recreational and tourist purposes. In this regard, the main attention should be paid to the study of local and regional natural recreational resources, their availability, suitability and degree of favorability to meet the recreational needs of the population (Mazhitova et al., 2018). In the border regions of Kazakhstan and Russia, a large number of unique natural and recreational facilities are concentrated, as well as a unique network of specially protected natural areas. This is due to the sparsely populated and weak economic development of the border areas. Along the borders are concentrated habitats of many rare species of living organisms, unique ecosystems and landscapes. These territories represent an organizational resource for solving environmental problems, as well as help to realize cross-border tourist flows (Shumkina, 2015). Thus, the existing system of nature protection can be considered not only as the most important direction of bilateral cooperation, but also as one of the factors of territorial organization of cross-border tourism (Grudinin, 2016).



Tourist zones of Kazakhstan:
1 - Karatomar
2 - Amankaragay
3 - Naurzum
4 - Amangeldy
5 - Imantau-Shalkar
6 - Sergeyev
7 - Mamlyut
8 - Sogrov
9 - Bayanaul
10 - Kyzyltau
11 - Yertis
12 – Shalday

Tourist zones of Russia:
1 – Bakayev
2 – Obukhov
3 – Buzuluk
4 – Talov
5 – Ratchin
6 – Sol-Ilets
7 – Alabaytal
8 – Burtinsk
9 – Aytuar
10 – Karagay-Guberlinsk
11 – Iriklin
12 – Bolotov
13 – Svetlin
14 – Aschisay
15 – Annen
16 – Karagay
17 – Sanar
18 – South-Ural
19 – Ashinsk
20 – Zyuratkul
21 – Taganay
22 – Ilmen
23 – East-Ural
24 – Kocherdyk
25 – Shchuchan
26 – Shumikhin
27 – Almenev
28 – Dalmatov
29 – Shatrov
30 – Yurgamysh
31 – Kurtamysh
32 – Proryvin
33 – Beloozersk
34 – Varshagin
35 – Lebyazhye
36 – Mokrousov
37 – Chastoozersk
38 – Tumen
39 – Beloozersk
40 – Alabak
41 – Vikulov
42 – Kileynyy
43 – Zaozernyy
44 – Prigranichnyy
45 – Luzinnyy
46 – Poimennyy
47 – Bairov
48 – Allapin
49 – Stepnoy
50 – Chanov
51 – North
52 – Uspen
53 – Kargat
54 – Dovolensk
55 – Central
56 – Kudryashov
57 – Suzun
58 – Salair
9 – The Area Of Steppe Of The Altai
60 – Barnaul
61 – Biy
62 – Foothills zone

Figure 2. The main tourist zones of the border regions of Kazakhstan and Russia (collected by author)

The study of natural and recreational potential of the study area is composed of a summary table of the main natural recreational resources of the territories that form the tourist attractiveness of regions and can become the links of cross-border cooperation in tourism (table 2). In this case, forest and limnological resources play a special role. When analyzing the data obtained, it was found that there are no lakes with a little recreational capacity among the research water bodies, and only such lakes as Siletyteniz, B.Tavolzhan have low recreational capacity. The remaining water bodies have medium and high recreational capacity (Nazarova et al., 2019). Kazakhstan attracts Russian tourists, as it has a unique natural potential. In Kazakhstan, tourists from Russia are interested in: cultural and educational, environmental, health and business types of tourism. The nature of Northern Kazakhstan is unique and combines unique low-mountain landscapes and boundless steppes, which is favorable and attractive for ecological and health tourism (Stepanov et al., 2020). Since the beginning of 2018, Kazakhstan has been visited by 1.38 million Russians, and Russia by 1.54 million Kazakhstanis. Some experts associate such large volumes not with classical tourism, but with trips of residents of border regions (Kapiki, 2014). And this, in our opinion, further contributes to the increase of tourist flows and strengthening of integration. Based on the data in Table 2, maps of the most visited tourist and recreational zones of the border areas of Russia and Northern Kazakhstan were compiled (Figure 2).

Analyzing the map of tourism areas of border regions of Kazakhstan and Russia to be one of the largest centers of tourism and recreation located in Altai Krai, which was obviously due to natural resource potential and unique landscapes of the Altai Mountains. You can also note the Novosibirsk region. Speaking about Kazakhstan's regions, it is necessary to highlight Pavlodar region, where Bayanaul national nature park is particularly distinguished by its landscape diversity. Given the current ecological situation in the industrially developed regions of Northern Kazakhstan and the border regions of Russia, especially such major hubs of heavy industries as Chelyabinsk, Magnitogorsk, Orenburg, Omsk and others, as well as industrial centers of Kazakhstan, such as Kostanay, Pavlodar, special attention should be paid to the development of cross-border eco-tourism (Statistics, 2018). The ever-increasing demand for eco-tourism leads to the creation and development of specially protected natural areas, primarily nature reserves, national and natural parks. Currently, these territories are the main objects of ecotourism in the world (Bancerova and Kasimova, 2018). The existing system of specially protected natural areas plays a key role in the preservation of the country's biological diversity and the development of regulated tourism. Giving a special legal status to these natural objects indicates their uniqueness, as well as a high degree of tourist attraction. In connection with the above, a map has been compiled that reflects the share of the area of specially protected natural areas from the total area of the region (Figure 3). However, the presence of specially protected areas does not yet indicate a proper environmental policy of the country. It can be stated that nature conservation in the CIS countries is still insufficiently developed. This is confirmed by the fact that nature reserves occupy a very small share of the total area of the States. Thus, the area of specially protected areas is 8.7 % in Kazakhstan and 12 % in Russia. This is even less than the share of specially protected areas in developing Latin American countries (Pitrakov, 2013).

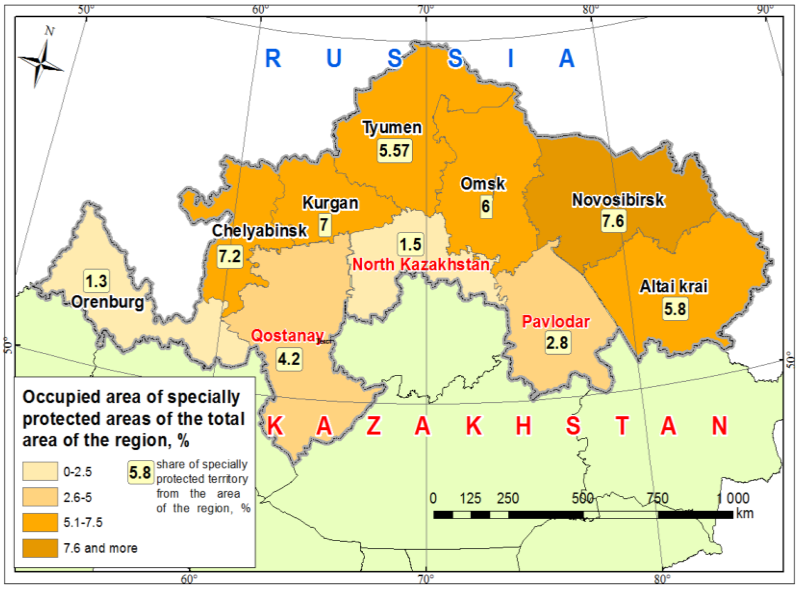


Figure 3. Share of the area of specially protected natural territories from the total area of the border regions of Kazakhstan and Russia (collected by author)

According to the map, the largest share of the area of specially protected areas from the total area of the region is observed in the Novosibirsk region (7.6 %), the smallest value – in the Orenburg region (1.3%). Cross-border cooperation in the field of tourism is joint administrative, technical, economic and cultural activities to strengthen and develop good-neighborly cooperation between neighboring States and the conclusion of appropriate agreements to resolve problems that may arise in the tourism sector. For these purposes, a large number of meetings, seminars, international tourism exhibitions, conferences with the participation of representatives of the tourism and hospitality industry are held, exchange internships of specialists in the field of tourism, advertising tours are organized, new joint tourist routes are developed information, advertising and other materials are exchanged in order to familiarize the parties with existing tourist routes (Mirzekhanova, 2014).

Strengths	Weaknesses
– favorable economic and geographical location (border with the Russian Federation); – availability of unique natural and cultural monuments for the development of cultural and educational tourism; – high natural resource potential; – availability of specially protected areas; – targeted regional policy and integration of tourism market entities in order to increase the competitiveness of the tourism industry in the region; – development of cooperation with Russian border regions; – high export potential of the region; – availability of opportunities for clustering in the tourism sector; – high level of mutual demand for goods produced in Kazakhstan and Russia	– low level of service in the tourism sector; – mismatch of prices on the level of quality of tourist services; – low level of tourist and transport infrastructure, including poor condition of roads leading to tourist sites; – insufficient level of development of the scientific base of tourism; – insufficient development of infrastructure in the tourism industry; – insufficient development of border infrastructure;
Opportunities	**Threats**
– activation of integration processes within the framework of the EurAsEC, the Customs Union and the Common economic space; – special attention is paid to the development of the transport system and logistics services in the region; – expansion of the market in connection with the integration of the EAEU, easing the conditions for the export and import of goods and services; – improving integration links between industrial enterprises and transport in border regions; – development of the potential of transport links along the Ertis river with the border regions; – opportunities for the formation and development of cross-border routes; – opportunities for the development of ecotourism and hunting and trophy tourism in the region	– in the development of infrastructure, the neighboring situation with large advanced industrial and transport hubs (Novosibirsk, Chelyabinsk, Ekaterinburg) can have a negative impact); – insufficient marketing activities to promote tourism potential in the region; – insufficient development of tourist and transport infrastructure; – insufficient volume and inconsistency of statistical material for analytical and predictive activities. – complicated sanitary-epidemiological situation in the world and the regions in connection with pandemia coronaviruses infection

Table 3. SWOT analysis of tourism development and integration of Northern Kazakhstan and Russian border regions

One of the most important and fundamental activities in the framework of cross-border cooperation is the organization and holding of annual international forums. The most ambitious ones include: X forum of cross-border cooperation within the framework of integration associations (Ekaterinburg, November 9-10, 2013), XV forum of interregional cooperation between Russia and Kazakhstan "New approaches and trends in the development of tourism in Kazakhstan and Russia" (Petropavlovsk, November 9, 2018), XVI Forum of cross-border cooperation between Russia and Kazakhstan (Omsk, September 17, 2019) etc.

The most extensive opportunities in the development of tourism in the field of recreational tourism are provided by the natural potential of the border regions of Russia and Kazakhstan, primarily Northern Kazakhstan and the Altai Krai. For the Altai Krai, the Republic of Kazakhstan is the closest and largest foreign trade partner. Every year, representatives of the tourist community of Pavlodar region actively attend tourist events of the Altai Krai, including the international tourist forum "VISIT ALTAI", the holiday "Altai zimovka", the international youth management forum "Altai. Tochki Rosta" (Program, 2014). In turn, the delegation of the Altai Krai regularly takes part in the Kazakhstan International Tourism exhibition Astana Leisure (Nur-Sultan city). In order to get acquainted with the tourist and recreational and health-improving potential of the regions, media representatives of Kazakhstan and Russia regularly participate in information tours (October 15-19, 2018 within the framework of the IV Siberian international forum on health and medical tourism (Barnaul, Belokurikha). In the course of active cooperation of border regions concluded memorandums of cooperation for the development of tourism and resort activities, which aim at strengthening regional cooperation in the sphere of tourism and resort business. This serves as a basis for the implementation of joint projects in the field of cross-border cooperation, exhibition activities, and the development of tourist routes.

Thus, considering various aspects for the development of cross-border tourism in the regions of Kazakhstan and Russia, it is advisable to identify competitive advantages and prospects, as well as disadvantages and problems in this area (Table 3).

CONCLUSION

Transboundary territories have a special appeal, which can be used for the development of integration processes. Open and accessible borders are part of the tourist potential of the territory. Tourist arrangement of borders can contribute to the economic development of border areas. Increasing the transparency of borders can significantly increase the scale of cross-border tourism. The process of opening borders has become an impetus for the development of tourism in the areas adjacent to the state border, if it is accompanied by economic and social changes (it contributes to the mobility of the population, including in tourist trips). But unfortunately, the problems of tourist formalities in solving integration processes have not been fully resolved. It should be noted that the process of integration of the Russian and Kazakh tourist market into the world is still happening spontaneously, without a single organizational and economic mechanism. The most effective step on this path can be the development of tourism in border regions through the formation of border tourism and recreation clusters. In addition, similar physical and geographical conditions and resource factors, in turn, contribute to mutually beneficial cooperation, strengthening economic integration between states. At this stage of integration cooperation, activities are being carried out to develop the tourist infrastructure of Kazakhstan and Russia within the framework of the EAEU, which also serves as the basis for the development and implementation of cross-border tourist routes.

The natural and recreational potential of the border of Northern Kazakhstan and Russia has sufficient resources for various types of tourism and recreation, in particular such regions as the Altai Krai, Novosibirsk, Kurgan, Orenburg regions of the Russian Federation, Pavlodar and North Kazakhstan regions of the Republic of Kazakhstan.

The key role in the development of cross-border tourism is played by the objects of the nature reserve Fund. These objects represent the landscape diversity of the entire tourist zone. However, tourist activity on them is extremely poorly developed. Tourist routes for most of them exist only in projects, infrastructure facilities are concentrated in visit centers and field hospitals. The share of nature reserves is very small, both in Russia and in Kazakhstan. The lowest rates in this aspect are traced in the Orenburg and North Kazakhstan regions, the average for the entire border area is 4.8%.

The geography of natural and recreational facilities and natural and recreational resources in the development of economic integration of border areas can serve as a solid foundation for the further deepening of integration processes between regions only in the case of competent and balanced nature management and coordination of common efforts in this direction.

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EXPLORING THE RELATIONSHIP BETWEEN HUMAN RESOURCES MANAGEMENT PRACTICES IN THE HOSPITALITY SECTOR AND SERVICE INNOVATION IN JORDAN: THE MEDIATING ROLE OF HUMAN CAPITAL

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Abstract: This study is aimed to explore the relationship between Human Resources Management (HRM) and innovation in services and whether such a relationship is mediated by human capital. The data was gathered from the hospitality sector in Jordan. To evaluate the proposed hypotheses, Structural Equation Modeling (SEM) was used via partial modeling of least squares. The research findings provide clear evidence that the Service Innovation of Jordan's hospitality was positively influenced by HRM activities and human resources. The results show many practical and theoretical effects. Results will help the hospitality sector grow creativity in their services by HRM practices and establish proper use of human capital in their employees through innovation cults. This is one of the few studies that studied the relationship between HRM activities and the sufficient of human capital on hospitality in a developing country, Jordan.

Key words: HRM practices, service innovation, hospitality management, Jordan

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INTRODUCTION

The tourism and hospitality sector plays a crucial role in any country's economy (Gorochnaya et al., 2021; Akbari and Monzavi, 2015). The tourism industry is one of the most industrial sectors driving the global economy at the present time (Bazazo and Alananzeh, 2020). Many service organizations have recently focused on how to improve their employees' operation, enhance quality services, and increase their market share through encouraging initiatives and innovation activities (Alosani et al., 2020; Chen, 2018; Chen and Peng, 2017). One of the bases on which institutions depend is an investment in innovation because the demand for goods and services is constantly fluctuating and there are horizontal and vertical implications for organizations and changing the patterns of the target market and the economic situation of societies, so the economic returns of innovation exceed the fixed returns in traditional management (Chang and Lee, 2020; Stojcic et al., 2020). The research points out that there are some challenges facing these organizations in providing sufficient human capital that supports innovation activities (Nieves and Agustı, 2016), which negatively reflects the tendency of employees to innovate (Rodríguez-Pose et al., 2020; Waheed et al., 2019). Organizations need innovation in order to survive and prosper (Bonfanti et al., 2018). Innovation is the main factor that shapes performance and leads to competitive advantage (Rodríguez-Pose et al., 2020), in which creativity in products and services are crucial to the rivalry between organizations and competitors (Porter and Stern, 2001). Service Innovation offers a valuable approach to breakthrough change (Anderson et al., 2014), which results in outstanding results (Reynoso et al., 2015).

Despite recognizing the importance and urgent need for innovation in service sector organizations, innovation management in the service sector is little understood (Ardito et al., 2017), and it often fails to produce significant results (Gannon et al., 2015). Where intellectual resources allow workers to take approaches to innovative work (Jaiswal and Dhar, 2015). In order to allow innovation, resources are required to be used in innovation activities (AlMarzouqi, 2019; Buller and McEvoy, 2012), also human resource factors are included too (Ling et al., 2018; Liu et al., 2017). Therefore, the value of creating a community that promotes employees' creative practices is emphasized. Such values will play a role in improving employee habits, which will positively impact their activities and contribute to innovation, where employee behaviors influence service innovation (Kozioł-Nadolna, 2020; Battistelli et al., 2014). Earlier research has acknowledged

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that human capital is a vital resource for realizing a set of capacities on which the distinctive attributes of an organization are focused (Rodríguez-Pose et al., 2020; AlMarzouqi, 2019; Bonfanti et al., 2018). These fundamental issues, in theoretical literature, remain limited, poor, and inadequate in developing countries (Knies and Leisink, 2018), including Arab countries (Kraśnicka et al., 2018; Akbari and Monzavi, 2015), especially in the public sector (Favoreu et al., 2019; Ardito and Messeni, 2017). However, few research has explored the relationship between HRM activities and service innovation. It can therefore be said that this aspect of the service industry investigation remains constrained.

Studies show that HRM activities play a critical role in enhancing the efficiency of companies, increasing their market share, personal initiatives, and service innovation (Ardito and Messeni, 2017; Anderson et al., 2014; Chen and Huang, 2009). Human capital is also one of the most significant factors shaping the success and competitive advantage of companies and service innovation. Studies, however, scarcely concentrate on service innovation and strategies to improve it (AlMarzouqi, 2019). It is also called a burning problem and has the right to address the research void that needs to be addressed. For that, the current study investigates the role of human capital as a mediator in the hospitality of Jordan between HRM practices and service innovation. Several theories have been used in literature to explain the interactions between these variables in hospitality, such as the resource-based view (Waheed et al., 2019), the knowledge-based view (Stojcic et al., 2020), and the theory of human resources (Gannon et al., 2015).

This analysis follows the following measures and procedures in order to achieve this objective. First of all, the study on HRM, human capital, and innovation in services was reviewed. Secondly, the hypotheses were evaluated utilizing quantitative methods involving structure equation modeling (SEM). In this respect, a questionnaire was used to collect data from 280 respondents in Jordan from the hospitality industry. By expanding the current findings of results that comes from the model that describes the relationship between HRM practices and service innovation, the paper will contribute to awareness. Human capital will also make use of the aforementioned partnership as a mediator. In the past, little consideration was paid to the combination of all these variables into a single model. This study is a groundbreaking study that has explored these variables in the hospitality industry. Therefore, it contributes to the body of knowledge by responding to the need to explore the relationship between HRM practices and service innovation, which particularly in the public sector, is characterized as complex and volatile. In addition, the results of the paper will make valuable contributions to the value of Human capital and HRM activities to positively impact service innovation for regulators, managers, and practitioners.

LITERATURE REVIEW

A significant source of competitive advantage is creativity (Sanz-Valle et al., 2018; Anderson et al., 2014; Dreu et al., 2008). The main drivers of the creativity of organizations have been defined by literature. Recent studies have highlighted the role of human resources in creating creativity and the value of creating new services. The main channels by which organizations can influence their human resources are HRM activities. The influence of HRM practices on service innovation has been examined in several studies (Alosani et al., 2020; Chen, 2018; Ardito et al., 2017; Bamber et al., 2017; Engelman et al., 2017; Escriboa-Carda et al., 2017; Chang et al., 2011) and the direct relation between HRM practices and service innovation (Waheed et al., 2019; Ardito and Messeni, 2017; Akbari and Monzavi, 2015). Research on this subject, however, remains immature (Tajeddini et al., 2020; Ardito et al., 2017) and empirical studies focusing on this subject remain scarce (Bonfanti et al., 2018; Losey, 2012) in the government sector in particular (AlMarzouqi, 2019; Battistelli et al., 2014). Studies have stressed the need for such organizations to investigate this relationship (Stojcic et al., 2020; Carmeli and Schaubroeck, 2013), given the lack of academic attention (Chang and Lee, 2020) and the weak interest of government organizations in this subject (Carmeli and Schaubroeck, 2013). In addition, studies have suggested conducting research on service innovation in various countries and different service industries (Bonfanti et al., 2018).

1. Service Innovation

Innovation is a new method of producing new products. In service industry, innovation refers to the process of significant improvement in goods or services and how they are marketed and organized inside or outside the organization (Ganzer et al., 217). It is the creation of new products, processes, and services, resulting in substantial improvements in the effectiveness, competence, regions' development, and quality of services (Ebersberger et al., 2021; Trusova et al., 2020; Mulgan and Albury, 2003). Alosani et al. (2019), however, argued that this definition of the innovation of an organization still needs to be extended by other factors related to HR. The organization's human resources reflect the knowledge base that can influence innovation and achieve success (Bonfanti et al., 2018); therefore, the culture of innovation is highly linked to HRM for the attraction and retention of talent (Ardito et al., 2017). Various authors have various conceptualizations of creativity in operation.

Some writers approached it from the point of view of market development systems, while others addressed it from the perspective of resource growth and culture (Chang and Lee, 2020; Booyens and Rogerson, 2016). It was presented by some from positive and interactive perspectives (Akbari and Monzavi, 2015). The development of the value of services is carried out by interactive innovation, according to Salunke et al. (2013), whereas supportive innovation implies indirect value generated at the back end to help a new value proposition. Along these lines, Akbari and Monzavi (2015) argued, classifying service innovation into process innovation, service product modifications, architectural innovation, and product innovation. Buller and McEvoy (2012) indicated that innovation in services contributes to the enhancement of systems and services by improvements in the business theater. Chang et al. (2011) concluded that service innovation requires not just the improvement of new service products and processes, but also the adoption of them by target customers.

Service innovation is, therefore, defined as developing new or enhancing existing services and processes for the purposes of this report. Innovation is very critical in building public organizations' credibility and reputation, as people tend to assume that hospitality sector services tend to be less quality-based than private service providers. With service innovation in the hospitality industry, there are substantial opportunities to increase the quality of services offered, boost economic growth, and draw more investors (Gorochnaya et al., 2021; Favoreu et al., 2019; Waheed et al., 2019).

2. Human Resource Management Practices

The Department of Human Management is the backbone of managing institutions, especially service industries, as the implementation of this section includes techniques and procedures for the effective implementation of its human resource management policies (Deeb et al., 2020; Boxal et al., 2007). This description is consistent with Wright et al. (1999), who describes HRM practices as organizational activities aimed at managing the human capital pool and ensuring that capital is used to achieve organizational objectives. They explain that the activities of human resources management are the procedures through which organizations can effectively exploit the ability of employees and provide them with opportunities for creativity. HRM practices is the key component of development and growth, it supports organizations in their decision-making, teamwork, empowerment, collaboration (Alosani et al., 2020), and organizational trust (Chang and Lee, 2020; Chivandi and Maziriri, 2018). This issue will be positively reflected in the promotion of knowledge and employee awareness behaviors, which in turn lead to improving their capacity to innovate (Favoreu et al., 2019). Nevertheless, despite studies examining the importance of HRM procedures and policies in innovation, these contributions remain minimal and poor in theory and empirical evidence. Furthermore, little study has explored how HRM activities impact creativity in the hospitality sector (Favoreu et al., 2019; Chowhan, 2016). Therefore, this portion of the hospitality sector survey remains small.

3. Human Capital

Human capital refers to the collection of expertise, abilities, and skills embedded in the human resources of the company' (Lepak and Snell, 2002). The connection with human behavior is one basic element of awareness. Thus, information production would be intrinsically related to the number of human resources in the organization. People with high levels of expertise, skills, and experience, on the one hand, are a source of innovative ideas for organizations. Organizations will find a wide variety of expertise in these types of workers, greater versatility in learning new information, and increased capacity to challenge existing organizational expectations and build new methods of thinking (Bonfanti et al., 2018; Subramaniam and Youndt, 2005). Human capital is one of the most significant factors affecting innovation (Bonfanti et al., 2018; Nieves and Agustı, 2016; Yamao et al., 2009; Subramaniam and Youndt, 2005) and is one of the key pillars of the functioning of a company (Yang and Lin, 2009). A company that incorporates technology into its human capital is more likely to achieve its goals (Elsharnouby and Elbanna, 2021; Nieves and Agustı, 2016; Salem, 2014).

It can also be said that human capital is mean to handling creativity in the enterprise since it produces new ideas (Nieves and Agustı, 2016). As a consequence, the greater the Human capital stock, the greater the possibilities for these forms of information sharing and combination processes to take place (Escriboa-Carda et al., 2017). Nieves and Agustı (2016) evaluated a large group of industries, in the field of biotechnology organizations and proposed that this could present some negative implications, considering the various features involved in providing high levels of human resources. These considerations lead one to conclude that there may be significant variations between various economic activities. The role of innovating in physical products and technology companies is usually allocated to one specific unit, such as research and improvement or product improvement (Waheed et al., 2019; Nieves and Agustı, 2016).

4. HRM Practices and Service Innovation

While innovation has historically been seen by science or technological experts, it is now understood that companies can rely on the perspectives, skills, and motives of employees to produce innovation (Shipton et al., 2017). Studies show that human-related factors help organizations improve service innovation behaviors and improve business performance (Alosani et al., 2020; Tajeddini et al., 2020). In other words, creativity results from workers' interactive activities. This view indicates that HRM determines the propensity of workers to work in that direction. Therefore, the paper proposed that when handled on the basis of HRM standards based on a community, internal human capital is optimized to promote creativity. Studies have shown empirically that HRM is the most important in achieving innovation (Tsou and Chen, 2020; AlMarzouqi, 2019; Nieves and Agustı, 2016). Research by Tsou and Chen, (2020) concluded that service creativity is positively affected by HRM activities. A company's success is measured by the ability to deal with different skills in its human resources, which is a fundamental factor in achieving high innovation rates and creating continuous new service innovations (Chang and Lee, 2020). The following hypothesis is hence proposed:

H1. HRM activities have an impact on the innovation of services.

5. HRM Practices and Human Capital

In the 21st century, "the most valuable corporate asset is seen by distinguished professors as the knowledge worker" (Macduffie, 1995). Human capital is the collection of skills, knowledge, social and personality characteristics, including creativity, embodied in the ability to perform labor in order to generate economic value (Becker, 1975). Accounting for management often deals with questions about how to model human beings as a capital asset. Human capital, however, broken down or defined, is vital for the success of an organization (Nieves and Agustı, 2016); human capital increases through education and experience. Recognizing the recruitment mode for human capital that contributes to the competitive advantage of the organization allows all HR-related managers to reconfigure, based on their potential, the entire current workforce. HRM practices that enhance the commitment of employees at all levels are shown to involve the development of human capital, but there are more chances of generating commitment through internal improvement. This shows that the most important consideration for increasing human capital is the effectiveness of HRM practices (Tsou and Chen, 2020; Ardito and Messeni, 2017). This discussion leads, therefore, to the following hypothesis:

H2. HRM practices have an impact on human capital.

6. Human Capital and Service Innovation

The definition of human capital relates to the expertise and skills of individuals that enable changes in behavior and economic growth (Becker, 1975). In order to do well in society, human resources can be built through structured training and education aimed at upgrading and renewing one's capabilities (Jawabreh et al., 2020). Previous researchers have differentiated between various forms of human capital (Chen and Huang, 2009). The literature, however, emphasizes human capital's primary function in creativity and success (Tsou and Chen, 2020). Research by Nieves and Agustı (2016), for instance, concluded that human capital is a source of organizational creativity. This is in line with Nieves and Quintana's recent research (2016), which stated that human capital has a positive effect on the potential for organizational innovation. The integration of creativity into organizations' human capital and their management structure results in excellent efficiency (Nieves and Agustı, 2016; Chen and Huang, 2009). The unanimous consensus of successful management that creativity is one of the main factors for success, performance, and productivity (Rodríguez-Pose et al., 2020). It also positively impacts earnings, growth, and market shares of organizations (Ardito et al., 2017; Akbari and Monzavi, 2015) growth of jobs (Bonfanti et al., 2018; Chen and Peng, 2017); return on assets and growth of sales (Chang and Lee, 2020; Mulgan and Albury, 2003). Innovation is also pushing organizations to retain their strategic place and excellence in a turbulent and competitive world (Gaynor, 2002; Leal-Rodríguez et al., 2015). In order to confront organizations with competitors, it is important to produce new goods, services, and processes (Carmeli and Schaubroeck, 2013). Effective innovation in services includes the development of adequate human resources in line with the organization's goals (Tajeddini et al., 2020). The following hypothesis is proposed:

H3. HRM practices has an impact on innovation in services.

7. Mediating Role of Human Capital

Providing theoretical support in the literature for human capital as a mediator. Previous research showed that several studies have used the mediation of human resources (Tsou and Chen, 2020; Chowhan, 2016; Nieves and Agustı, 2016). There is few research, however, that explores the relationships between HRM practices and innovation of services. This study, therefore, proposes, in the light of previous studies, that human capital acts as a mediating role between HRM activities and innovation in services. The following hypothesis is, therefore, proposed:

H4. The relationship between HRM practices and service innovation is mediated by human capital. Figure 1 presents the research model of the current study.

METHODOLOGY

This study seeks to demonstrate the relationship between human resource management practices and innovation in service in the hospitality sector, an area not well understood in the literature, as noted in the previous discussion. To conduct such a pilot study, which is based on the conceptual model described above, two basic steps were followed. First, reviewing the literature that dealt with the variables of this study, and then developing the study model and questionnaire. Second, the hypotheses of the model were tested via SEM, which in management studies was considered an acceptable process.

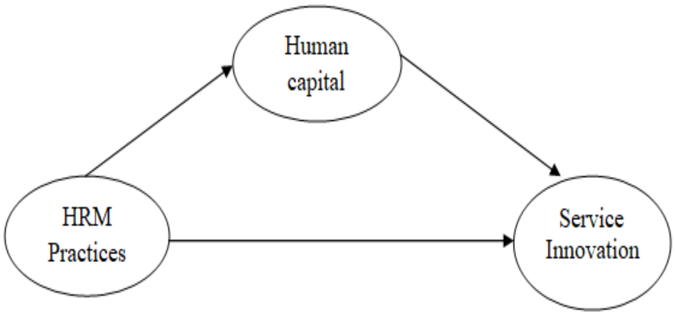

Figure 1. Research model

Table 1. Measurement of the study's variables

Variable	No. of items	References
HRM practices	7	Alosani et al. (2020); Andreassi et al. (2014);
Human capital	5	Madera et al. (2016); Nieves and Agustı (2016)
Service innovation	7	Gorochnaya et al., (2021); Alosani et al. (2019); Chen et al. (2011),

1. Research design and sample

The data from this study was obtained from respondents once. A cross-sectional survey was, therefore, used. From December 2019 to February 2020, the survey was distributed among employees of the hospitality sector in Jordan. The convenient method of sampling was used to pick respondents in Jordan from the hospitality authorities. Despite the fact that the practical approach still lacks supporting studies that allow it to generalize its outcome (Okoe et al., 2018). Furthermore, SEM was used to evaluate the study data using the SmartPLS program.

2. Measurement of variables and instrumentation

The contingent and independent variables were, respectively, service creativity and HRM activities. As the mediating element, human capital was used. Numerous things extracted from previous studies were used to calculate the variables. In order to match the sample and local environment, these items were updated. In this research, a five-point Likert-scale used had possible responses ranging from "1" (strongly disagree) to "5" (strongly agree). Importantly, all variables were evaluated unidimensional and reflectively in this analysis. A unidimensional and reflective construct implies that there is a close relationship between the items measuring the constructs.

Deleting any of the objects during measurement model evaluations would not inherently impede their material validity when structures are evaluated unidimensional and reflectively (Hair et al., 2014). Given this result, with consideration of its dependent, independent, and mediating variables, the variables of this study are operationalized below. Table 1 displays the research variables and objects used for calculating them and their literature references.

ANALYSIS

The structural model was estimated using the SmartPLS program via the partial least square (PLS) path model. Earlier, the evaluation of the measured model is required in order to analyze the relationships between the different paths of the model (Sanz-Valle et al., 2018; Barclay et al., 1995). This analysis is carried out in relation to the characteristics of individual item reliability, construct reliability, Extracted Average Variance (AVE), and the discriminant validity of the reflective scale indicators. The reliability of the measurement scales was checked by the Cronbach alpha coefficient and in all cases, a value greater than 0.7 was returned, which is considered acceptable in the literature. The composite reliability index was above the recommended threshold of 0.7, ranging from 0.955 to 0977 (Nunnally, 1978). The mean-variance extracted (AVE) ranged from 0.732 to 0.871 and showed that all reflective constructs exceeded the limit of 050 (Fornell and Larcker, 1981). The R^2 value for the endogenous constructs, on the other hand, ranged from 0.465to 0.605 and exceeded the recommended minimum value of 0.1, which shows that the model is suitable for hypothesis testing (Table 3). It then assessed the discriminating validity of the reflective measures.

Table 2. Properties and correlations of the constructs

Variable	HRM	Human Capital	Service Innovation
HRM practices	**0.909**		
Human capital	0.873	**0.933**	
Service innovation	0.815	0.883	**0.855**
Mean	4.029	3.767	4.130
SD	0.683	0.540	0.628
AVE	0.828	0. 871	0.732
Cronbach's α	0.955	0.965	0.977
R^2	0.605	0.465	0.507

R^2 = 0.201 for Support for Tourism

Table 3. Results of direct hypothesis testing

Hypothesis	β	t-values	p-values	Supported
H1. HRM → Service innovation	0.882	15.8	0.003	Yes
H2. HRM → Human capital	0.709	17.7	0.001	Yes
H3. Human capital → Service innovation	0.771	22.3	0.001	Yes

Table 4. Results of indirect hypothesis testing

Hypothesis	β	t-values	p-values	Supported
H4. HRM → Human capital → Service innovation	0.811	19.7	0.000	Yes

Table 5. Results of the mediating role of human capital

				Indirect effect 95% CI			
H	a	b	C'	SE	Lower	Upper	Mediation role
H4	0.689	0.695	0.761	0.054	0.756	0.884	Partial

The values of the square of the mean-variance extracted for construction is greater than the corresponding correlations (see Table 2). Therefore, all factors had adequate discriminant validity. The model has good convergent validity, reliability, and discriminant validity in summary. The next move was to evaluate the hypothesized relationships in PLS-SEM route modeling. The route coefficient values and the bootstrapping results are shown in Table 3, which describes the direct hypothesized relationships between the study variables. All direct hypotheses are optimistic and are extremely necessary. The findings indicate that HRM has a positive and important influence on the service innovation of services ($\beta = 0.882$, $t = 15.868$, $p < 0.003$) and on human resources ($\beta = 0.709$, $t = 17.711$, $p < 0.001$), thus promoting H1 and H2. Human capital has a positive and important effect on the innovation of services ($\beta = 0.771$, $t = 22.322$, $p < 0.001$), thus endorsing H3.

In line with Preacher and Hayes (2008) and suggested by Hair et al. (2014), and Hayes (2013) the bootstrapping approach is also used to assess the mediation effect. Specifically, in estimating the indirect effects, the bootstrapping approach with 5,000 samples and 95% confidence intervals (CI) was used. The CI values of the indirect effect a*b are given by the PLS outputs. In addition, when a 95 % CI excludes 0, it is obvious that an indirect effect connects X and Y with 95 % trust through the mediator. Table 4 reveals the bootstrapping results of the mediating effect of human capital on the relationship between HRM practices and service innovation. Table 5 presents that the confidence interval of the indirect effects of HRM practices on hospitality ($\beta = 0.811$, CI = 0.756 to 0.884) did not straddle a 0. The direct path c' was significant and the signs of the paths a, b and c' were positive, indicating that human capital partially mediates (complimentary) the effect on the relationship between HRM practice and service innovation. Thus, the mediation effect of human capital on the relationship between HRM practices and service innovation was statistically significant ($b = 0.811$, $t = 19.7$, $p <0.000$), thereby supporting H4.

DISCUSSION

The aim of this study was to explore the relationship between human resource management and innovation in services and whether this relationship is mediated by human capital. In line with previous research (Tsou and Chen, 2020; Bonfanti et al., 2018; Gannon et al., 2015), this study found that there is a strong and positive association with service innovation to pursue high-performance HRM practices. Although this finding is interesting, the main contribution of this study to the literature is that it provides evidence supporting the idea that the positive relationship between human resource management and service innovation is mediated by human capital. While it has been suggested by some authors (Chang and Lee, 2020;

Favoreu et al., 2019), research on this mediation is very scarce thus far (Buller and McEvoy, 2012; Mulgan and Albury, 2003). Second, this study also demonstrates that the policies and procedures that human resource management creates are a tool that can be used to inspire workers. In particular, according to the findings of this paper, human capital will benefit from adopting HR directives and strategies as service innovation or commitment-oriented framework by bringing together many of these activities that involve practices such as empowerment, continuous training, or motivation through the use of rewards for new ideas. In the context of this analysis, since human resource management practices are designed to enhance the service creativity of their departments, hostility also reduces the optimal use of human capital because the effect on innovation results in a weakness in the quality of the service provided and a negative impact on the internal customer which is reflected in his relationship with the customer. There is a strong correlation between human resource management and service innovation, and a positive relationship between human capital and service innovation.

The results of these articles go beyond contributions to the literature, but they also have important consequences for practitioners. One of the most important contributions made by this study is that it tells companies trying to encourage service innovation that engaging workers in creative work is an essential element in achieving this goal. This means that it is important for employees who are pursuing ways to reinforce exciting actions, reinvent existing concepts, discard old practices, and propose new ideas to implement those ideas. Also, when the degree of radicalization of inventions is greater, this form of human capital is more important (Chen, 2018). Current research shows common influences on service innovation for human resource management and human capital activities. In terms of the influence and role of human capital as a mediator in the relationship between human resource management activities and service innovation. The result of this study helps fill the void in the literature, especially in developing countries, and provides advice to service company owners in Jordan in particular on the alignment between human resource activities and human capital that It mediates the relationship between human resource management and innovation. It addresses the lack of studies that have examined human resource and human resource management practices as an approach to improving creativity in services.

There are some drawbacks to this analysis that need to be considered. The cross-sectional architecture of this research is first a limitation. Second, for all constructs, only subjective indicators were used, without using knowledge derived from other sources. Ultimately, data was obtained from the same respondent, the HRM director. While both of them usually participate in the board of management and are well educated about all the variables examined in this paper, it would have been more fitting to have responses from various managers. The limitations underlined in this paper must be resolved by future research. Longitudinal research, for example, could help to better understand the causal relationships between HRM, human capital, and innovation in services, and it would be useful to involve informants from various hotel levels. Furthermore, the analysis finds it important to look more closely into the relationships suggested by the inclusion of other variables in the model. In particular, the study suggests exploring how organizational learning influences HRM and SI relationships. In addition, the latest research by Waheed et al., (2019) shows that exploratory learning mediates the relationship between the understanding of HRM implementation by employees and their creativity in operation. This paper explores this relationship at the level of a person. Analyzing this connection at the organizational level will also be important, and in addition, the relationship between exploitative learning, HRM, and innovation in services is also examined. Finally, in an open innovation approach, another research line that can add to the literature is to review the model this paper proposes.

CONCLUSION

Qualified and trained human resources are the real assets of the company, and the human resources department must motivate and develop the skills and talents of employees. This study showed that there is a positive relationship between innovation and the high performance of human resources. Therefore, the success or failure of any service project depends on human capital, which is the link between the management of human resources and innovation in service.

Diverse human resource activities are the means to inspire and motivate workers. Empowerment, continuous training, and the use of rewards for new ideas also play a major role in preserving human capital and creating service. Therefore, modern human resources departments realize that the satisfaction of the internal customer (the employee) leads to the satisfaction of the external customer (the customer). Providing the appropriate internal environment is the responsibility of human resources management, and it is an environment for innovation and creativity in service provision.

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THE LEGAL CONSTRUCTION OF SPIRITUALITY, ETHICAL AND SUSTAINABLE TOURISM OF TEMPLES IN MALANG RAYA, INDONESIA

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Abstract: Temples has become one of the main tourism destinations in which a lot of people look for spiritual fulfilment. However, there are many weaknessess on protection and management of temples in Malang Raya that do not consider spirituality, ethics and sustainable tourism aspects. The paper aims to construct integrated law regarding protection and management of temples in Malang Raya based on the principle of spirituality, ethics and sustainable tourism. This research is a socio-legal study integrating legal, economics, cultural studies. The research data was collected from library research and observation of 29 temples, followed by cross-examination analysis techniques to formulate the solution. The results identify challenges encountered in the protection and management of the temples in Malang, in terms of regulation, economics, market, attraction, accommodations, environment, and ethics. Hence, the integrated legal construction covering all sectors is a key to protection and management of temple tourism in Malang Raya. The changing from government-based to community-based has its urgency to be applied to help involve more participation of the society. Furthermore, optimizing this transformation of paradigm can be accelerated through education program such as hands-on training or formal education.

Key words: legal construction, temples, spiritual, ethic, sustainable tourism

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INTRODUCTION

Temples are a cultural legacy laden with traditional values, spirituality, and it symbolises connection between God and His humankind (Asante et al., 2015). Malang Raya which consists of Regency of Malang, Malang City, and Batu City, represents historical values and is considered an old city in Indonesia. In the 13th century, Malang was the hub of Singhasari Kingdom and had been the centre of Majapahit Kingdom in the following phase, and it has left 29 temples as heritage (Fadli et al., 2019a). The people of Indonesia, who are mostly Muslims and highly tolerant, play a significant role in the maintenance of temples in the city. Temples are available for the government to attract tourists, and this has imposed a significant number of implications on the maintenance of the temples as a cultural legacy. Some tourists use temples for spiritual purposes or as a place of worship, meditation, healing, and so forth, and the rest come to temples as part of their vacation and to capture the beauty the temples can offer in their camera lens but show little respect to this legacy, violating the ethics of courtesy and overlooking the function and the values of spirituality attached to the temples (Timothy and Nyaupane, 2009). This, in turn, erodes the sacredness of the temples, irritates pilgrims, and degrades the process of sustainable tourism. This paper is presented to discuss preservation of temples in Malang by constructing the principle of spirituality, ethics, and sustainable tourism into a

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legal framework that is integrated. In terms of protection and development of temple tourism in Indonesia, there are several key principles that lay the groundwork for the establishment of policy framework as follows (Ardika, 2015):

1. The concept of 'living in harmony' or the principle of *tri hita karana*, emphasising the relationship between God and His humankind; between human and human; and between humankind and environment (Budarma and Suarta, 2016);
2. Complying with Global Code of Ethics for Tourism (1999a) and all types of international conventions in tourism sector;
3. Guaranteeing sustainable management of tourism.

All these principles have not been fully stipulated and elaborated comprehensively and have not even been integrated into laws and regulations concerning preservation of cultural heritage, especially regarding temples in Indonesia (Fatimah et al., 2019). The local governments of Malang do not have any elaborate blue print of conservation of temples that also takes the preservation of aspects of spirituality, ethics and sustainable tourism into account.

On the other hand, the local regulation keeps improving its economic aspect in tourism through varied programs and development. Following the Government Regulation Number 68 of 2019, for example, the Regency of Malang is planning to establish Special Economic Zone (SEZ) of Singhasari on 120.3 ha of land. The master plan of the SEZ also involves the development and establishment of both Singhasari and Sumberawan temples as part of attraction for tourists (Dewan Nasional Kawasan Ekonomi Khusus, n.d). The local governments of Malang have had their effort to raise the number of tourists with all strategies such as (a) forming integrated tourist destinations and embedding traits to sharpen and highlight the image of tourism in Malang; (b) improving the quality of management of tourist attraction, facilities, and accessibilities; (c) creating new tourist attractions such as food-, education-, and religious-based tourism; (d) and so forth (Setioko, 2019).

Furthermore, in the 2019 work plan set by Tourism Agency of Batu City (2019), Product and Tourist Destination Development Coaching Program and Tourism Promotional Program and marketing become the main core of the performance of Tourism Agency of Batu City to be implemented in 2020. In 2019, the number of visits to Batu reached 6,047,460 (Central Bureau of Statistics, 2020). In 2020, this figure is expected to keep increasing (Richa, 2020).

It is inevitable that tourism holds huge economic values. It is essential to keep natural resources as the backbone of the national economy alive. Therefore, protection and management of cultural heritage require the involvement of regulation that considers dynamic environment and the structure of society living around the temples (Kunasekaran et al., 2017). In other words, the value of heritage significance in the aspects of spirituality, society, ethics, and sustainable tourism is considered important in the preservation of temples (Australian Heritage Commission & Cooperative Research Center for Sustainable Tourism, 2001; Warrack, 2013). Thus, this paper aims to building integrated legal framework concerning protection and management of temples in Malang Raya based on spirituality, ethics, and sustainable tourism.

LITERATURE REVIEW

Emerging Trend of Spiritual Tourism

The term *spirituality* is derived from Latin word *"spiritus"* meaning 'breath of life'. This word was taken from Greece *"pneuma"* written in New Testament to explain the soul of an individual following the guidance of God (Chaudhuri and Ray, 2018). Back to ancient times, there was a strong relationship between tourism and spirituality. Spiritual tourism is the oldest and the most common journey ever done in human history (Kaelber, 2006). The term religious tourism and spiritual tourism are often considered similar, but in line with modern tourism development, vivid difference between religious tourism and spiritual tourism is more apparent (Table 1). Through the development of the world which is closer to the materialistic society, human beings look for spiritual fulfilment, battery recharge, self-reassessment, personal reflection, well-being and the meaning of good life (Buzinde, 2020; Choe and O' Regan, 2020a). Some studies have shown that conceptual debate concerning tourism leans more towards the nuance of spirituality instead of religiosity (Heidari et al., 2018). In the last three decades, there is a new paradigm of relationship between tourism and spirituality, where in contemporary tourism, tourism is defined as a sacred journey, a secular spiritual experience (Sharpley, 2016). Furthermore, Haq and Medhekar (2018) define spiritual tourism in two perspectives: travelling to and visiting (1) spiritual sites like mosques, churches, or temples; (2) natural sites such as forests, seas, lakes, gardens, caves, and many more for the purpose of spirituality towards the Almighty God, peace of soul, and others. What makes spiritual tourism unique is because there is not much about traditional religion. Most tourists travel to some tourist sites where they often perform spiritual practices on their own without having to be affiliated to a certain religion (Tomljenović and Dukić, 2017). For example, some tourists are often found to spend their time practicing yoga or meditation without having to label them as Hindu or Buddhist (Norman, 2011; Choe and O' Regan, 2020b). Furthermore, most tourists have little or even no relationship with their local traditions on day-to-day basis.

Table 1. Boundaries Between Religiosity and Spirituality in the Context of Tourism (Data Source: Cheer et al., 2017)

Spirituality	Religiosity
Wellness and Healing	Religious Observance
Personal Development	Ritualised Practice
Personal Quest	Special Occasion
Socialization	Socialization
Journeying	Identity
Recreation/ Leisure	Cultural Practice

The Ethics of Tourism

Ethical tourism is a tourism model specially designed as a measure to stimulate tourism industries and visiting tourists to consider ethical values in their conduct and to stay away from activities that could impose violation of ethics affecting tourist attractions (Smith et al., 2010). As guidelines to implement ethical tourism, United Nation World Tourism Organization (UNWTO) issued Global Code of Ethics for Tourism through Resolution A/RES/406(XIII) at the thirteenth WTO General Assembly held in Santiago, Chile on the 27th of September – the 1st of October 1999. There are 10 principles comprising elements of tourism in economic, social, cultural, and environmental fields intended to maximize the utilisation and minimise possible negative impacts that may emerge. Although Code of Ethics is not legally binding, Indonesia as a member of UNWTO (2019) can implement several recommendations from Code of Ethics in its national law (UNWTO, 2020).

Global Code of Ethics for Tourism (1999b) is aimed to enhance responsible and sustainable tourism open to all people. In terms of management of temples, specifically this code governs the essence of maintaining spiritual values and tourism in a sustainable way as intended in some articles. Some principles of spiritual tourism stipulated in this code involve:

1. Upholding tolerance and appreciation to ethical, moral, religious and philosophical values, social condition and cultural tradition along with day-to-day life of the people and minority group or local people (Article 1 paragraph (1));
2. Carrying out all tourism-related activities in harmony with the characteristics of the region or the host country for tourists and assuring that the activities appreciate law, local customs and traditions people (Article 1 paragraph (2)); and
3. Business people in tourism playing a role in helping fulfil both cultural and spiritual need of the visitors without overlooking to give a chance to tourists to perform their religious practices (Article 1 paragraph (3)).

The principles of sustainable tourism development involve:

1. All stakeholders of tourism development that have their responsibility to preserve their environment for better economic development (Article 3 paragraph (1)); and
2. Consideration over the capacity of visitors to tourist attractions made to anticipate any damage of attractions or cultural heritage (Article 3 paragraph 3).

Concept of Sustainable Tourism

The definition of sustainable tourism was first formulated in Our Common Future (also known as the Brundtland Report) (United Nations, 1987). It is said *sustainable* when "it meets the needs of the present without compromising the ability of future generations to meet their own needs". In Earth Summit taking place in Rio de Janeiro in 1992, three main pillars of sustainable development were formulated, involving economic development, social responsiveness, and environmental protection (Information Resources Management Association, 2018; Mundt, 2011). All these three pillars serve as fundamental concepts of sustainable tourism. The key principles aimed to optimise sustainable tourism are as follows (UNEP and UNWTO, 2005):

1. Utilising environmental resources, maintaining ecological process, and helping conserve cultural heritage and biodiversity.
2. Appreciation given to the authenticity of socio-culture and local communities, maintenance of heirlooms and contemporary traditions, traditional values, and contribution to understanding culture and tolerance.
3. Assurance of long-term economic activities that are valuable for all parties

Sustainable tourism is a global standard requiring the existence of formulation of national policy by involving participation, empowerment, transparency, and justice (Arintoko et al., 2020). In Indonesia, the vision of tourism development is formulated according to Indonesian Long-term Development Visions: for independence, development, justice, and welfare of Indonesia and for development that is more pro-poor people, development for growth, employment, and environment (Kementerian Negara Perencanaan Pembangunan Nasional, n.d.). Sustainable tourism can obviously give contribution to achieving the projection as set in national development of 2025 and as expected. Furthermore, Article 2 paragraph (4) of Government Regulation of the Republic of Indonesia Number 50 Year 2011 concerning Master Plan of National Tourism Development (https://jdih.setkab.go.id/PUU doc/17379/PP0502011.pdf) mentions the vision of tourism which states that "Indonesia with its competitive, sustainable, and superior tourist destinations is expected to stimulate the development of regions and welfare of the societies".

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Figure 1. Mapping of Temples in Malang Raya, East Java, Indonesia (Source: compiled by the authors)

There are 29 temples in Malang Raya that become the object of sustainable tourism namely: (1) Jago Temple; (2) Kidal Temple; (3) Singhasari Temple; (4) Sumberawan Temple; (5) Selokelir Temple; (6) Complex of Jawar Ombo Temple; (7) Bocok Temple; (8) Petirtaan Watugede; (9) Ngabab Temple; (10) Gunung Telih Temple; (11) Badut Temple; (12) Songgoriti Temple; (13) Punden Mojorejo; (14) Bhatara Guru Temple; (15) Kembang Temple; (16) Lepek Temple; (17) Madrin Temple; (18) Wesi Temple; (19) Hyang Semar Temple; (20) Makutarama Temple; (21) Patung Lesung Temple; (22) Rancang Kencana Temple; (23) Rhatawu Temple; (24) Sepilo Temple; (25) Watu Ireng Temple; (26) Laras Temple; (27) Gua Gambir; (28) Indrikilo; (29) Satria Manggung. For more detail location of temples, it can be seen from the maps below.

Every temple has its own history and function. For instance, Jago Temple, Singhasari Temple, Kidal Temple and Badut Temple was built for the purpose of recognition to the King. Whereas, Sumberawan Temple has a function as the place of worship. Therefore, in maintaining sustainability, it is important to consider utilize and authenticity of the objects.

METHODOLOGY

This paper is a socio-legal research that studies law not only in terms of text, but also in terms of context through interdisciplinary approach by integrating legal, economics, and cultural studies into a single approach (Creutzfeldt, 2020). The observation took place in 29 temples in Greater Malang, East Java, Indonesia.

Data collection was obtained from library research and observation. Observation of the 29 temples was intended to gain empirical evidence. The data was analyzed and divided into 7 categories of protection and management of the temples in Greater Malang according to spirituality, ethical and sustainable tourism: (a) regulations (5 indicators); (b) economics (4 indicators); (c) market (5 indicators); (d) attractions (3 indicators); (e) accommodation (5 indicators); (f) environment (2 indicators); dan (g) ethics (4 indicators). Based on the analysis of the weaknesses of the aforementioned 7 categories, the author came up with a solution by means of cross-examination techniques.

RESULTS AND DISCUSSION

Challenges of Temple Protection in Malang Raya regarding Spirituality, Ethics, and Sustainable tourism

Review of local governments' policies is essential to supervise the growth of tourism industries in a particular region. Tourism policies are intended to instruct the development of tourism in a country (Goeldner and Ritchie, 2011a). Initiative on tourism design taken by local governments for more structured policies lead to favorable outcomes in tourism management at national level. Malang Raya has 29 temples out of 149 all over the regions of Indonesia (Fadli et al., 2019b). Of the 29 temples, five are registered as the sites of cultural heritage at national level, including Candi Jago, Candi Kidal, Candi Singhasari, Candi Sumberawan, and Candi Badut. Supriatmo, a staff of Data and Statistics Centre of Directorate General of Education and Culture, Ministry of Education and Culture, suggests that only historical sites having the Decree of Ministry are validated, and this validation has set the temples as national cultural heritage. In other words, some other temple sites are under the responsibility of each local government for validation (Nana, 2018).

Indonesia ratified 1972 UNESCO Convention concerning the Protection of the World Cultural Heritage (hereinafter the 1972 World Heritage Convention) on 6th of July (UNESCO, n.d). Furthermore, the 1972 World Heritage Convention was adopted by Indonesian national law specifically in Law Number 5 of 1992 concerning Heritage Objects (https://peraturan.bpk.go.id/Home/Download/35315/UU%20Nomor%205%20Tahun%201992.pdf), which was further amended to Law Number 11 of 2010 concerning Cultural Conservation (https://sherloc.unodc.org/cld/uploads/res/document/idn/law-11-of-2010_html/ind_act11_10_clther_entof.pdf). However, since the Law Number 11 of 2010 concerning Cultural Conservation (https://sherloc.unodc.org/cld/uploads/res/document/idn/law-11-of-2010_html/ind_act11_10_clther_entof.pdf) was in place, there have not been any regulations to implement the law. This situation seems to present problems preserving the cultural heritage. Some other laws and regulations concerning protection and management of cultural heritage are overlapping, and this situation has blurred the responsibilities that both central government and the local governments should carry out; they even seem to blame each other (Astuti, 2017). Indonesian government has been aware of and recognised the concept of sustainable tourism development, but change in the paradigm of sustainable tourism has just been implemented clearly and in a more structured way since the issuance of the Regulation of Tourism Minister of Tourism Number 14 of 2016 concerning Guidelines of Sustainable Tourist Destinations. These guidelines have put communities as the main actors in tourism development in every region. However, from the hierarchical perspective of laws and regulations in Indonesia, the minister regulation encounters its own issues when it meets local regulation. The minister regulation, although it is legal, will not have its capacity to serve as a legal basis with which sustainable tourism development in Malang Raya complies for as long as the provision of the guidelines is not accommodated in the local regulation. In addition, spiritual aspect and ethics are not the main focus to consider in the protection and management of cultural heritage. Malang Raya consisting of three cities has different local regulation concerning protection and management of cultural heritage. The Regency of Malang has issued Local Regulation of Regency of Malang Number 3 of 2011 concerning Cultural Heritage (http://jdih.malangkab.go.id//sites/default/files/prduk-hukum/Nomor_3_Tahun_2011_tentang_Cagar_Budaya.zip), Malang city has Local Regulation of Malang City Number 1 of 2018 concerning Cultural Heritage (https://jdih.malangkota.go.id/API_JDIH/storage/upload_file_hukum/SALINAN_PERDA_1_TAHUN_2018_TENTANG_CAGAR_BUDAYA.pdf), and Batu has its Local Regulation of Batu Number 1 of 2014 concerning Management and Preservation of Cultural Heritage (https://jdih.batukota.go.id/wp-content/uploads/2019/08/PERDA-1-TAHUN-2014.pdf). All these three local regulations have their different provisions in terms of spiritual, ethical, and sustainable tourism aspects. This paper presents the analysis of standard applied in the protection and management of temples in Malang Raya based on the aspects of spirituality, ethics, and sustainable tourism (Table 2). Based on the Table above, there are drawbacks of protection and management of temples in Malang Raya in terms of:

1. Regulation

The existing regulation is still government's paradigm-based. The role of the local governments is too much dominant instead of being focused on stimulating the participation of the members of public. Moreover, the number of the laws made is still limited. There are no special regulations issued by Regent/Mayor regarding the protection and management of temples, while temples have their unique characteristics distinct from the rest of cultural heritage objects. The 1972 World Heritage Convention and the Law Number 11 of 2010 concerning Cultural Conservation have required central and local government to involve people actively in protecting and managing cultural heritage. Unfortunately, the involvement of the people is limited and there is lack of support coming from the government to facilitate and to give stimulus to people's participation. Furthermore, good legislation should be applicable or useable for a long term. However, none can guarantee this proportional implementation since power to issue a local regulation lies in the hands of a Regent/a Mayor along with DPRD (Regional House of Representatives). Ruling period is only five years, meaning that revisions or amendment of regulations are highly possible.

Table 2. Indicators on Protection and Management of Temples in Malang Raya
based on Spirituality, Ethical and Sustainable tourism (Data Sources: Weaver, 2006; author analysis)

Categories	**Indicators**	**Areas**		
		Malang Regency	**Malang City**	**Batu City**
Regulations				
Control	Community based	Government based	Government based	Government based
Quantity	High	Low	Low	Low
Principle	Public Intervention	Limited	Limited	Limited
Accent	Community well being	Yes	Yes	Yes
Timeframe	Long term	Relative	Relative	Relative
Economics				
Earnings	Low	Yes	Yes	Yes
Leakages	Low	Not Found	Not Found	Not Found
Multiplier Effect	High	Low	Low	Low
Role of tourism	Supplemental	Yes	Yes	Yes
Market				
Segment	Allocentric to midcentric	Allocentric	Allocentric	Allocentric
Volume	Small, on their own	Yes	Yes	Yes
Length of Stay	Long	Short	Short	Short
Seasonality	Without seasons	Yes	Yes	Yes
Origin	Without dominant markets	Yes	Yes	Yes
Attractions				
Characteristics	Pre-existent, authentic	Yes, but unorganized	Yes, but unorganized	Yes, but unorganized
Accent	Moderately commercial	Yes	Yes	Yes
Orientation	For locals and tourists	Yes	Yes	Yes
Accommodation				
Size	Small scale	Yes, but unorganized	Yes, but unorganized	Yes, but unorganized
Spatial model	Dispersed	Yes, but unorganized	Yes, but unorganized	Yes, but unorganized
Density	Low	Yes, but unorganized	Yes, but unorganized	Yes, but unorganized
Architecture	Local and original	No	No	No
Ownership	Local, family	Yes	Yes	Yes
Environment				
Development control	Formal controls over development of site and measures of disruptive behaviour	Yes	Yes	Yes
Waste management	Sewage management from site	Not found	Not found	Not found
Ethics				
Promotion	Values of humanity, tolerance, diversity of religious, philosophical and moral beliefs	No	Yes	No
Information	Providing objective, honest, and clear information	Not Found	Yes	Not Found
Visitors	Responsibility to acquaint themselves	No	No	No
Security	Guarantee on safety from thefts and violence against persons	Yes	Yes	Yes

2. Economics

The number of those visiting temples in Malang Raya is quite low since the management of the temples is not optimal and the marketing approach is not massively carried out. In the context of spirituality, ethics, and sustainable tourism, it is expected that tourism can still earn more money despite low figure for visitors by providing appropriate supervision and making adjustment to the visitors' preference of local/original products. Unfortunately, micro, small, and medium enterprises (UMKM) responsible to produce genuine products or services are in limited existence, and it holds true for the capital they have, where it fails to cover market demand. As a result, it is essential to enhance UMKM in all sectors with the intention to gradually replace mass tourism with other more accommodating sectors, while the objects of tourism themselves could serve as additional sector in local economy.

3. Markets

Most coming visitors who visit temples in Malang Raya are categorised as allocentric tourists—those who dare take a risk to visit untouched and secluded places they believe are more authentic and natural than the 'destination' itself (Hashimoto, 2015). To date, the figure for those visiting temples and their surrounding is considered low, while the average number of visitors decide to not stay longer around the temples they visit due to insufficient accommodations. Visiting temples is not seasonal, but most visitors are often found around the middle of the year, the end of the year, or during public holidays or religious holidays. There is no dominating market in the management of temples in Malang Raya, and this is simply because no significant investors are attracted to invest their money for temples.

4. Attractions

Malang Raya has varied traditional arts that potentially attract visitors such as *Grebeg Wiratama* dance, *Wayang topeng* Malang, *Beskalan Putri* dance, *Bantengan*, *Serimpi Lima* dance, *Bedayan* dance, and *Macapat Malangan*. These traditional arts exist among other forms of modern art, musical art, fine art, dances, and some other contemporary arts (Malang Guidance, 2011a). There has been a lack of management in traditional arts, and traditional artists have fewer opportunities to perform regularly. Traditional arts are only performed in particular events such as during holy days, Indonesian Independence Day, or festivals (Malang Guidance, 2011b). Furthermore, the local governments only give limited finance and facilities for the development of traditional arts. This situation has led to low income for artists since the art performance they give is not commercial and is only presented for the locals or the visiting tourists.

5. Accommodation

There is growing number of hostels and homestays organised by the locals. These accommodations are also common in some tourist spots. However, most accommodations require better management to help them give additional values in terms of spiritual tourism. Moreover, the architecture of local culture does not fully emerge, and thus it fails to attract tourists.

6. Environment

The primary criterion in protection and management of cultural heritage is to preserve the environment of cultural heritage objects and surrounding areas. There are several challenges encountered in environmental management that involves:

a. Waste

Flocks of people visiting the temples contribute waste (Yadav, 2013). Waste management is present as a challenge since those in charge of managing temples are not well supported with sufficient infrastructure to tackle this problem.

b. Pollution

Spiritual tourism is characterized by peace and tranquility that visitors seek when visiting the temples, but pollution spoils this spiritual quality. The common problems with pollution involve water pollution, air pollution, noise pollution, and land pollution (Singhasari and Songgoriti Temples, for example, have spring water and it demands special management to keep the water clean). Emission coming from vehicles at the area of the temples has contributed to both air and noise pollution. Moreover, people’s awareness of not littering is still low, and it potentially leads to land pollution (Dhamija, 2020).

c. Climate change

The lands and sites on which temples have stood for thousands of years have greater intimacy than modern ones, but the changing climate also affecting the change in soil moisture, temperature, salt weathering, erosion, wind change, and storm can trigger structural damage to the temples. In addition, climate change also has impacts on social and cultural aspects of the people, where it has encouraged them to change their way of life, which also has affected spiritual authenticity of the cultural heritage (Dastgerdi et al., 2019).

d. Overcrowding.

Regional governments of Greater Malang have taken some measures to attract more visitors. On one hand, this helps to improve the economic condition of the locals. On the other hand, massive number of visitors poses a threat to the temples and the cultural values of the locals in the heritage sites. Those in charge of the management of the temples are not sufficiently knowledgeable about physical, economic, social, and biophysical concepts that positively contribute to tourism (Zubiaga et al., 2019; Cros and Kong, 2020). Thus, control over physical buildings, environment and waste management is required. The local governments in Malang Raya have the regulation concerning the control policy, but involvement of technology based on the principle of efficiency in the implementation of the policy is required.

7. Ethics

The ethics in cultural heritage preservation are social norm embodied in moral standard that is aimed to guide the behavior of every individual involved in the preservation of cultural heritage. The local governments have their authority to set ethics required in the preservation, but unfortunately the Regency of Malang, Malang city, and Batu city do not have specific regulations concerning cultural heritage preservation. Since new tourist spots keep growing in Malang Raya, there is also growing likelihood of visitors violating sacred places, such as theft of cultural objects, inappropriate clothes, forbidden access to sacred places, inappropriate use of sacred places, and so forth.

The Legal Construction of Spiritual, Ethical and Sustainable tourism of Temples in Malang Raya

Tourism policy taken by the local governments is considered very important to help provide guidelines, instructions, objectives, and strategies needed in the development or promotion of tourism either for a long term or for daily routine of the locals living around the tourist spots (Goeldner and Ritchie, 2011b).

Formulating the policy of tourism must be interdisciplinary and multidisciplinary. Moreover, there are several other characteristics that have to be met (Goeldner and Ritchie, 2011c):

1. Focus is given to macro policy, and this involves all aspects of policy concerning direction that has to be taken to develop the tourism at regional, national, and international level;
2. The policy is supported by long-term scenario;
3. The policy made has to be able to meet the need and to grab the potential of tourism by adapting to the availability of limited natural resources;
4. Scientific researches, either conducted normatively or empirically, are as the main fundamental in policy making;

Table 3. Cross Examination on Regulations of Protection and Management of Temples in Malang Raya based on Spirituality, Ethical and Sustainable Tourism (Data Source: author analysis)

Parameter	Existing Legal Framework	Recommendation
Regulations	There is no single government regulation serving as an implementing regulation for the Law of the Republic of Indonesia Number 11 Year 2010 concerning Cultural Conservation (https://sherloc.unodc.org/cld/uploads/res/document /idn/law-11-of-2010_html/ind_act11_10_clther_entof.pdf)	Urging the government to pass Government Regulation concerning Cultural Heritage is required.
	There is no comprehensive and integrated blue print regarding protection and management of temple tourism in Malang Raya	Making blue print regarding protection and management of tourism of the temples in Malang Raya is required by involving experts from several disciplines.
	There are only five out of 29 temples registered as sites of national cultural heritage	- Local Governments are expected to add other 24 temples for registration in proposal to the Central Government for registration of national cultural heritage. - Local government need to do consecration because many temples in Malang Raya are not used for spiritual activities, even become ruined and abandoned (Hermawan, 2019)
	- More government-based. Participation of people in the local regulation making is governed, but the implementation method is not detailed. Every local regulation has its own policies in term of involving people. Some juridical hindrances are seen in people's participation (Rumesten, 2012: 146): a. There are many local regulations that are more toward the interest of people. b. There are no regulations forcing governments to involve people in the process of local regulation making. c. There is no assurance guaranteeing that people will receive information. d. Corruption seems more common under legal protection e. There are many regulations governing the responsibilities of the people but overlooking their rights. f. There is no socialisation of regulations/policies.	Change of paradigm to community-based system is required. Several strategies are recommended: a. Support is given by policy makers: 1) Consistency in delivering campaigns to public and mass media 2) Aggressive promotion of temple tourism-related events through literature that will be updated yearly, indicating popular attractions and prices (Okonkwo et.al., 2020) b. Rooms for public participation are required, either before or after a policy is made, so is the participation of the people in implementing and monitoring the policy c. Local people, *adat* leaders, and several local experts should be actively involved in decision making in some important policies.
Economics	- Utilising cultural heritage is aimed for the great prosperity and welfare of the people, but in reality the policies made are not focused on stimulating the development of UMKM.	- Increasing the quantity of UMKM opened in the areas of the temples as part of the program aimed to improve both the quality and quantity of UMKM. - Policy implying that most goods and services should be obtained from local resources. - Locals should welcome visiting tourists with open arms by: a. Conceptualising restaurants and souvenirs based on local identity b. Providing local guides knowledgeable about Hinduism/ Buddhism.
Market	There is absence of policies made by local governments in the Regency of Malang, Malang city, and Batu city specifically governing market of tourism.	- Transforming tourism market segments from allocentric to midcentric—solo or small group trevel intending to stay longer and usually avoiding peak holiday seasons—is needed. - Policies regulating business people involved in tourism are to be made with the intention to stimulate them to support local products and services better.
Attractions	Local regulations issued by the regency of Malang, Malang city, and Batu city have regulated the protection, management, and utilisation of cultural heritage must refer to the principle of *Bhineka Tunggal Ika* (Unity in Diversity) and the principle of archipelago, meaning that local wisdom and image of local uniqueness of tourism are upheld. However, there are shortcomings in regulating the management of tourist attractions; there is no vivid grand design coming from the government regarding how traditional arts in Malang Raya should be presented as captivating attractions available for all local and foreign tourists.	- It is essential that the local governments of Malang Raya issue grand design of traditional art performances. With it, it is expected that the attractions performed have the quality of management, allow tourists to enjoy the performances, and add values for the development of temple tourism in Malang Raya. -The attractions performed should meet the national quality standard. - There should be supports, monitoring, and evaluation performed gradually by the local governments to help improve the innovation and quality of traditional art performances and to allow the art performance to coexist with the temples.
Accommodation	There are no strict regulations concerning management of tourism accommodations in Malang Raya since the progress of the development of tourism accommodation around the tourist locations depend on market demand in which big investors have more opportunities to realise the development.	- Increasing the number of small-scale accommodations near tourist spots is required. - Prioritising accommodations organised by the majority of locals is required.
	There are no policies upholding traditional architectural design of the accommodation buildings near temples.	- Setting standard of traditional architecture for local accommodation buildings.
Environment	Local regulations issued by Malang regency, Malang city, and Batu city have regulated environmental impacts imposed by restoration and the utilisation of the cultural heritage by involving the participation of experts. However, there are not policies governing how to restore damaged objects of cultural heritage due to natural disaster and no structured and integrated policies governing waste/garbage management caused by tourists.	- Structured and integrated control aimed to protect cultural heritage from natural disaster is required. - Control over cultural heritage preservation is required. - Number of visitors should be restricted in regards to the capacity the infrastructure can hold. - Proposed recycling programs.

Ethics	- The local governments have power to set ethics of preservation of cultural heritage, but to date the regency of Malang, Malang city, and Batu city have not issued any elaborate regulations concerning the Ethics of Cultural Heritage Preservation.	- The local governments are expected to set a policy concerning Ethics of Cultural Heritage Preservation. - The local governments are expected to improve measures of promotion to help preserve cultural heritage by means of advertising on mass media, brochures, socialisation and interaction with tourists when they arrive at the airport or when they stay in the accommodation. - It is important to give clear information about requirement tourists have to comply with when they visit temples.

1. The policy is intended to stimulate organised creativity;
2. The policy serves as a facility to support dynamic and sustainable social process;
3. The policy serves as breakthrough of paradigm transcending traditional boundaries in the sector of tourism industries;
4. Tourism policy becomes part of economic system policy at regional and national level;
5. The policy that is capable of appropriately situating business competition and partnership among stakeholders in a proper context and portion.

Supported by spiritual values, ethics, and sustainable tourism, tourism policies are expected to realise the distinct, innovative, and beneficial development and management for the locals living near temples. Thus, there is urgency to plan a framework of temple tourism that is supposed to give unique experience as part of added values to tourists. This is possible only by strengthening regulations on the basis of people participation, management in economic and market sectors, event management, accommodation development, environmental protection, and application of tourism ethics. Moreover, some improvement in the above sectors is recommended in Table 3.

Based on the above analysis, regulations play an essential role in the protection and management of temple tourism based on the principle of spiritual, ethical, and sustainable tourism. Local governments need to immediately perform a transformation of paradigm from government-based to community-based policy. Participation of people in policy making, economic and market stimulation, infrastructure development especially in accommodation for tourists, events of traditional art performance, environmental and temple preservation through ethical values serves as principle fundamentals in sustainable tourism development and as the infrastructure aimed for the prosperity of the people living near temples.

To maximize the transformation of paradigm, to accelerate implementation of policy change, and to transform the people's culture, the development of education program for government's apparatus, cultural heritage management, volunteers, and members of public are essential to be conducted in either hands-on training or formal education (Sirirat, 2019a). Principally, education is intended to increase awareness and participation of all parties, including:

Table 4. Education is aimed to provide protection and support the management of temples in Greater Malang based on spiritual, ethical, and sustainable tourism principles (Sirirat, 2019b; author analyzed)

Trainer/ Facilitator	Material	Target	Method
Policy makers/ Tourism Management	Introducing laws and regulations Introducing governments' programs regarding temple tourism Facilitating partnership among stakeholders	Host communities Local Guide Small business owners Scholars Volunteers	Focus group discussion
Community Leader/ Local guide	Local culture Temples and their history Festivals/ Events Facilities	Tourists Volunteers	Reflection on site Training Online
Scholars	Interpretation and implementation of laws and regulations Research collaboration	Tourism Management Small business owners Local Guide Community	Focus group discussion Training Online

Top-down and bottom-up approaches are expected to contribute to effective strategies in developing temples into spiritual tourist destination based on the principles of ethic and sustainable tourism. The primary focus of the local governments on stimulating socio-economic development of local people through spiritual tourism attraction deserves appreciation and support. However, negative impact of the economic development can be hampered by implementing a policy aimed to protect environment, maintain, and conserve cultural heritage. Governments, along with tourism management and the people, must perform regular evaluation for improvement.

CONCLUSION

This paper concludes that development of integrated legal construction by considering spiritual, ethical, and sustainable tourism values represents the key factor in protection and management of temples in Malang Raya. To date, there are legal loopholes regarding the management of temples especially in terms of aspects such as economy, markets, attractions, accommodations, environment and ethics. The regulations made are mostly government-based, and this leads to minimum participation of people. This paper initiates the transformation of paradigm from government-based to community-based system. Legal loopholes in terms of the aspects such as regulations, economy, markets, attractions, accommodations, environment and ethics are constructed into a single integrated regulation. Furthermore, the transformation of paradigm is optimized through education program such as hands-on training and formal education. Eventually, the principle of spirituality and ethics are integrated into a unity of values useful to implement sustainable tourism. Economic, environmental, and cultural aspects can work in harmony and can lead to the great prosperity and welfare for the people of Indonesia.

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THE IMPACT OF THE GLOBAL COVID-19 PANDEMIC ON THE SELECTED PRACTICES OF HUMAN RESOURCES MANAGEMENT IN THE RELATIONSHIP TO THE PERFORMANCE OF TOURISM COMPANIES

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Abstract: This article focuses on human resources management in relationship to organizational performance in global Covid-19 pandemic times, particularly in the tourism companies operating in the Slovak Republic. From the theoretical part, the paper focuses on the evaluation of the situation in hospitality caused by Covid-19 in tourism companies in the current business environment and look at the more detailed human resources management, as many scholars point to some irregularities. The paper also presents the research results that was carried out on 274 respondents of managers who work in hospitality and the other sectors in this field. For research purposes, we suggested and tested the research hypothesis to analyze the statistically significant relationship between the impact of Covid-19 on the selected human resource management practices and the performance development of tourism companies in the Slovak Republic. There were the following practices: recruitment and selection of employees, education (training) and development, evaluation and management of employees´ performance, rewarding and employee participation. The hypothesis was verified by correlation analysis with the use of inductive statistic. The hypothesis was verified at the end. The article points at the fact, that the procedures and practices of human resources are affected by Covid-19, as the other sector of human resources management. Also, the impact of Covid-19 affects the changes in the performance development of tourism companies operating in the Slovakia.

Key words: tourism, organizational performance, global Covid-19 pandemic, practices and procedures of human resources management in tourism services.

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INTRODUCTION

The economic, political and finally technological environment has changed in recent years significantly both on a national and international scale. The most significant challenges affecting current developments include the economic surroundings, explicitly, globalization, knowledge economy, demographic changes and the last pandemic Covid-19 crisis. These influences have their impacts on the area of human resources management in tourism companies, and of all other resources stepping into the reproduction process and can be easily imitated, but only human resources can create a very incomparable competitive advantage. The organizations at the beginning of the 21st centuries have found themself in global competitiveness. The transformation from industrial to knowledge organization and the growing tasks of human capital have put the organization to face the new challenges of finding procedures to stay competitive. The changes in demographic, globalization, and as well as lack of a highly qualified workforce, in particular, have a significant effect on the organization ability of individual countries to sustain their stability. At the early beginning of the year 2020, all companies areas face up global pandemic issue caused by a new virus. The most affected among all companies are those related to tourism. In fact of dramatic changes regarding covid-19, the companies must react and adapt to the changes and manage human resources responsibly. All these changes require organizations to identify and implement new recruitment and development strategies. The employees must acquire a variety of skills that enable them to cope with new technologies and functions in companies affected by global pandemic effects. The technological progress, deployment of informative communicative technologies and growing radical globalization create a new business environment. These changes are affecting both the workforce and the methods of how human resources are managed. Gallo et al. (2019) state, that business companies must respond to ever-

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changing market situation and be able to adapt to these changes professionally. In this context, companies need to employ appropriate managers with innovative approaches bringing new business ideas and trends. The companies that want to remain competitive and efficient today still need to respond adequately to human resource management practices in line with these technological and structural changes (Moyo, 2020; Donthu and Gustafsson, 2020; Carnevale and Hatak, 2020) state, that the pandemic has affected the operation of businesses and the management of human resources.

LITERATURE REVIEW

1. The global pandemic Covid-19 and tourism sector in current

In the current turbulent times, it is inevitable for human resources to face many challenges, so the most significant assets, so-called human resources, should remain vital to fulfil the function of idiosyncratic competitive advantage. The pandemic Covid-19 presents the major challenge for the managers of all tourism companies operating in various field to consider the implementation of new managerial methods and tools in this unstable and changeable world. The pandemic Covid-19 presents the major challenge for the managers of all tourism companies operating in various field to consider the implementation of new managerial methods and tools in this unstable and changeable world. Remotely work, creating virtual teams, knowledge management is some of the many practices that most companies adopt as a concept to keep the companies run smoothly (Carnevale and Hatak, 2020). Most managers try to help their workforce adapt to the current pandemic situation and subsequently cope with the radical changes that take place in the work and social environment (Baert et al., 2020). Belzunegui-Eraso and Erro-Garcés (2020) suggest that one of the main challenges in the field of human resources management, caused by pandemic Covid-19, are difficulties to adapt new and current employee as well as to copy very radical changes in working conditions which include both transportation to working place in a remote location and the implementation of new undesirable working conditions, policies and procedures in the workplace. Based on literature analyses, we can state that among the main challenges that need to be addressed for a long time, we can include the globalization process, transformation to the knowledge economy, talent management, diversity management, conversation of human resources practices, demographic development, strategic human resources management, manager´s professionalism in human resources management and as well the changes in activities of human resources departments. It is therefore inevitable to face such challenges and react to their impact during a pandemic. Varma et al. (2008) state that currently international companies have to dominate position when doing business because their advantage is the ability to do business in a wide range of business environment. In addition, they employ worldwide workforces and face importance due to the transition of systems in human resources management.

What does it mean for companies operating in tourism during the current business environment? These companies are nowadays in the middle of turbulent and complicated business environment. Over the decades, tourism has become one of the most progressive and most developed economic sector based on the growth and deepening diversification. Modern tourism included a growing number of new destinations and was closely linked to development, as a result of which tourism has become a key factor in socio-economic progress. It was significant and valid only for the period that was not affected by pandemic Covid-19. The global expansion of tourism in the industrialized, developed countries have increased pre-pandemic economic advantages for employment in many sectors and contributed to economic prosperity (UNWTO, 2018). Tourism in many countries is considered the dominant pillar of the economy and its significant source of employment. However, regarding the outbreak of Covid-19, there is a high level of unemployment in this business area. World Travel and Tourism Council (WTTC, 2019) refered the importance of the tourism sector and hospitality and the importance of employment in this industry for industrialized and developed countries. In 2018, the industry sector represented 10.4% of world GDP and activities related to travel and tourism for 319 billion workplaces equal to 10% of the worldwide workplace (WTTC, 2019). Nowadays, however, the sector of tourism and hospitality is particularly vulnerable in such uncertain economic cycles. Based on the literature it is said that common crisis reasons are unforeseen events. Laws et al. (2006) define a tourism crisis as an exceptional event associated with increasing media attention, economic losses, accidents/injuries or deaths. These are unfavourable events that caused stable situations into the crises (Glaesser, 2006). They can often occur without warnings and with effects that are serious and disastrous for the government and the business communities. There are inevitable episodic events that continuously disturb the industry and cause shock for tourism companies (Pforr and Hosie, 2008). According to Bakri et al., 2014; Matijová et al., 2019, the tourism sector has an ability to generate and increase income, employment, and raise the living standards. Therefore, the investment in tourism development should be of interest to the governments as it helps ensuring the economic benefits.

2. Human resources management (HRM) in tourism companies

Tourism is an essential part of modern society, a dynamically evolving phenomenon that affects the economic and social sphere of most countries around the world (Kiráľová and Malec, 2016). To look at human resources management in tourism, many authors point to irregularities. Baum (2007, 2015), Nickson (2007) and Saad (2013) found irrational approaches in the field of human resources practices in companies related to tourism and hospitality, such as the fact that companies have an interest in providing excellent services, but yet most employees are either partially or not enough qualified. Instead of adequate training for the employees, managers do not take steps to improve this situation caused by high turnover in the industry. Another not very clear fact is that managers tend to employ low qualified workers to solve current issues like low productivity or turnover, instead of permanent positive impacts of human resources management (Saad, 2013).

The profitability and competitiveness of tourism companies should be one of the main goals of its management. In order to meet these goals, it is necessary to accomplish a particular performance and employees engagement, which are the main pillars of each company. The performance has a direct impact on the achievement of the organizational goals, but the performance is affected by the employees' skills, their motivation and other factors. We can state that performance is a particular and required set of skills, abilities and characteristics that an employee uses to fulfil his working tasks. A similar definition affirmed by several authors Wagner (2009), Wagnerová (2008). The performance reported by Turiecková (2004) is characterized as the essential criteria for organizational success. It is the so-called performance precondition. It results from the set of values, values from all society and individuals who are their part (Wagner, 2009). Many human resource management studies suggest that HRM has a positive impact on an organization's performance. According to Becker and Huselid (1998), there is remarkable evidence of the relationship between human resources management practices and organizational performance. Jiang et al. (2012) state that these practices and procedures in human resources related to financial results, which both, directly and indirectly, influence the human capital and employees motivation (Andresen and Nowak, 2015). The employee's performance as a result of their behaviour, such as engagement, quality and flexibility on which the many procedures have an enormous impact in human resources management: such as recruitment, training and development of employees, evaluation and rewarding of employees (Andresen and Nowak, 2015) which are significant to examine for our research in the relationship to performance development in tourism companies in the Slovak Republic during pandemic Covid-19.

MATERIALS AND METHODS

This article aims to research and to analyze the relationship between the impact of the covid-19 pandemic on the selected practices of human resources management and performance measures of tourism companies in the Slovak Republic, in these uncertain and turbulent times. The Covid-19 is considered the most urgent and actual topic with its impact on all business sectors, not only in Slovakia but in the world. In the tourism sectors and many others, the effect of human resources management and its way of managing changes rapidly. Companies are increasingly using the digital tools to identify, recruit and retain employees by online or telephone recruitment, and the adaptation of employees as many others are common to use. The survey in Estonia (Vösa, 2010) points to the recruitment of employees during the crisis that is a significant challenge regarding the organization´s incapability to employ a new staff member. On the other side, companies can benefit from many skilled and experienced or key job seekers, regarding unemployment in the labour market. Employers are also in a better position to negotiate wages due to the higher labour supply. Within the main objective, the partial goals are related, that focus on gathering and determining the degree of the Covid-19 pandemic impact on the selected practices of human resources management (it was surveyed by managers of tourism companies operating in Slovakia on the Linkert scale, where 1 - represents a very strong impact, 2 - strong impact, 3 - weak impact, 4- very weak impact, 5 - no impact) and subsequently finding out the rate of performance development in tourism companies, which ranged on an interval scale, where 1 means a very positive development, 2 - positive development, 3 - average development, 4 - negative development and 5 - very negative development. The online questionnaire was addressed to 274 managers who work in tourism companies in Slovakia. Out of the total number, were 64% women and 36% men. In one of the questionnaire questions, we found out the sector in which the managers work. The vast majority of respondents, work in the hospitality sector, specifically (41% of managers), 15% managers work in coffee and bars, 21% of managers work in a restaurant and the same number 12% of respondents work in travel agencies, 11% of managers work in pensions, and the least number of respondents work in spas, ski resorts, aquaparks (under 9%). For the needs of the research, the following scientific research hypothesis were formulated:

H1: It is assumed that there is a statistically significant relationship between pandemic Covid-19 impact on the selected practices of human resources management and the degree of performance development in tourism companies in the Slovak Republic.

To test the above hypothesis, we used the statistical analysis, the aim of which is to know the regularity, context and developmental tendencies of mass phenomena. Out of the nonparametric tests, *Chi-Square* goodness of fit test was used, which tests the null statistical hypothesis, which states that the abundances in the individual categories are equal to the expected abundances. We can state that if the P-value is lower than the chosen level of significance (traditionally 5% = 0.05), the null hypothesis is rejected. At the same time, it can be stated, that the difference between the frequencies found in the sample and the expected frequencies is too large to be the result of random sampling alone, i.e. it is statistically significant. If the P-value is equal to or higher than the chosen level of significance, the null hypothesis cannot be rejected. It means that the difference between the frequencies found in the sample and the expected frequencies may be due to random selection, i.e. it is not statistically significant (Ostertagová, 2013). In the process of testing the hypothesis H1 were used non parametrical methods, therefore we proceed another testing *Spearman's rank correlation coefficient rS*, which measures the tightness of any statistical dependence that is monotonic. This is the coefficient that we can use to test the level of correlation intensity of two statistical forms, anywhere those statistical forms are measured on scales, and enables us the obtained results of testing to put in two orders. At the same time, *the Kendall rank correlation coefficient* was used, which measures the intensity of dependence between two ordered variables and provides the test of significance of the coefficient. Kendall´s tau represents the difference between the probability that the values of two variables are in the same order against the probability that values are not in the same order (Ostertagová, 2013).

RESULTS AND DISCUSSION

The research we carried out in the tourism companies operating in the Slovak Republic, examines the relationship between the selected practices of human resources management and performance development during the pandemic COVID-19. Boselie (2014) state that there are five fundamental practices and so-called „best practices“, in human resources management: recruitment and selection of employees, employee training and development, evaluation and performance management, rewarding and participation of employees. Meantime, it points out that these practices in human resources management can be described as personal intervention or action contributed to the formation of legal relationship in each company regardless of the field in which they operate. Also, they help companies to survive because they can positively affect financial results. The economic outcomes depend on organizational performance from the productivity, innovations and fluctuation point of view. For our research, we examined those practices of human resources management in which we can assume the considerable impact of Covid-19 on the management methods. The surveys in this particular field from the year 2020 points to the fact there were either none or only the occasional recruitment and selection in the companies provided. It is related to the effects of pandemic Covid-19 that redundancies occur rather than recruitment due to restricted movement. The other practices we can mention are training and development of employees, which often took place only in an online environment to which associated is the work from home. Therefore many virtual teams are nowadays being used.

The global crisis caused by the Covid-19 pandemic has recorded the dramatic increase of teamwork that reached perhaps the highest level we have ever seen in the last couple of years. The virtual teams act as a significant implication of global pandemic Covid-19 in human resources management. (Ichniowski et al.,1996; Truss et al., 2012) state that some of the practices of human resources management, e.g. individual or team promotion, are insufficient to accomplish high performance. Therefore, it is inevitable to use additional procedures to support employee´s motivation and their relation to the organization. Training and education, communication mechanism, the participation of employees are also needed and necessary to use. In one of the significant part of the questionnaire, we asked respondents to rate the impact of pandemic Covid-19 on the management by our selected practices within the human resources management process in their companies.

There were the following practices:

- *Recruitment and selection of employees (R&S),*
- *Training and development (T&D),*
- *Evaluation and management of employees´ performance (E),*
- *Rewarding employees (R),*
- *Employee participation (P).*

The results for the individual items with the characteristic of descriptive statistical methods can be visible in Table 1. For research purposes, it was necessary to find out to what extent the performance indicators have developed due to the pandemic Covid-19 impact on the companies. The primary task was to indicate the level of individual indicators of organizational performance in companies in which they worked during the last year and was significantly affected by the global pandemic crisis. The rate of performance development ranged on the interval scale, where 1 means very positive development, 2 - a positive development, 3 - average development, 4 - negative development and 5 - very negative development. Out of the performance indicators, were included in the questionnaire: return on assets, return of sales, work productivity and total inventory turnover. Durkáčová and Kalafusová (2012; Tomčíková, 2020), state that returns on assets refer to indicators of profitability and indicate the management capability to use the resources and property of the company to gain profit, i.e. profitability of business efforts. Return on assets expresses total profit/total assets. Among the profitability indicators, we also include the profitability of sales, which we can suggest as net profit/sales. Subsequently, we will approach the indicators of activity, namely the total inventory turnover. Activity indicators make it possible to quantify how efficient and effective a company uses its assets. Total inventory turnover expresses the following relationship: sales/average inventory. From the research results, we can state that not any of the analyzed tourism companies for the last year didn´t develop very positive or negative at once total inventory turnover, labour productivity, return on sales and return on assets. The vast majority of companies show average or possibly negative, to very negative results of the above - mentioned indicators and their development. We conducted a similar survey in the year 2013, where we examined the impact of globalization on selected human resource management practices regarding organizational performance in multinational companies.

Table 1. Descriptive characteristics: the degree of the Covid-19 pandemic impact on the selected practices of human resources management (Source: developed by the authors)

Practices of HRM	N	Average	Median	SD	Dispersion	Min	Max
Recruitment and selection (R&S)	274	1.65	2.00	0.65	0.43	1	3
Training and development (T&D)	274	1.75	2.00	0.71	0.51	1	3
Evaluation and management of employees‘ performance (E)	274	1.72	2.00	0.63	0.40	1	3
Rewarding employees (R)	274	1.62	2.00	0.70	0.46	1	3
Employees Participation (P)	274	1.55	2.00	0.80	0.64	1	3

In connection with the mapping of the relationship between the impact of the covid-19 pandemic on the selected practices of human resources management and performance measures of tourism companies in the Slovak Republic, a null and an alternative hypothesis H1 were formulated:

H_0 (null hypothesis): θ=θ0

H_0: It is assumed that there is not a statistically significant relationship between pandemic Covid-19 impact on the selected practices of human resources management and the degree of performance development in tourism companies in the Slovak Republic.

H1 (alternative hypothesis): θ=θ

*H_1***:** *It is assumed that there is a statistically significant relationship between pandemic Covid-19 impact on the selected practices of human resources management and the degree of performance development in tourism companies in the Slovak Republic.*

The results regarding the hypothesis testing are included in the following Table 2 and Table 3. In the case of testing the relationships between the above variables, all tested relationships showed $p < 0.05$, so we reject the null hypothesis. We can state that the difference between the frequencies found in the sample and the expected frequencies is too large to be the result of random sampling alone, so it is statistically significant.

Table 2. Results of testing H1: values of Chi-Square test (Source: developed by the authors)

The degree of the Covid-19 pandemic impact on the practices of HRM	**The rate of performance development (performance indicators)**							
	Return on assets (PI1)		Return on sales (PI2)		Labor productivity (PI3)		Total stock turnover (PI4)	
	Value	P-value	Value	P-value	Value	P-value	Value	P-value
R&S	35.005	0.000	31.006	0.000	30.500	0.012	38.810	0.011
T&D	24.002	0.000	30.030	0.000	41.500	0.006	46.623	0.000
E	57.700	0.000	53.300	0.000	90.004	0.007	52.270	0.000
R	52.100	0.000	67.200	0.000	16.008	0.000	27.947	0.000
P	100.12	0.000	19.009	0.000	33.020	0.000	46.002	0.000

Table 3. Results of testing H1: values of correlation coefficients (Source: developed by the authors)

Practices of HRM*performance indicators	**Values of correlation coefficients**					
	Kendall's tau-b		**Kendall's tau-c**		**Spearman Correlation**	
	Value	P-value	Value	P-value	Value	P-value
R&S*PI1	0.401	0.000	0.458	0.011	0.439	0.011
R&S*PI2	0.212	0.000	0.271	0.000	0.218	0.000
R&S*PI3	0.300	0.011	0.325	0.000	0.352	0.000
R&S*PI4	0.421	0.000	0.455	0.000	0.556	0.000
L&D *PI1	0.400	0.000	0.365	0.012	0.556	0.000
L&D *PI2	0.350	0.000	0.441	0.000	0.464	0.000
L&D *PI3	0.402	0.000	0.344	0.000	0.405	0.000
L&D *PI4	0.311	0.000	0.247	0.000	0.249	0.000
E* PI1	0.201	0.000	0.198	0.000	0.228	0.020
E* PI2	0.219	0.012	0.205	0.000	0.222	0.000
E* PI3	0.212	0.000	0.192	0.000	0.208	0.000
E* PI4	0.302	0.000	0.301	0.000	0.354	0.015
R*PI1	0.408	0.000	0.394	0.000	0.459	0.000
R*PI2	0.102	0.000	0.187	0.000	0.197	0.000
R*PI3	0.122	0.000	0.072	0.000	0.116	0.000
R*PI4	0.241	0.000	0.207	0.000	0.172	0.000
P*PI1	0.324	0.011	0.365	0.002	0.431	0.000
P*PI2	0.405	0.000	0.329	0.000	0.304	0.000
P*PI3	0.171	0.000	0.104	0.000	0.089	0.000
P*PI4	0.121	0.000	0.279	0.000	0.232	0.000

As mentioned above, the correlation analyses with the use of two correlations coefficients were used. The Spearman coefficient takes values from the interval <-1, 1> and is interpreted as a selection correlation coefficient. The values close to 0 indicate a weaker dependence of the variables, the value closer to 1 or -1 indicates the closer dependence. The extreme value 1 indicates a complete match of two orders, the extreme value of - 1 corresponds to exactly opposite orders. Positive values mean that the variables tend to change in the same direction, the negative values tend to change in different directions. It can be stated, that in all tested relations, the p-values of correlation coefficients are <0.05. In the case of the p-values of the Kendall rank correlation coefficient, which is a test of the coefficient significance, these values are lower than the selected significance level of 0.05, i.e. the null hypothesis is rejected. It means that the difference between coefficients, as a result of the tested sample and zero, is too enormous to be a consequence of random selection, and it is therefore significant. We can state that there is a relationship between variables. Based on the above values, it is possible to verify and ***confirm hypothesis H1,*** that there is a statistically significant relationship between the Covid-19 pandemic impact on the selected practices of human resources management and the level of developmental performance in the tourism companies operating in the Slovak Republic in the last year.

CONCLUSION

Human resources management signify a critical function to secure effective company operating. It is the function that influences most of the company´s significant resources, and it is usually the source of lasting competitive advantage in an unsustainable business environment. Many studies, including Huselid (1995), focused on the analyzes and they confirmed, that accurately implemented practices have significant effects on the companies´ performance. The system of human resources management, according to Lado and Wilson (1994), is referred to as "organizational capabilities“, and it is the dynamic process (recruitment and selection of employees, evaluation of their performance, training and promotion). It allows the company to acquire, develop and deploy its sources to enable the company to gain a competitive advantage.

In conclusion, we can state, that procedures and practices of human resources management, including the management itself, are affected by Covid-19 also the other sectors in a company. It is, therefore, to say that aim of our research was verified: to research and to analyze the relationship between the impact of the covid-19 pandemic on the selected practices of human resources management and performance measures of tourism companies in the Slovak Republic, in these uncertain and turbulent times. We can state, that the impact of the Covid-19 pandemic on the selected practices of human resources management effect the changes in organizational performance in tourism companies operating in Slovakia.

The hypothesis H1 which formulated for the needs of the research is confirm and we can state, that there is a statistically significant relationship between the Covid-19 pandemic impact on the selected practices of human resources management (recruitment and selection of employees, training and development, evaluation and management of employees´ performance, rewarding employees, employee participation) and the level of developmental performance in the tourism companies operating in the Slovak Republic in the last year. The selected practices of human resources management are affected by Covid-19 pandemic, as the other sector of business management. Also, the impact of Covid-19 affects the changes in the performance development of tourism companies operating in the Slovak republic. The quality of human resources has become a precondition of success for each company. Success, in recent days, depends on the ability to maximize the potential and talents, not only for individuals but also for the teams.

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AUTHENTIC FOOD SOUVENIR TO SUPPORT MSMEs AND LOCAL WISDOM IN BANGKA BELITUNG, INDONESIA

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Abstract: Authentic food souvenirs are essential in tourism, MSMEs and local wisdom. However, there is no satisfactory authentic assessment method yet, because it only examines objective or subjective aspects. Therefore, a more comprehensive study is needed; this study aims to assess authentic food souvenirs' authenticity with a geographic approach. Several stakeholders involved. It uses various methods of obtaining information. The result of this research is the superior authenticity of food souvenirs. Authentic food is useful for promoting destinations and increasing tourist spending. This assessment method can be an alternative in the assessment of authentic food souvenirs.

Key words: authentic food souvenirs, geographical approach, MSMEs, local wisdom

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INTRODUCTION

Food souvenirs are very essential and are often bought by tourists (Kusdibyo, 2016).Tourists often buy food souvenirs to evoke memories and feel different experiences (Medeiros et al., 2017b) and motivate them to revisit it (Suhartanto et al., 2018). Food souvenirs can be used to promote cultural destinations (Huang et al., 2020) and have significant impact on the destination's economy (Huang et al., 2020). Hamzah et al. (2013) defined authentic food as "the originality and genuine of Malay cuisine in various aspects," and measured by family culture, self-interest, and awareness characteristics. Food souvenirs are specialty food that tourists buy in destinations and physically and mentally reflect the destination's identity (Sosianika et al., 2018). The forms of food souvenirs, according to (Buczkowska, 2014), are food and beverage products consumed after returning home, eating or cooking utensils, cooking recipe books, and photos of dishes sold in traditional markets, restaurants, or production sites. In Indonesia, food souvenirs are sold in gift shops and restaurants in meals, snacks, semi-finished food, and food raw materials. Authenticity is the most important characteristic in food souvenir (Altintzoglou et al., 2016) . Authentic food often interchanges with local food, traditional food and origin food, so this study discusses these four things. Authenticity can be seen in many ways. Based on the philosophical approach, there are three approaches to authenticity: objective, constructive or symbolic, and existential (Wang, 1999). In objective authenticity, there are authentic measurements that are objective or absolute. Constructive assumes that authenticity is a social construct related to views, beliefs, power, and social perspective. It is relative and negotiable, defined by contextual, and ideological. There are two dimensions in existential authenticity: interpersonal and intrapersonal authenticity. Intrapersonal authenticity involves physical experiences and feelings of tourists, while interpersonal authenticity, or social authenticity, is linked to traditions and community's emotions.

Normatively, the territoriality, communality, typicity and traditionality factors determine the originality of the food (Meulen, 2007). Territoriality describes the proximity of the distances between actors in the food supply chain. Communality explains how high the sharing experience is among actors. Typicity explains the uniqueness of ingredients and food production processes, while traditionality describes historical content reflected in legends, written documents, and rituals related to food.

Bowen and Zapata (2009) emphasized the importance of geographical identifications (GIs) to increase local bargaining actors to maintain control over production and prevent globalization's negative impacts. GIs is a place-based name that conveys geographic origin and cultural and historical identity, of agricultural products. Geographical Identification is a tool for framing products based on the product's geographic, cultural, historical and geographic origins. GIs is possible. Based on these opinions, authentic food souvenirs are produced by MSMEs and maintain local wisdom. According to the European Commission in Guerrero et al. (2009), traditional is proven to have been used by the user community for a minimum period of 25 years, and there is evidence that they are passed from one generation to the next. In the food context, traditional food uses conventional raw materials, and the composition of ingredients is arranged, processed, or produced traditionally. Guerrero et

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al. (2009) concluded that the dimensions of traditional food are foods often eaten, part of daily life, and often used (habit and natural), processed with simple technology (processing and elaboration) and rich in taste (tasteful), produced and marketed around the place of production, and contained local values in the area of production or marketing (origin and locality). Sidali and Hemmerling (2014) assess the authenticity of food based on subjective and objective assessments. Objective authenticity is an assessment based on objective things, such as the production process, the origin of materials, and production location.

In contrast, subjective authenticity is a subjective assessment of tourists, such as tourists' beliefs about the authenticity of products and product support for biodiversity diversity. Both subjective and objective measurements are needed to help understand perceived authentic food, Sidali and Hemmerling (2014) suggests using these two measurements. Objective assessment is less meaningful when not attracted tourists. Making food and consuming food determines the authenticity of food; therefore, authentic food is from the merchant, producer, and consumer and marketing officer's point of view (Lunchaprasith and Macleod, 2018). The merchant views authentic food as the process of creating old fashion food. Marketers view authenticity as the process of creating a traditional image, whereas visitors view authentic food based on their childhood experiences and unusual traditions. Criteria for food origin are different from perceived authentic food origin. Bryła (2015) found that the ten most important characteristics of origin food are traditionality, territoriality, high quality, healthiness, typicity, etc. Consumer knowledge determines the perceived authentic food origin. Bryla's survey results included several factors, such as natural taste, quality, place of sale and others Zhang et al. (2019) considers the experience of eating local food to be a cultural phenomenon so that he defines and measures authentic food with a constructive approach. Eating authentic food is a social construct that describes the imagination, expectations, preferences, beliefs, and capabilities of the product.

An authentic food experience is a combination of chefs, restaurants, recipes, and cuisines that evoke an atmosphere of local culture. The dimensions of authentic food souvenirs are cultural symbols, uniqueness of recipes, cooking methods, and various rituals in planting, processing, serving, and restaurant decorations. Authentic food souvenirs are original Bangka Belitung. The souvenir uses original raw materials from Bangka Belitung, processed based on local wisdom from generation to generation and sold in Bangka Belitung and consumed by residents, reflecting the norms, habits, and history of Bangka Belitung.

Food souvenirs are essential for tourism in Indonesia, particularly in Bangka Belitung Islands Province. The average expenditure of tourists for souvenir shopping is 4.6% of domestic tourist expenditure and 6.26% of foreign tourist expenditure (BPS - Statistics Indonesia, 2017). Food souvenirs are important for Bangka Belitung and are mostly produced by micro, small and medium enterprises (MSMEs). Furthermore MSMEs in the food sector is the largest. There are 18,543 businesses in the food sector (70.38%) and provide 48,407 (67.45%) workers. The income of microbusinesses and small businesses in 2017 reached 3.1 trillion IDR (Indonesian Rupiah), and the contribution of such businesses was 58.38% (BPS-Statistics of Provinsi Kepulauan Bangka Belitung, 2020). Authentic food souvenirs are also needed to maintain local wisdom. Global cuisine threatens local cuisine (Mak et al., 2012); it can interfere with local wisdom. Local wisdom is the viewing of people, and their understanding of nature and interacting with it (Aswita et al., 2018). Local wisdom is collective knowledge and understanding, which is learned from generation to generation about various fields, including food preparation. Local wisdom plays a role in maintaining the authenticity of customs and culture. Thus, authentic food souvenirs play a role in maintaining the authenticity of customs and culture. In Indonesia, competition between destinations is very tight. There are five national super-priority destinations in Indonesia, ten national priority destinations, and eighty-eight strategic national tourism destinations, offering each food souvenirs. Therefore, each destination must have an authentic food souvenir just like Bangka Belitung. Currently there is no Bangka Belitung food which has become a national food. Bangka Belitung needs to establish authentic food souvenirs. There are many food souvenirs, so there is a need to study authentic food souvenirs. This study aims to analyze authentic food souvenirs in Bangka Belitung. The study of authenticity in food souvenir is still limited. Sosianika et al. (2018); Huang et al. (2020); Suhartanto et al. (2018); Medeiros et al. (2017b); Altintzoglou et al., (2016) examine authentic food from a tourist perspective. Authentic food is complicated, so it needs a more comprehensive discussion. This study fills the gaps in authentic food with a more thorough discussion involving many stakeholders (Wijaya et al., 2017) and using a geographic approach (Bowen and Zapata, 2009). This study involve tourists, food producers, food seller, and others as sources (Lunchaprasith and Macleod, 2018).

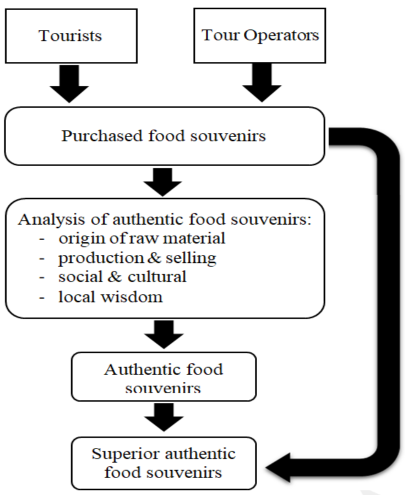

Figure 1. Research framework

MATERIAL AND METHODS

This research is qualitative. Interviews were conducted with tourists and souvenir producers and souvenir traders. A total of eighty-one tourists and were interviewed.

Figure 2. Bangka Belitung, Indonesia (Source: https://www.babelprov.go.id/content/aspek-geografis)

The study uses an observation method in four food stores, eight restaurants, and four coffee shops in Pangkal Pinang and Tanjung Pandan in Belitung. This study also conducted in-depth interviews with thirteen tour operators. The purpose of the interview was to find out the food souvenirs that were purchased. The study will focus on purchased food souvenirs. Ten producers were interviewed. Interviews with producers aim to explore information on sources of raw materials, production processes, and marketing. Secondary data were used to assess the authenticity of the geographic, social, and local wisdom approaches. Local wisdom is also strengthened from the results of in-depth interviews with historian. Authentic food souvenirs are based on the results of the authenticity assessment, and products that are of interest to consumers are judged as superior products.

RESULTS AND DISCUSSION

In Bangka Belitung, food souvenirs can be grouped into ten: processed fish, dried poultry, salted and dried vegetables, processed coconut, flour and processed flour, sugar, confectionery, and honey, spices, spices, light drink, and powder drinks. Processed dry fish dominated the food souvenir. Type of dry fish is shredded fish (in Indonesia, it is called *abon*), dried squid, dried sea cucumber (*teripang*); some kind of fish crackers as as *kemplang*, *kericu*, *pilus* seaweed, and some kind of cake fish as *otak-otak* and *pempek*, *gonggung* snail. These are described in Table 1. There were 81 respondents interviewed: 36% of them were men and 64% were women.

Table 1. Food souvenir classification (Source: Primary Data Processed)

Food group	Types of food souvenirs	Food processing
Processed fish	*Sambal lingkung* (shredded fish)	Frying and pressing
	Ikan kering (dried fish), *Teripang kering* (dried sea cucumber)	Drying
	Kemplang (a kind of fish crackers)	Frying
	Kericu (a kind of fish crackers)	Frying
	Getas (a kind of fish crackers)	Frying
	Otak-otak (a kind of cake from a fish dough)	Steaming and roasting
	Pempek (a kind of cake from a fish dough)	Steaming
	Ikan asin (Salting fish)	Salting and drying
	Terasi (shrimp paste)	Fermented
	Siput gunggung (gunggung snails)	Frying
Processed poultry	*Sarang wallet* (Swallow nest)	Cleaning and packing
Dry vegetables	*Jamur kulat* (kullat mushroom)	Drying
Processed flour	Assorted chips	Frying
Processed fruit	*Dodol cempedak, dodol durian*	Caramelization
	Sukun chip, *banana* chip	Frying
Confectionery, sweets, and honey	Brown confectionery	Caramelization
	Sweet *kelubi* fruit	Fermented
	Honey	Filtering
Seasonings	Soy sauce	Fermentation
	Lempah spice	Milling
Herbs and spices	White and black pepper	Drying
Soft drinks and powder drinks	*Sirop jeruk kunci*	Extortion
	Tea	Drying
	Coffee powder	roasting, milling
Processed grains or tubers	Sweet potato chips, sweet potato chips, green bean chips	Frying

Of these, 8.6% aged less than 20 years; 29.6%, 20–30 years old; 11%, 31–40 years old; 9.16%, 41–50 years old; 16%, 51–60 years old, and 7.01%, over 60 years old. The purposes of visiting were as follows: visiting family, 12.34%; conferences, 17.28%; and offices and tours, 24.4%. 49.6% of respondents have only visited Bangka Belitung once, 18.08% twice, and 25.92% thrice. The Respondents were asked to state the types of food souvenirs purchased. The types of products are described in Figure 2.

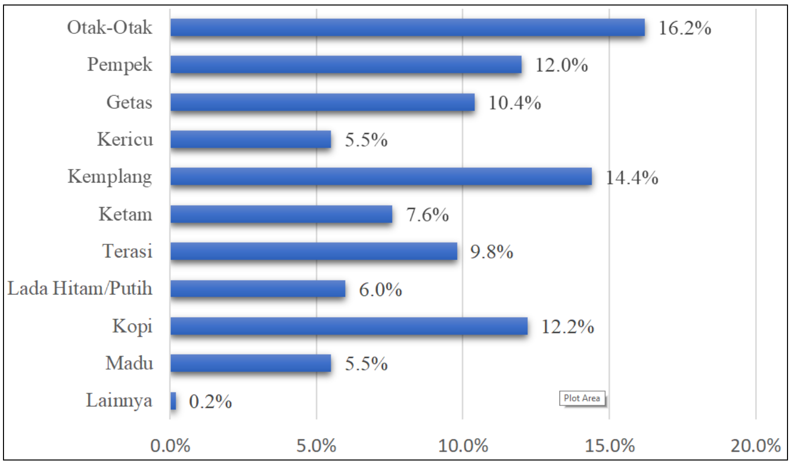

Figure 3. The Food Souvenirs Purchased by Tourists (Sources: Primary Data Processed)

Thirteen tour operators were interviewed in this study. They convey the types of souvenirs tourists buy, such as *otak-otak* (28%), *pempek* (9,5%), *ketam* (9,5%), *kempalang* (23%), coffee (95%) and others. Information from tour operators supports the interview results of respondents. Processed fish has the most types of souvenirs compared to other types. Processed fish products consist of shredded fish (*abon ikan*), dried squid, dried *hisit*, crackers, *kemplang*, *aplang*, squid chips (*kericu*), *getas*, shrimp paste, crab, *empek-empek*, *otak-otak*, *rusip*, *gunggung* snail, fish belly, seaweed pilus, fish skin, and salted fish. The processed dry poultry produced by Bangka Belitung is wallet bird's nest. The total area of the Bangka Belitung Islands Province reaches 81,725.06 km^2. 79.90% is the sea, and the rest is land. The sea produced many fish catches. The volume of fishing production in 2018 is 228,524.71 tons worth IDR 8,361,881,814.15, and the production volume of cultivated fish is 9,340.93 tons with a value of IDR 623,232,195.95 (Directorate General of Strengthening Competitiveness of Marine and Fisheries Products, Ministry of Marine Affairs and Fisheries, 2018). There are 73 types of fish caught in this area, including small pelagic, large pelagic, and demersal fish, consisting of 38 families (Kurniawan et al., 2019). The number of fish catches and fish cultivation is high, causing per capita fish consumption in Bangka

Belitung to be high than other provinces in Indonesia. The fish catches are processed into various foods. It is reflected in the Bangka people's slogan, "*Lom maken kalo dak lauk ikan*", which means we have not eaten because we do not eat sea fish. Considering the importance of fish for the population, even though prices increase due to reduced supply, Bangka Belitung residents still buy sea fish. Per capita consumption of fish is highest than other food groups and exceeds national average consumption. The conclusions are supported by Levyda et al. (2019) and (Wulansari, 2016). The food eaten is influenced by social norms (Higgs and Thomas, 2016). Food, following social norms, is often consumed. A food survey conducted on Bangka Belitung resident shows that *pempek* and *kemplang* are the most frequently consumed, followed by *otak-otak*, kericu, *rusip*, chili sauce, and *rintak* biscuit. *rusip*, *dodol cempedak*, and *gunggung* snails are less often consumed (Levyda et al., 2019).

Processed fish has become local wisdom for the people of Bangka Belitung. These foods are in the poetry of the Bangka Malay community. *Pantun*, a kind of poem, is a literary that uses specific words and signs and symbols. It is a cultural heritage that contains advice, humor, puzzles, and even dimensions that are well packaged to be used in formal and informal situations (Wulansari, 2016). In the *Pantun* mention that the island of Bangka is surrounded by a sea rich in fish for daily consumption or for business. *Pantun* must pay attention to five things: the physical aspect, the value it contains, its function and uses, the extent of its use, and the sociocultural context (Tuti Andriani, 2012). The existence of these foods in the Bangka Malay poetry shows that these foods are following the sociocultural context for a long time ago. This shows that food souvenirs have been made some time ago based on local wisdom. *Otak-otak*, *empek-empek*, and various crackers made from seafood as daily food for the Bangka people since several centuries ago, their traces can be observed in Gedong Village, Bangka Regency (Setiati, 2010). They are made from fish or shrimp and then crushed with eggs and then stirred and mixed with *sago* flour. The dough is shaped oval and then steamed. The dough can be made soft or made into crackers. The process of making it is making dough, formed manually (Syaputra and Prasetiyono, 2017). According to Setiati (2010), typical Bangka foods such as, *kemplang*, *keletek*, *empek-empek*, *otak-otak*, *lakso*, and *pantiaw* were originally made by immigrants from China several centuries ago, which now belong to the Bangka community. Chinese people have been around for a long time and are related to the tin mining business. The Chinese have known Bangka Belitung since 1436, which is listed in classical Chinese books. The arrival of many Chinese occurred in 1710 as coolies on tin mining contracts by mining companies owned by Dutch people. Most of the Chinese people who came are Hakka from Guang Dong province. These traces can be observed in *Gedong* Village, Bangka Regency (Setiati, 2010). Until now, these foods have been produced in various places in Bangka Belitung and are consumed by the public. *Balacan* (shrimp paste) is widely known in Indonesia as a seasoning. It is made from small shrimp, anchovies, or other fish, which are fermented (Karim et al., 2014; Andriyani et al., 2012). It is produced in several places in Bangka Belitung and is traditionally made and uses recipes that have been learned and produced from generation to generation. *Balacan* or shrimp paste is made through the stages of salting, pressing, drying, milling, fermentation, crushing, and drying, among others (Andriyani et al., 2012) . Shrimp paste is a food that is often consumed and easily available (Levyda et al., 2019). Thus, the shrimp paste is an authentic food souvenir. *Rusip* is a meal of Bangka. It is the result of fermentation of anchovy, salt, and palm sugar (Yuliana, 2007) that is stored for 2 weeks and used as a chili mixture or for side dishes (Koesoemawardani, 2007). Fermentation techniques have been studied for generations, as obtained in Bangka Belitung (Levyda et al., 2019). Crab is one of the superior waters of Bangka Belitung, especially in Belitung. Crab production is 45 million tons per year. To increase the added value of crab, food MSMEs process crab into crabs. Processed foods for crab meat are easy to find in Belitung and are an everyday snack, so it is classified as authentic.

Based on the results of the interviews, eight entrepreneurs of food made from fish; four representing micro-entrepreneurs and four small-scale entrepreneurs. They use fish raw materials purchased from the market close to where they live. Micro-entrepreneurs use the production process is still done manually (handmade), and small companies use a semi-manual process. They are made from fish or shrimp and then crushed with eggs and then stirred and mixed with sago flour. The dough is shaped oval and then steamed. The dough can be made soft or made into crackers. The dough is manually formed. In microbusinesses, the volume of production is not continuous. They have received assistance from various government agencies and state-owned companies, while small businesses have been doing business for more than 25 years and are producing continuously. Micro-merchants and small entrepreneurs distribute products through conventional and online retail and through exhibitions. The differentiation they do is in the recipe, raw material, form of cracker, trademark, packaging, and sales method. The type of fish used can be determined by the color of the crackers, the taste, and the price of the product.

Coffee production in Bangka Belitung is relatively low. In 2018, only 7.77 tons/year came from Central Bangka and East Belitung. Although coffee production is relatively low, drinking coffee has been a culture for Bangka Belitung people for a long time. Several coffee shops have been around for a long time, such as the *Tung Tau* coffee shop in Bangka and the *Ake*, *Kong Dji*, and *Atet* coffee shop in Belitung. *Warung Tung Tau* was founded in 1938; the *Ake* coffee shop has been operating since 1922, the *Atet* coffee shop since 1949 (Erman, 2014), while the *Kong Dji* coffee shop since 1943. The Tung Tau coffee shop in Bangka was founded in 1938. The existence of a coffee shop is related to tin mining in Bangka Belitung since the eighteenth century. These coffee shops serve mining workers. *Billiton Maatschappij* in 1852 and Bangka Tin Winning in (Erman, 2014), companies owned by Dutch citizens, mostly used Chinese labor. The coffee shop provides coffee to be used as souvenirs. Based on the interviews with the coffee shop, they still use those from Lampung and Palembang due to limited local coffee products. In addition to coffee produced and sold by coffee shops, several Bangka Belitung MSMEs also produce coffee. Since it has been operating for more than 25 years (Guerrero et al., 2009), their coffee is an authentic product. Apart from coffee produced and sold by coffee shops, coffee is also produced by several Bangka Belitung MSMEs. The availability of abundant coffee and pepper raw materials encourages the creativity of MSMEs to produce pepper coffee.

Bangka Belitung is known as the biggest pepper producer in Indonesia. Pepper production in 2018 was 32,811 tons. Pepper is also one of the favorite souvenirs of tourists. The number of pepper management households is 111,757 (BPS-Statistics of Provinsi Kepulauan Bangka Belitung, 2020). For souvenirs, pepper is dried and packaged in plastic bottles of various sizes with various brands. In another form, pepper has been ground and packaged in plastic bottles and sold in souvenir shops. The cultivation of Bangka Belitung pepper has been encouraged since the Dutch colonial era in the nineteenth century (Budi et al., 2016) .Therefore, pepper souvenirs are categorized as authentic souvenirs. Bangka Belitung's non-timber forest products are honey, 1083.16 liters; mushrooms, 0.18 tons; and *gaharu*, 0.01 tons (BPS - Statistics Indonesia, 2016). Honey and mushrooms come from the Central Bangka Necklace Forest. The significant tree in the forest is the *Pelawan* tree. In the rainy season, the *Pelawan* tree grows a fungus called a *Pelawan* fungus. The nectar of the *Pelawan* tree flowers is sucked by honey bees, producing bitter honey (Akbarini, 2016). *Pelawan* honey and mushrooms are offered as authentic Bangka Belitung souvenirs sold in gift shops. Based on the data collected for the assessment of the authenticity of souvenirs, it is summarized as follows:

Table 2. Assessment of Authenticity Based on Geography Approach (Sources: Primary Data Processed)

Food souvenir	Raw material	Production	Selling	Social and culture	Local Wisdom
Otak-otak	Support	Support	Support	Support	Support
Pempek	Support	Support	Support	Support	Support
Kempalang	Support	Support	Support	Support	Support
Getas	Support	Support	Support	Support	Support
Kericu	Support	Support	Support	Support	Support
Ketam	Support	Support	Support	Support	Support
Rusip	Support	Support	Support	Support	Support
Terasi	Support	Support	Support	Support	Support
Kopi	Not support	Support	Support	Support	Support
Lada	Support	Support	Support	Support	Support
Madu	Support	Support	Support	Support	Support

Table 3. Consumer Assessment and Authenticity Conclusion (Source: Primary Data Processed)

Food souvenir	Consumer purchases	Authenticity Conclusion
Otak-otak	Very high	Very high
Pempek	Very high	Very high
Kempalang	Very high	Very high
Getas	High	Very high
Kericu	Low	Very high
Ketam	High	Very high
Rusip	Very low	Very high
Terasi	High	Very high
Kopi	High	High
Lada	Low	Very high
Madu	Low	Very high

Not all authentic souvenirs are in demand by tourists, so a destination needs to choose authentic food and is in order by tourists for various purposes, such as promoting culinary tourism. Based on consumer surveys and authentic food, Bangka Belitung can use *otak-otak*, *pempek*, and *kemplang* for promotion. Essential factors in shopping for souvenirs are tangibility, brand and packaging, value, and food quality. Tangibility is the most important factor, including environmentally friendly, attractive packaging, and producer image. Food quality is also an essential factor, so food souvenirs must meet standards, taste good, and use natural raw materials. The aspects of value are the usefulness of food souvenirs and economical in price.

The brand and packaging of food souvenirs must have a unique brand and an attractive package design (Sosianika et al., 2018). Authentic souvenirs must be attractive and economical, must meet the standards, and must have an attractive brand name so that consumers will remember. Tourists buy food souvenirs with packaging suitable with transportation and hygienic and sanitary conditions and if there is the name of the place visited and where the product is traditionally produced (Medeiros et al., 2017a). Food souvenirs show the identity of the area of origin of the food and drink, are packaged according to product characteristics, easy to carry by tourists, can remember the origin of the souvenirs visited by tourists and even motivate tourists to come again to the area origin of souvenirs (Horodyski et al., 2014). Producers of souvenirs need to be innovative while still maintaining the authenticity of the product, since culinary tourism is part of the urban lifestyle, eating to get new experiences. Eating is an expression of human freedom, and culinary tourism supports the expression of human freedom. Traditional food needs to follow the egoistic changes of its audience. Food life cycle is getting shorter (Setiawan, 2019).

CONCLUSION

The assessment method for authentic food souvenirs produces an assessment that reflects Bangka Belitung's geography and reflects tourists' interest. Tourist assessment is critical because food authenticity is nothing if the tourist does not interest—consumers' involvement in a geographic approach, resulting in authentic food that attracts tourists. The limitations of primary and secondary data are a weakness in the assessment. With the development of online sales, tourists can buy food souvenirs without having to visit a destination. For future research, new definitions and methods of assessment may be needed.

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DETERMINANTS OF THE DEVELOPMENT OF HOTEL AND RESTAURANT ENTERPRISES OF UKRAINE IN THE INTERSECTORAL INDUSTRY OF SERVICES

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Abstract: In the context of globalization of markets, the innovative system of services of hotel and restaurant enterprises provides coordination of actions of all participants. The purpose of this article is to consider the determinants of the development of hotel and restaurant enterprises in the intersectoral industry of hospitality and innovative services. On the basis of multidimensional analysis, the methods of modeling the process of development of the subjects of the service sector according to the indicators-characteristics of the subjects of service activity are determined. The mathematical tools of taxonomic analysis are presented, which allows evaluating separately the indicators of the components of the intersectoral industry of hospitality and innovative services. An integrated assessment of the components of the intersectoral hospitality industry and innovative services of the hotel and restaurant industry of Ukraine and their competitive position in terms of the level of effective operation is determined. The efficiency of functioning of restaurant enterprises according to fractal levels of the hospitality industry and innovative services is calculated.

Key words: innovative products, fractal determinants, outsiders, leading enterprises

* * * * * *

INTRODUCTION

The most important priority for the hotel and restaurant industry is a constant stay in a competitive environment, which requires being flexible and adapting to the conditions of the service market, forming a loyal customer base, and modernizing the business. At the same time, the vector of the development of market relations of the service sector based on providing the optimal system of innovations in the form of new products, technologies, methods of innovation process have a clear coherent relationship between socio-economic components of the intersectoral hospitality industry and innovative services (Beliavceva, 2018). It is important not only to form innovations with a minimum cost share in the hierarchical structure of the innovation system but also to rationally use innovations as an additional innovation resource that allows expanding the scale of innovation in the economy as a whole. The transformation of socio-economic relations between the hotel and restaurant business in the intersectoral space has led to the emergence of new products and services that have competitive advantages and are in demand among foreign consumers (Rybakova and Myronov, 2019). As the hotel and restaurant business directly or indirectly creates jobs and is a profitable service sector, this business area can provide significant revenues to local budgets.

However, the hierarchical space of the hotel and restaurant industry in the regions of the country is different, and their presence in the territory where there is a large number of cultural and historical monuments that attract the presence of eco-tourism by the uniqueness of natural formations (thermal and healing waters), during the favorable tourist seasons, is not always loaded. Therefore, this may indicate a lack of necessary resources to enhance the innovation potential of service entities and the lack of state support for their development. The theoretical and methodological basis for the formation of innovation potential was studied by such scientists as Andrieieva and Sosnovska (2016), Arkolakis (2018), Bochulia (2019), Brozovic

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(2020), Foss and Saebi (2018). The economic need for innovations in the hotel industry in conjunction with the tourism industry has been substantiated by such scientists as Belhassen (2020), Liang and Bao (2020), Rodríguez et al. (2020), Vishnevskaya et al. (2019). The functioning of the hotel industry based on contractual relations as a new phenomenon of the innovative economy was studied by Chkalova et al. (2019), Postma et al. (2017), Breuer et al. (2018). Studying modern economics based on innovative approach are revealed in detail by scientists in the formation of innovative resources, especially in their implementation in a globally competitive environment (Eyster and DeRoos, 2009; Heimtun and Lovelock, 2017; Lupych, 2015; Chi et al., 2020). However, in the sectoral aspect, further research is needed on the technology of hotel and restaurant chains with a projection on the innovative economy. Therefore, the paper aims to research the development of hotel and restaurant enterprises in the intersectoral industry of hospitality and innovative services.

MATERIALS AND METHODS

Within the limits of our research, the methodological approach on the estimation of the level of development of the enterprises of hotel and restaurant economy in the interbranch industry of hospitality and innovative services is offered, which embodies complex diagnostics of forming components, which features and identifies fractal determinants of the service sector of business entities. The results of the evaluation of indicators and fractal determinants are correlated. At the same time, the mathematical tools of taxonomic analysis allow to evaluate separately the indicators of the intersectoral industry of hospitality and innovative services, and fractal determinants of the development of hotel and restaurant business, correlating their values on the scale of the customer service network. The scale of the obtained assessments facilitates the ranking of objects, in particular, in substantiating the areas of increasing the competitiveness of hotel and restaurant enterprises and in building an effective mechanism of economic incentives, the formation of an optimal program of development of service entities (Dykan, 2011; Shytikova and Ignatyshyn, 2020). For the purposes of our study, the method of ordering statistical units was chosen. The key indicator of this method is a taxonomic indicator of the level of the development of hotel and restaurant enterprises in the intersectoral industry of hospitality and innovative services, which is a synthetic value, "equivalent" both for all indicators and for fractal determinants that characterize the objects of the study. The taxonomic indicator is the basis for the linear ordering of the elements of this set. The process of constructing a taxonomic indicator begins with the formation of elements of the matrix of observations (X) (Eq. 1) (Dykan, 2011):

$$X = (X_{ij}),\ i = 1,\dots,m;\ j = 1,\dots,n, \tag{1}$$

where: X_{ij} – the value of the j-th indicator for the i-th object, m – the number of objects; n – the number of indicators-signs (fractal determinants). The indicators of the observation matrix are inhomogeneous in terms of the properties of objects, which are standardized according to (Eqs. 2-4) (Belhassen, 2020):

$$Z_{ij} = \frac{x_{ij} - \overline{x}_j}{\sigma_j}, \quad (2) \qquad \overline{x}_j = \frac{\sum x_{ij}}{m}, \quad (3) \qquad \sigma_j = \sqrt{\frac{\sum (x_{ij} - \overline{x}_j)^2}{m}}, \quad (4)$$

where, $\overline{x}_j$ – is the arithmetic mean of the j-th sign; σ_j – standard deviation of the j-th indicator; Z_{ij} – standardized value of the j-th indicator for the i-th object. In the taxonomic analysis, all indicators of the components of the intersectoral industry of hospitality and innovative services are divided into stimulators and distimulators. Stimulators have a positive effect on the level of the development of objects, and distimulators – negatively. This distribution of features is the basis for creating a development standard (reference object), which is a point P_0 with coordinates $Z_{01}, Z_{02}, \dots, Z_{0n}$ (Eqs. 5, 6) (Belhassen, 2020):

$$Z_{0j} = max\, Z_{ij}, \quad \text{if } j \in K, \quad (5) \qquad Z_{0j} = min\, Z_{ij}, \quad \text{if } j \notin K, \quad (6)$$

where: K – stimulators of the j-th sign for the i-th object. The foundation of taxonomic analysis is the Euclidean distance, which best corresponds to the intuitive idea of the proximity of objects in three-dimensional space and describes the statistics for standard deviation and variance. The calculation of the distance C_{i0} between individual objects and the development standard (reference object) is carried out according to formula (Eq. 7) (Belhassen, 2020):

$$C_{i0} = \sqrt{\sum (Z_{ij} - Z_{0j})^2}, i = 1, \dots, m, \tag{7}$$

The obtained distances serve as initial values, which are used in determining the taxonomic indicator of the level of development of the object in the intersectoral industry of hospitality and innovative services (μ_i), which characterizes the degree of its similarity to the standard. This calculation is performed in the following sequence:

- arithmetic mean distance from the reference object $(\overline{C}_0)$ (Eq. 8) (Belhassen, 2020): $\overline{C}_0 = \frac{\sum C_{i0}}{m}$; (8)

- standard deviation of distances from the reference object (σ) (Eq. 9) (Belhassen, 2020): $\sigma = \sqrt{\frac{\sum (C_{i0} - \overline{C}_0)^2}{m}}$; (9)

- taxonomic indicator of the level of development of the i-th object (μ_i) (Eq. 10) (Belhassen, 2020): $\mu_i = 1 - \frac{C}{\overline{C}_0 + 2\sigma}$, (10)

The higher the value of the taxonomic indicator for the i-th object, the higher the degree of its similarity to the standard and, accordingly, the higher the level of the development of the hotel and restaurant industry in the intersectoral industry of hospitality and innovative services, the calculation algorithm is formed step by step (Figure 1).

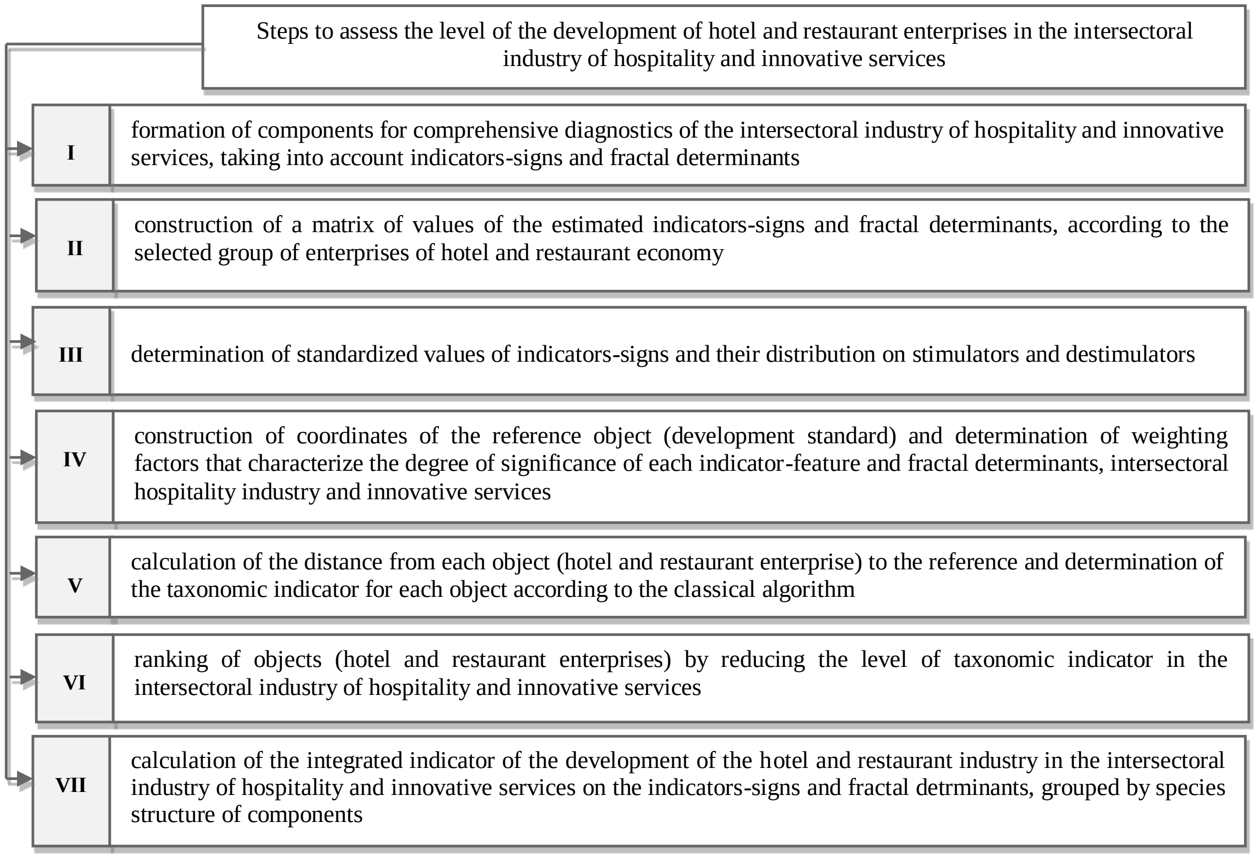

Figure 1. Methodological approach to assessing the level of development of hotel and restaurant enterprises in the intersectoral industry of hospitality and innovative services (Source: authors' own research)

It should be noted that the hierarchy of the structure of fractal determinants of hotel and restaurant enterprises, which are located according to the degree of complexity of their organization in the intersectoral industry of hospitality and innovative services, has a certain consistent structure: range and quality of hotel and restaurant products and services (1st fractal level), business processes (level 2), personnel (level 3), market, industry/clusters (level 5), economy/society (level 6). The seventh fractal determinant corresponds to the innovative potential of services and is aimed at achieving the competitiveness of the hotel and restaurant industry (Shevchenko, 2019; Maslii et al., 2020). The hierarchical structure of the intersectoral industry of hospitality and innovative services of hotel and restaurant enterprises, at the first level of development, forms a fractal determinant “range and quality”. This corresponds to the process of providing and optimizing menus and services.

At the second level, it forms “business processes”, which are structural elements of technologies for resource supply, production, sales, and maintenance; at the third level – “staff”, which is the basis of management processes, i.e. management system; at the fourth level – the relations of the enterprises with the market corresponding to functions of marketing are personified; at the fifth level – partnership relations of subjects of hotel and restaurant economy with branch structures are formed, providing their dynamics of development, efficiency and effectiveness (clusters of subjects of entrepreneurial activity of various branches, and also science and education) (Khaustova et al., 2020; Kyrnis, 2020; Barna and Ruschyshyn, 2020).

According to the marked determinants (Figure 1), enterprises are ranked according to fractal levels of effective functioning of the intersectoral hospitality industry and innovative services in a multi-stage dimension, namely: Fractal I: $E_{ISS}^{1.A} = \{A\}$; Fractal II: $E_{ISS}^{2.T} = \{A, T\}$; Fractal III: $E_{ISS}^{3.Me} = \{A, T, Me\}$; Fractal IV: $E_{ISS}^{4.Ma} = \{A, T, Me, Ma\}$; Fractal V: $E_{ISS}^{5.Dd} = \{A, T, Me, Ma, Dd\}$; Fractal VI: $E_{ISS}^{6.H} = \{A, T, Me, Ma, Dd, H\}$. This allows to forecast changes in the external competitive environment in an optimistic, realistic, and pessimistic scenario, as well as to determine the optimal limits of competitiveness of enterprises in the services market. Thus, we have proposed a general function of the composition of fractals that form the determinants of the effective functioning of the hotel and restaurant industry in the intersectoral industry of hospitality and innovative services, which has the form (E_{ISS}) (Eq. 11) (Liu et al., 2018):

$$E_{ISS} = \{A, T, Me, Ma, Dd, H\}, \tag{11}$$

where: E_{ISS} – efficiency of functioning in the intersectoral industry of hospitality and innovative services of the enterprises of hotel and restaurant economy; A – range and quality; T – technology; Me – management; Ma – marketing; Dd – dynamics (rate of development) of target parameters; H – compliance with a certain hierarchy in the intersectoral space (type of hotel and restaurant enterprises, network, format, cluster). Indicators-signs of the components that form the intersectoral industry of hospitality and innovative services, as well as fractal determinants of the development of hotel and restaurant enterprises are presented in Figure 2. The coefficient of efficiency of the hotel and restaurant industry in the intersectoral industry of hospitality and innovative services on the integrated indicator (K_{ISS}^{In}) is calculated by the formula (Eq. 12) (with equal coefficients in the form of a simple geometric mean) (Liu et al., 2018):

$$K_{ISS}^{In} = \sqrt[12]{IS \times FS \times VS \times RS \times MS \times PS \times YS \times ES \times OS \times QS \times LS \times US}, \quad (12)$$

Quantitative assessment of the level of functionality of the components that form the intersectoral industry of hospitality and innovative services of the hotel and restaurant industry allows to determine their degree of criterion properties in the range from 0 to 1: Unsatisfactory (U) – (0-0.2); Badly (B) – (0.2-0.37); Satisfactory (S) – (0.37-0.63); Good (G) – (0.63-0.80); Excellent (E) – (0.8-1).

Figure 2. The relationship of components of the intersectoral industry of hospitality and innovative services, indicators-signs and fractal determinants of the development of hotel and restaurant industry (Source: authors' own research)

In the context of our study, there is a need to separately determine the fractal determinants of the development of restaurant enterprises in the innovative service system, which has the specifics of the service sector according to a system of indicators evaluated by experts (maximum evaluation limit – 10 points) and grouped by fractal levels:

I fractal level – “Assortment and quality”: the quality of innovations in restaurant products and innovative services, points, (x_1); compliance of the menu with the expectations of consumers, points, (x_2), (Figure 3).

II fractal level – “Technology”: quality of service innovations, points, (x_3); quality of production innovations, points, (x_4), (Figure 3).

III fractal level – "Management": labor productivity with the introduction of innovations, thousand USD per 1 year per 1 employee, (x_5); completeness of introduction of innovations in management, points, (x_6).

IV fractal level – "Marketing": turnover from innovation, thousand USD for the year, (x_7); turnover from innovations per 1 seat, thousand USD per 1 year/place, (x_8).

V fractal level – "Dynamics of development": the average annual rate of change in turnover with the introduction of innovations, %, (x_9).

VI fractal level – "Hierarchy": profitability of innovations, %, (x_{10}).

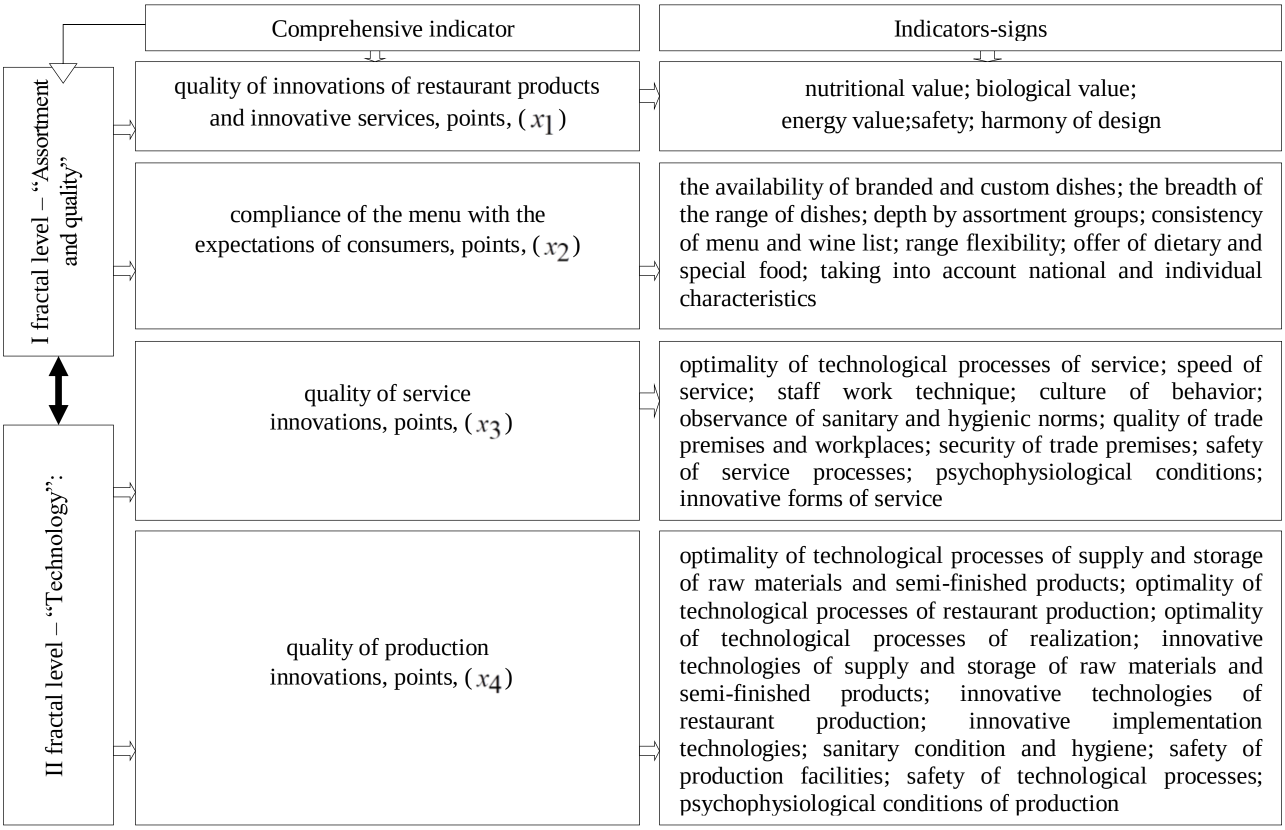

Figure 3. The structure of complex indicators of the first and second fractal levels of determinants of restaurant business development in the intersectoral industry of hospitality and innovative services (Source: authors' own research)

Thus, the integrated indicator of the development of restaurant enterprises will be determined depending on the ten indicators that characterize a certain aspect of their activities (Eq. 13) (Chorna and Koval, 2015):

$$y = f\{x_1, x_2, x_3, x_4, x_5, x_7, x_8, x_9, x_{10}\}, \tag{13}$$

The determinants of the development of the hotel and restaurant industry are grouped separately by fractal levels; their level of sustainable functioning in the intersectoral industry of hospitality and innovative services is determined by the formula (Eq. 14) (Chorna and Koval, 2015):

$$D = (E_{ISS} - s) - E_{ISS_{n-1}}, \tag{14}$$

where: D – the level of sustainable operation of the hotel and restaurant industry; s – standard deviation. The negative value of the indicator D shows the instability of the system. This means that insignificant changes in the values of fractal determinants of the development of hotel and restaurant enterprises in the intersectoral industry of hospitality and innovative services may lead to changes in their competitive positions. Accordingly, the socio-economic interaction of enterprises in the service sector can be adjusted from highly competitive to unsatisfactory.

RESULTS AND DISCUSSION

The hotel and restaurant industry in Ukraine is one of the important areas of social development. This type of economic activity plays an important role in increasing the efficiency of social production and, consequently, improving the living standards of the population. The development of the service sector is greatly influenced by the tourism industry with a complex of enterprises, the cluster of which includes hotel and restaurant businesses, thus helping to meet the needs of consumers (customers) during their movement, which is not related to paid labor in the visited country (Chkalova et al., 2019). The world leaders in the tourism industry are Europe, Asia, and Oceania, the United States, China, Africa (Trusova et al., 2020b; Trusova et al., 2020c). The highest tourist demand is in regions with rich natural, historical and cultural potential. Ukraine has all these resources, but the economic, political, social situation hinders the effective development of domestic tourism.

The experience of economic and social development of society confirms that the sustainable development of tourism enterprises can be ensured only through innovative technologies at the macro-, meso- and micro levels, as they contribute to the modernization and restructuring of the economy. At the same time, the importance of the hotel and restaurant business is that it forms the scope of work for tourism, transport, restaurants, retail, insurance, culture and art, architecture and design, tour services, advertising industry (Trusova et al., 2020a). The growing interest in the hotel and restaurant industry is due to the confidence of business entities in the mandatory overcoming of crises in the economy. It should be noted that the world's leading corporations have their hotel and restaurant complexes in many countries around the world, including Ukraine (Figure 4).

Name of the corporation	Residance center	Number of complexes	Representative offices of the corporation in Ukraine
InterContinental Hotels Group (IHG)	Great Britain	5272	InterContinental Kyiv
Wyndham Hotel Group (IHG)	USA	8000	Ramada Encore Kyiv
Marriott International Hotel Group	USA	6080	Renaissance Kyiv Hotel
Hilton Hotels	USA	570	Hilton Kyiv
Accorhotels Group	France	4000	Ibis Style (Lviv), Ibis Kiev Center, Hotel De Paris Odessa MGaller, Mercure Kyiv Congress (Kyiv), Fairmont Grand Hotel (Kyiv)
Choice Hotel International	USA	6090	–
Best Western Hotels	USA	4100	–
Starwood Hotels and Resort	USA	1300	11 Mirrors (Kyiv)
Carlson Hospitality Worldwide	USA	1225	Radisson Blu Hotel Kyiv Podil, Radisson Blu Resort (Bukovel), Radisson Blu Hotel (Kyiv)
Starwood Hotels and Resort	USA	679	Hyatt Regency Kyiv

Figure 4. Corporations of world leaders in hotel and restaurant complexes (Source: authors own research based on Hrosul and Kalienik, 2017)

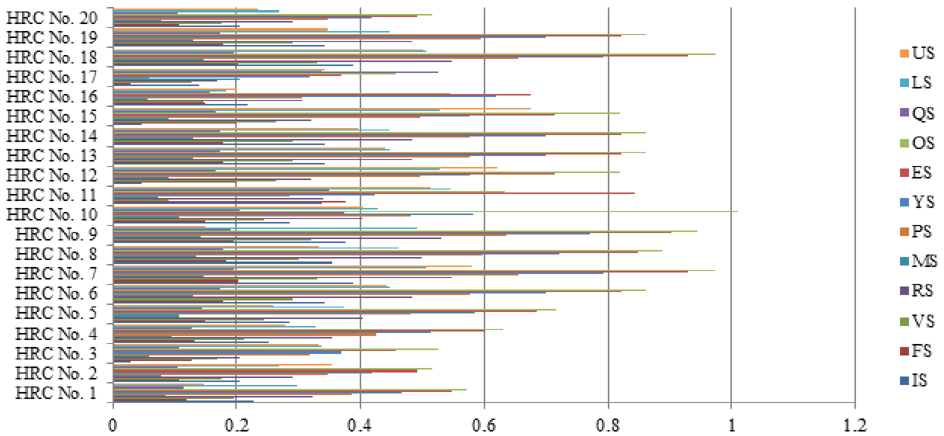

Figure 5. Integral assessment of the effectiveness of the components of the intersectoral hospitality and innovative services of the hotel and restaurant industry of Ukraine on average for 2011-2019 (Source: authors own calculations)

Note: *HRC* – hotel and restaurant complex; *IS* – Innovative component; *FS* – Financial component; *VS* – Component of the final results; *RS* – Market component; *MS* – Marketing component; *PS* – Component of enterprise development; *YS* – Management component; *ES* – Economic component; *OS* – Personnel component; *QS* – Component of risks; *LS* – Information component; *US* – Cost optimization component

To conduct an experimental study, we selected 50 enterprises of the hotel and restaurant industry in the polystructural regional space of Ukraine, of which 20 entities have hotel and restaurant complexes and 30 restaurant business entities in countries in which the pace of development is autonomous from the hotel service. Thus, correlating the components of the intersectoral industry of hospitality and innovative services for 20 enterprises of hotel and restaurant complexes, the coefficient of their measurement according to the integrated indicator of 2011-2019 is determined (Figure 5).

The generalized coefficient of efficiency of functioning of the enterprises of hotel and restaurant industry in Ukraine on an integrated indicator of the intersectoral industry of hospitality and innovative services is presented on Figure 6.

Thus, in 2011-2019, the efficiency of the hospitality industry and innovative services in 40% of studied enterprises of the hotel and restaurant industry of Ukraine are at a low and medium level of development. We consider it expedient for this group of service entities to introduce measures to improve the level of service by expanding the range of innovative services, updating production technologies and customer service. The use of creative solutions to increase the competitiveness of the product (works) the introduction of affordable pricing and improving advertising in the activities of enterprises will eliminate barriers to the development of an innovation-oriented economy in the environment of their socio-economic relations. The dynamics of retail turnover of the restaurant industry of Ukraine in the structure of the intersectoral industry of hospitality and innovative services indicate their greater vulnerability compared to the subjects of hotel and restaurant complexes (Figure 7).

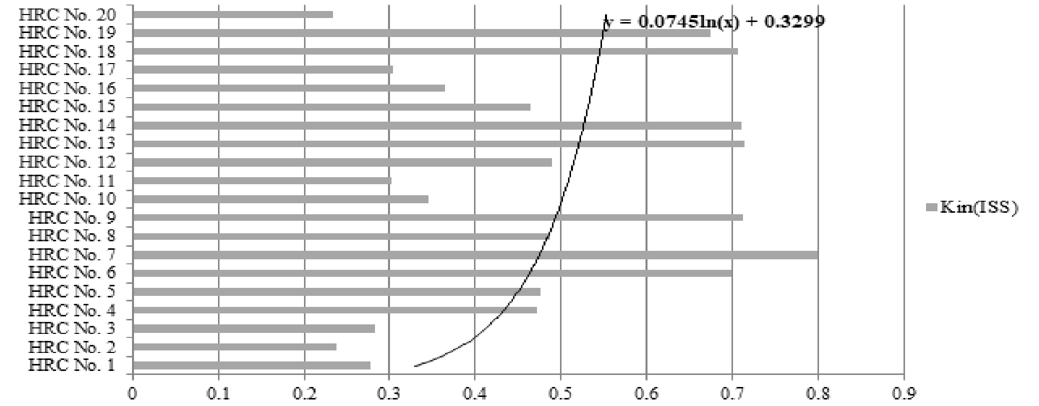

Figure 6. The efficiency of the intersectoral industry of hospitality and innovative services of hotel and restaurant enterprises in Ukraine on average for 2011-2019 (Source: authors own calculations) Note: Kin(ISS) – coefficient of efficiency of functioning of the interbranch industry of hospitality and innovative services of the enterprises of hotel and restaurant economy

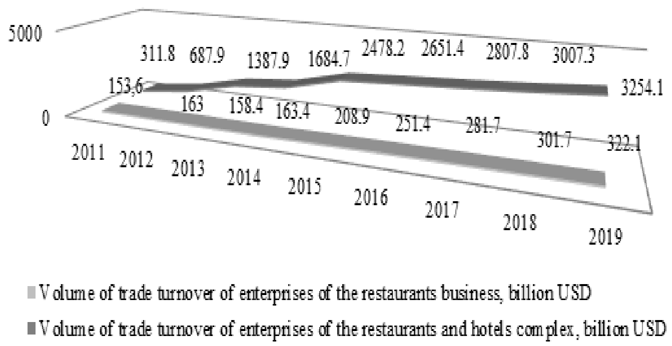

Figure 7. Volume of trade turnover of products (works, services) of enterprises of the hospitality industry and innovative services of Ukraine , billion USD (Source: authors own calculations based on Collection “Ukraine-2018”, 2019; Statistical publication of the Regions of Ukraine, 2018)

Table 1. Evaluation of the effectiveness of the hospitality industry and innovative services by group of restaurants of Ukraine, on average for 2016-2019 (Source: authors own calculations)

Fractal level	Conditional indicator	Average group indices			
		Networks	Formats	Restaurants	Cafe
Assortment	x_1	6.8	7.7	7.4	6.0
	x_2	7.2	7.9	7.6	5.6
Technology	x_3	6.9	7.6	7.5	5.8
	x_4	7.2	7.6	6.8	5.8
Management	x_5	182.0	124.3	145.3	110.7
	x_6	46	51	42	28
Marketing	x_7	2236.9	1047.5	1940.1	845.2
	x_8	17.6	7.1	14.0	7.1
Dynamics of development	x_9	114.5	112.2	112.7	92.3
Hierarchy	x_{10}	0.1	2.1	-9.5	-26.0

Starting from 2014-2016, restaurant enterprises have implemented a strategy of “consumer retention”, which provided curbing the sharp rise in prices by reducing the margin on restaurant products (until 2014 it was excessive and reached 500 and more percent). There were also processes of diversion of resources involved in the provision of food and beverages by enterprises for which the restaurant industry is not the main economic activity, as the latter do not consider the restaurant industry to be an attractive area for their corporate portfolios in doing business in Ukraine (Collection “Ukraine-2018”, 2019).

The strategy of combining a healthy lifestyle, national cuisine, and modernity is manifested in another trend – the opening of modern Ukrainian restaurants. In 2018-2019, they use not ethnic but modern style, with European cuisine, which promotes light Ukrainian dishes. This is 67% of the consumer demand of customers in the regions of Ukraine. At the same time, Japanese cuisine satisfies 31.4% demand, Ukrainian cuisine – 24.3%, Italian and Russian cuisine – respectively 18.6% and 15.7%; cuisines such as French, Georgian, Mediterranean, Chinese, Indian, Asian, Thai, Vietnamese, Greek, American, Mexican offer fewer 10% restaurants in the regions of Ukraine (Piatnytska and Naidiuk, 2017) The potential of the restaurant business, formed from the fractal determinant of the intersectoral industry of hospitality and innovative services in Ukraine, which is growing due to automation and informatization of processes, use of web and telecommunication technologies, introduction of innovative technologies (electronic and interactive menu, screens, tables displays, QR-coding, three-dimensional projections and video mapping to demonstrate cooking). The application for iPad “Breadcrumb” works in real-time and allows you to view ingredient tables and menu catalogs, track sales processes, generate and send orders to the kitchen. Such innovations allow to significantly improving the service and speed up the service process (Yatsun, 2018).

Table 2. The degree of dependence of the taxonomic indicator of the group of restaurant enterprises from partial indicators (Source: authors own calculations)

	Conditional indicator									
	x_1	x_2	x_3	x_4	x_5	x_6	x_7	x_8	x_9	x_{10}
The enterprises which are a part of networks										
Degree of dependence on the indicator	3.68	4.25	41.42	44.43	71.18	0.12	49.28	41.82	19.27	2.83
F-Ratio	0.31	0.54	5.66	6.4	19.75	0.01	7.77	5.75	1.91	0.23
Enterprises – formats										
Degree of dependence on the indicator	94.23	84.80	80.42	52.75	51.03	73.08	79.80	95.26	6.28	89.05
F-Ratio	49.01	37.5	12.32	3.35	3.13	8.14	11.85	60.3	0.2	24.41
Full-service restaurants										
Degree of dependence on the indicator	2.96	3.05	3.25	94.82	79.30	26.5	86.14	93.46	72.27	3.61
F-Ratio	0.24	0.31	0.27	146.28	30.66	2.88	49.72	114.31	20.85	0.3
Cafes										
Degree of dependence on the indicator	97.73	91.41	13.31	76.43	98.80	99.89	42.40	46.99	66.74	99.72
F-Ratio	171.9	113.4	0.61	12.97	360.3	3562.4	2.94	3.55	8.03	1445.9

The formation of a new structural and functional system in the restaurant industry is due to the dominance of small enterprises (mainly micro-enterprises), through the active implementation of the European program to support small and medium-sized businesses "Competiveness of Small and Medium Enterprises (COSME)" (Yatsun, 2018). Based on the structuring of fractal determinants of restaurant business development (research period 2016-2019), derivative indicators of 30 subjects that form an evaluative set of features and ensure the effective functioning of the hospitality industry and innovative services in Ukraine are analyzed. The subjects of the restaurant industry are united into four groups: enterprises within the networks (N), enterprises – formats (F), full-service restaurants (R), and cafes (C), which correspond to the average indicators of these groups of restaurant enterprises, which confirms the representativeness of the sample (Table 1). The close dependence of the functioning of the group of restaurant enterprises on partial indicators is determined (Table 2).

Thus, among the ten indicators, the greatest influence on the level of effective activity of enterprises that are part of the networks is exerted by labor productivity (the degree of dependence on the indicator – 71.18%; F-Ratio – 19.75). The effective functioning of the formats depends on the turnover at the places of their implementation (95.26; 60.3), the quality of restaurant products (94.23; 49.01), profitability (89.05; 24.41), quality of service (80.42; 12.32), turnover (79.8; 11.85), net profit (73.08; 8.14), completeness of management functions (52.75; 3.35) and labor productivity (51.03; 3.13). The efficiency of restaurants is determined largely by the quality of production (94.82; 146.28), turnover at the place of their implementation (93.46; 114.31) and its volume (86.14; 49.72), labor productivity (79.3; 30.66) and pace development (72.27; 20.85). The competitiveness of the cafe has a strong dependence on net profit (99.89; 3562.41), profitability (99.72; 1445.93), labor productivity (98.9; 360.33), quality of restaurant products (97.73; 171.9) and its production (76.43; 12.97), as well as the pace of development (66.74; 8.03). Diagnosis of average group values of efficiency of functioning of restaurant enterprises on fractal levels allowed revealing certain regularities. A common feature is a clear manifestation of the relationship between fractals through a polynomial function. Thus, for enterprises that are part of networks ($y_{(N)}$), full-service restaurants ($y_{(R)}$), full-service formats ($y_{(F)}$), cafes ($y_{(C)}$), the polynomial function is as follows (Eqs. 15-18) (Chorna and Koval, 2015):

$$y_{(N)} = 0.0034\text{x}^2 - 0.0362\text{x} + 0.6629;\ R^2 = 0.7812, \quad (15)$$

$$y_{(R)} = 0.009\text{x}^2 - 0.1138\text{x} + 0.8984;\ R^2 = 0.8784, \quad (16)$$

$$y_{(F)} = 0.0102\text{x}^2 - 0.1067\text{x} + 0.8236;\ R^2 = 0.9613, \quad (17)$$

$$y_{(C)} = 0.0081\text{x}^2 - 0.0765\text{x} + 0.4857;\ R^2 = 0.9687, \quad (18)$$

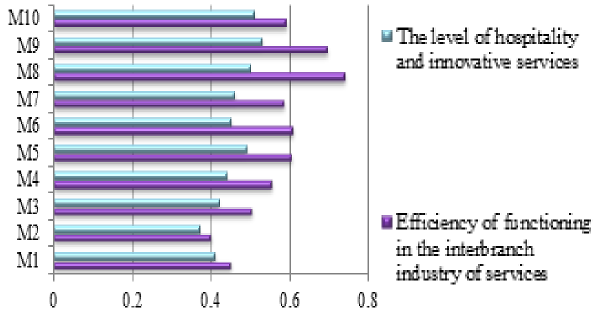

Figure 8. Integral indicator of effective functioning of enterprises of the restaurant business – network by levels of hospitality and innovative services (Source: authors own calculations)

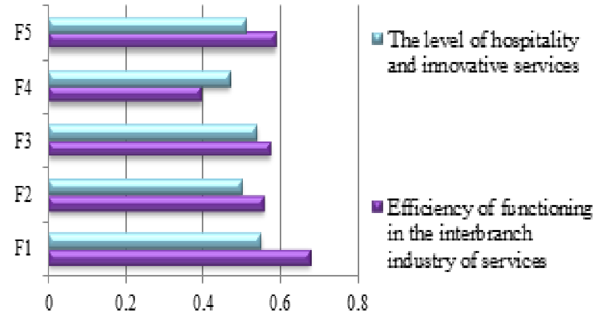

Figure 9. Integral indicator of effective functioning of enterprises of the restaurant business – formats by levels of hospitality and innovative services (Source: authors own calculations)

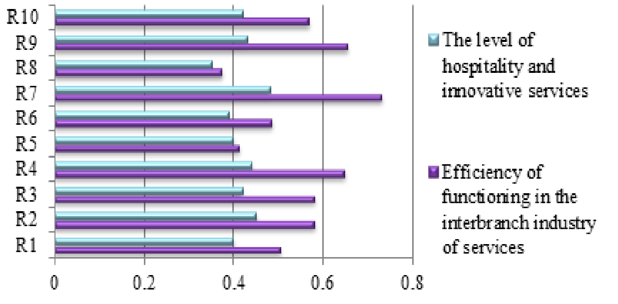

Figure 10. Integral indicator of effective functioning of enterprises of the restaurant business – restaurants by levels of hospitality and innovative services (Source: authors own calculations)

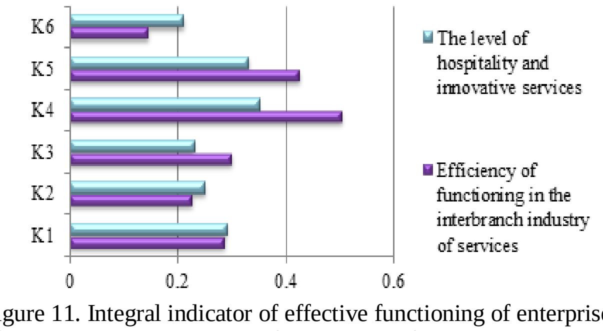

Figure 11. Integral indicator of effective functioning of enterprises of the restaurant business – cafes by levels of hospitality and innovative services (Source: authors own calculations)

Thus, if the "medium-group" enterprise-format leads in the evaluation of fractals, the profiles of restaurants are lower, networks – even lower, respectively, an outsider for all fractals with a large gap became a cafe. It is established that the stability of the group of network enterprises is reduced, so as a result of the introduction of additional innovative measures, outsider enterprises can increase their competitive position and stay ahead of competitors (Kulman, 2020). Thus, according to the theory of cybernetic systems, it is determined that the influence of external competitive factors on the components of the intersectoral industry of hospitality and innovative services leads to the emergence of numerous scenarios of competitiveness of restaurants. Summary results of forecasting the completeness of the functions of hospitality and innovative services in the intersectoral industry of restaurant enterprises are shown in Figures 8-11. Thus, the results of the assessment of the integrated indicator of the effective functioning and completeness of the functions of hospitality and innovative services of restaurant enterprises that are part of the networks (Figure 8) indicate a high impact of their activities. There is a high correlation of indicators in the service sector M4, M5, M6, M7, M8 та M9. In format enterprises (Figure 9) the value of the integrated indicator is higher than the level, except for the subject F4, which operates in the format of a nightclub. Among the enterprise formats, it is an outsider. Therefore, any efforts to change the concept of development will not work, as the diagnostic results indicate significant errors associated with the mismatch of the chosen format and location of the enterprise, the choice of products and innovative services. Other decisions are secondary. For most restaurants (Figure 10), the value of the integrated indicator is quite high, which confirms the close relationship with the indicator of the completeness of the functions of hospitality and innovative services. However, in all enterprises the organizational costs exceed the planned ones. The values of the integrated indicator R1, R2, R3, R4, R7, R9 and R10 are relatively high (enterprises have advantages in placing and choosing a business concept). The efficiency of functioning in the intersectoral industry and the level of performance of the functions of hospitality and innovative services of cafe enterprises (Figure 11) in the three subjects of this group (K3, K4 and K5) is high, in the rest (K1, K2 and K6) – on the contrary. Cafes K3, K4 and K5 – There is a synergistic effect in all areas, although its overall level is low compared to other companies. In the group of enterprises-cafes there are two enterprise – K4 and K5, which are more important for the efficiency of functioning in the intersectoral industry compared to the functions of hospitality and innovative services (Vlasenko and Budnik, 2020; Bobrova et al., 2017).

Cluster members invest in specialized but related technologies, infrastructure, and human resources, which leads to the mass emergence of new hotel and restaurant enterprises. Clusters are the cause of investment; their formation increases the international competitiveness of the country as a whole. Thus, based on the results of calculations of indicators-signs of functioning of enterprises of hotel and restaurant complexes for 2016-2019 and thanks to the Cluster Analysis module, a hierarchical dendrogram of association of enterprises of hotel and restaurant complexes was obtained according to integrated indicators of effective functioning in intersectoral industry of hospitality and innovative services (Figure 12).

Euclidean distances between clusters of enterprises of hotel and restaurant complexes are given in Table 3. The calculation of the Euclidean distance between clusters is calculated by formula (Eq. 19) (Hrosul and Kalienik, 2017):

$$d_{ij} = \left(\sum_{k=1}^{n}(x_{ik} - x_{jk})^p\right)^{\frac{1}{p}}, \tag{19}$$

where: p – Euclid's metric ($p = 2$); x_{ki} – the value of the k-th feature in the i-th object.

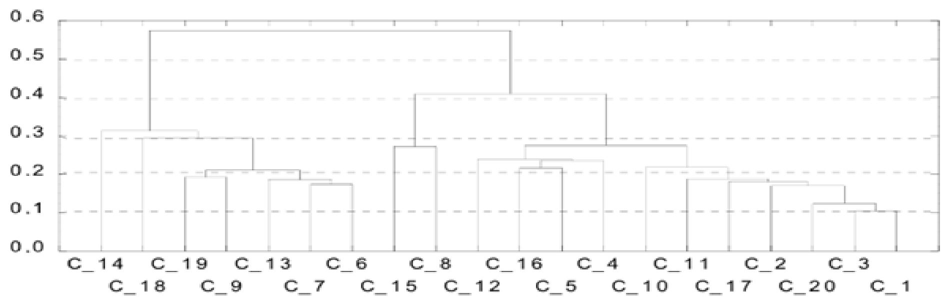

Figure 12. Hierarchical dendrogram of the association of enterprises of hotel and restaurant complexes of Ukraine on the integrated indicators of effective functioning in the intersectoral industry of hospitality and innovative services (Source: authors own calculation s)

Table 3. Matrix of Euclidean distances between clusters of enterprises of hotel and restaurant complexes of Ukraine (Source: authors own calculations)

10	C1	C2	C3	C4	C5	C6	C7	C8	C9	C10	C11	C12	C13	C14	C15	C16	C17	C18	C19	C20
C1	0.00	0.23	0.10	0.52	0.55	1.57	1.59	0.81	1.39	0.27	0.26	0.43	1.51	1.35	0.74	0.51	0.27	1.25	1.34	0.18
C2	0.23	0.00	0.17	0.44	0.49	1.49	1.51	0.74	1.34	0.29	0.21	0.43	1.44	1.27	0.70	0.42	0.18	1.20	1.27	0.19
C3	0.10	0.17	0.00	0.48	0.52	1.54	1.57	0.80	1.38	0.24	0.19	0.42	1.49	1.34	0.75	0.46	0.22	1.23	1.32	0.12
C4	0.52	0.44	0.48	0.00	0.24	1.16	1.17	0.50	1.03	0.42	0.40	0.24	1.13	0.99	0.50	0.24	0.31	0.90	0.99	0.52
C5	0.55	0.49	0.52	0.24	0.00	1.09	1.10	0.44	0.93	0.47	0.48	0.27	1.04	0.94	0.41	0.22	0.34	0.78	0.88	0.56
C6	1.57	1.49	1.54	1.16	1.06	0.00	0.17	0.80	0.37	1.51	1.46	1.18	0.19	0.41	0.91	1.15	1.37	0.46	0.35	1.61
C7	1.59	1.51	1.57	1.17	1.10	0.17	0.00	0.85	0.39	1.53	1.49	1.20	0.26	0.45	0.95	1.16	1.39	0.49	0.41	1.63
C8	0.81	0.74	0.80	0.50	0.44	0.80	0.85	0.00	0.66	0.78	0.75	0.47	0.74	0.57	0.27	0.50	0.65	0.59	0.58	0.86
C9	1.39	1.34	1.38	1.03	0.93	0.37	0.39	0.66	0.00	1.36	1.34	1.01	0.25	0.41	0.69	1.02	1.22	0.34	0.19	1.45
C10	0.27	0.29	0.24	0.42	0.47	1.51	1.53	0.78	1.36	0.00	0.22	0.42	1.47	1.32	0.76	0.44	0.26	1.21	1.31	0.24
C11	0.26	0.21	0.19	0.40	0.48	1.46	1.49	0.75	1.34	0.22	0.00	0.39	1.43	1.27	0.74	0.39	0.22	1.17	1.28	0.23
C12	0.43	0.43	0.42	0.24	0.27	1.18	1.20	0.47	1.01	0.42	0.39	0.00	1.13	0.99	0.42	0.31	0.31	0.86	0.96	0.50
C13	1.51	1.44	1.49	1.13	1.04	0.19	0.26	0.74	0.25	1.47	1.43	1.13	0.00	0.35	0.83	1.12	1.33	0.40	0.21	1.56
C14	1.35	1.27	1.34	0.99	0.94	0.41	0.45	0.57	0.41	1.32	1.27	0.99	0.35	0.00	0.71	0.98	1.18	0.52	0.31	1.41
C15	0.74	0.70	0.75	0.50	0.41	0.91	0.95	0.27	0.69	0.76	0.74	0.42	0.83	0.71	0.00	0.51	0.61	0.62	0.65	0.82
C16	0.51	0.42	0.46	0.24	0.22	1.15	1.16	0.50	1.02	0.44	0.39	0.31	1.12	0.98	0.51	0.00	0.28	0.89	0.97	0.50
C17	0.27	0.18	0.22	0.31	0.34	1.37	1.39	0.65	1.22	0.26	0.22	0.31	1.33	1.18	0.61	0.28	0.00	1.08	1.17	0.24
C18	1.25	1.20	1.23	0.90	0.78	0.46	0.49	0.59	0.34	1.21	1.17	0.86	0.40	0.52	0.62	0.89	1.08	0.00	0.29	1.30
C19	1.34	1.27	1.32	0.99	0.88	0.35	0.41	0.58	0.19	1.31	1.28	0.96	0.21	0.31	0.65	0.97	1.17	0.29	0.00	1.40
C20	0.18	0.19	0.12	0.52	0.56	1.61	1.63	0.86	1.45	0.24	0.23	0.50	1.56	1.41	0.82	0.50	0.24	1.30	1.40	0.00

The results of construction of the correlation-regression model by clusters of enterprises of hotel and restaurant complexes are given in Table 4. Thus, the calculations show that in the formation of hospitality and innovative services for enterprises of the first cluster in the intersectoral service industry, it is necessary to reduce financial risk (investment), conquer new markets (standards, improve service quality, etc.), expand the information base (creation of a base of consumers, suppliers, etc.), rational use of working time (measures to reduce free or unproductive time) (Davydova, 2016; Guaita et al., 2019; Travel, Tourism and Hospitality, 2016). For enterprises of the second cluster, it is necessary to increase their level of development by effective advertising (not only promoting their product but also improving service). Increasing the cost of maintaining management staff will be effective provided effective management decisions that will improve financial state of enterprises of hotel and restaurant complexes in the regions of Ukraine. For the enterprises of the third cluster, it is necessary to increase the level of own development (to introduce international standards to attract additional investments), to introduce innovative measures for market research of competitors (benchmarking, reengineering), to form skilled workers staff who will effectively produce innovative measures for hotel and restaurant business development (use of the system of material and moral motivation to increase innovation and ideology of employees).

Table 4. The results of building a correlation-regression model by clusters
of enterprises of the hotel and restaurant complex of Ukraine (Source: authors own calculations)

Regression equation	Multiple correlation coefficient (R)	Determination coefficient (R^2)	Normalized R^2	Fisher's criterion F	Approximation error
I cluster (7 enterprises of hotel and restaurant complexes – C6; C7; C9; C13; C14; C18; C19) – high level of integrated indicator					
$y_К^{I} = \mathbf{0.3241 + 0.1511 \times \mathit{IS}5 + 0.4812 \times \mathit{DS}1 + 0.2647 \times \mathit{OS}4 + 0.3254 \times \mathit{FS}4 + 0.4162 \times \mathit{TS}2}$	0.468	0.581	0.523	10.11	0.0134
II cluster (6 enterprises of hotel and restaurant complexes – C4; C5; C12; C8; C15; C16) – average level of integrated indicator					
$y_К^{II} = \mathbf{0.4215 - 0.2515 \times \mathit{IS}1 + 0.5164 \times \mathit{MS}1 + 0.5382 \times \mathit{PS}4 + 0.2801 \times \mathit{YS}2 + 0.4382 \times \mathit{OS}1}$	0.820	0.747	0.751	10.15	0.0171
III cluster (7 enterprises of hotel and restaurant complexes – C1; C2; C3; C10; C11; C17; C20) – low level of integrated indicator					
$y_К^{III} = \mathbf{0.3843 - 0.2238 \times \mathit{IS}2 + 0.3481 \times \mathit{MS}2 + 0.5214 \times \mathit{YS}4 + 0.2517 \times \mathit{OS}3 + 0.1205 \times \mathit{TS}3}$	0.681	0.731	0.621	11.21	0.0173

CONCLUSIONS

Thus, the introduction of new approaches and methods of the development of hotel and restaurant industry in the intersectoral industry of hospitality and innovative services confirms its existence as a synergetic system that increases the potential of service activities, open new areas of use of its components and indicators, providing synergistic effect when changing the external and internal competitive environment. This will increase the adaptive conditions to forecasted and unforeseen crises in the hospitality industry and innovative services, will balance product quality and customer service, creating a positive image in domestic and foreign markets. The reduction of the influence of external factors to strengthen the competitive advantages of the hotel and restaurant industry can be through the implementation of the following measures: first, hotel and restaurant complexes and other accommodation facilities should improve approaches and mechanisms for attracting customers through the creation of new key competencies, which will positively affect the development of new quality standards and service technologies similar to the standards of the global hotel and restaurant chain.

At the same time, an attractive pricing policy will be an advantage in the competition; secondly, it is more expedient for investors to build a three-star hotel and restaurant complexes for faster return on investment, taking into account one hundred percent occupancy of facilities; thirdly, the hotel and restaurant industry should cooperate more intensively with the state to form joint development and exit from crisis programs, because the crisis motivates the hotel and restaurant business to seek new horizons of cooperation and create unique service technologies (namely, choosing the best employees in the labor market, improving the quality of service, the introduction of new marketing approaches to the development of hospitality and the sale of innovative services, association with other players in the market of hotel and restaurant services, acquisition of assets at favorable prices, i.e., objects in the final stages of implementation). Fourth, the introduction of hotel and restaurant operators will meet the needs of the hotel and restaurant industry in local and regional markets, thus strengthening the key competencies for the successful development of the hospitality industry and innovative services.

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