



e-ISSN: 2458-7583

JOURNAL OF TOURISM THEORY AND RESEARCH

Volume: 9 – Issue:2 (September 2023)

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- Perspectives of rural tourism entrepreneurs in Italy, Spain, and Türkiye: A focus group study



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Peer Review Process: All author(s) submitted manuscripts are subject to initial appraisal by the section editors to peer review as a double-blind by at least two independent and expert referees. For the article to be published, at least two referees agree on the publication of the work.

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Journal of Tourism Theory and Research

Volume:9, Issue:2, 2023

Research article

Determination of travel motivations and motivational typology of tourists who have no intention to revisit Türkiye

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Determination of travel motivations and motivational typology of tourists who have no intention to revisit Türkiye

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Abstract

This study aims to identify travel motivations and typologies of tourists without the intention to revisit. The study sample has yet to be studied in the national and international literature, making this study original. In this study, 3000 tourists visited Istanbul Atatürk Airport in August 2017, and 405 tourists who did not intend to visit again were identified. The study used a mixed-methods exploratory approach. The study found that curiosity and discovery were the main travel motivations. Other motives for travel were recreation, recognition and learning, and alternative tourism activities. Tourist typologies were identified as explorers, recreationists, intellectuals, and diversity seekers. As tourism ambassadors, satisfied tourists may influence potential tourists with zero-cost marketing.

Keywords: No intention to revisit, Travel motivation, Tourist typology

1. Introduction

In modern times, technological advances, transportation, and communication have led to increased leisure time for individuals, with traveling now considered a necessity rather than a luxury. These improvements have made people's quality of life more conducive to tourism. Consequently, tourism has emerged as a significant industry in every aspect, with great growth worldwide.

The increasing awareness of tourism's positive impacts, not only on the economy but also on society and culture, has prompted nations to increase efforts in developing this sector which provides a high-value-added economy. Today, countries with tourism potential are in fierce competition in the international tourism market to attract foreign exchange necessary for growth and development, improved employment opportunities, and increased national income. The rising competition is compelling tourist destinations to offer superior value to visitors compared with their counterparts. The primary objective of all tourism activities is to draw customers to the destination and the tourism industry, providing them with the means to spend their time and money. Hence, the significance of the satisfaction and retention of existing customers, particularly has increased (Güngören & Karakuş, 2015; Hazar, 2010).

Despite the 2020 coronavirus pandemic bringing tourism to a standstill, Türkiye welcomed 50.4 million visitors in 2022 and has increased its position as the 4th most visited country in the world (UNWTO, 2020). Türkiye ranked 6th in the world with 50.2 million visitors in 2019. Nevertheless, according to The Travel & Tourism Competitiveness Report (2019) by the World Economic Forum (WEF), Türkiye was in the 42nd position for providing the best tourism services and 43rd worldwide for tourism competitiveness. This condition indicates that Türkiye falls short in numerous ways, including retaining its existing tourists. Nevertheless, it is well established that finding new consumers (tourists) is 5 to 10 times more expensive than retaining lost ones. This illustrates the importance of satisfying tourists for their loyalty. Consumers (tourists) often share their vacation experiences with potential tourists via word-of-mouth recommendations and social media. Studies reveal that consumers tend to share their positive experiences, on average, with eight people, whereas negative experiences are communicated to twenty-four individuals (Ay, 2014).

In this context, effective customer relationship management can positively influence tourist satisfaction levels and encourage tourists to revisit the country. In addition, the

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Article info: Research Article

Received: 20 June 2023

Received in revised form: 30 June 2023

Accepted: 8 September 2023

Ethics committee approval:

* All responsibility belongs to the researcher. Ethics committee approval is not required because this study's data was collected in 2017.

** This article is derived from a Ph.D. thesis entitled "a study to determination risk factors and travel motivation tourists who have no intention to revisit Turkey"

To cite this article: Karakan, H.İ. & Birdir, K. (2023). Determination of travel motivations and motivational typology of tourists who have no intention to revisit Türkiye. *Journal of Tourism Theory and Research*, 9(2), 41-52. <https://doi.org/10.24288/jttr.1352358>

positive reviews these tourists post on various platforms play a crucial role in maximally promoting the country's tourism industry. To effectively manage customer relationships, it is important to assess current tourists' travel motivations and typologies. This approach can lead to effective tourism marketing at zero cost by prioritizing tourist satisfaction over expensive and ineffective marketing strategies such as participating in tourism fairs.

This study systematically reviewed domestic and international tourism literature but found no research on the phenomenon of 'tourists who have no intention to revisit.' As a result, this study significantly contributes to the related literature because of its original value. This study employed both quantitative and qualitative research designs. Quantitative data were collected and analyzed using questionnaires. The qualitative research approach involved asking participants open-ended questions and then using content analysis to identify themes. Frequency analysis was applied to the themes obtained through content analysis.

2. Conceptual framework

Tourism literature focuses on factors that influence tourists' travel decisions and their motives for traveling. Tourists' decision-making process is heavily influenced by motivation (Crompton & McKay, 1997; Uysal et al., 2008). This section describes the concepts of motivation, travel motivation, and motivation theories and highlights the significance of travel motivation. Furthermore, this section includes studies on travel motivation and their findings based on national and international literature reviews.

Pearce and Caltabiano (1983) explained that travel motivation is crucial to comprehend tourists' travel behavior and to answer why people travel and what prompts purchase behavior. According to Kasim et al. (2013), Terblanche (2012) suggests that travel motivation is the reason for visiting a place. Traveling reasons can be classified into biological and psychological causes. Vacation motivation commonly depends on psychological factors. Prestige is one of the psychological reasons, which can comprise being a part of a specific group and gaining appreciation from peers (Mahika, 2011). An additional classification comprises fundamental and selective motives. McIntosh et al. (1995) categorized motivational factors into four headings: physical, cultural, interpersonal, and status prestige motivators. Physical motivators include reducing physical tension, rejuvenating both body and mind and the desire to participate in physical recreation and sports (Kim et al., 2009). Cultural motivators encompass the desire to experience different cultures and learn about their lifestyle, music, food, and dance. Interpersonal motivators have been expressed as meeting new people, spending time with family members and friends, and avoiding routine relationships. Kim et al. (2009) expressed status and prestige as self-esteem, self-knowledge, and attracting the attention of others.

There exist numerous studies in tourism literature concerning travelers' reasons for traveling. The literature

review concentrates on the impacts of push and pull factors on travel motivations and theories on motivation. Damijanik and Sergio's (2013) research concluded that health tourism participants' travel motivations are determined by three push and two pull factors. The destination, relaxation, and local people are the push factors, while culture and nature are the pull factors. Kasim et al. (2013) researched to evaluate the motivations of domestic tourists traveling to an island in Malaysia. According to their findings, the most significant motivation was the desire for mental and physical revitalization. In contrast, visiting cultural sites was the least essential motivational factor.

Studies on travel motivation cover various destinations worldwide. According to Godfrey (2011), backpackers realize their long-standing dream of exploring the world, gaining personal growth, leaving their homes, building cultural capital, taking a break, or escaping. The reasons for selecting New Zealand include recommendations, scenic beauty, the backpacking tourism route, and Maori culture. Pesonen's (2012) researched the travel motives of tourists who visit Finland through 'push' and 'pull' factors as part of their study of rural tourism. Grazulis and Zuromskaite (2011) conducted a clustering and separation analysis study. The results revealed that resting away from routine, experiencing romance, and visiting one's ancestral places were the most distinct motives among all the clusters.

Tourists visiting Lithuania have identified factors affecting their travel motivations. These include a break from routine and problems, fresh air, and relaxation. Vuuren and Slabbert (2011) researched the motives of tourists staying in accommodation in South Africa. They identified rest as the most significant factor and placed the least importance on personal values. Mohammed and Som (2010) researched foreign tourists visiting Jordan. The factor with the highest score was visiting unexplored places, while the lowest was visiting family and friends. According to Huang and Li's (2009) study, innovation is the most important factor affecting Chinese tourists' travel motivation when visiting Hong Kong. This study contradicts other studies, finding that escape and rest were insignificant factors. Merwe and Saayman's (2008) research aimed to determine travel motivations for tourists visiting the Kruger National Park in South Africa. It concluded that the visitors were mainly motivated by escape, nostalgia, and nature. Zhang and Marcussen (2007) conducted a study to compare the motivational factors for the Danish cities of Copenhagen, Bornholm, and others. The study found that the highest motivating factor for Copenhagen was activity and entertainment. For Bornholm, the highest motivating factor was nature, cleanliness, and safety. The highest motivating factors for the rest of Denmark were nature and visiting family and friends.

Jang and Wu (2006) concluded that the primary push factor affecting the travel motivation of older individuals in Taiwan was the opportunity to see novel things, while the least significant factor was the perception that traveling serves no purpose. Safety and security were identified as the

most crucial pull factor, whereas shopping was the least significant pull factor. McGehee et al. (1996)'s factor analysis, which evaluated international travel motivations in Australia by gender, revealed that push factors included five categories: sports and adventure, cultural experience, family and kinship relations, prestige, and escapism. The prominent pull factors were cultural heritage, recreational activities, comfort and relaxation, open spaces, accommodation, and budget. Klenosky's (2002) research investigating the impact of push and pull factors on tourists' purchasing decisions in 23 states, including Florida, California, Colorado, Hawaii, and Mexico, highlighted the critical role such factors play in travel behavior. Kozak and Rimmington (2000) conducted a study to identify the push and pull factors that drive British and German tourists to visit Majorca and Türkiye. Their findings revealed that cultural factors were the most important motivation, whereas physical factors were the least significant.

Özgen (2000) appraised the travel motivations and satisfaction of both domestic and foreign tourists in the Cappadocia region, considering their demographic characteristics. Sirakaya, et al. (2003) studied the travel behavior of Japanese tourists who visited Türkiye, using Iso-Ahola's dichotomy of escape and seeking. The study discovered eight factors that motivated travel, including "enjoying the natural beauty," "strengthening family ties," "experiencing diverse cultures," "having fun," "escaping from daily routine," "learning," "shopping/luxury lifestyle," and "showing off travel experiences." Tourists' travel motivations and decision-making processes were examined by Bansal and Eiselt (2004). According to their study, most tourists travel in small groups seeking adventure.

According to Kim and Prideaux's (2005) research, the dissimilarities in the travel motivations of overseas visitors coming to Korea from different countries correspond to the length of the planning stage before the journey, their interests in tourist pursuits, information sources, and their national cultures. Swanson and Horridge's (2006) investigation demonstrated that travel motivation impacts souvenir purchase decisions, the attractiveness of souvenirs, and the store where these mementos are sold. Park and Yoon (2009) discovered that most tourists in rural tourism activities in Korea come with their families. According to this study, tourists from the entertainment and learning group possess higher incomes than those from the passive and wanting group. It has been discovered that the family-oriented group enjoys traveling extensively and pursues more artistic hobbies.

In contrast, the group inclined towards luxury has low levels of education but high motivation; they are easily pleased with everything. However, it has been established that tourists who possess better education, higher incomes, and belong to the passive group are less motivated. Paris and Teye (2010) discussed the travel motivations of backpackers within the scope of Pearce and Lee's (2005) Travel Career Steps Model. Among personal or social development, experience, relaxation, cultural knowledge, budget travel, and

independence, the most important motivation factor is cultural knowledge, while relaxation is the least important. According to the results of this study, travel experience affects travel motivations, and the result of the study is in parallel with the result of Pearce and Lee's study.

Çetinsöz and Artuğer's (2014) study found that the two critical factors influencing the preference of foreign tourists in Antalya are "hygiene and safety" and "natural beauty." You et al. (2000) conducted a cross-cultural comparison of push and pull factors in their study. The study found similarities and differences between England and Japan's demographic characteristics and motivational factors. Jang and Cai's (2002) research identifies "information seeking," "escape from the environment," and "being with family" as the crucial factors that drive destination choices. Most importantly, factors like "hygiene and safety," "easy accessibility," and "sun and exotic atmosphere" are seen as influential in destination pulling.

Correia et al. (2007) discovered that motivation factors, including "knowledge," "leisure," and "socialization," have an impact on the choice of destination and perceptions of tourists. They also found that attracting motivation factors like "opportunities," "destination attractions," and "natural beauties" have a similar effect. They have proposed. Sangpikul (2008) identified three driving factors for Japanese tourists visiting Thailand, which are "innovation and knowledge seeking," "relaxation," and "self-development." Additionally, four attractive factors emerged. The factors that interest visitors include cultural and historical attractions, travel-related programs and activities, shopping and leisure activities, and safety and hygiene. Of these, innovation and information-seeking cultural and historical attractions are the most significant considerations for tourists when choosing Thailand. Wu et al. (2009)' "outcomes" for tourists visiting China are "self-reward", "being with friends", "traveling", "personal values", "enabling travel" and "relaxing." Eight major influencing factors: "cultural and historical attractions," "natural resources," "food, accommodation, transportation, climate," "history," "reputation and image," "innovation," "price and convenience," and "activities" are the main driving factors.

Prayag and Ryan (2011) found that individuals of diverse nationalities have distinct reasons for visiting the region. Yousefi and Marzuki (2012) researched the travel motivations of foreign tourists visiting Penang, Malaysia. As a result of factor analysis, "innovation and knowledge seeking" is one of the attracting factors. However, it is understood that "historical and cultural attractions" are more prominent for tourists. Kassean and Gassita (2013) also discovered that "resting" and "relaxation" are push factors, while the "climate" and "weather" factors, which are attracting factors, have a significant impact on tourists' decisions.

As indicated in the literature, there seems to be a correlation between the desire to travel and the intention to revisit. The intention to revisit is a crucial aspect of tourism, similar

to the motivation to travel. The primary factors influencing the intention to revisit, which is a part of destination loyalty (Yoon & Uysal, 2005:32), include tourist satisfaction as the driving force behind the choice of destination and tourist loyalty measured by the frequency of revisits.

The significance of tourists' intention to revisit the destination in the tourism industry can be demonstrated as follows (Güngör, 2010: 35; Opperman, 1997):

- Repeated visits indicate that tourists are satisfied with their experience.
- Tourists whose return are likely to exhibit similar behavior in the future.
- Revisiting tourists may recommend travel destinations to their family or acquaintances.
- Marketing costs for tourists who revisit the same destination are lower than those visiting the first time (Alegre & Cladera, 2009; Boit, 2013). Similar findings have also been demonstrated by Gitelson and Crompton (1984) and Kozak and Rimmington (2000).

Several studies within the literature explore the relationship between revisit intention and travel motivation. Alegre and Cladera (2009) researched the factors that determine revisit intention. The research revealed numerous factors that influence revisit intention, with tourist satisfaction being the most significant. Furthermore, the study concluded that 'travel motivation,' 'number of visits to the destination,' and 'tourists' perceptions of prices' positively affect overall tourist satisfaction. Additionally, the study found that 'accommodation' and 'environmental quality' increased tourist satisfaction. Thus, motivation was found to have an indirect impact on revisit intentions. Thus, this study shows a positive correlation between motivational factors like "destination climate," "coasts," "quality" of previous visits, "price," and "quality comparison ideas," and revisit intentions. Additionally, selecting a destination based on price positively affects revisiting. Results indicated a significant inverse relationship with revisiting intentions.

Huang and Hsu (2009b) discovered that shopping, one of the central dimensions of Chinese tourist's travel motives, positively impacts re-visitation. Further, tourists' previous experiences measured by satisfaction and the number of visits positively impact revisit intention. Lee et al. (2011) concluded that Chinese tourists' travel motivation when visiting Korea positively impacts their perceived trip quality and directly links with their satisfaction. In contrast, customer satisfaction and complaints showed a significant relationship. It can be concluded that satisfaction and loyalty are linked since, as the number of complaints increases, the loyalty to the destination decreases.

3. Literature review

In the tourism literature, numerous studies exist on the motivations behind tourists' travel. This literature review

will focus on the impacts of push and pull factors on travel motivations and current travel motivation theories. Past research has examined travel motivations in various ways, including solely investigating push factors (Demir, 2010; Ma, 2010) or exclusively examining pull factors (Demir, 2010; Evren & Kozak, 2012). Several studies have assessed the impact of push and pull factors on travel motivation (Damijanik & Sergio, 2013; Jang & Wu, 2006; Klenosky, 2002; Kozak & Rimmington, 2000; Mohammad & Som, 2010; Pesonen, 2012; Yoon & Uysal, 2005; Yuksel & Yuksel, 2008).

Damijanik and Sergio's (2013) research revealed that health tourism participants were influenced by three push factors and two pull factors when determining their travel motivation. Push factors for tourism include destination, relaxation, and interactions with locals, whereas pull factors include cultural and natural attractions. Kasim et al. (2013) investigated the travel motivations of domestic tourists on a Malaysian island. They found that body and mind rejuvenation was the most significant factor, whereas visiting cultural sites ranked low in importance.

In Cirik's (2013) investigation into the influence of information sources, travel motivation, and destination image on the quality of tourism in West-Central Anatolia tours, the highest average pertains to the desire to witness new and diverse locations, while mental and physical relaxation had the lowest average. Terblanche's (2012) study aimed to identify the travel motivations of adventure tourists visiting Magoebaskloof; escape and relaxation, group cohesion, and information seeking were determined to be the most significant motivational factors.

Pesonen (2012) attempted to determine the travel motivations of tourists participating in rural tourism activities in Finland using push and pull factors. In their study, Şenel and Kılıç (2022) analyzed clustering and separation, identifying the items most distant from the other clusters as taking time away from routine, seeking romance, and visiting ancestral places.

Şenel and Kılıç (2022) conducted a study on the impact of the Covid-19 pandemic on tourists' purchasing processes. According to the findings, there are statistically significant relationships between Covid-19 fear purchasing intention and travel motivation. The Covid-19 epidemic was not limited to the holiday purchasing process of consumers but also created concerns that it would pose a risk to employees (Dalgıç et al. 2021). Yazıt and Erkol (2022) on tourists visiting the Sultanahmet tourism region, their travel motivation, satisfaction level, and intention to revisit were examined. The researchers measured the relationship between intentions and perceptions of loyalty. The study found a moderately significant positive relationship between travel motivation, tourist satisfaction, intention to revisit, and destination loyalty. Consequently, some recommendations have been provided to relevant institutions and organizations based on the research results.

4. Methodology

Ethics committee approval is not required because this study's data was collected in 2017. This article is derived from a Ph.D. thesis entitled "A Study to determination risk factors and travel motivation tourists who have no intention to revisit Turkey"

This study aimed to determine the travel motivations and tourist typologies of participants who do not intend to revisit Türkiye. A descriptive mixed research method was used in this study, in which both quantitative and qualitative data were used. The questionnaire technique was used in the study, and the data were collected through a questionnaire. Quantitative research findings were obtained using analytical techniques such as percentage frequency and exploratory factor analysis (EFA), and confirmatory factor analysis (CFA) to the data obtained. The validity and reliability of the scales were tested before factor analysis. An open-ended question was used to collect qualitative data, and participants' opinions on their experiences on the topic were obtained. The qualitative data obtained were first subjected to content analysis. Thus, participants who do not tend to return to Türkiye are grouped under the headings (themes) that attract tourists to Türkiye. After determining the themes related to the topic, content analysis techniques and word cloud formation methods were used to analyze the qualitative data.

4.1. Aim and importance of study

The variable "intention to revisit" has frequently been referenced in tourism literature. However, no previous research has been conducted on the sample of "tourists who have no intention to revisit" in national and international literature. The novelty of this study is that it is the first to examine the topic of 'tourists who do not intend to return' in national and international literature. Thus, the originality of this research is evident as it is the first to explore the topic of 'tourists who do not intend to revisit' in the tourism literature. The expected theoretical and methodological contributions and the novelty of this research make it significant.

4.2. Sampling

The research population consists of foreign tourists who have no intention of revisiting Türkiye. There is no scientific data on the number of tourists who do not intend to revisit Türkiye. Therefore, in this study, it was decided to apply the unlimited universe sampling formula (Ural, 2005). According to Sekaran (2003), if the population is larger than 100,000, it is sufficient for the sample to consist of 384 participants. In the context of this study, 405 usable questionnaires were obtained. The sampling method used was criterion sampling, one of the purposive sampling methods. In the purposive sampling method, all situations that meet a set of predetermined criteria are included in the sample (Yıldırım & Şimşek, 2013). In selecting the sample, the condition of "tourists with no intention to revisit " was

considered a criterion. In addition, Syrian and Iraqi nationals who participated in the survey were excluded from the sample because they may have refugee status.

Data was collected in August 2017. The Ministry of Culture and Tourism data shows 32.41 million tourists visited Türkiye in 2017. Approximately 8.5 million of these tourists, or more than 25%, entered through the border gate at Istanbul Atatürk (A.H.L.) Airport. According to TUROB data, approximately 13.5 million, or 34% of the foreign visitors who came to Türkiye in 2017 entered the country via Istanbul. Moreover, 76% of the foreign visitors arrived by air (TUROB, 2018). For all these reasons, it was considered that the data collected at Istanbul Atatürk Airport would be more comprehensive. Tourists at the airport can make a general assessment of their visit to Türkiye. This is another reason for collecting the research data at the airport. The research data was collected in August, one of the busiest months regarding the number of visitors.

4.3. Data collection and analysis techniques

The "Travel Motivation Scale" used in the research consists of 19 items. The scale has been used in the studies of Chiang and Jogaratnam (2006); Çetin (2015); Huang (2006); Manfredo et al. (1996), Özel (2011), and a 5-point Likert-type scale was used to measure the travel motivation of tourists. In addition, to ensure the scale's content validity, the opinions of 10 expert academics and 10 professionals in managerial positions in the tourism sector were used.

The questionnaire technique, which is a quantitative approach, was used in the data collection phase. Using the 19 items of the 'travel motivation' scale, the factors that motivate the participants to travel were identified using exploratory factor analysis in addition to the questionnaire technique. Semi-structured interviews were used to identify the factors that motivate participants to travel. In conclusion, the descriptive mixed research method was selected for this study. The 'travel motivation scale' was utilized to gather quantitative data. Parametric tests are justified since the kurtosis and skewness values of the item values represent a normal distribution between +1.5 and -1.5 (Tabachnick & Fidell, 2013).

Table 1 shows the distribution of demographic characteristics such as gender, age, education and income. Regarding gender, 54.3% of the respondents are male and 45.7% are female. The largest group is in the 25-34 age range with 43%, while the smallest group is 65 years and older with 1.5%. Regarding the distribution by education level, 45.7% of the respondents have a bachelor's degree, 22.5% have less than high school, 18.8% have vocational school, and 13.1% have a master's degree or higher. In terms of income, 50.6% have average income, 20.2% have low income, 18.3% have high income, 8.1% have very low income, and 2.7% have very high income. This table shows the distribution of respondents by reflecting the characteristics of a specific demographic segment.

Table 1. Demographic data

	<i>n</i>	%
<i>Gender</i>		
Male	220	54,3
Female	185	45,7
<i>Age</i>		
18-24	79	19,5
25-34	174	43
35-44	83	20,5
45-54	39	9,6
55-64	24	5,9
65 and above	6	1,5
<i>Education</i>		
High school and below	91	22,5
Vocational school	76	18,8
Bachelor's degree	185	45,7
Postgraduate	53	13,1
<i>Income</i>		
Very low	33	8,1
Low	82	20,2
Avaradge	205	50,6
High	74	18,3
Very high	11	2,7

4.4. Research questions

In the literature review conducted as part of the research, no studies were found in the national and international literature on the subject of 'tourists who do not intend to return'. Therefore, as this research is exploratory, the following research questions were defined as:

R.Q.1: What are the travel motivations of tourists who have no intention to revisit Türkiye?

R.Q.2: What are the tourist typologies based on travel motivations drive tourists who don't intend to revisit Türkiye?

4.5. Limitations

A number of difficulties were encountered in the use of the questionnaire. The first of these is the difficulty in completing the questionnaires due to the large number of questions in the questionnaire. In addition, tourists who had limited time in their hotels during the last days of their holidays were not willing to complete the questionnaire. The data obtained is limited to Istanbul Atatürk Airport. The study is limited to August 2017. Therefore, the research is limited to the tourists who were ready to leave the international terminal of Istanbul Atatürk Airport in August 2017. Since the research was conducted in August, it does not cover seasonal types of tourism, such as winter tourism. In this context, this study also has time constraints. The research was conducted during the state of emergency. In addition, the political unrest between Türkiye and Russia continued during the research process.

5. Findings

The findings section consists of two main sections under the title of Quantitative Research Findings and Qualitative

Research Findings: In the first section, there are quantitative findings on the participants' travel motivations that drive them to travel and tourist typologies based on motivation, and in the second section, there are qualitative findings on the participants' travel motivations that attract them to travel.

5.1. Quantitative research findings

This section presents the results of analyzing the quantitative data from the research. In this context, the factor analysis results applied to the travel motivation scale are presented under this heading.

5.1.1. EFA results on the travel motivation scale

As part of the research, an exploratory factor analysis was carried out to determine the travel motivations of the participants. The main purpose of factor analysis is to create a group of multivariate analysis techniques by reducing and simplifying the scale to fewer basic dimensions to make it easier to understand and interpret the possible relationships between many variables (Altunışık et al., 2005).

Before conducting factor analysis, some tests and checks need to be carried out. These include sample size, incorrect coding, missing values, extreme values, normality, linearity, multicollinearity, and singularity (Cokluk et al., 2012). Before starting the data analysis, studies were conducted on the control of missing data, outlier analysis, and multivariate normal distribution test. In addition, since multivariate statistical techniques will be used in the data analysis, outlier analysis was conducted on the scale. In this direction, by controlling the minimum and maximum values of the variables, no observations were removed from the data set as the values of all variables were in the range of +/-3 (Cokluk et al., 2010).

The kurtosis and skewness values obtained from the scales were then examined to determine the normality of the data distribution in the scale. It was found that the kurtosis and skewness values for both scales were between +/- 1.5. These values are sufficient for a normal distribution (Tabachnick & Fidell, 2013).

The Kaiser-Meyer-Olkin (KMO) test was conducted to check whether the sample size was adequate for factorization before conducting the explanatory factor analysis as part of the research. This ratio is expected to be greater than 0.5. As the ratio size increases, the data set becomes more suitable for factor analysis. The KMO values and comments are as follows (Hair et al., 2013):

- K.M.O. <0.50 (not accepted)
- $0.50 \leq$ K.M.O. <0.60 (weak)
- $0.60 \leq$ K.M.O. <0.70 (moderate)
- $0.70 \leq$ K.M.O. <0.80 (good)
- $0.80 \leq$ K.M.O. <0.90 (very good)
- $0.90 \leq$ K.M.O. (perfect)

Table 2. KMO test result

Scale	Sample Size	KMO test result
Travel motivation	405	0,892

Table 2 shows the KMO test results for the Travel Motivation scale, with a sample size of 405, yielded a KMO value

of 0.892. This situation indicates that the data set is well suited to factor analysis. Statistical results, such as eigenvalues, factor loadings, and percentages of variance explained, obtained from the exploratory factor analysis applied to the Travel Motivation Scale are presented in Table 3.

Table 3. Results of the factor analysis of the travel motivation scale

Factors	Items	Factor Loadings	Eigenvalues	Explained variance %
Recognition and Learning Motive (RALM)	Tasting Turkish delicacies with a motive	0.810	7.925	39.623
	Seeing different cultures and lifestyles	0.787		
	Interacting with people living in this area	0.782		
	Buying Türkiye's local products (shopping)	0.766		
	Meeting people with similar interests	0.764		
	Revisiting places I'm used to seeing	0.760		
Recreational Activities Motive (RAM)	Having a good time with my friends	0.773	2.204	50.645
	Spend quality time	0.767		
	Relaxation	0.739		
	Have fun and cheer	0.663		
	Getting away from routine life	0.652		
Alternative Tourism Activities Motive (ATAM)	To be healthy	0.801	1.953	60.409
	Participating in sporting events	0.787		
	Visiting religious sites	0.765		
	Visiting historical places	0.651		
	Visiting natural places	0.639		
Curiosity and Exploration Motive (CAEM)	Satisfy my curiosity	0.790	1.254	66.678
	Learn more about the destination	0.746		
	Seeing new places	0.602		

Kaiser-Meyer-Olkin Sample Adequacy= .892 Bartlett's Test of Sphericity: $p < .000$ (Chi-Square 4904.779 $df=190$).

Table 3 shows there are 19 items on the travel motivation scale. As a result of the factor analysis, the result of the Bartlett Test was found to be 4904,779, and the p-value was 0.000. It is seen that the data set is suitable for factor analysis. Principal components analysis and Varimax rotation (vertical rotation) techniques were used to determine the factor structure and obtain meaningful interpretable factors. Data with an eigenvalue statistic greater than 1 and a factor load above 0.50 were considered. The eigenvalues of all dimensions were greater than one. It is noted that the first factor explains 39.623% of the total variance with 7.925 eigenvalues. The first two factors explain 50.645% of the variance with 2.204 eigenvalues. The first three factors explained 60.409% of the total variance with 1.953 eigenvalues. Finally, the first four factors explained 66.678% of the total variance with 1.254 eigenvalues. The rotated factor analysis table's cut-off point for factor loadings was 0.50. In other words, the rotated factor load table contained no factor load less than 0.50. In the factor loadings table, only the first item was excluded from the factor analysis because it was an overlapping item. The factor loadings of all other items are greater than 0.50.

In Table 3, the travel motivation scale is grouped into 4 factors. The factor names were determined by looking at the items in the factors. The first factor of the travel motivation scale consists of seven items: "tasting Turkish delicacies," "seeing different cultures and ways of life," "interacting with local people in this living area," "buying local products," and

"meeting people with similar interests." There are items for recognizing, experiencing, and learning, such as 'meeting people' and 'revisiting familiar places.' Therefore, the first factor of travel motivation is 'recognition and exploring motive.'

The second factor of the travel motivation scale consists of five items. The items collected in the second factor are related to leisure activities, such as 'having a good time with friends,' 'spending quality time,' 'relaxing/relaxing,' 'having fun,' and 'getting away from routine.' Activities appear. For this reason, this factor has been called 'recreation activities motive.' The third factor consists of five items in total. It is related to alternative tourism, such as sports, religion, history, nature, and health tourism. Therefore, this factor is called "alternative tourism activities motives". The last factor in this scale consisted of three items. As the content of this factor includes items such as seeing new places, arousing curiosity, and getting information about the destination, such as being curious, exploring, and experiencing differences, this factor was named 'curiosity and exploration motive'.

As a result, the 19-item 'Travel Motivation Scale' was grouped into four factors. These factors were identified as 'recognition and learning motive,' 'recreational activities motive,' 'alternative tourism activities motive,' and 'curiosity and exploration' motive.

Table 4. Reliability values of the scale

Factors	Cronbach's Alpha	No. of items
Curiosity and exploration motive	0,850	3
Recreational activities motive	0,822	5
Recognition and learning motive	0,840	6
Alternative tourism activities motive	0,870	5
Average travel motivation	0,775	19

The scales' reliability was determined using the "Cronbach alpha" criterion, based on the "internal consistency" method. The alpha value represents an average of the bifurcation coefficients resulting from all possible bifurcation combinations. The alpha value takes values between 0 and 1, and an acceptable value is desired to be at least 0.7 (Altunşik et al., 2005). Table 4 provides a clear view of how reliably each factor within the scale measures its intended motive. Higher Cronbach's Alpha values generally suggest stronger internal consistency and reliability of the measurement tool.

Table 5. Findings related to travel motivation scale factors

Rank	Travel motivation factors	\bar{x}	SD
1	Curiosity and exploration motive	3,7251	1,01346
2	Recreational activities motive	3,6864	,97602
3	Average travel motivation	3,6320	,71390
4	Recognition and learning motive	3,5590	,97676
5	Alternative tourism activities motive	3,4148	,93659

Response categories: 1: strongly disagree, ... 5: strongly agree.
Level of significance: *** $p < 0.001$; ** $p < 0.01$; * $p < 0.05$

Table 6. Means and standard deviations in the travel motivation scale

Rank	Travel Motivation Factors	\bar{x}	SD
1	Many people say that Türkiye is a place worth seeing.	4,3481	,69991
2	To see new places	3,9284	1,13770
3	Seeing different cultures and lifestyles	3,8642	1,13401
4	Tasting Turkish delicacies	3,8148	1,16584
5	Getting away from routine life	3,7975	1,14688
6	Visiting historical places	3,7852	1,21288
7	Visiting natural places	3,7605	1,16016
8	Relaxation	3,7383	1,17340
9	Learn more about Türkiye	3,7235	1,20747
10	Have fun and cheer	3,6988	1,16173
11	Interacting with people living in this area	3,6765	1,09525
12	Enjoying spending good/quality time with my friends	3,6296	1,15874
13	Spend quality time	3,5679	1,24019
14	Satisfy my curiosity	3,5235	1,14648
15	Buying Türkiye's local products	3,4494	1,22698
16	Revisiting places I'm used to seeing	3,4296	1,25197
17	Visiting religious sites	3,3877	1,21066
18	Meeting people with similar interests	3,3753	1,18880
19	Being healthy	3,2346	1,20510
20	Participating in sports activities	2,9062	1,17780

Response Categories: 1: Strongly Disagree, ... 5: Strongly Agree. Significance Level: *** $p < 0.001$; ** $p < 0.01$; * $p < 0.05$

Table 5. shows the means and standard deviations of the dimensions. In the table, the dimension that motivates participants to travel at the highest level is 'Curiosity and discovery motivation' (\bar{x} : 3.7251). The other dimension with a value above the average travel motivation (\bar{x} : 3.6320) was identified as 'motivation to participate in leisure activities' (\bar{x} : 3.6864). The other dimension that has a value above the average travel motivation (\bar{x} : 3.6320) is "motivation to participate in recreational activities" (\bar{x} : 3.6864); the other dimension that has a value less than average travel motivation (\bar{x} : 3.4148) is "motivation to recognize and learn" (\bar{x} : 3.4148) and "motivation to participate in alternative tourism activities" (\bar{x} : 3.4148).

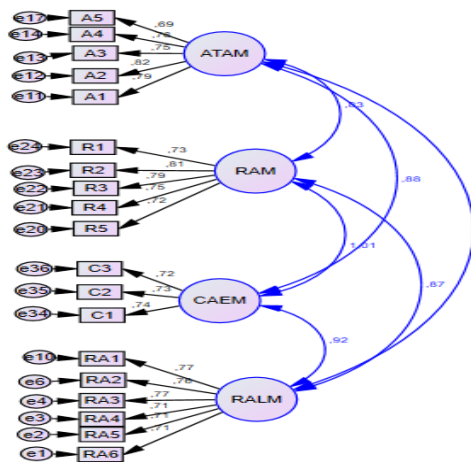
Table 6 shows that the most important item that motivates the participants to travel is "Many people say that Türkiye is a place worth seeing" (\bar{x} : 4.3481). The most important source of motivation for the participants is the tourists who have already visited Türkiye and had positive experiences. Therefore, it is important to ensure that the tourists who leave Türkiye return to their countries happy. According to the answers given by the tourists participating in the research, it can be seen that the second item that motivates them the most during their visit to Türkiye is the item "seeing new places" (\bar{x} : 3.9284). This is followed by items such as "seeing different cultures and lifestyles" (\bar{x} : 3.8642), "tasting Turkish tastes" (\bar{x} : 3.8148) and "getting away from routine life" (\bar{x} : 3.7975). In the table the item that motivates the participants the least is "participating in sports activities" (\bar{x} : 2.9062) The second item that motivates the participants the least is "being healthy" (\bar{x} : 3.2346). The other items that motivate the participants the least are, respectively, "meeting people with similar interests" (\bar{x} : 3.3753), "visiting religious places" (\bar{x} : 3.3877) and "revisiting places I used to see" (\bar{x} : 3.4296).

Based on the data, it can be seen that the participants mainly go on the trip to see new places and have different experiences. It can also be said that the participants are motivated to travel by the positive destination recommendations they hear from their environment. The table shows the items' mean values and standard deviations in the travel motivation scale. The table shows that the most important item that motivates the participants to travel is "Many people say that Türkiye is a place worth seeing" (\bar{x} : 4.3481). In this context, it can be said that the most important source of motivation for the participants is the tourists who have already visited Türkiye and had positive experiences. Therefore, it is important to ensure that the tourists who leave Türkiye return to their countries happy. According to the answers given by the tourists participating in the research, it can be seen that the second item that motivates them the most during their visit to Türkiye is the item "seeing new places" (\bar{x} : 3.9284). This is followed by items such as "seeing different cultures and lifestyles" (\bar{x} : 3.8642), "tasting Turkish tastes" (\bar{x} : 3.8148) and "getting away from routine life" (\bar{x} : 3.7975).

5.1.2. CFA results on the Travel Motivation Scale

Under this heading, analyses such as first-level CFA (Confirmatory Factor Analysis) and second-level CFA applied to the scale and goodness-of-fit indices (CMIN, CFI, GFI, AGFI, RMSEA) and reference values for these indices are included. Figure 1 shows the first level CFA model with modification indices added. As shown in Figure 1, no adjustment was made to the error term covariances of the items. The second level CFA model of the Travel Motivation scale is shown in Figure 2.

Figure 1. First-level CFA model



Standardized regression coefficients (factor loadings), significance values (p), and goodness-of-fit values of these coefficients were considered in deciding whether or not the model in Figure 2 was confirmed.

Figure 2 shows the goodness of fit values for the second-level CFA measurement model of the Travel Motivation scale in Table 7.

Figure 2. Second-level CFA model

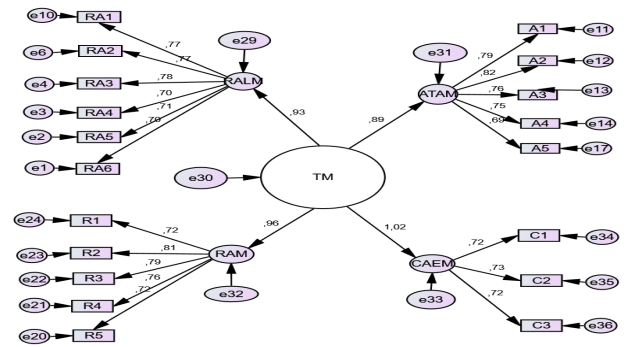


Table 7. Travel Motivation scale 1st level CFA goodness of fit scores

Index	Perfect fit values	Acceptable values	Model value	Result
CMIN	≤ 3	$3 \leq \chi^2 / df \leq 5$	2,161	Perfect Fit
CFI	≥ 0,95	≥ 0,90	0,975	Perfect Fit
GFI	≥ 0,95	≥ 0,85	0,945	Good Fit
AGFI	≥ 0,95	≥ 0,80	0,929	Good Fit
RMSEA	≤ 0,05	≤ 0,08	0,44	Perfect Fit

Table 7 shows the goodness-of-fit values for this model are shown in Table 5. The goodness-of-fit values of χ^2/df , CFI, and the RMSEA index are excellent and the other indices have good fit values. As a result, the scale structure was confirmed in the study.

Table 8. Determination of tourist typologies based on travel motivation

Travel motivation factors	Tourist typologies
Curiosity and exploration motive	Explorers
Recreational activities motive	Recreationalists
Recognition and learning motive	Intellectual tourists
Alternative tourism activities motive	Diversity seekers

Table 8 shows the internal factors that motivated the participants to travel, as determined by the factor analysis. These factors are named according to the meanings of the items that make them up. Within the framework of these motivations, the determination of tourist typologies based on motivation was also carried out. For example, to determine the typologies of tourists who have no intention to revisit Türkiye, "Explorers" were defined as tourists with "Curiosity and Discovery Motives," "Recreationalists" were defined as tourists with "Recreation Activities Motives," and "Intellectuals" were defined for "Curiosity and Exploration Motives." Those motivated to participate in alternative tourism activities are called "Diversity Seekers."

The tourist typologies that do not intend to revisit Türkiye are 'Explorers,' 'Recreation Participants Motives,' 'Intellectual Tourists,' and 'Diversity Seekers.' Therefore, when

examining the mean values of the dimensions formed as a result of the factor analysis applied to the scale, since the dimension that motivates the participants to travel at the highest level is 'Curiosity and Discovery Motive,' these tourists are more inclined to the tourist typology of 'Explorers' (\bar{x} : 3.7251). As a result of the factor analysis, the dimension with the lowest mean value is "alternative tourist activities motives" (\bar{x} : 3.4148). Therefore, the tourist typology to which the participants are least inclined is "difference seekers."

5.2. Qualitative research findings

This section presents the results of the percentage-frequency analysis to determine the themes that attract participants to travel and the word cloud created in this context. The percentage-frequency distributions of the motives that attract participants to travel are shown in Table 7.

Table 9. Findings on participants' holiday behavior

No	Travel inspiring themes	n	%	Cum. %
1	Nature	204	14,2	14,2
2	Foods	188	13,1	59,3
3	History	178	12,4	98,9
4	Weather conditions	162	11,2	25,4
5	Culture	155	10,8	78,6
6	Local people's attitude	122	8,5	67,8
7	Cheapness	115	8	86,6
8	Tour activities	105	7,3	46,2
9	Service quality	96	6,7	38,9
10	Infrastructure	56	3,9	29,3
11	Superstructure	42	2,9	32,2
12	Other	16	1,1	100
Total		1439	100	100

Table 9. shows the information on the factors that attract the participants. The sources from which the participants obtained information before coming to Türkiye and the percentage distribution of the factors that attract them to Türkiye. The factors that most attract tourists to Türkiye are: nature (14.2%; n:204; 1st rank), food (13.1%; n:188; 2nd rank), history (12.4%; n:178; 3rd rank) and weather conditions (11.3%; n:162; 4th rank). In addition, the factors that attract tourists least in Türkiye are infrastructure (3.9%; n:56; 10th rank), superstructure (2.9%; n:40; 11th rank) and other (1%; n:16; 12th rank). In other words, the most important factors motivating participants are nature, food, history and weather conditions. Promoting alternative types of tourism with high potential, such as ecotourism, gastronomy and cultural tourism, is necessary. On the other hand, as shown in Table 7, factors such as infrastructure and quality of services do not attract many tourists. Therefore, future studies can be carried out that pay attention to overlooked factors such as infrastructure and quality of services.

6. Conclusion and discussion

A key point highlighted in the literature is that retaining existing customers involves significantly lower marketing

costs than attracting new customers. Furthermore, dissatisfied customers have a negative impact on potential customers and their decision to visit the destination (Ay, 2014). A moderately significant positive correlation between travel motivation, tourist satisfaction, revisit intention, and destination loyalty was found by Yazıt and Erkol (2022). Therefore, it is important for destination planners to identify the travel motivations of tourists who do not have intentions to revisit. Identifying the travel motivations of these tourists will help determine the right strategies, and it may be possible to ensure that these tourists return. In this way, the marketing investment made on these tourists will not be wasted, and potential tourists can be positively influenced by sending them out as tourism ambassadors for their countries.

Understanding the motivations of tourists who do not intend to return to Türkiye sheds light on interesting aspects of travel behavior and destination preferences. Through this study, we have delved into the multifaceted factors contributing to the decision not to revisit Türkiye, revealing a nuanced interplay of push and pull factors. As the tourism industry strives to improve visitor experiences and encourage repeat visits, understanding the dynamics that influence travelers' decisions not to return is invaluable in developing strategies to address concerns and reshape perceptions to foster a more sustainable and attractive tourism landscape. This study examined the population of "tourists who do not intend to return to Türkiye." Since no study had been conducted on this population, the first step was to analyze the demographic characteristics of these tourists and determine their profiles.

As a result of this study, it was found that the distribution of participants who have no intention of revisiting Türkiye was similar according to their gender and marital status. Most of these participants are young and middle-aged tourists. These tourists, who belong to different professional groups, are mainly university graduates. In general, it was observed that the monthly income of the participants was below \$2001. It was found that approximately half of these participants are middle class according to the economic conditions of the countries where they live. A large proportion of the participants were German, Russian, British, and Iranian tourists. These tourists came to Türkiye mainly from Germany and Russia. In conclusion, according to the Ministry of Culture and Tourism and the nationality statistics, the general profile of tourists 'who do not intend to visit Türkiye again' is German, Russian and British tourists in the young and middle age group with a bachelor's degree in education and an average income below \$2001 (turofed.gov.tr, 2019; yigm.kulturturizm.gov.tr, 2018;) The findings related to the other demographic categories—that are analyzed in this study—are consistent with those of Pektaş (2017). There is a demographic similarity between the "tourist profile that does not intend to revisit Türkiye" and the "general tourist profile that visits Türkiye.

This study examines the travel motivations of participants who do not intend to revisit Türkiye. This study

identifies four dimensions of travel motivations for these tourists. The study results show that the participants' most important travel motivation is curiosity and discovery. Another important travel motivation is the leisure activity motive. The other motives of these tourists are the recognition and learning motive and alternative tourism activities motive. In short, the study found that curiosity and discovery are the primary motivations for individuals who has no intention to revisit Türkiye. Other motivations for travel were "recreational activities motives," "recognition and learning motives, and "alternative tourism activities motives." The results of this study differ from the findings of some studies in the literature. Damijanik and Sergio (2013) identified the push factors as tourist destinations, relaxation, and local people, while the pull factors were culture and nature. In their study, Kasim et al. (2013) found that the most important motivational factor was the revitalization of the body and mind. In Terblanche's (2012) study, the most important factors influencing tourist motivation were escape and relaxation, group cohesion and information seeking. In Pesonen's (2012) study, the most important travel motivations are to get away from routine, experience romance, and visit family members.

Another study finding is that tourists who do not plan to return to Türkiye generally travel to discover and learn new places. Thus, their travel motivation can be attributed mainly to discovering new destinations. These results are similar to those of Cirik (2013). Cirik's (2013) study found that the motivation to see new places is the one that most motivates tourists to travel. Alternative tourism activities and destinations should be prioritized to encourage these travelers to revisit. In addition, it is possible to focus on promoting potential tourist cities that will arouse the curiosity of potential visitors. Another result shows that the most important travel motivator among the participants is "Türkiye is a destination worth visiting," which can be promoted on different platforms to reach a wide audience

6.1. Implications

The study reinforces that retaining existing customers is cost-effective. Given the higher costs associated with acquiring new customers, destination managers should allocate resources toward understanding and addressing the concerns of tourists who intend to avoid revisiting. Destinations can enhance loyalty and decrease negative word-of-mouth impact by converting dissatisfied visitors into returning guests. The study suggests a novel approach to utilizing dissatisfied tourists as potential tourism ambassadors. Addressing their concerns and turning their experiences around can transform them into advocates who positively influence others. This word-of-mouth marketing can be harnessed through social media and other platforms, amplifying the impact of positive experiences on potential tourists.

The intricate interplay of push and pull factors uncovered by the study offers valuable insights into improving destination appeal. Understanding the motivations of tourists who

choose not to return enables destinations to address concerns and reshape perceptions. By tackling negative factors and highlighting positive attributes, destinations can create a more attractive and sustainable tourism landscape.

Author contributions

The author declares that they equally contributed to the design and implementation of the research, the analysis of the results, and the writing of the article.

Disclosure statement

The author reported no potential competing interest.

Ethics committee approval

All responsibility belongs to the researcher. Ethics committee approval is not required because this study's data was collected in 2017.

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Journal of Tourism Theory and Research

Volume:9, Issue:2, 2023

Research article

The impact of tourism on carbon (CO₂) Emissions: An empirical analysis of Türkiye

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The impact of tourism on carbon (CO₂) Emissions: An empirical analysis of Türkiye

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Abstract

The study aims to reveal the effects of developments in tourism on CO₂ emissions in Turkey from 1984 to 2021. In this context, the relationship between CO₂ emissions, tourism revenues (TR), and international tourist arrivals (ITA) was analyzed using the autoregressive distributed lag (ARDL) boundary test approach. The results indicate a significant long-term relationship between the variables. The findings reveal that tourism revenues have a decreased effect, and international tourist arrivals have an increased effect on CO₂ emissions in the long run. These results suggest that Turkey needs stronger policies specifically for this subject.

Keywords: CO₂ emissions, International tourist arrivals, Tourism revenues, ARDL, Türkiye

1. Introduction

Tourism activity is generally based on clean areas or environments (Yildirim et al., 2008), and nearly no tourist activity does not depend on environmental resources (Rämet et al., 2005). If these activities are not well organized, they can cause negative impacts and endanger the continuity of tourism in the destination (Yildirim et al., 2008). Tourism is a significant catalyst in the economic growth and development of country economies today (Blažević, 2007: 338; Nepal et al., 2018: 2), and it has repeatedly proven itself in this regard (Demir and Bahar, 2021). In this context, the competitive environment in which countries enter to receive a share of international tourism revenue has also brought many debates related to tourism. Undoubtedly, one of the most important issues among these debates is CO₂ emissions, which is a main factor in environmental and climate problems. The significance given to CO₂ emissions compared to other pollutants is since CO₂ emissions are not only local and regional but also on a global scale (Akpan and Akpan, 2012).

Tourism has economic, social, and environmental impacts within the framework of its features (Cooper et al., 1993). CO₂ emissions represent one of these multi-faceted impacts on countries. CO₂ emissions represent one of the many multifaceted effects of tourism on countries. The effects of tourism on CO₂ emissions can be explained by factors such as transportation (Al-Mulali et al., 2015; Howitt et

al., 2010; Peeters et al., 2007; Sharif et al., 2017), dependency on fossil fuels (Bohdanowicz et al., 2001; Gössling and Peeters, 2015; UNWTO, 2013), changes in land use due to tourism investments (Al-Mulali et al., 2015; Gössling, 2002), disruption of the ecological balance (Kort, 2002), and visitors' tourism activities (Gössling, 2002; Al-Mulali et al., 2015).

Despite the evaluations of tourism-related developments in connection with climate change and environmental issues (Scott et al., 2012), specific degrees can be approached through other theoretical channels. In the context of tourism, these theoretical channels are explained within the framework of issues such as the significant creation of CO₂ emissions as an important external cost, the Environmental Kuznets Curve (EKC), sustainable tourism, and destination carrying capacity. Therefore, empirical facts are important in discussing the relationship between tourism and CO₂ emissions (Koçak et al., 2020).

The importance of tourism for countries lies in its continuity and impact on the economy, especially in the case of developing countries such as Turkey, where their economy is more intertwined with the tourism sector. This study aims to examine the effects of tourism on CO₂ emissions from the period when tourism started to develop until the present day in Turkey. To this end, the study covers the period from 1984 to 2021 with the help of an ARDL boundary test. The

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Article info: Research Article

Received: 18 February 2023

Received in revised form: 10 April 2023

Accepted: 13 August 2023

Ethics committee approval:

* Ethics committee approval is not required as the data used in this study is based on the annual data in tourism on CO₂ emissions in Turkey from 1984 to 2021. All responsibility belongs to the researchers.

To cite this article: Bahar, O. & Demir, E. (2023). The impact of tourism on carbon (CO₂) Emissions: An empirical analysis of Turkey *Journal of Tourism Theory and Research*, 9(2), 53-60. <https://doi.org/10.24288/jttr.1252689>

study continues: the second section presents a literature review of the relationship between tourism and CO₂; the third section explains the variables and methods used; the fourth section provides analysis and findings; and the fifth and final section presents conclusions and discussions. The study's contribution to the literature is important due to its focus on a specific country regarding the subject matter.

2. Literature review

The rapid growth of tourism worldwide and expectations that this growth will continue globally have led to researchers showing more interest in the tourism industry in all its aspects. However, despite the increased focus on the effects of tourism on CO₂ emissions in recent years, studies in this area still contain certain deficiencies and maintain ambiguity.

Table 1. Literature review

Authors	Period	Country	Method	Results
Katircioglu and Katircioglu (2022)	1990Q1 to 2018Q4	Malta	Autoregressive Distributed Lag Approach	The result showed that tourism has a positive impact on carbon emissions in the short term.
Rahman et al. (2022)	1982-2018	Malaysia	ARDL Test	The result indicated that tourist arrivals have a positive impact on CO ₂ emissions.
Salahodjaev et al. (2022)	1990-2015	European and Central Asian Countries	GMM	The result revealed that tourism has a positive impact on CO ₂ emissions.
Duran and Bozkaya (2022)	1995-2020	Japan, China, New Zealand, Singapore, and Thailand	Emirmahmutoglu and Köse Panel Granger Causality	The result found that there is a one-way causality from carbon emissions (CO ₂) to tourism revenues (TG).
Zikirya et al. (2021)	2010-2017	Chinese Provinces	Panel Data Analysis	The result showed that international visitors have a positive impact on CO ₂ emissions.
Kılavuz et al. (2021)	1960-2015	Turkey	ARDL Test	The result revealed the existence of a long-term relationship between CO ₂ emissions and tourist arrivals.
Kocak et al. (2020)	1995-2014	Most Visitors 10 Countries	CUP-FM and CUP-BC	The result found that tourism development has a positive impact on CO ₂ emissions, while tourism revenues have a negative impact.
Lee and Ngyen (2020)	1998-2014	95 Countries	Panel Data Analysis	The result revealed that while tourism increases CO ₂ emissions from transportation, the number of tourists increases per capita CO ₂ emissions.
Eyuboglu and Uzar (2019)	1960-2014	Turkey	ARDL Test	The results showed that tourism, growth, and energy consumption have a positive impact on CO ₂ emissions in the short and long term.
Liu et al. (2019)	1980-2016	Pakistan	ARDL Test and Granger Causality Analysis	The results indicated that tourist revenues have no significant impact on environmental quality.
Gao and Zhang, (2019)	1995-2010	18 Mediterranean Countries	Panel Data Analysis	The results found a two-way causality between tourism and four pollutants (CO ₂ , NO _x , SO ₂ , and PM _{2.5}).
Sharif et al. (2017)	1972-2013	Pakistan	Gregory and Hansen Structural Break Test.	The results found a one-way causality from tourist development to CO ₂ emissions.
Dogan et al. (2017)	1995-2010	OECD Countries	Panel Data Analysis	The results found that tourism contributes to carbon emissions levels and there is a long-term relationship between variables.
Zaman et al. (2016)	2003-2015	Mediterranean Coastal Countries	Panel Data Analysis	The results detected tourism-generated emissions and this increases environmental hazards associated with the expansion of tourism.
De Vita et al. (2015)	1960-2009	Turkey	Co-Integration Tests and DOLS Method	The results found that the number of international tourists visiting Turkey is co-integrated with CO ₂ emissions and tourist arrivals have a positive and significant impact on CO ₂ emissions in the long term.
Katircioglu (2014)	1971-2010	Singapore	DOLS Method and Granger Causality Analysis	A long-term balance relationship between tourism development and carbon emission levels has been found.
Al-Mulali et al. (2014)	1995-2009	48 Tourism Destinations	Panel Data Analysis	A long-term relationship between tourism and CO ₂ has been identified in Asia, Africa, America and the Middle East, excluding European destinations, through Panel Data Analysis.
Solarin (2013)	1972-2010	Malaysia	ARDL Test and Granger Causality Analysis	Tourist arrivals actively increase to pollution.
Lee and Brahmasrene (2013)	1988-2009	European Union Countries	Panel Data Analysis	The development of tourism has been found to have increasing impacts on CO ₂ emissions.

Studies on the relationship between tourism and CO₂ emissions in the literature generally explain the issue through various variables such as tourism, energy, economic growth, environment (Lee and Brahma-srene, 2013; Katircioglu et al., 2014; Dogan et al., 2017; Liu et al., 2019; Zhang and Zhang, 2021 Rahman et al., 2022; Katircioglu and Katircioglu, 2022; Duran and Bozkaya, 2022), as well as renewable energy and foreign trade (Jebli, 2019; Salahodjaev, 2022). Meanwhile, some studies examine the relevant topic, considering the potential connections between socio-economic factors such as tourism and the environment, in a notably Environmental Kuznets Curve (EKC) framework (Katircioglu, 2014; De Vita et al., 2015; Zaman et al., 2016; Kilavuz et al., 2021). In specific studies related to the topic in the literature, emphasis is placed on tourism revenue and visitor numbers (Al-Mulali et al., 2015; Sharif et al., 2017; Eyuboglu and Uzar, 2019; Koçak et al., 2020; Le and Nguyen, 2020). In these studies, while it has been found that variables such as energy and economic growth have a significant and positive contribution to CO₂, the same results do not provide a general description of tourism. Furthermore, according to World Tourism Organization (WTO) (2019) predictions before the COVID-19 outbreak, tourism is estimated to account for 5-10% of global emissions. Within this context, national and international studies available in the literature are presented in Table 1 in chronological order.

The literature related to the topic is presented in Table 1 above. The relevant literature review indicates that the effects of tourism on carbon emissions are not homogeneous and that research findings vary by country. However, in studies that include visitor numbers, tourism generally has a significant and increased effect on CO₂. However, only a few studies have focused on the opposite of these results. Based on these explanations, it can be stated that the changes in the findings obtained are due to the economic, geographical, and cultural differences of the countries under analysis. From this perspective, the importance of carrying out research specifically on a country or similar country arises.

3. Model, data, and methodology

Ethics committee approval is not required as the data used in this study is based on the annual data in tourism on CO₂ emissions in Turkey from 1984 to 2021. All responsibility belongs to the researchers.

This research primarily aims to examine the effects of tourism on CO₂ emissions in Turkey. In this context, the research was analyzed using the autoregressive distributed lag (ARDL) test developed by Mohammad Hashem Pesaran and Yongcheol Shin in 2001, utilizing annual data between 1984 and 2021. The period taken in the study can be expressed as the years' tourism started to show development in Turkey. The analysis takes tourism revenue and international visitor numbers as independent variables and carbon emission as

the dependent variable. The model formed can be expressed as follows:

$$CO_2 = f(TR_t, ITA_t) \tag{1}$$

In the model created above, the data used were obtained from the World Bank, and the explanation of the symbols used for these variables are presented in Table 2.

Table 2. The variables and expressions used in the analysis

TR	Tourism Revenue (USD)
ITA	International Tourist Arrivals (Number)
CO ₂	CO ₂ Emission (Tons)

Three variables are included in the analysis, and the symbols used for these variables are shown in Table 2. Additionally, there is one dummy variable in the analysis. This dummy variable represents the 2008 Global Financial Crisis. The semi-logarithmic expression of the model created is as follows:

$$\ln CO_{2,t} = \beta_0 + \beta_1 \ln TR_t + \beta_2 ITA_t + \beta_3 D_t + \mu_t, \text{ Here; } \tag{2}$$

$$\beta_1 = \frac{\partial \ln CO_2}{\partial \ln TR_t} = \frac{\partial \ln CO_2}{\partial CO_2} \frac{\partial CO_2}{\partial TR_t} = \frac{1}{CO_2} \frac{\partial CO_2}{\partial TR_t} = \frac{\partial CO_2 / CO_2}{\partial TR_t}, \text{ and } \tag{3}$$

$$\beta_2 = \frac{\partial \ln CO_2}{\partial \ln ITA_t} = \frac{\partial \ln CO_2}{\partial CO_2} \frac{\partial CO_2}{\partial ITA_t} = \frac{1}{CO_2} \frac{\partial CO_2}{\partial ITA_t} = \frac{\partial CO_2 / CO_2}{\partial ITA_t} \tag{4}$$

as considered.

The semi-logarithmic model stated above provides β_1 and β_2 , which show the effects of a 1-unit change in the related independent variable on the dependent variable. Statistical information about the variables used in the analysis can be provided after preparing the data, creating the model, and presenting it.

Table 3. Statistics Related to the Variables Used in the Analysis

<i>Observation Count: 38</i>				
<i>Period: 1984-2021</i>				
<i>Variables</i>	<i>Median</i>	<i>Std. Error</i>	<i>Min.</i>	<i>Max.</i>
<i>lnCO₂</i>	19.2446	0.431389	18.40795	19.92415
<i>lnITA</i>	16.42849	0.895947	14.95471	17.76193
<i>lnTR</i>	23.22789	1.094622	20.54891	24.34815

Following the presentation of the explanatory statistics of the variables in Table 3 above, the ARDL boundary test approach is used for the analysis. This approach provides the opportunity to explain the variables' short- and long-term relationship. It is a significant advantage because it does not require the used series to be equally stationary. The ARDL form of the model created above (2) can be expressed as follows within the scope of the study.

$$\ln CO_{2,t} = \beta_0 + \sum_{i=1}^k \beta_{1i} \ln CO_{2,t-i} + \sum_{i=0}^k \beta_{2i} \Delta \ln TR_{t-i} + \sum_{i=0}^k \beta_{3i} \Delta \ln ITA_{t-i} + \beta_4 \ln CO_{2,t-i} + \beta_5 \ln TR_{t-i} + \beta_6 \ln ITA_{t-i} + \mu_t \tag{5}$$

The equation (5) created above expresses the ARDL form of the model and Δ represents the first difference of the variables; β_0 represents the slope coefficient; $\beta_1, \beta_2, \beta_3$ represent the short-term relationship, and $\beta_4, \beta_5, \beta_6$ represent the

long-term relationship. The validity of the analysis is related to the following tested hypothesis:

$$H_0 = \beta_4 = \beta_5 = \beta_6 = 0 \text{ and}$$

$$H_a = \beta_4 \neq \beta_5 \neq \beta_6 \neq 0 \text{ this is the form.}$$

Following the explanation of the long-term relationship between the variables, the ECM is applied to estimate the short-term coefficients and error correction term, thus enabling the testing of the short-term relationship as follows:

$$\Delta \ln CO_2 t = a_0 + \sum_{i=1}^k a_{2i} \Delta \ln CO_2 t-i + \sum_{i=0}^k a_{3i} \Delta \ln TR t-i + \sum_{i=0}^k a_{4i} \Delta \ln ITA t-i + a_1 ECT_{t-1} + \mu_t \quad (6)$$

In the equation mentioned above (6), ECT_{t-1} represents the error correction term. It is expected to be negative and statistically significant. After the formation of the model and its ARDL bound test form and the announcement of valid hypotheses, the effects of tourism on CO₂ emission in Turkey can be revealed, starting from the years in which tourism showed growth. The variables used in the analysis specifically explain the subject's relevance, and the related results are stated below.

4. Analysis and empirical findings

The variables included in the analysis are expected to be stationary in the ARDL boundary test approach used in the study. A significant advantage of the ARDL boundary test approach is that the requirement for the variables to be stationary to the same degree is not required. However, it is impossible to apply the ARDL boundary test model with second-degree stationary variables (Peseran et al., 2001). Therefore, in the analysis where the ARDL boundary test is applied, it is necessary to check the stationary levels of the series. In this regard, to ensure the essential condition for the analysis, the results of the unit root test applied to the variables used in the model are presented in Table 4 with the help of the Augmented Dickey-Fuller (ADF) test.

None of the variables used in the model are second-degree stationary, as seen in Table 4 above. The results of the ADF unit root test show that carbon emissions ($\ln CO_2$) are fixed at level I(0); tourism revenue ($\ln TR$) and international tourist arrivals ($\ln ITA$) are stationary at first differences I(1), and thus the series used in the analysis meet the necessary condition for the ARDL boundary test. After completing the necessary condition for the analysis, the results of the ARDL model are presented in Table 5.

The results of the ARDL model can be found in Table 5. The results show that the model's significance level (R-Squared) is 99% and the probability value is less than 0.05. Here, a high R-Squared indicates a good explanatory power of the model. The form of the ARDL model results can be presented as follows:

$$\ln CO_2 = 11.0417349376 + 0.405949905124 * \ln CO_2(-1) + 0.146503253625 * \Delta \ln ITA - 0.090941143577 * \Delta \ln TR - 0.012467168846 * D2008 + 0.0225523157038 * @TREND \quad (7)$$

In the form generated above (number 7), it shows the results of the ARDL boundary test model. After that, the long-term co-integration between the series is checked. The existence of co-integration between the series is confirmed by the fact that the F-statistic obtained in the long-term form of the analysis is higher than the upper critical value of I(1). The results obtained for the long-term are shown in Table 6.

The long-term results and coefficients of the model where the dependent variable is CO₂, as seen in Table 6 above. The results show that the F-statistic is higher than the critical value I(1) at the 5% and 10% levels, indicating that the long-term form is valid at the 5% and 10% significance levels, and therefore the null hypothesis indicating no co-integration between variables is rejected. This confirms the existence of a long-term relationship between the variables. Additionally, since the t-statistic values of the independent variables are less than 0.05, they are considered significant and interpretable. The direction of the relationship of the coefficients in the results obtained at significance levels of 1%, 5%, and 10% in the long run, when CO₂ is the dependent variable, is seen to be negative for TR and positive for ITA. The long-term findings can be expressed as follows:

$$\ln CO_2 = 0.2466 * \Delta \ln ITA - 0.1531 * \Delta \ln TR + EC \quad (8)$$

Upon finding significant results regarding the long-run forms, the error correction term (ECT_{t-1}) (λ) coefficient is expected to be negative and statistically significant. This indicates the time for the short-term shocks caused by the independent variables to disappear and approach the long-term equilibrium value. The short-term findings obtained in the analysis and the results of the error correction model are displayed in Table 7.

The coefficient of ECT_{t-1} is -0.5940 in Table 7, which can be statistically significant and consistent as it is smaller than 1, negative, and has a probability value of less than 0.05. This means that the results are statistically significant and consistent. The mentioned error correction term indicates that 59.4% of the imbalanced state formed in the short term will disappear from the first year. Therefore, the short-term imbalanced situation will approximately return to balance in 1.7 years ($1 / 0.594$) in the long term. The results obtained for the error correction model using serial correlation test, functional form specification, normality test, and heteroscedasticity test are shown in Table 8.

The test results for the complementary statistics presented in Table 8 indicate that the estimated models are consistent throughout the sample period, as the probability values are greater than 0.05. CUSUM and CUSUM squares are used after obtaining these consistent results to control the stability of short- and long-term forecasts. The CUSUM test identifies regular fluctuations in the regression coefficients, while the CUSUM squares test indicates rapid fluctuations that can alter the stability of the regression coefficients (Brown et al., 1975). Figure 1 displays the results of the current CUSUM and CUSUM squares tests for the situation where CO₂ is the dependent variable.

Table 4. ADF Unit Root Results

Variables	ADF Test Statistic	Critical Values			
		%1	%5	%10	
<i>lnCO₂</i>	-3.958055 [9] (0.0192)	-4.226815	-3.536601	-3.200320	Stationary
<i>lnITA</i>	-2.505464 [9] (0.3239)	-4.234972	-3.540328	-3.202445	Non-Stationary
Δ <i>lnITA</i>	-8.586290 [9] (0.0000)				Stationary
<i>lnTR</i>	0.756684 [9] (0.9995)	-4.252879	-3.548490	-3.207094	Non-Stationary
Δ <i>lnTR</i>	-5.700082 [9] (0.0002)				Stationary

Note: The lag lengths for the ADF unit root test were determined according to the Schwarz Information Criterion (SC) and the maximum lag length was taken as 9.

Table 5. ARDL model results

Model ARDL (1,0,0)				
Variable	Coefficient	Std. Error	t-Statistic	Prob.*
LCO ₂ (-1)	0.405950	0.133067	3.050720	0.0046
DLITA	0.146503	0.056284	2.602946	0.0141
DLTR	-0.090941	0.052047	-1.747300	0.0905
K2008	-0.012467	0.024854	-0.501621	0.6195
C	11.04173	2.462944	4.483144	0.0001
@TREND	0.022552	0.005049	4.466396	0.0001
R-squared	0.991624			
Prob.	0.000000			
F-statistic	733.9795			

Table 6. Long-term form and boundary test

Variable	Coefficient	Std. Error	t-Statistic	Prob.
DLITA	0.246618	0.063955	3.856097	0.0005
DLTR	-0.153087	0.067028	-2.283924	0.0294
EC = lnCO ₂ - (0.2466*DLnITA - 0.1531*DLnTR)				
F-Bounds Test				
Test Statistic	Value	Signif.	I(0)	I(1)
F-statistic	8.705619		n=40	
k	2	10%	4.477	5.42
		5%	5.387	6.437
		1%	7.527	8.803

Table 7. ARDL error correction model

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	11.04173	2.084689	5.296586	0.0000
@TREND	0.022552	0.004452	5.066054	0.0000
K2008	-0.012467	0.024726	-0.504208	0.6177
CointEq(-1)*	-0.594050	0.112664	-5.272743	0.0000
R-squared	0.474419			
Prob(F-statistic)	0.000082			
Test Statistic	Value	Signif.	I(0)	I(1)
F-statistic	8.705619	10%	4.19	5.06
k	2	5%	4.87	5.85
		2.5%	5.79	6.59
		1%	6.34	7.52

Table 8. Complementary statistics

Breusch-Godfrey Serial Correlation LM Test			
<i>F</i> -statistic	0.532113	Prob. F(2,29)	0.5930
<i>Obs</i> * <i>R</i> -squared	1.309742	Prob. Chi-Square (2)	0.5195
Heteroskedasticity Test: Breusch-Pagan-Godfrey			
<i>F</i> -statistic	0.760208	Prob. F(5,31)	0.5853
<i>Obs</i> * <i>R</i> -squared	4.041215	Prob. Chi-Square (5)	0.5435
Ramsey Reset Test			
	Value	df	Probability
<i>t</i> -statistic	0.144614	29	0.8860
<i>F</i> -statistic	0.020913	(1, 29)	0.8860
Histogram – Normality Test			
Mean	5.89e-15	Jarquea-Bera	0.54291
Median	-0,003484	Probability	0.742936
Max.	0.095772		
Min	-0.077385		

Figure 1. Cusum Test Results

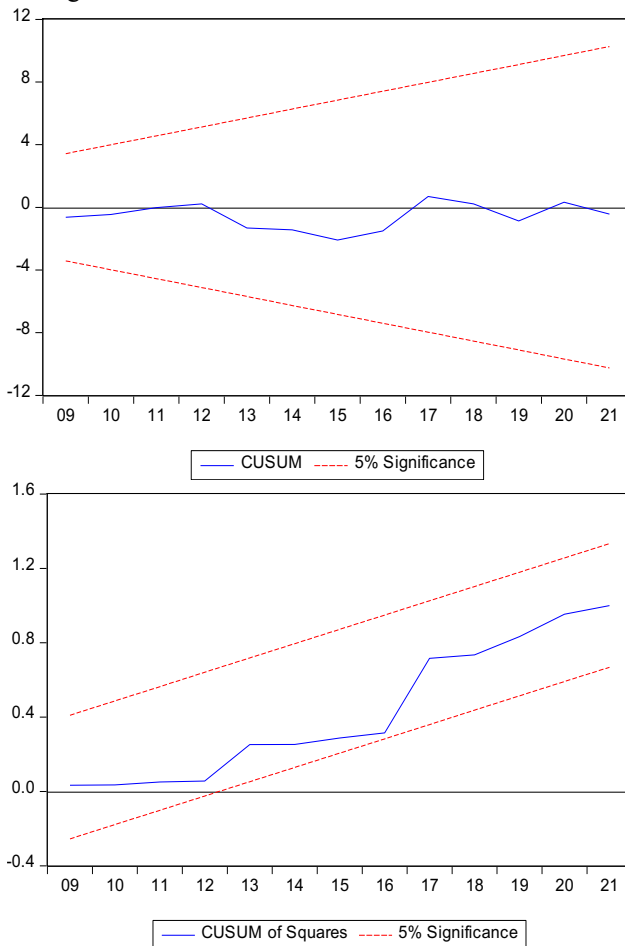


Figure 1 presents the results of the CUSUM and CUSUM squared test, which do not suggest a structural break regarding international tourist arrivals and tourism revenue being the independent variable and CO2 emissions being the dependent variable. The graphs of both statistics related to CUSUM tests are seen to be within the critical boundaries that confirm the stability of coefficients in the error correction model, and it is observed that there are no structural breaks within the period frame included in the

analysis. Thus, the results obtained from the analysis with the relevant model are meaningful and consistent.

5. Conclusion

This study analyzed the effects of tourism on carbon emissions in Turkey over the period 1984-2021, using the ARDL boundary test developed by Peseran et al. (2001) with annual data. In the study, carbon emissions were considered as the dependent variable, and tourism revenue and international tourist arrivals were considered as independent variables, and a dummy variable was used for the effects of the global crisis. The short and long-term relationship between these series was studied using the ARDL boundary test, and the findings showed a significant relationship between tourism revenue, international tourist arrivals, and carbon emissions in both the short and long term. In the long term, a decreased effect of tourism revenue on carbon emissions and an increased effect of international tourist arrivals on carbon emissions were identified. The flexibility of these statements is that a 1% increase in tourism revenue has an effect in a decrease in carbon emissions by 0.15%, and a 1% increase in international tourist arrivals has an effect in increasing carbon emissions by 0.24%. The results show that the error correction term is effective, and 59.4% of the imbalance formed in the short term disappears from the first year. This analysis demonstrates that the short-term imbalance reverts to balance approximately 1.7 years later in the long term.

The findings of this research are quite significant in terms of the gains in literature with a specific focus on a single country and the reliability of the empirical application. Specific studies in the literature can support the findings from the research. These studies include Kocak et al. (2020), Solarin (2013), De Vita et al. (2015), Zikirya et al. (2021), and Rahman et al. (2022). However, the research findings do not align with the results of Liu et al. (2019).

Turkey is one of the world's leading tourist destinations due to its numerous advantages. Therefore, tourism is a highly important sector of the Turkish economy; however, its economic contributions are primarily based on the sector's sustainability. Research findings indicate that Turkey needs stronger policies in this context. Strategic practices such as renewable energy incentives, fossil fuel taxes, technology development efforts, appropriate or horizontal urban planning, expert reports, local community education in destination areas, R&D studies, and regulatory mechanisms are crucial. These policies should be based on local, regional, and national practices that reduce the impact of tourism development on CO₂ emissions under the state's leadership and in collaboration between the public and private sectors. This issue and the required policies retain their current importance to alleviate concerns about the sustainability of tourism, increase tourism revenues, and gain competitiveness in tourism.

Author contributions

The authors declare that they equally contributed to the design and implementation of the research, the analysis of the results, and the writing of the article.

Disclosure statement

The authors reported no potential competing interest.

Ethics committee approval

All responsibility belongs to the researchers. Ethics committee approval is not required as the data used in this study is based on the annual data in tourism on CO₂ emissions in Turkey from 1984 to 2021.

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Journal of Tourism Theory and Research

Volume:9, Issue:2, 2023

Research article

Professionals' perspectives on ChatGPT in the tourism industry: Does it inspire awe or concern?

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Professionals' perspectives on ChatGPT in the tourism industry: Does it inspire awe or concern?

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Abstract

The tourism industry has witnessed significant transformations in recent years with the integration of artificial intelligence (AI) technologies. This study explores the echoes surrounding the use of ChatGPT in the tourism industry, focusing on the balance between convenience and challenges. The findings presented in this study are based on interviews conducted with professionals from various fields within the tourism industry. The integration of ChatGPT in the tourism industry brings both convenience and challenges to the forefront. It has become apparent that discussions regarding ChatGPT's advantages, such as value creation for tourism businesses and customers, as well as its disadvantages, such as the lack of human touch and potential data security risks, will persist within the tourism industry.

Keywords: Artificial intelligence, ChatGPT, the tourism industry, experimental interview

1. Introduction

It is no longer surprising that digitalization, which profoundly affects economic and social life, creates technological innovations daily. Especially in recent years, developments in information technologies continue to amaze users. Factors such as collaborations in the business ecosystem, where businesses are trying to keep up with the digital transformation, competition in international tourism markets, changing consumer trends, etc., force investment in technology and innovation (Demir & Demir, 2015). The rapid development of technology necessitated the adoption of digital transformation tools by businesses and their use for different activities (Arici et al., 2023; Cai et al., 2019; Huang et al., 2019). Undoubtedly, one of these tools is artificial intelligence (AI), used with different applications, including ChatGPT, which adds to the business and social life of individuals. ChatGPT, a major language model developed by OpenAI based on the GPT (Generative Pre-trained Transformer)-3.5 architecture, is an AI technology focused on various activities (OpenAI, 2023).

ChatGPT is a revolutionary new artificial intelligence (AI) technology that transforms how people interact with digital technologies and tools, making computers more intuitive and user-friendly (Harahap et al., 2023; Mich &

Garigliano, 2023). Developed with OpenAI GPT-3.5, the essential feature that distinguishes ChatGPT from other chatbots is its natural language processing (NLP) model. ChatGPT is a chatbot capable of answering questions based on its language model, almost like a human. Like most AI technologies, it develops itself by feeding on the database and drawing conclusions according to users' questions (Deng & Lin, 2022; Gursoy et al., 2023). ChatGPT differs from others because it can generate more fluent texts by performing natural language tasks with its comprehension and typing capabilities. Moreover, ChatGPT possesses features such as dialogue and suggestion systems, allowing it to understand texts written in a wide application area and at various language levels (Dwivedi et al., 2023a; Skavronskaya et al., 2023). ChatGPT uses deep learning techniques to recognize patterns and relationships in data without being bound by predetermined rules (OpenAI, 2023). Users can even train ChatGPT using their data and obtain more accurate results on a specific topic.

ChatGPT (Panda & Kaur, 2023), which has more advanced features than chatbots, has the potential to disrupt the entire tourism industry, especially in accommodation, travel, food, and beverage. The use of ChatGPT is proliferating in many sectors, including the tourism and travel industries

*Corresponding author
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Article info: Research Article

Received: 26 May 2023

Received in revised form: 20 June 2023

Accepted: 21 July 2023

Ethics committee approval:

* All responsibility belongs to the researchers. This study was carried out with the decision of the Scientific Research and Publication Ethics Committee of Isparta University of Applied Sciences, dated 23.06.2023, and numbered 156/04.

To cite this article: Demir, Ş.Ş. & Demir, M. (2023). Professionals' perspectives on ChatGPT in the tourism industry: Does it inspire awe or concern? *Journal of Tourism Theory and Research*, 9(2), 61-77. <https://doi.org/10.24288/jttr.1313481>

(Carvalho & Ivanov, 2023). The increasing impact of ChatGPT in the tourism industry is expected because the changes in consumer trends have prompted tourism businesses to employ different tools for personalized service (Akter et al., 2023; Lehrer et al., 2018). Businesses in the tourism industry, such as tour operators, travel agencies, and hotels, were among the first to adopt artificial intelligence in their travel reservation systems, gaining particular experience in the process of adopting ChatGPT (Gursoy et al., 2023; Sudirjo et al., 2023). This study focuses on the advantages and disadvantages, limitations, and application examples of ChatGPT in the tourism industry to determine whether it is a suitable AI application.

Since this study is related to ChatGPT and the literature on this subject is limited (Iskender, 2023; Ivanov & Soliman, 2023), it is not easy to directly base it on a theory. However, the findings and results of the study will be evaluated and interpreted using two theories: a) Rogers's Diffusion of Innovation Theory, which acknowledges that the innovation adoption process is influenced by various factors and individuals' behavioral tendencies in adopting innovations, and b) Davis & Bagozzi's Technology Acceptance Model, as individuals evaluate a technology based on factors such as perceived usefulness and perceived ease of use.

2. Literature review

Whether ChatGPT will be a viable solution for tourism industry professionals seems to be discussed for a long time (Dwivedi et al., 2023a; Gursoy et al., 2023). However, before delving into this, it should be noted that ChatGPT is an NLP model of AI (Dwivedi et al., 2023b; Mich & Garigliano, 2023) designed to perform various tasks, including creating text, translating, answering questions, and summarizing. The purposes for which businesses in the tourism industry, such as those in travel, transportation, accommodation, food and beverage, entertainment, etc., utilize ChatGPT may also vary. A common objective of tourism businesses in adopting ChatGPT technology is to adapt to changing consumer trends and expand their market share to increase economic gains (Haleem et al., 2022; Harahap et al., 2023). Consequently, ChatGPT can provide opportunities to enhance organizational agility (Akter et al., 2023) by facilitating innovative product development (Dwivedi et al., 2023b) and fostering stronger customer relations (Fusté-Forné & Orea-Giner, 2023).

Tourism businesses need to reassess their processes by leveraging AI technologies (Lee et al., 2023) like ChatGPT to understand their operations, the value of the goods and services they offer, and the performance indicators of their human resources (Bahrini et al., 2023; Haleem et al., 2022; Paul et al., 2023). However, discussions regarding the advantages, disadvantages, opportunities, and challenges of ChatGPT are expected to persist. Managers and entrepreneurs in the tourism industry recognize ChatGPT as a digital resource capable of providing new and practical solutions that can make a difference in tourism markets and drive

business agility (Gursoy et al., 2023; Iskender, 2023). Unlike other AI applications and platforms, ChatGPT generates predictions based on questions and provides the fastest and most structured answers possible (Carvalho & Ivanov, 2023; Qureshi et al., 2023).

2.1. ChatGPT on the Seesaw: Convenience vs. Challenges

ChatGPT is utilized by managers in the tourism industry from a supply-oriented perspective and by consumers from a demand-oriented perspective. It excels in user interaction and can provide answers to almost any question based on the available information in its database (Dwivedi et al., 2023a; Gursoy et al., 2023; Iskender, 2023). As a result, it is meaningful for tourism businesses to primarily employ ChatGPT in customer service (Ivanov & Soliman, 2023). Furthermore, certain services, such as language translation capabilities (Gursoy et al., 2023), tour and excursion planning (Mich & Garigliano, 2023), management activity coordination (George & George, 2023; Korzynski et al., 2023), and personalized recommendations (Haleem et al., 2022), offer significant advantages to businesses. For instance, it can assist tourism businesses in tasks like creating tour programs for specific destinations, designing hotel restaurant menus, organizing meeting plans, and developing human resources training programs.

Online travel agencies are already being continuously shaped by AI within their internal systems (Demir et al., 2023; Pricope Vancia et al., 2023), and while consumers may be unaware of it, their recommendations and decisions are influenced by digital technologies. With its intuitive nature and pre-trained model, ChatGPT (Ray, 2023; Wu et al., 2023) can be particularly valuable for businesses that need to understand changing customer needs and market trends in the tourism industry. ChatGPT has the potential to revolutionize the tourism and hospitality sector by enhancing trip organization and improving customer service (Gupta et al., 2023; Singh & Singh, 2023), making it an expected early adopter in the tourism industry, especially within the travel sector (Dwivedi et al., 2023a; Iskender, 2023).

ChatGPT represents one of the latest AI-based technologies aimed at making travel and tourism more efficient, cost-effective, and enjoyable for travelers (Frackiewicz, 2023). Some researchers (e.g., Korzynski et al., 2023; Mich & Garigliano, 2023) argue that ChatGPT effectively creates marketing campaigns by improving customer service. Online travel agencies ranging from Expedia to Kayak and Trip.com utilize ChatGPT plugins as "virtual assistants" (Jockims, 2023). Therefore, tourism businesses can leverage the AI ecosystem to enhance the efficiency and effectiveness of their marketing efforts through personalized campaigns for customers (Demir et al., 2022). Consequently, with individualized services and travel experiences, ChatGPT enables tourism businesses to increase customer satisfaction and loyalty (Gursoy et al., 2023; Singh & Singh, 2023). One of the most significant benefits of using ChatGPT is its ability to rapidly and thoroughly generate travel content for tourism

professionals (Chaturvedi et al., 2023; Gupta et al., 2023). Consequently, ChatGPT empowers tourism businesses to create individualized products and services that strengthen their interaction with potential customers (Ivanov & Soliman, 2023; Pricope Vancia et al., 2023) and enhance the personalized customer experience (Dwivedi et al., 2023a; Singh & Singh, 2023). As a result, businesses can foster customer loyalty by building stronger relationships (Mondal et al., 2023). By automating inquiries about products and services (George & George, 2023; Paul et al., 2023), ChatGPT saves time and costs for tourism businesses (Reisenbichler et al., 2022) and can provide insights into customer behavior.

Despite being a highly functional AI application, ChatGPT also presents some challenges and limitations (Deng & Lin, 2022; Frackiewicz, 2023). Deng and Lin (2022) point out that ChatGPT has database limits, which may be disadvantageous for tourism businesses that generate and utilize large amounts of big data (Demir et al., 2022). Additionally, although ChatGPT has an extensive database on certain topics, it may provide limited answers when it comes to understanding the nuances of certain languages, user experiences, and cultural differences (Burger et al., 2023; Kalla & Smith, 2023). The data may not always be accurate, as ChatGPT can draw erroneous conclusions due to its training as a language model (Frederico, 2023; Hassani & Silva, 2023). Furthermore, ChatGPT can sometimes provide random responses, resulting in mixed-up information about people, places, or events. Therefore, it is important to note that ChatGPT's information does not necessarily guarantee productivity or offer an unbiased perspective.

Contrary to the approach that ChatGPT negatively affects young people's creativity in education (Thorp, 2023), there is still a lack of sufficient studies on how it affects the creativity of individuals in dynamic industries like tourism. For instance, there are reports of ChatGPT being blocked in educational institutions in many regions of Italy and the USA (e.g., New York). In the field of tourism, studies suggest that ChatGPT cannot replace human creativity (Iskender, 2023), or alternatively, it can provide employees with opportunities for innovative business development (Carvalho & Ivanov, 2023). It should be noted that discussions about ChatGPT are not limited to the tourism field, and there may be similar debates in different sectors. While ChatGPT can positively or negatively affect service individualization in tourism businesses, it will not change the heterogeneous nature of the tourism product but may facilitate imitation. However, it is important to recognize that ChatGPT, in its current stage, still lacks the necessary nuance, critical thinking skills, and ethical decision-making abilities to fully replace a human (Iskender, 2023).

Another risk associated with querying information in ChatGPT is the compromise of data privacy and confidentiality (Emerging Europe, 2023; Mehrolia et al., 2023). Beyond the authenticity of goods and services offered by tourism businesses, the potential security vulnerabilities of ChatGPT concerning corporate and customer data pose a

significant challenge (Carvalho & Ivanov, 2023; Gursoy et al., 2023). Moreover, the risks related to intellectual property and copyright cannot be ignored. The dissemination of false content by malicious individuals through ChatGPT can have adverse effects on tourism businesses and consumers.

3. Methodology

All responsibility belongs to the researchers. This study was carried out with the decision of the Scientific Research and Publication Ethics Committee of Isparta University of Applied Sciences, dated 23.06.2023, and numbered 156/04.

This study has adopted a pragmatic-based theory research approach as a specific type of grounded theory (Strauss & Corbin, 1990; Strübing, 2010). Grounded theory provides researchers with a method that complements various forms of qualitative data collection and expedites their work (Charmaz & Bryant, 2010). The pragmatic theory of truth posits that a proposition is valid if it is helpful to believe, with utility being the primary indicator of truth. In this approach, where beliefs guide actions and should be judged by outcomes rather than objective principles, the research question should guide the choice of scientific paradigm (Saunders et al., 2009; Strübing, 2010). Two main themes of the pragmatic research paradigm, positive and negative evaluations, are relevant to this study. Pragmatism supports pluralism (Johnson, 2012), and as a type of grounded theory, the pragmatic approach does not require the selection of a specific theoretical framework prior to data collection (Strauss & Corbin, 1990). The true belief will emerge from the investigation process (Misak, 2023).

3.1. Sample and data collection

To collect data, the researchers used semi-structured asynchronous online interviews (AOI) (Hewson & Laurent, 2008) with pre-selected participants. Initially, a pool of participants was created, and in-depth interviews were conducted using purposive sampling. The purposive sampling technique was chosen due to ChatGPT being a current topic, the unknown population, the research involving a specific situation, and the desire to focus directly on a particular subject. Hence, purposive sampling was deemed the most appropriate technique for this study (Creswell & Creswell, 2018). On the other hand, there are three main reasons for preferring AOI: First, it is more suitable for the nature of the study to conduct experimental procedures with online tools. Second, AOI prioritizes participants' comfort and provides time flexibility (Bowden & Galindo-Gonzalez, 2015). Third, online conversations can be easily recorded. Semi-structured interviews, which involve a general topic, themes (Lee, 1999), selected categories, and specific questions, allow for in-depth exploration and understanding of the participants' perspective within the context (Ritchie et al., 2013; Saunders et al., 2009).

Experimental studies were conducted with each participant via (<https://chat.openai.com/>) to experience ChatGPT.

The interviews were conducted in two stages: before and after the experimental research with ChatGPT. The first stage involved participants' perceptions and attitudes regarding the recognition and usability of ChatGPT. The second stage consisted of participants' comments on the experimental interview after experiencing ChatGPT. Data saturation (Creswell, 2013) was reached after 24 interviews, but three additional interviews were conducted to account for the possibility of discovering new information. As these additional interviews did not provide further insights, data collection was

considered complete (Dingwall et al., 1998), resulting in a total of 27 participants for the experimental interviews. Experimental interviews were conducted to reveal and compare changes in participants' perspectives on the subject before and after the experiment by investigating a subject that the participants had no prior knowledge of (Demir et al., 2023). Experimental interviews are essential for understanding participants' knowledge and abilities (Thomas et al., 1960). Interview questions and process steps are shown in Figure 1.

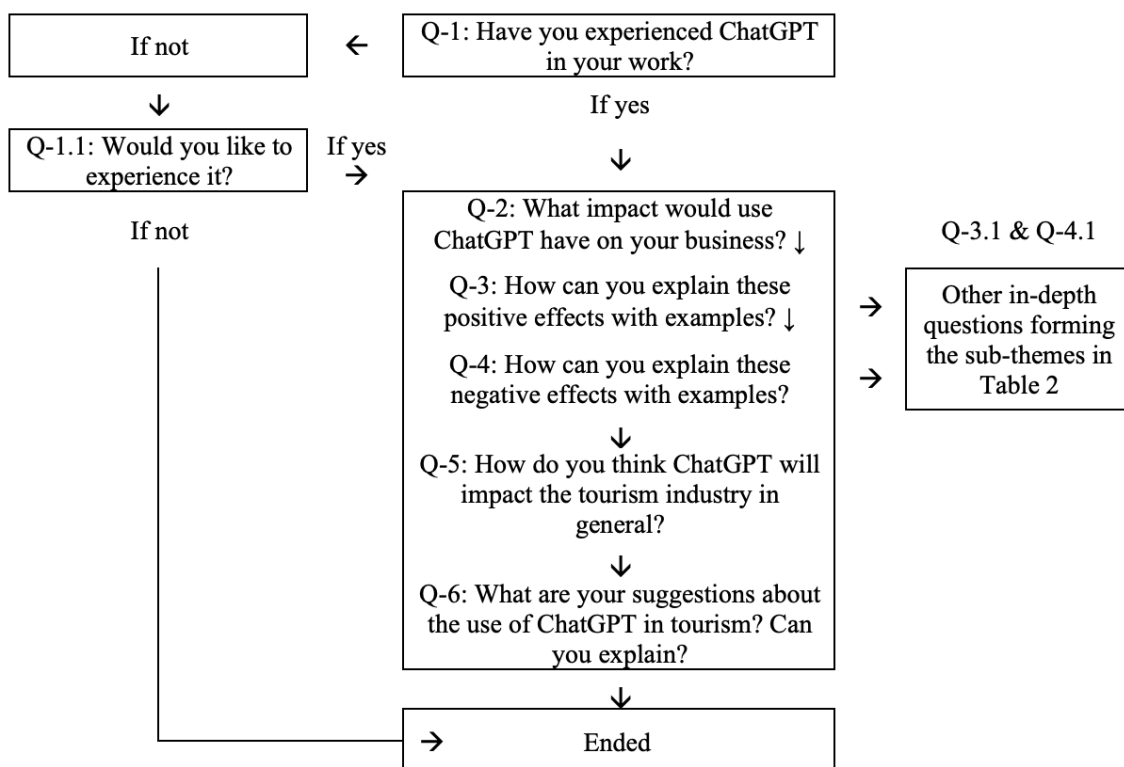


Figure 1. Interview questions and steps

3.2. Data analysis

Thematic analysis was employed for the data in this study, following systematic analytical procedures (Corbin & Strauss, 1990; Drisko & Maschi, 2015). The thematic analysis involves collecting relevant data on different themes and codes through a comprehensive literature review (Boytzis, 1998; Prayag & Ryan, 2011). To ensure the reliability and methodological rigor of the results, the researchers reviewed the literature, analyzed experimental practices, and reviewed interview recordings to establish themes (Prayag & Ryan, 2011). After each interview, the data were coded and analyzed before proceeding to the next interview (Corbin & Strauss, 1990), with questions explored independently. Similar responses were grouped together, and axial coding was performed to embed broader themes (Creswell, 2013). At the final stage, the grounded theory compared the main themes with existing theories and conceptual frameworks, revealing the findings (Corbin & Strauss, 1990; Creswell, 2014).

3.3. Demographic information of participants

Table 1 presents the demographic characteristics of the interviewed participants. The participants consist of representatives from the accommodation, travel, food and beverage, and education sectors within the tourism industry. Fifteen of the participants had prior experience with ChatGPT. Among the nine participants aged between 25 and 46, all were women. All participants working at the university held a doctorate degree. Additionally, all participants held positions of responsibility and authority.

4. Results

The participants were interviewed in two stages. In the first stage, questions were asked to determine the participants' awareness of ChatGPT and whether they used it in their current jobs. Some participants indicated that they were aware of ChatGPT but did not know how to utilize it in their current roles. Therefore, interviews were conducted after

providing information about ChatGPT to all participants. They were then asked to rate their evaluations of the benefits of using ChatGPT in the tourism industry on a scale of 1-10. In the second stage, all participants were given sample experimental practices related to using ChatGPT for their work. Interviews were conducted again after the participants had completed at least three different experimental

practices. Similar to the first stage, participants were asked to rate the benefits of using ChatGPT in the tourism industry once again. The graphical representation of the scores that ChatGPT received before and after the experimental practices is shown in Figure 2. The average score of the participants before using ChatGPT for experimental purposes was 3.44 out of 10, which increased to 8.22 afterward.

Table 1. Profiles of participants

Participants	Organization	Position	Age	Gender	Education level	ChatGPT experiences
P1	Travel Agency	Manager	33	M	Bachelor's	Yes
P2	Hotel	F&B manager	37	M	Bachelor's	No
P3	Restaurant	Chief	28	M	College	No
P4	University	Academic	34	M	Doctoral	Yes
P5	Restaurant	Owner	41	M	College	Yes
P6	Restaurant	Chief	29	F	College	No
P7	University	Academic	32	F	Doctoral	Yes
P8	Travel agency	Owner	44	F	Bachelor's	No
P9	Travel agency	Contract manager	35	M	Bachelor's	Yes
P10	Hotel	FO manager	39	F	College	Yes
P11	Restaurant	Chief	29	M	College	No
P12	Hotel	Chief	31	F	College	No
P13	Hotel	Sales manager	30	M	Bachelor's	Yes
P14	Travel agency	General manager	36	M	Bachelor's	Yes
P15	Travel agency	Sales manager	25	F	Bachelor's	Yes
P16	Hotel	General manager	42	M	Bachelor's	Yes
P17	University	Academic	35	M	Doctoral	Yes
P18	University	Academic	34	F	Doctoral	Yes
P19	Travel agency	Owner	46	M	Bachelor's	No
P20	Restaurant	Chief	28	M	College	No
P21	Hotel	General manager	41	M	Bachelor's	No
P22	Travel agency	Sales manager	33	F	Bachelor's	Yes
P23	Travel agency	Operation manager	40	M	Bachelor's	No
P24	Restaurant	General manager	27	M	College	No
P25	Restaurant	Chief	25	M	Bachelor's	No
P26	Hotel	Sales manager	32	F	Bachelor's	Yes
P27	Hotel	F&B manager	31	M	College	Yes

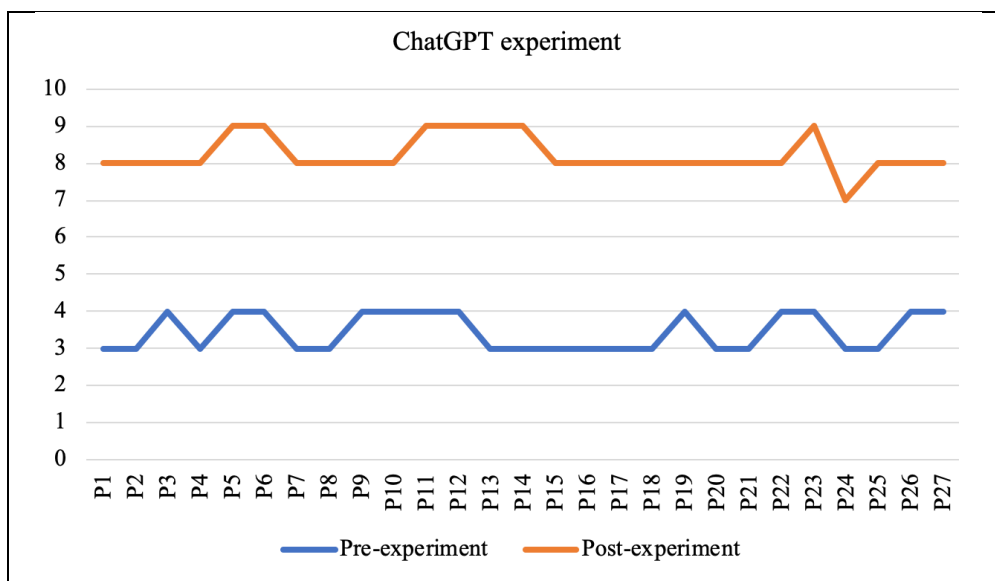


Figure 2. The graphical results of the scores of the ChatGPT experiment

Table 2. Main and sub-themes emerging from the interviews

Main theme	Sub-themes	Sub-themes	Main theme
+ Conveniences and adoption	Communication Developing business models Developing analytical skills Individualized services	Employee creativity HR planning Accuracy of data Cost savings Value of investment	Convenience vs. challenges ±
	- Challenges and concerns		

Based on the analysis of the interviews with the participants, three main themes related to ChatGPT emerged: "Conveniences and adoption," "Challenges and concerns," and "Convenience vs. challenges" (Table 2). The main theme of "Conveniences and adoption" reflects the positive opinions of the participants after their empirical examination of ChatGPT. Conversely, the main theme of "Challenges and concerns" represents the negative aspects identified by the participants. This theme is based on participants' views both before and after their experimental experiences with ChatGPT. Particularly after experiencing ChatGPT, significant changes in the participants' opinions were observed. On the other hand, the main theme of "Convenience vs. challenges" encompasses both positive and negative aspects of ChatGPT. For instance, while some participants believed that ChatGPT could lead to a reduction in the number of employees in businesses, others thought that it had features that could enhance the skills of existing employees. Appendix A provides examples of some sample applications during the experimental interviews with the participants.

According to the participants, ChatGPT offers significant conveniences to tourism businesses and customers in terms of language translation, accessible communication, fluent text generation, and comprehensive responses. For example, P3 stated, "ChatGPT is an AI app that can serve in any language," P8 mentioned, "ChatGPT is an important digital tool for translation and interpretation, providing great convenience for us," P13 expressed, "...can understand and respond fluently to questions and expressions," and P19 commented, "I can obtain appropriate information and helpful answers in any subject." However, some participants mentioned potential difficulties in communication with ChatGPT and noted that it might have limitations in answering complex questions or retrieving specific information. For instance, P1 stated, "ChatGPT doesn't seem to understand what I mean," and P22 mentioned, "...it can produce incorrect translations, leading to misunderstandings," highlighting the negative aspects of ChatGPT.

ChatGPT not only provides natural responses to questions but also surprises with its answers in different domains. Moreover, it can offer solutions and suggestions suitable for new business models in the tourism industry. Participants expressed their views on this aspect, with P4 stating, "It creates the potential to intervene with real-time solutions if your business encounters issues," P7 mentioning, "...it enables agility in directing processes and employees while still maintaining control," and P18 emphasizing, "...artificial intelligence lies at the heart of innovation and competition success." These perspectives indicate that tourism professionals consider ChatGPT as an essential stakeholder in their new business models. Examples such as the design of set menus for food and beverage businesses or tour programs developed by travel agencies can be found in Appendix A.

The participants generally had positive opinions regarding ChatGPT's ability to enhance business analytics. For example, P1 expressed surprise at ChatGPT's ability to quickly analyze large amounts of data, while P14 stated, "With ChatGPT, we can predict future trends based on our historical data, facilitating our strategic management plans." Additionally, P16 mentioned, "It is a great advantage for us to analyze tourism industry trends and consumer behavior with ChatGPT," and P24 stated, "By optimizing business processes with ChatGPT, we will be able to increase productivity." These responses indicate that ChatGPT can positively impact management decisions by providing insights and suggestions based on data. It can also assist tourism businesses in analyzing future trends through its forecasting capabilities, conduct meaningful competitive analysis by conducting market research, and improve service output and efficiency by optimizing business processes.

Some participants expressed positive opinions, stating that ChatGPT can significantly reduce operational and labor costs. For example, P5 mentioned, "ChatGPT provides customer support for certain tasks, allowing us to assign staff to other units," P9 said, "...by answering questions, ChatGPT can assist customers in the booking process,

which means we need fewer staff!", P15 stated, "...ChatGPT can analyze customer preferences like a staff member," and P26 mentioned, "...by communicating with customers who speak different languages, it reduces our costs in marketing and promotional efforts." However, some participants argued that businesses will require more qualified employees who can effectively utilize ChatGPT, leading to a focus on hiring employees with digital skills in human resource planning, which may increase labor costs. The shared opinion among participants P7, P10, P18, and P23 is that "having more qualified employees in the ChatGPT business leads to higher labor costs!" The notion that the use of ChatGPT may result in a decrease in the number of employees while simultaneously increasing the qualifications of the workforce represents a conflicting viewpoint.

Nearly all participants agreed that ChatGPT can offer personalized services and experiences to customers in the tourism industry. For instance, some participants suggested that ChatGPT could provide personalized recommendations for various aspects such as destination preferences, activities, and accommodation options (P2), optimized travel plans with the most efficient routes (P8), menu preferences (P12), vacation periods based on budget considerations (P14), alternative vacation options including adventure tourism and eco-tourism (P21), and customized services and experiences tailored to each customer's context and needs (P27). By leveraging ChatGPT, tourism businesses can create memorable and unique customer experiences, thereby increasing customer satisfaction and loyalty.

The tourism industry encompasses businesses, activities, and environments where individuals with diverse cultural backgrounds converge. While ChatGPT offers significant advantages to tourism businesses, it is essential to acknowledge the presence of specific challenges and limitations. One of the most notable challenges arises from cultural barriers associated with language, religion, race, lifestyle, etc., inherent in the tourism industry. Some participants' views also highlighted the importance of cultural barriers as a potential problem. These findings include observations that ChatGPT "may not fully capture the subtleties of different languages and cultural nuances" (P5), "may unintentionally exhibit biases during interactions" (P11), "may not cover local or region-specific information" (P17), and "may not convey non-verbal communication such as body language, gestures, or facial expressions" (P20). In light of these limitations, tourism businesses should implement AI applications while considering measures to mitigate the impact of potential barriers.

As the tourism industry relies on human interaction, the introduction of digital technologies can lead to a perceived lack of human touch. Some participants' statements regarding ChatGPT indicate a perceived lack of human touch, such as the absence of emotions and empathy (P25), limited ability to comprehend complex personal situations (P10), difficulty in adapting to individual communication preferences, humor, or unique characteristics (P18), inability to establish

the same level of intimacy, trust, and personal commitment with users (P6), and a lack of reasoning, intuition, or emotional intelligence required to address problems (P20).

ChatGPT can have a negative impact not only on the lack of human touch for customers but also on employee creativity in tourism businesses. While some participants expressed negative opinions, such as fulfilling routine and repetitive tasks (P3), providing services based on stereotypical information (P11), and a diminished need for brainstorming (P19), others had more positive views. For example, P7 stated, "ChatGPT can ignite new and creative ideas to develop innovative marketing strategies," P16 mentioned, "ChatGPT's ability to generate diverse responses can stimulate employee creativity through brainstorming," P18 noted, "The collaborative interaction facilitated by ChatGPT fosters a creative environment," and P25 highlighted, "ChatGPT can help employees develop their creativity by providing opportunities to explore new ideas." These findings reveal opposing perspectives on the impact of ChatGPT on employee creativity, which are influenced by subjective factors such as participants' experiences, job positions, business activities, and technological perspectives.

It has been observed that ChatGPT, like all digital technologies, tools, and applications, can have an impact on data security in tourism businesses. Data privacy emerged as a common concern among almost all participants. One of the critical issues highlighted is the insufficient knowledge regarding protecting data privacy. Some participants, such as P2, P11, P18, and P24, expressed concerns about the risks associated with user authentication in terms of data security. Furthermore, participants who believe that regular security checks and updates may pose potential vulnerabilities are uncertain about the effectiveness of encryption as a precautionary measure. Tourism businesses that proactively address data privacy concerns can leverage ChatGPT in a more secure manner. On the other hand, the impact of ChatGPT on ethical issues within tourism businesses is as significant as data privacy. ChatGPT may introduce bias or discrimination in responses, recommendations, or customer interactions. When interacting with ChatGPT instead of a human agent, tourism businesses should inform customers that they are engaging with a chatbot and explicitly state that the conversations are being recorded. Additionally, tourism businesses should not overlook the fact that the information obtained through ChatGPT or the services designed using it may already exist from other sources, albeit in some cases.

The participants exhibited mixed sentiments regarding investing in ChatGPT for tourism businesses. For example, P5 and P14 regarded it as an important tool for enhancing the customer experience, while some participants (e.g., P16, P21, P24) argued that it could be a costly investment. Implementing ChatGPT may require technical expertise, integration with existing systems, and employee training. On the other hand, some participants were concerned about the potential leakage of their information to rival businesses, as

ChatGPT provides a competitive advantage. In summary, the decision to invest in ChatGPT should align with business objectives, customer needs, available resources, and be determined through a cost-benefit analysis.

5. Discussion and conclusions

ChatGPT has the potential to reach a broader audience by overcoming language barriers (Dwivedi et al., 2023a) in tourism businesses or international markets, as it supports various languages (Gursoy et al., 2023; Skavronskaya et al., 2023). ChatGPT provides tourism businesses with management strategy opportunities (George & George, 2023; Korzynski et al., 2023) while granting customers access to a vast database of destinations, hotels, customized itineraries, restaurants, museums, events, attractions, tour options, and other tourism information (Chaturvedi et al., 2023; Gupta et al., 2023; Ivanov & Soliman, 2023; Yaşar et al., 2023). This facilitates better trip planning for customers and enables tourism businesses to enhance customer satisfaction (Singh & Singh, 2023). ChatGPT can engage with users in real-time and deliver personalized experiences (Gursoy et al., 2023). For instance, it can remind customers of their preferences, interests, and past reservations to provide recommendations or offer services tailored to customized events and food and beverage options. It can even assist tourism businesses in creating personalized services within users' budgets.

Another advantage of ChatGPT for tourism businesses is its 24/7 availability (Reisenbichler et al., 2022) and the increase in workforce productivity (Fusté-Forné & Orea-Giner, 2023). ChatGPT reduces the workload on customer service with automated responses (Paul et al., 2023), allowing staff to focus on more critical tasks and provide more efficient responses to customer requests. Consequently, it provides the advantage of uninterrupted customer service while reducing personnel requirements. With quick and immediate responses to managers and customers, ChatGPT ensures a seamless flow of information regarding activity planning, reservations, and inquiries about hotels or destinations (Dwivedi et al., 2023a). Based on these findings, ChatGPT can collect feedback from customer interactions, identify problems, and discover opportunities for improvement through data analysis, thus increasing customer satisfaction and fostering loyalty (Mondal et al., 2023).

Artificial intelligence-based systems like ChatGPT can handle multiple user interactions simultaneously (Ali, 2023). Tourism businesses can simultaneously utilize systems like ChatGPT to cater to high user demands. ChatGPT, with its wide range of applications from transportation and travel businesses for managing reservations to food and beverage businesses for menu planning, holds the potential to generate functional and technical value for tourism businesses, improving their business models (Mich & Garigliano, 2023). For instance, airlines can manage flight reservations, make ticket changes or cancellations, and obtain flight-related information through ChatGPT. Similarly, food and beverage businesses can customize their services

or menus through ChatGPT, accommodating special requests and food preferences from customers. Meeting customer needs through such services enables food and beverage businesses to appeal to a broader audience (Demir & Demir, 2015).

Thanks to ChatGPT's analytical capabilities, tourism businesses can enhance the customer experience, identify new service areas, and develop their business strategies accordingly (Carvalho & Ivanov, 2023). This helps tourism businesses improve the quality of service and respond more effectively to customer demands (Ivanov & Soliman, 2023; Pricope Vancia et al., 2023), thereby gaining a competitive advantage (Ausat et al., 2023). ChatGPT enables the evaluation of business performance through customer data analysis (Harahap et al., 2023) and facilitates continuous improvement of the customer experience by optimizing business processes (Fusté-Forné & Orea-Giner, 2023). Based on the findings of this study, ChatGPT supports tourism businesses in following market trends, providing services aligned with customer demands, increasing operational efficiency, and supporting decision-making processes.

Despite the positive results associated with ChatGPT, some challenges should not be ignored. One significant disadvantage of ChatGPT is its tendency to create language and cultural barriers (Dwivedi et al., 2023a). Due to the global nature of the tourism industry, interactions with customers from different languages and cultures occur frequently. This may result in misunderstandings of customer expectations and demands, leading to unmet needs (Gursoy et al., 2023). Moreover, this can create disadvantages for tourism professionals. If a tourism business provides inaccurate or outdated information to its stakeholders due to inaccurate or misleading data in the dataset, it may damage its reputation and trust (Demir et al., 2023). ChatGPT may face challenges in fully understanding and appropriately responding to language and cultural differences, as it lacks a culturally specific solution (Fusté-Forné & Orea-Giner, 2023).

The inability of ChatGPT to provide the human touch, an essential element in tourism services, creates a significant disadvantage (Harahap et al., 2023). The limitations of ChatGPT in meeting emotional or personal needs may negatively impact customer communication, satisfaction, and loyalty (Vorobeva et al., 2023). For instance, it remains uncertain how ChatGPT will behave when customers seek interaction with humans for topics like vacation planning, destination selection, or problem-solving. Systems like ChatGPT may disappoint customers as they cannot deliver the human touch and personal experience provided in person or over the phone (Chaturvedi et al., 2023; Muñoz & Chen, 2023), where human touch and emotional connection are essential for positive tourism experiences.

Tourism businesses collect personal data from customers, such as names, addresses, phone numbers, email addresses, and credit card information (Demir & Demir, 2015). When tourism businesses utilize systems like ChatGPT to

collect and process users' personal information, exposure to data privacy and security risks arises for both customers and businesses (Emerging Europe, 2023; Mehroliya et al., 2023). Sharing personal data containing confidential information on open platforms can lead to disadvantages such as data leaks, sharing with third parties, and non-compliance with legal regulations (Carvalho & Ivanov, 2023; GURSOY et al., 2023). Therefore, data security becomes a significant responsibility and duty for tourism businesses, necessitating the implementation of necessary measures to protect data, prevent unauthorized access, and avoid data breaches.

Most participants stated that the use of AI systems like ChatGPT in tourism businesses might adversely affect employee creativity. The availability of ChatGPT for solving certain customer problems reduces their interaction with employees, and relying on ChatGPT instead of human interaction may deprive customers of factors such as personal touch, empathy, and authentic experiences (Chaturvedi et al., 2023; Iskender, 2023; Muñoz & Chen, 2023). As a result, employees may feel that their job is limited to performing routine tasks only and may not be able to contribute to processes requiring creativity. Additionally, the predefined algorithms and rules of ChatGPT can lead to more standardized services in tourism businesses, potentially limiting employees' creativity and flexibility. ChatGPT might even hinder the discovery of new ideas for innovation and restrict employees' creativity.

5.1. Theoretical implications

This study on the use of ChatGPT in tourism has several theoretical implications. Firstly, the limited research on ChatGPT highlights a significant gap in the literature. This study presents both the positive and negative findings of ChatGPT, filling gaps in the existing literature. The results contribute to theories on adopting and accepting technological innovations, enriching the literature in this area. Secondly, studies focusing on the effective and efficient use of language-based artificial intelligence tools like ChatGPT can contribute to developing theoretical knowledge about communication and interaction processes in tourism services. It can also examine the impact of ChatGPT on tourist behavior and offer new perspectives to theories of tourist behavior.

Thirdly, digitalization, innovation, and big data analytical capabilities are crucial for sustainable services in the tourism industry. When combined with big data analytics and predictive models, ChatGPT can assist in developing sustainable tourism practices. This study reveals the potential for guiding how the use of artificial intelligence and data analytics can contribute to theories of sustainable tourism. Finally, this study on the use of ChatGPT in tourism can expand the tourism literature by providing a conceptual framework that serves as the basis for the development of future tourism research, facilitating its dissemination through its application in different studies, and adapting current issues to the field of tourism.

5.2. Practical implications

In addition to theoretical contributions, this study has practical implications. Firstly, the negative aspects of ChatGPT in tourism businesses stem from the system's inability to fully overcome language and cultural barriers. It is important for tourism businesses to anticipate potential problems arising from these differences and devise appropriate solutions when utilizing ChatGPT. Secondly, the use of ChatGPT in tourism businesses may result in a lack of human touch. Businesses should intelligently integrate AI systems, striking a balance that preserves the human touch, and take measures to enhance the customer experience. Thirdly, vulnerabilities that arise during the development process of ChatGPT can impact the efforts of tourism businesses to ensure the security of personal data. However, these issues can be mitigated by improving security measures, providing employee training, implementing technological solutions, and ensuring compliance with relevant legal regulations. Lastly, supporting employee creativity, offering opportunities for participation in innovative projects, and managing the integration of human-assisted artificial intelligence in a balanced manner are essential for the success of tourism businesses.

5.3. Limitations and future research

Due to the limitations of this qualitative study, generalizations, as seen in quantitative studies, are lacking. As the research on ChatGPT is still in its early stages, time is needed to establish a theoretical foundation. This highlights the need for further studies exploring different aspects related to ChatGPT. Future studies, both qualitative and quantitative, will expand the relevant literature in this area. Conducting mixed-method studies in the future is necessary to explore the utility of ChatGPT further. To avoid the challenges encountered in this study, conducting research in different geographical locations and diverse fields can be compared to contribute to richer literature. Additionally, this study involved participants from various areas within tourism, including accommodation, travel, food and beverage, and education. The findings reflect a general perspective of the tourism industry. In future studies, researchers can compare the results of this research and achieve more robust findings by conducting interdisciplinary research focused on specific areas within tourism.

Author contributions

The authors declare that they equally contributed to the design and implementation of the research, the analysis of the results, and the writing of the article.

Disclosure statement

The author reported no potential competing interest.

Ethics committee approval

All responsibility belongs to the researchers. This study was carried out with the decision of the Scientific Research

and Publication Ethics Committee of Isparta University of Applied Sciences, dated 23.06.2023, and numbered 156/04.

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Appendix A



Can you create a Pamukkale tour for me from Istanbul, half board, 2 nights accommodation, 3 days, and travel by plane?



Certainly! Here's a suggested itinerary for a Pamukkale tour from Istanbul, including accommodation, meals, and transportation by plane:



Day 1:

- Morning: Depart from Istanbul by plane to Denizli Cardak Airport, which is the nearest airport to Pamukkale.
- Upon arrival at Denizli Cardak Airport, you'll be greeted by a guide who will assist you with the transfer to your hotel in Pamukkale.
- Check-in at your hotel and enjoy some free time to relax and explore the surrounding area.
- Dinner will be provided at the hotel.

Day 2:

- Breakfast at the hotel.
- Guided tour of Pamukkale: Visit the stunning travertine terraces, known as the "Cotton Castle," formed by the mineral-rich thermal waters cascading down the hillside. Explore the ancient ruins of Hierapolis, an archaeological site located on top of the terraces. Marvel at the well-preserved Roman theater, the ancient pool of Cleopatra, and various other historical structures.
- Lunch: Enjoy a delicious meal at a local restaurant in Pamukkale, where you can taste traditional Turkish cuisine.
- Afternoon: Visit the nearby natural thermal pools, known as the "Cleopatra Pools," where you can relax and take a dip in the warm mineral-rich waters.
- Return to the hotel.
- Dinner will be provided at the hotel.

Day 3:

- Breakfast at the hotel.
- Morning: Enjoy some free time to explore Pamukkale at your leisure or indulge in optional activities like visiting the Pamukkale Antique Pool or taking a relaxing spa treatment.
- Afternoon: Check out from the hotel and transfer to Denizli Cardak Airport for your return flight to Istanbul.
- Upon arrival in Istanbul, your Pamukkale tour concludes.

Please note that this itinerary is a general suggestion, and it can be customized according to your preferences and the availability of flights. It's advisable to book your tour with a reputable travel agency to ensure a smooth experience.

MD

With my 5000 USD holiday budget, which is the best five European destination you can recommend, starting from Istanbul for a week?



With a budget of \$5000 USD for a week-long European trip starting from Istanbul, you have the opportunity to explore multiple destinations and experience the diverse cultures of Europe. Here are five recommendations for European destinations that you can consider:



1. Rome, Italy: Known as the "Eternal City," Rome offers a captivating blend of ancient history, stunning architecture, and mouthwatering cuisine. You can visit iconic sites such as the Colosseum, Roman Forum, Vatican City, and enjoy delicious Italian cuisine. With your budget, you can cover flights, accommodation, meals, and have enough for guided tours and exploring the city's charming neighborhoods.
2. Paris, France: Known as the "City of Love," Paris is famous for its romantic ambiance, world-class museums, and iconic landmarks. You can explore the Eiffel Tower, Louvre Museum, Notre-Dame Cathedral, and take leisurely strolls along the Seine River. Your budget will cover flights, accommodation, meals, and allow you to indulge in French pastries, visit museums, and enjoy the city's charming atmosphere.
3. Barcelona, Spain: Barcelona offers a unique blend of stunning architecture, vibrant culture, and beautiful beaches. You can visit architectural masterpieces by Gaudí, such as the Sagrada Familia and Park Güell, explore the Gothic Quarter, and relax on the city's sunny beaches. With your budget, you can cover flights, accommodation, meals, and have extra for exploring attractions, dining in local restaurants, and experiencing Barcelona's lively nightlife.
4. Prague, Czech Republic: Known for its fairy-tale charm and well-preserved historic sites, Prague is a popular destination in Central Europe. You can explore Prague Castle, Charles Bridge, and wander through the cobbled streets of the Old Town. Your budget will cover flights, accommodation, meals, and leave room for activities like visiting museums, enjoying Czech cuisine, and experiencing the city's vibrant nightlife.
5. Athens, Greece: As the birthplace of democracy and Western civilization, Athens offers a rich historical and cultural experience. You can explore iconic landmarks such as the Acropolis, Parthenon, and the Ancient Agora. Your budget will cover flights, accommodation, meals, and leave room for day trips to nearby islands like Hydra or a visit to the Temple of Poseidon at Cape Sounion.

Remember to check for the latest travel restrictions, flight prices, and accommodation rates before finalizing your trip. It's advisable to plan your itinerary in advance and consider travel insurance for a worry-free vacation.

MD

Can you create a set menu with beef stroganoff as the main dish?



Certainly! Here's a suggested set menu with Beef Stroganoff as the main dish:



Starter:

- **Mixed Green Salad with Balsamic Vinaigrette:** A refreshing salad with a mix of fresh greens, cherry tomatoes, cucumber, and a tangy balsamic vinaigrette dressing.

Main Course:

- **Beef Stroganoff:** Tender strips of beef cooked in a creamy sauce with mushrooms, onions, and a touch of Dijon mustard. Served over a bed of buttery egg noodles or steamed rice.

Side Dish:

- **Garlic Roasted Green Beans:** Fresh green beans tossed in olive oil, minced garlic, salt, and pepper, then roasted until tender and slightly caramelized.

Accompaniment:

- **Buttered Herb Rice:** Fragrant long-grain rice cooked with butter and a blend of aromatic herbs like thyme, parsley, and rosemary.

Bread:

- **Freshly baked Dinner Rolls:** Soft and warm dinner rolls served with butter on the side.

Dessert:

- **Classic Crème Brûlée:** A rich and creamy vanilla custard with a caramelized sugar crust on top, served in individual ramekins.

Beverage:

- **Red Wine (such as a Merlot or Cabernet Sauvignon):** A full-bodied red wine that complements the flavors of the Beef Stroganoff.

Note: This is just a suggested set menu, and you can customize it according to your preferences and dietary restrictions. Additionally, you may want to include additional sides or appetizers, such as a creamy mashed potato or a roasted vegetable medley, to create a more complete meal. Enjoy your meal!



Can you prepare an on-the-Problem-Solving and Decision-Making training program for hotel Front Desk/Reception employees?



Certainly! Here's a sample outline for an on-the-job training program focused on problem-solving and decision-making for hotel Front Desk/Reception employees:



1. Introduction to Problem-Solving and Decision-Making
 - Importance of problem-solving and decision-making skills in the hospitality industry.
 - Understanding the impact of effective problem-solving on guest satisfaction.
 - Introduction to different problem-solving techniques and decision-making models.
2. Identifying and Analyzing Problems
 - Developing skills to identify and define problems at the Front Desk.
 - Techniques for gathering relevant information and data related to the problem.
 - Analyzing the root causes of problems to address them effectively.
 - Prioritizing problems based on their impact on guests and operations.
3. Creative Thinking and Generating Solutions
 - Encouraging creative thinking and brainstorming techniques.
 - Developing a solution-oriented mindset.
 - Exploring alternative solutions to problems.
 - Evaluating the feasibility and potential outcomes of different solutions.
4. Decision-Making Strategies
 - Introduction to decision-making models, such as the rational decision-making model or the SWOT analysis.
 - Evaluating pros and cons of different options.
 - Considering potential risks and benefits.
 - Involving stakeholders and seeking input when appropriate.
5. Effective Communication in Problem-Solving
 - Developing effective communication skills to gather relevant information.
 - Active listening techniques to understand guest concerns and needs.
 - Communicating decisions and solutions clearly and confidently.
 - Handling difficult conversations and providing explanations to guests.
6. Role-Playing and Case Studies
 - Conducting role-playing exercises to simulate common problem-solving scenarios.
 - Analyzing case studies and discussing best approaches to resolve issues.
 - Encouraging employees to share their experiences and insights.
 - Providing feedback and guidance on problem-solving techniques.
7. Handling Guest Complaints and Difficult Situations
 - Techniques for managing guest complaints effectively and empathetically.
 - De-escalation strategies to diffuse tense situations.
 - Resolving conflicts and finding win-win solutions.
 - Turning negative experiences into positive ones.
8. Collaborative Problem-Solving
 - Encouraging teamwork and collaboration among Front Desk employees.
 - Identifying opportunities to work with other departments to solve complex issues.
 - Building relationships and effective communication channels with other departments.
 - Engaging in cross-functional problem-solving exercises.
9. Ongoing Training and Development
 - Encouraging employees to seek continuous learning opportunities.
 - Providing resources, such as books, articles, or online courses, on problem-solving and decision-making.
 - Regular feedback and coaching sessions to assess progress and provide support.
 - Recognizing and celebrating successful problem-solving outcomes.

Remember to adapt the training program to suit the specific needs and challenges faced by Front Desk/Reception employees in your hotel. Incorporate practical exercises, real-life case studies, and encourage active participation to enhance learning and skill development.



Can you prepare a curriculum for the Faculty of Tourism Gastronomy and Culinary Arts department for first two years?



Certainly! Here's a sample curriculum for the first two years of the Faculty of Tourism, Gastronomy, and Culinary Arts department:



First Year:

1. Introduction to Hospitality and Tourism Industry
2. Principles of Gastronomy and Culinary Arts
3. Food Safety and Sanitation
4. Introduction to Culinary Techniques
5. Introduction to Baking and Pastry
6. Food and Beverage Service
7. Introduction to Menu Planning and Nutrition
8. Introduction to Wines and Beverage Management
9. Introduction to Hospitality Management
10. Introduction to Customer Service

Second Year:

1. Culinary Arts and Kitchen Management
2. International Cuisine and Regional Cooking
3. Baking and Pastry Arts
4. Menu Development and Design
5. Food and Beverage Cost Control
6. Food and Beverage Operations Management
7. Wine and Beverage Pairing
8. Gastronomy and Culinary Arts Entrepreneurship
9. Cultural Aspects of Food and Cuisine
10. Hospitality Marketing and Sales

In the first year, students are introduced to the fundamental concepts of hospitality and tourism, as well as the basic principles of gastronomy and culinary arts. They learn about food safety and sanitation, develop introductory culinary techniques, and gain an understanding of baking and pastry fundamentals. Students also learn about food and beverage service, menu planning, nutrition, wines, and hospitality management.

In the second year, students delve deeper into culinary arts and kitchen management. They explore international cuisines, regional cooking styles, and advanced techniques. Students further enhance their skills in baking and pastry arts and learn about menu development and design. They gain knowledge and practical experience in food and beverage cost control, operations management, wine and beverage pairing, and entrepreneurship in gastronomy and culinary arts. Additionally, they study cultural aspects of food and cuisine, as well as hospitality marketing and sales.

Remember, this is a general curriculum outline, and the specific courses offered may vary depending on the university or institution. The curriculum can be further enhanced by incorporating practical hands-on training, industry visits, guest lectures, and internships to provide students with real-world exposure and experiential learning opportunities.

Journal of Tourism Theory and Research

Volume:9, Issue:2, 2023

Research article

Transfer of the traditional knowledge on edible plants and fruits in Anatolia in terms of
gastronomic value: the case of Sivas and Yozgat

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Transfer of the traditional knowledge on edible plants and fruits in Anatolia in terms of gastronomic value: the case of Sivas and Yozgat

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Abstract

The study aims to determine the types of edible wild plants and fruits consumed in the culinary cultures of Yozgat and Sivas, their ethnobotanical characteristics, and the areas and forms of their uses. In the research, document analysis and semi-structured interviews were used as data collection techniques, and descriptive analysis was used as the data analysis method. The categories obtained as a result of the interview findings and the literature review consist of the areas of the uses of edible wild plants and fruits in the kitchen, their use patterns, their relationship with health, and the methods of cultivating and preserving edible wild plants and fruits. Research findings indicate that the tradition of using edible wild plants and fruits is still alive in Yozgat and Sivas.

Keywords: Gastronomy tourism, edible wild plants and fruits, Sivas Cuisine, Yozgat Cuisine

1. Introduction

Humankind struggles to obtain food and drink at every stage of his life and has met nutritional needs with wild plants and fruits collected from nature. Humanity has had to feed on wild plants and fruits since their life on Earth began. It is known that communities suffering from severe food shortages during natural or man-made disasters depend on wild plants and fruits for survival. Society, who determined the non-poisonous wild plants and fruits they found around them by trial and error, created their unique culinary culture using these wild plants and fruits (Ceylan & Şahingöz, 2019; Karaca et al., 2015; Keskin & Dönmez, 2020).

Edible wild plants and fruits, which grow depending on each region's climate and geographical structure, are used by the local people within their culinary culture. Therefore, these plants and fruits, consumed by people living in the region for nutritional purposes for a long time, are essential in forming the culture of regional cuisine (Alparslan, 2011). Information about how these wild plants and fruits are cooked, in which dishes they are used, which parts are consumed for what purpose, and whether they are harmful or harmless has been formed due to experiences transferred from the past to the present.

The edible wild plant is vegetation that usually grows spontaneously in rural areas. The Central Anatolia region

has a vibrant flora in terms of edible wild plants. Yozgat province, one of the oldest settlements and has hosted various cultures and civilizations, and Sivas, the second largest province of Turkey with its surface area, has a rich plant diversity unique to itself due to its ecological characteristics. In the rural areas of these provinces, many edible wild plants and fruits can be collected from nature and cooked or eaten raw (Çelik et al., 2017; Çelikkaya, 2020). The uses of the edible wild plants and fruits in question also differ according to the region's characteristics. Because some edible wild plants and fruits show local factors, they can belong to only one area. In this sense, the provinces of Yozgat and Sivas are destinations with a high diversity of edible wild plants and fruits, and their local wild-plants-based dishes are very effective in distinguishing them from their competitors (Şimşek et al., 2020).

Within the scope of gastronomic tourism, edible wild plants and fruits and dishes made with these plants are becoming more critical daily. However, in the literature review on edible wild plants and fruits, it has been determined that most of the resources analyzed are health-related publications (Karaca et al., 2015).

In addition, very few studies have been determined (Ceylan & Şahingöz, 2019; Çetinkaya & Yıldız, 2018; Özer & Canbulat, 2012; Tugay et al., 2018) emphasizing the

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Article info: Research Article

Received: 26 December 2022

Received in revised form: 20 January 2023

Accepted: 9 April 2023

Ethics committee approval:

* All responsibility belongs to the researcher. This study was carried out with the decision of Scientific Research and Publication Ethics Committee of Yozgat Bozok University dated 21.09.2022 and numbered 36/32.

usability of wild-plants-based dishes in terms of gastro-nomic tourism (Şimşek et al., 2020). Therefore, the present research aimed to determine the edible wild plants and fruits that grow spontaneously in the regions of Yozgat and Sivas, reveal their uses in kitchens, and choose the local dishes made with these wild edible plants and fruits. The limitedness of the research carried out in line with the purpose above for Yozgat and Sivas also makes this study significant.

2. Literature review

The edible wild plant is the vegetation that naturally grows in certain regions, does not need to be produced in terms of economic value, and is collected and consumed by local people from nature. Many types of vegetables and fruits grow in the wild. Plants such as salsify, mallow, and allseed; Fruits such as wild pear, sloe, hawthorn, and rosehip can be given as examples (Baysal, 2015). “Since people could not find bread, they had to eat raw plants they found in nature, such as cress, lettuce, plum, and cabbage” (Montanari, 1993). Wild plants, which were used for survival in the past, have been started to be used to prevent or treat diseases later on (Şimşek et al., 2020). When we look at people’s eating habits, it is seen that they managed to survive by eating wild plants and fruits they collected from nature in prehistoric times. Plants collected from nature, especially during long famine periods, were mixed with some flour and consumed as bread. For example, the Florentine historian, who witnessed the famine in 1329, expressed his experiences as follows.

When the related studies are examined, it is seen that there are studies investigating the relationship between edible plants and fruits in terms of health dimensions, gastronomy tourism, and superstitions. However, the number of studies on the health dimension is in the majority. The relationship between man and plant, which has been going on since ancient times, laid the foundation of ethnobotanical science, which the world accepts today, and numerous pieces of research are carried out (Koçyiğit, 2005). Throughout human history, many diseases have been tried to be treated by using plants in the first place. The World Health Organization (WHO) reports that approximately 80% of the world's population is trying to solve their health problems with herbal formulas (Faydaoğlu & Süroğlu, 2011). Between 50000-70000, plant species are used for medicinal purposes worldwide. About 500 of 11000 plant species in Turkey are used for medicinal purposes. The cultivation and use of medicinal, aromatic plants are increasing worldwide (Göktaş & Gıdık, 2019). It is known that wild plants have been used for medicinal purposes starting from prehistoric times in Mesopotamia, Ancient Egypt, Hittite, Greek, Roman, Seljuk, and Ottoman periods. Physicians and herbalists, who were of great importance in Ottoman medicine, prepared the medical needs of the people by using a large number of plants. The majority of the sources reached in the literature review conducted have presented that wild plants have been used for medicinal and health-related purposes (Ceylan & Şahingöz, 2019; Göktaş & Gıdık, 2019; Koçyiğit, 2005; Kumar, 2009; Lewin, 2000).

Table 1. Document analysis on edible wild plants in Sivas and Yozgat

		Publication		
	Year	Type	Title	Link
Publications on edible wild plants and fruits in Sivas	2017	Paper	Plant Names in the Dialects of Sivas Province	file:///c:/users/acer/downloads/sivas_ılı_agızlarında_bitki_adları.pdf
	2019	Article	Bioactivity and Therapeutic Properties of Evelik (<i>Rumex crispus</i>), A Naturally Growing and Edible Plant in Sivas Province	file:///c:/users/acer/downloads/sivas_ılinde_dogal_olarak_yetisen_ve_yenilebilir_b%20(1).pdf
	2002	Article	Vernacular Names and Ethnobotanical Aspects of Some Species in Gemerek (Sivas) and its Vicinity	https://dergipark.org.tr/tr/download/article-file/18657
	2010	Symposium	Medicines made from local plants in Sivas Region	https://media.ztbb.org/yayinlar/kitaplar/bitkilerle-tedavi.pdf
	2017	Report	Natural Edible Plants in Sivas and its Surroundings	https://www.kadirpurlu.com.tr/sivas-ve-cevresinde-yenilen-dogal-bitkiler/
	2020	Project	Atlas of Sivas	http://www.sivas.gov.tr/kurumlar/sivas.gov.tr/Sehir_Etiketleri/Sivas_Atlasi_Kitabi/
Publications on edible wild plants and fruits in Yozgat	2021	News	A new endemic plant (Parsley) discovered in Sivas	https://www.aa.com.tr/tr/bilim-teknoloji/sivasta-yeni-endemik-bitki-turu-kesfedildi/2359797
	2015	Report	Medicinal and Aromatic Plants	https://www.oran.org.tr/images/dosyalar/20180803161223_0.pdf
	2017	Article	Some Medicinal and Aromatic Plants Found in Yozgat-Akdağmadeni Region	https://dergipark.org.tr/tr/download/article-file/369600
	2018	News	Edible Natural Plants of Yozgat	https://www.youtube.com/watch?v=Z7ej678uIGY
	2012	Project	The Project of Yozgat's Medicinal and Aromatic Plants are Increasing in Value	https://www.kalkinmakutuphanesi.gov.tr/dokuman/yozyat-tibbi-ve-aromatik-bitkileri-degerleniyor-projesi/690
2013	News	There are 36 kinds of wild plants that can be eaten in Çayıralan.	https://yozyatmuhabir.blogspot.com/2013/01/cayiralanda-yenilebilen-36-cesit-yabani.html	

Within the scope of the literature, some studies deal with edible wild plants and fruits within the framework of gastronomic tourism. In their research, Ceylan and Akargöz (2019) investigated the uses of edible wild plants and fruits consumed in Düziçi. As a result of the research, it was determined that the participants not only consumed these wild plants and fruits raw but also used them to prepare many different dishes such as soup, salad, pilaw, appetizers, bread, and pastry. Similarly, Şimşek et al. (2020) tried to determine the uses of edible wild plants and fruits in the kitchens of Kastamonu. As a result of the study, 45 edible wild plants and fruits used in Kastamonu cuisine were determined. It has been determined that some of the edible wild plants and fruits are used as a main dish and consumed by making salad and tea. Another study investigating the culinary uses of edible wild plants and fruits was conducted by Khan, Bhat, and Narayan (2017). According to the results of the research, it has been determined that there are 800 species of edible wild plants and fruits consumed by the tribal inhabitants of India. In addition, researchers think that the tendency to consume edible wild plants and fruits are related to the socio-cultural, spiritual life, and diet of the people living in India, as in many societies. At the same time, the researchers carried out to determine the local names, areas of use, forms of services, and ethnobotanical characteristics of edible wild plants and fruits were also found in the literature (Açık & Çakıroğlu, 2018; Baser, 2010; Karaca et al., 2015).

Another dimension that needs to be dealt with regarding edible wild plants and fruits is the myths and superstitions about them. For example, it is believed to remove evil by burning incense on the dead, around and in all rooms of the house, and it is known that various wild plants are left in the cemetery for the deceased to use when they come back to life (Büyükokutan, 2007). Tarhan et al. (2016) included many stories about mandrake, mint, narcissus, olive, and peony plants in their work titled “medical plants and their myths.” In a mythological story believed in China, the ginseng plant is mentioned as follows:

“A poor boy looking after his dying father prayed to the spirit of the mountain, and the spirit of the mountain showed him where to find ginseng in his dream. The drink made from the root of the plant healed his father. According to another legend, a man found ginseng and tried to sell it for a high price. When his greed led to his arrest, he ate the root, became very powerful, and managed to escape by neutralizing the guards”. In the Genesis chapter of the Torah, it is explained that mandrake helps to get pregnant. The olive tree, on the other hand, is known as the symbol of holiness, abundance, fertility, justice, peace, health, purification, and rebirth and is described as a sacred tree in the three holy books of the monotheistic religions, the Qur'an, the Bible, and the Torah (Efe et al., 2013).

3. Methodology

All responsibility belongs to the researcher. This study was carried out with the decision of the Scientific Research and

Publication Ethics Committee of Yozgat Bozok University dated 21.09.2022 and numbered 36/32.

Sivas is Turkey's second-largest city with the largest surface area and is located east of Central Anatolia. Sivas, situated in the place where the famous Royal Road passed, is one of the oldest settlements where the historic Silk Road routes intersect in Anatolia. It was used as a military governorship in the Byzantine period due to its location on critical military roads. The Kayseri-Sivas road, completed by the Byzantine Emperor Justinos-I, was the gateway of this state to the east until the Battle of Manzikert (Demir, 2005). Sivas, also the center of one of the three metropolitan cities established in Cappadocia, has managed to become one of the biggest cities in Anatolia with its population (Akbulut, 2009: 215-216). Sivas has hosted many civilizations, with its history and culture dating back to 8000-5500 BC. After the Hittites, Phrygian, Lydian, Persian, Macedonian, Roman, Byzantine, Seljuk, and Ottoman Empires ruled in the region. Sivas, which stands out with its historical monuments, natural beauties, thermal springs, and ski tourism, is also very rich in gastronomic tourism. As in every region, Sivas's cuisine draws attention with its unique regional dishes made with herbs (Açık & Çakıroğlu, 2018).

Yozgat, one of the oldest settlements in Anatolia, has a deep-rooted past with its historical and cultural riches. It has hosted Hittite, Phrygian, Persian, Roman, Byzantine, and Anatolian Seljuks throughout history and has carried their traces to the present day (Çelik et al., 2017). It has an important geographical location because it is close to Hattusha, the Capital of the Hittite Civilization, and the Ataturk road connecting Hattusha and Cappadocia passes through the city center. Ankara-Sivas highway and Samsun-Kayseri-Mersin highway, which have an important place in international transportation, pass through Yozgat. Standing out with its national parks, Aydıncık Canyon, hot springs (Sarıkaya, Sorgun, Boğazlıyan, Yerköy, and Akdağmadeni), historical mosques, tombs, and Alişar Tumulus, Yozgat is a city suitable for developing many tourism products with its plateaus, forests, fauna, and flora (Canbolat et al., 2017).

In this sense, revealing the edible wild plants and fruit culture of the Sivas and Yozgat provinces is essential. For this purpose of the study, the research was carried out with 20 participants residing in Sivas and Yozgat and consuming edible wild plants and fruits. While determining these people, it was considered that they collected and finished edible wild plants and fruits and lived in these provinces. For the study, interviews were conducted with volunteers who consumed edible wild plants and fruits. The research was carried out between the dates of 22.09.2022 and 20.10.2022.

3.1. Data collection method and instrument

The interview method, one of the qualitative research methods, was used in the research. The qualitative research method was chosen due to the lack of studies related to the research in question and the need for more information from

the participants. In this context, document analysis and semi-structured interviews as the data collection methods, and descriptive analysis was also used as the data analysis method. More in-depth data would be obtained in the interviews to determine the using patterns, using areas, and ethnobotanical characteristics of edible wild plants and fruits within the framework of gastronomy tourism.

Within the scope of the study, the semi-structured interview technique, one of the interview techniques, was used. A semi-structured interview “consists of a series of questions and answers directed to the participant in a pre-prepared form” (Kozak, 2014). The interviewer can change the sentence structure and order of the questions during the interview, go into the details of some topics or adopt a more conversational method (Yıldırım & Şimşek, 2008). The first group of the interview form asks questions about the participants' demographic information. The questionnaire, which

was created as a result of the document analysis and the content analysis, was presented to 6 experts in the field, and necessary corrections were made in line with the suggestions.

The second group of questions aims to obtain information about edible wild plants and fruits grown in the region, their areas of use, preservation methods, their relationship with health, and their relationship with superstitions. Ethics committee permission was granted regarding the interviews held on September 21, 2022 (36/32) by the Scientific Research and Publication Ethics Committee of Yozgat Bozok University for conducting interviews with the participants. The audio recordings, notes, and images taken from the interviews between 22.09.2022 and 20.10.2022 were transcribed and written. It was seen that the discussions varied between 15 and 30 minutes. The themes and sub-themes determined within the scope of the research method are listed in Table 2.

Table 2. Themes, sub-themes, and descriptions

Themes	Sub-themes	Descriptions
The areas of uses of the edible wild plants and fruits in the kitchens	Uses for health purposes Uses in the kitchens Uses in relation to superstitions Purchasing	It covers the areas and patterns of uses of the edible wild plants and fruits that grow spontaneously in Yozgat and Sivas.
The cultivation and preservation methods of the edible wild plants and fruits	Handpicking Preserving by drying Preserving by deep-freezing	It covers the methods of cultivation and preservation of the edible wild plants and fruits.
The sources of knowledge on the edible wild plants and fruits	Intergenerational transfer of knowledge	It covers the sources of knowledge on what edible wild plants and fruits are, how they are cooked, how they are preserved, and how they are served.

3.2. Data analysis

In this context, content analysis was carried out based on the qualitative research method in the study of data obtained from the participants who consume edible wild plants and fruits. This research consists of coding the data, creating the themes, organizing the codes and themes, and defining and interpreting the findings. In the descriptive analysis, it is essential to understand and present the data related to the problem under the themes, categories, and sub-themes, with direct quotations from interview transcripts, document texts, and observation notes. In a way, it is essential to give who said what on which themes in the interview transcripts without commenting with direct quotations, and at the same time, it is necessary to analyze the participants' views on the relevant theme with direct quotes related to that theme, by associating them with the collected documents and observation notes and increasing the internal validity of the research (Günbayı, 2019). The information obtained in the in-depth participant interviews was categorized and analyzed. To not reveal the participants' identities, codes were given as Y1, Y2, Y3.....Y10 for the interviews held in Yozgat and as S1, S2, S3..... S10 for the discussions held in Sivas and the quotations were mentioned this way.

4. Findings

The findings from this research, which tries to determine the usage areas of edible wild plants and fruits in Anatolian

Cuisine and their relationship with gastronomic tourism, and the demographic characteristics of the participants consuming edible wild plants and fruits are in Table 3.

In Table 4, the findings of the interviews regarding the usage areas of edible wild plants and fruits consumed in the provinces of Sivas and Yozgat are presented within the scope of gastronomy. The first theme of the research, edible wild plants and fruits are used in different ways when we look at the findings on the use of culinary areas. Information on the culinary benefits of edible wild plants and fruits is given in Table 4. When the table is examined, it is seen that most plants are cooked as the primary food ingredient and used to flavor some dishes. The participant with the code S8 gave the following information about the general benefits of plants. “We make food from all seeds, hibiscus fritters and roasts, and salad from salsify.”

Curled dock is a broad-leaved plant. The participant with code S1 stated, “We have wormseed; it is eaten with yogurt similar to spinach. When it is fresh, we make a wrap from the leaves. We have stinging nettle, we cook from its leaves and stems, and sometimes we dip the leaf in salt and eat it”.

The participant with the code S2 described the cooking of allseed, which is cooked in almost every home in the region, as follows. “We chop the allseed finely, then add some

onions, pastrami, and oil in the pot; after that, we put some macaroni and a little cracked wheat on it... finally, we put spices and close the lid... it is cooked with a little water.”

As a result of the interviews, it was determined that different types of edible wild plants and fruits were used. For example, participant S3 gave the following information on this subject.

“We have ramps... We don’t need onions when we put them in the food; they taste like a mixture of onion and garlic; it is challenging to chop them, burn our eyes, and are costly... There is a tree root called biyon, like miswak, it can be absorbed, it can be used when children cough, it is good for health.”

To the question “Which parts of the edible wild plants do you use?” almost all of the participants stated that they benefited from the leaves and twigs of edible wild plants, S1, S2, S3, S5, S8, S9, S10, and Y5 stated that they used the whole plant. At the same time, it was determined that the participants acquired their knowledge and experience about using edible wild plants from their family elders from an early age.

When Table 4 is examined, it is seen that all participants collected the edible wild plants and fruits from the mountains, gardens, and watersides by their means. For example, the participant with the code Y5 stated, “There were no markets in the past; we could not buy them ready.” The participant with the code S2 gave the following information about the methods of cultivating the plants.

“We do not buy it, we handpick from nature by ourselves, but there are also those who buy. The price is quite high. A glass of ramps is around 50 Turkish Liras.”

Another theme of the research findings is the preservation method of edible wild plants and fruits. When Table 4 is examined, it is seen that all of the participants preserved the plants by drying, deep-freezing, or using fermentative methods. For example, participant S2 gave the following information about the preservation methods of the plants.

“Allseed is preserved in the deep freezer, and ramps are preserved by drying; we make jam from fruits such as pears and rosehips, and we make a lot of pickled hawthorns.”

The participant with the code S6 stated, “There is a mountain pear, we call it çördik, we pickle it, we drink it with meals in winter.”

When Table 5 is examined, it is seen that edible wild plants and fruits are mainly consumed for health purposes, and the use of beliefs and myths is shallow. It is also seen that most of the plants are consumed as tea. At the same time, it was determined that most participants learned health-related usage information from their family elders. For example, participant S1 gave the info below regarding hawthorn fruit.

“We eat hawthorn fruits; we make tea from their flowers; we drink them; they protect us from diseases in winter; we pickle them and drink their juice.”

In general, edible wild plants and fruits are used to prevent diseases. The participants, S1 and S5, stated the following regarding rosehip and stinging nettle.

“In the past, my mother used to boil these herbs and make them tea so that we don’t get sick; now, people drink them as medicine.”

Table 3. Demographic characteristics of the participants

Participants	Age	Educational level	Occupation	Duration of residence in the region
Y1	43	Bachelor	Government officer	43
Y2	55	Bachelor	Government officer	55
Y3	46	Bachelor	Electrical technician	46
Y4	36	Primary school	Worker	36
Y5	60	Primary school	Housewife	60
Y6	60	Primary school	Housewife	60
Y7	50	Bachelor	Government officer	50
Y8	50	Primary school	Housewife	40
Y9	45	Primary school	Housewife	45
Y10	62	No formal education	Housewife	62
S1	55	Middle school	Public education artist	55
S2	41	Middle school	Cafe manager	41
S3	60	Primary school	Housewife	60
S4	57	Middle school	Private sector employee	57
S5	49	Primary school	Housewife	49
S6	60	Primary school	Confectioner	60
S7	57	Primary school	Pensioner	57
S8	40	Primary school	Housewife	40
S9	52	Bachelor	Cook	52
S10	42	High school	Housewife	42

Table 4. Information on the areas of uses of the edible wild plants and fruits in the research area within the scope of culinary arts

The Latin name of the plant	Local name of the plant	The used part of the plant	Local people's way of using the plant	Preservation method	Cultivation method	Participants
<i>Polygonum cognatum</i>	Allseed	Twigs and Leaves	The food is prepared by cooking the small cut all-seeds with butter, pastrami, and cracked wheat.	Drying or Deep-freezing	Handpicking	Y1, Y2, Y3, Y4, Y5, Y6, Y7, Y8, Y9, Y10, S1, S2, S3, S4, S5, S6, S7, S8, S9, S10
<i>Malva sylvestris</i>	Mallow	Twigs and Leaves	It is cooked with butter, onions, cracked wheat, and spices, and it is used as a filling for pastries.	Deep-freezing	Handpicking	Y1, Y2, Y3, Y4, Y5, Y6, Y7, Y8, Y9, Y10, S1, S2, S3, S4, S5, S6, S7, S8, S9, S10
<i>Crataegus oxyacantha</i>)	Hawthorn	Fruit	It is consumed raw as a fruit, and marmalade can be made. It is also consumed as vinegar.	Pickle	Handpicking	Y1, Y2, Y3, Y4, Y5, Y6, Y7, Y8, Y9, Y10, S1, S2, S3, S4, S5, S6, S7, S8, S9, S10
<i>Rosa canina</i>	Rosehip	Fruit	It is consumed for breakfast as rosehip extract and marmalade; it is boiled in water and drunk.	Marmalade or Deep-freezing	Handpicking	Y1, Y2, Y3, Y4, Y5, Y6, Y7, Y8, Y9, Y10, S1, S2, S3, S4, S5, S6, S7, S8, S9, S10
Labada	Curled Dock	Twigs and Leaves	The leaves are boiled for a very short time and wrapped. It is also consumed raw as a salad.	Eaten in Season	Handpicking	Y1, Y2, Y3, Y4, Y5, Y6, Y7, Y8, Y9, Y10, S1, S2, S3, S4, S5, S6, S7, S8, S9, S10
<i>Urtica</i> spp.	Stinging Nettle	Twigs and Leaves	Its leaves and stems are boiled and cooked, and the leaves are salted and eaten raw.	Eaten in Season	Handpicking	Y2, Y3, Y4, Y5, Y6, Y7, Y8, Y10, S5, S8
<i>Mentha pulegium</i> L.	Pennyroyal	Twigs and Leaves	After drying, it is thoroughly roasted in butter and placed in glass bottles, especially in soups with yoghurt.	Drying	Handpicking	Y4, Y8, Y9, Y10, S7, S10
<i>T. pratensis</i> subsp. <i>pratensis</i>	Salsify	Twigs and Leaves	It is usually eaten raw as a salad. It can also be fried by adding other vegetables to it.	Eaten in Season	Handpicking	Y5, Y8, S5, S6, S7, S8, S9,
(<i>Thymus vulgaris</i>) (Lamiaceae)	Thyme	Leaves	It is consumed by brewing in boiling hot water. It is dried and consumed as a spice.	Drying	Handpicking	Y5, Y8, Y10, S2, S5
<i>Berberis vulgaris</i> , <i>Berberis vulgaris</i> L.	Berberis	Fruit	Sherbet and compote are made from the fruit.	Eaten in Season	Handpicking	Y5, S1, S6, S7, S9
<i>P. communis</i> L.	Wild pear: Pear, hyssop	Fruit	The fruit is eaten, dried into flour and used in making desserts. It is also pickled.	Drying, Pickle, Marmalade	Handpicking	Y5, Y6, Y7, Y8, Y10, S1, S2, S6, S7, S8, S9
<i>Allium scorodoprasum</i> L.	Ramps	Whole Plant	It has a mixed flavor of onion and garlic, and is used in almost every dish, and its dried form is consumed as a spice.	Drying	Purchasing or Handpicking	S1, S2, S3, S5, S10
<i>Glycyrrhiza glabra</i> L.	Biam: licorice root	Twigs	After washing, it is applied into the mouth and absorbed.	Drying	Handpicking	S1, S2, S5
<i>Chenopodium album</i> L	Telce: Wormseed	Leaves	Wormseed is roasted with butter and onions, then eggs are added, and eaten with garlic yogurt.	Eaten in Season	Handpicking	S1, S2, S4, S5
<i>Prunus spinosa</i>	Sloe: Bullace Grape: All-heal	Fruit	Sloes are boiled and filtered. It is consumed by adding sugar and lemon before drinking.	Marmalade or Deep-freezing	Handpicking	Y5, Y8, Y9, Y10, S5, S6, S7, S9
<i>Cerastium armeniacum</i> Gren)	Bride's Finger	Whole Plant	Bride's finger, which looks like a spinach plant, can be roasted with onions and butter, and its pastry is made.	Eaten in Season	Handpicking	S1, S5, S8, S9, S10
Asteraceae	Chamomile	Flower	It is consumed after waiting for a while in boiling water.	Drying	Handpicking	Y5

Table 5. The uses of the edible wild plants and fruits growing in Yozgat and Sivas for health purposes and superstitious beliefs

Latin name of the plant	Local name of the plant	Local people's way of using the plant	Intended usages	Participants
Asteraceae	Chamomile	The flowers are brewed as tea.	It is good for colds.	Y5
Peganum harmala	Wild rue	The fruit is burned as incense.	It is considered to protect from the evil eye and harms.	Y5, S1, S2, S3
Rosa canina	Rosehip	The fruit is used as a tea.	It is considered to be good for heart patients.	S1, S5, Y5, S6,
Crataegus monogyna	Hawthorn	The flower is used as a tea.	It is thought to be beneficial to health.	S10, S1, S3, Y5
Glycyrrhiza glabra L.	Biyam	Roots are dried and absorbed.	It is considered to be good for cough	S1, S2, S5,
Viburnum opulus	Crampbark	Pickles are made from the fruit.	It is considered to be good for kidney patients.	Y5, Y1, Y3
Tragopogon reticulatus	Salsify	The leaves are consumed as tea.	It is considered to be good for abdominal pain.	Y5, S1, S3, S8
Urtica	Stinging Nettle	It is boiled and cooled and consumed as tea.	It is considered to protect against cancer.	Y1, Y4, Y5, S1, S2, S3, S4, S10

5. Discussion and conclusion

This research aims to obtain information about the types of edible wild plants and fruits consumed in the culinary culture of Yozgat and Sivas, their areas of use, consumption styles, and local dishes made with these herbs. In this context, when edible wild plants were examined within the scope of gastronomy, it was discussed that they are consumed as the main dish, salad, pastry, tea, spice, and pickle, and the leaves are used by brewing like tea in terms of health. Şimşek et al. (2020) stated that edible herbs were widely used as spices, tea, food, and salad. It has been determined that their uses for health purposes are mainly in tea (Durmuş & Çakmak, 2020).

As a result of the interviews, it is pointed out that the tradition of using edible wild plants and fruits still maintains its vitality in Yozgat and Sivas, and there is a shared cultural heritage of edible wild plants and fruits. This result of the research is in parallel with the results of Ceylan and Akar-Şahingöz's (2019) study to determine the consumption habits of edible wild plants (Ceylan & Akar-Şahingöz, 2019). According to the research findings, the region's edible wild plants and fruits are used for health and economic purposes. Although it is not widely used for myths and superstitions, it is observed that there is a transfer of knowledge from the past.

As a result of the research, there are studies on the determination of the varieties of edible wild plants and fruits, areas of their uses, their use patterns, and the prescription of local dishes made with these edible wild plants and fruits in Anatolia; however, there are no studies that scientifically examine the effects of these dishes on health. Therefore, the nutritional values of the dishes prepared with local plants and fruits should be determined by chemical analysis. Meals made with these plants and fruits can be used as an alternative product in the fight against obesity and other health problems due to malnutrition.

As a result of the interviews, it has been observed that those who recognize the edible wild plants and fruits

consumed in the region are over a certain age. To raise awareness among young people and ensure cultural knowledge is preserved, information about edible wild plants and fruits should be obtained from experienced and knowledgeable people, and these meals should be prescribed. The transfer of knowledge from generation to generation is vital for preserving and maintaining local and regional diversity and cultural richness. In this context, the activities to be carried out on the collection and the uses of edible wild plants and fruits from nature in the tours to be made in the region and the festivals to be organized would contribute to the recognition of edible wild plants and fruits.

Increasing epidemic diseases in recent years have led people to consume natural and healthier nutrition. When this is the case, it is seen that edible wild plants and fruits have begun to take their place in neighborhood markets, festivals, and many different places, albeit a little. This situation can be used as an additional element in the continuity of the culture of edible wild plants and fruits. In addition, the fact that the research covers only Sivas and Yozgat may create a limitation for the analysis. However, similar studies to be conducted in other regions would contribute to the present study's findings.

5.1. Implications

The study concluded that edible wild plants and fruits that grow spontaneously around Yozgat and Sivas provinces are in the majority. It is seen that these plants, which are used in both main dishes and salads in Anatolia, are preferred because they are considered healthy. As a result of the interviews, it is determined that the participants who know edible wild plants and prepare different foods with these plants are generally over 50. By creating and recording the recipes of foods and beverages made with edible wild plants, the consumption habits of these plants can be prevented from being forgotten.

5.2. Limitations and future research

The study is limited to evaluating the information obtained through the interview forms conducted on the participants

who consumed edible wild plants between 22nd September and 20th October 2022.

Since the study was carried out in some areas of Yozgat and Sivas provinces and between specific dates, new research in different cities and dates may contribute to the literature on edible wild plants. For example, future research may be based on comparative information from participants who consume and do not consume edible wild plants. Additionally, the nutritional values of the dishes made with these plants can be revealed by chemical analysis, and dishes with different dietary contents can be developed with these plants in future studies.

Author contributions

The author declares that she contributed to the design and implementation of the research, the analysis of the results, and the writing of the article.

Disclosure statement

The author reported no potential competing interest.

Ethics committee approval

All responsibility belongs to the researcher. This study was carried out with the decision of the Scientific Research and Publication Ethics Committee of Yozgat Bozok University dated 21.09.2022 and numbered 36/32.

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Journal of Tourism Theory and Research

Volume:9, Issue:2, 2023

Research article

Perspectives of rural tourism entrepreneurs in Italy, Spain, and Türkiye: A focus group study

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Perspectives of rural tourism entrepreneurs in Italy, Spain, and Türkiye: A focus group study

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Abstract

This qualitative study investigates the essential attributes required for successful rural tourism entrepreneurship. A series of focus group interviews with rural tourism professionals in Italy, Spain, and Türkiye was employed. The data collected identified five central themes: the attractive aspects of rural tourism entrepreneurship, the necessary competencies for a rural tourism entrepreneur, the training/support needed, barriers encountered, and the utilization of rural elements in tourism. The study finds that rural tourism provides numerous benefits, including economic and social growth, cultural exchange, and a close connection with nature. However, to harness these benefits, entrepreneurs need diverse skills, including knowledge of economics, tourism, legislation, and marketing. Additionally, they require specific training and support to navigate potential barriers like administrative procedures and high financial costs. The study's findings provide valuable insights for aspiring entrepreneurs, policymakers, and other stakeholders in the field. Despite its focus on three countries, it allows further research to incorporate a wider range of perspectives and geographical contexts.

Keywords: Rural tourism, Rural tourism entrepreneurship, Sustainable rural development, Barriers in rural tourism

1. Introduction

Rural regions, replete with unparalleled geographical attributes, natural landscapes, historical artifacts, climatic diversity, and rich cultural customs, offer immense potential for tourism development (Saghayy & Javanbakht Ghahfarokhi, 2012). While these areas grapple with challenges originating from their fragile socio-economic fabric, smaller population, and constrained service accessibility (Brown & Schaft, 2018), they concurrently beckon visitors with the allure of vast, untouched spaces that resonate with pastoral charm and nostalgic appeal (Figueiredo & Raschi, 2011).

Rural tourism entrepreneurship has recently been the focus of escalating interest among researchers and practitioners (Naderi et al., 2019; Demir & Aracı, 2022). Rural

tourism encompasses various activities, often in natural environments within rural settings, allowing tourists to immerse themselves in diverse cultures and engage in region-specific pursuits over day trips or extended stays (Zurnacı, 2012). Rural tourism, acting as an unconventional strategy for rural development, has been adopted by numerous rural communities as a mechanism of self-sustainability (Wilson et al., 2001). Moreover, rural tourism is crucial in rejuvenating rural economies and fostering sustainable economic opportunities within these areas (Moqadas, 2018). Therefore, incorporating cultural heritage into rural tourism products is essential for successful development and for fostering economic diversity in rural economies (Kruzmetra et al., 2013). According to Roberts and Hall (2019), rural tourism is slated to become one of the most sought-after forms of tourism in the future.

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Article info: Research Article

Received: 19 April 2023

Received in revised form: 29 July 2023

Accepted: 13 August 2023

Ethics committee approval:

* All responsibility belongs to the researchers. This study has been done within the scope "Anti-Fragile Young Entrepreneurs for Sustainable Rural Tourism: YES for Rural Tourism" which is funded by Erasmus+ Programme European Union under the grant no: 2021-1-TR01-KA220-YOU-000028958.

To cite this article: Özgür Göde, S., Ekincek, S., Günay, S., ... & Ruiz Leal, J.B. (2023). Perspectives of rural tourism entrepreneurs in Italy, Spain, and Türkiye: A focus group study. *Journal of Tourism Theory and Research*, 9(2), 87-95. <https://doi.org/10.24288/jttr.1284963>

The tourism paradigm has undergone a significant transformation, gravitating towards rural tourism, especially post the pandemic and in light of the heightened emphasis on sustainability issues. The adverse impacts of mass tourism on local environments, communities, and cultures, combined with the challenges prompted by the COVID-19 pandemic, underscore the need for alternative, more sustainable forms of tourism that respect and support local communities and economies. Rural tourism, with its integration with nature, respect for local inhabitants, and emphasis on local economies, stands out as a viable substitute for mass tourism (Aydemir et al., 2016; Cengiz & Akkuş, 2012).

Launching entrepreneurial ventures in rural regions is paramount for developing rural tourism (Lordkipanidze, 2002). Tourism entrepreneurship is heralded as an innovative approach to invigorate and diversify rural economies, particularly those boasting unique natural, cultural, and heritage assets (Wozniczka et al., 2010). This is primarily because flourishing rural tourism entrepreneurship aids in elevating local residents' income, generating employment opportunities, and narrowing the economic chasm between urban and rural domains. The viability of a robust rural economy hinges largely on the promotion of tourism entrepreneurs (Roberts & Hall, 2019). Rural entrepreneurship can usher in substantial benefits to rural territories, such as poverty and unemployment alleviation, balanced regional growth, effective utilization of local resources, slum prevention, social tension reduction, capital formation, enhancement in per capita income, economic autonomy, and holistic development (Ghosh, 2011). The onslaught of the COVID-19 pandemic and the emphasis on rural tourism revitalization have shifted the spotlight toward tourism entrepreneurship. The growth of rural tourism destinations is fundamentally dependent on the inception of innovative tourism enterprises capable of fulfilling market demand, designing tourism products, and fostering innovation and industrial transformation.

The development of rural tourism mandates substantial support for entrepreneurship. While existing literature offers insights into the components of rural tourism and ways to mobilize its potential, there is a scarcity of research focusing on the skills requisite for a successful rural tourism entrepreneur. This study seeks to identify the essential attributes for becoming a rural tourism entrepreneur from the vantage point of those already navigating this field. The research questions for this study were structured as follows:

1. What aspects of rural tourism entrepreneurship are perceived as most appealing?
2. What competencies are considered crucial for a rural tourism entrepreneur?
3. What constitutes the most vital training/support needs?
4. What hurdles are commonly encountered?
5. How is the utilization of rural elements in tourism perceived?

2. Rural tourism entrepreneurship

Entrepreneurship signifies the process of identifying and exploiting opportunities, mobilizing resources, and establishing a business (Alvarez & Busenitz, 2001; Guo, Zhu & Zhao, 2023). Although the concepts and definitions of entrepreneurship and entrepreneurs vary (Deale, 2016), there is a consensus that entrepreneurs are individuals who amalgamate resources innovatively (Schumpeter, 1934). Rumelt (2005) further qualifies an entrepreneur as an individual who introduces novelty while establishing a business. Hence, the crux of entrepreneurship, independent or corporate, lies in introducing something innovative or achieving autonomy (Sharma & Chrisman, 1999; Hall & Williams, 2019). Personal traits and competencies such as risk-taking, decision-making, market orientation, creativity, innovation, self-efficacy, achievement motivation, preference for innovation, low uncertainty avoidance, high need for control, resilience, and uncertainty management can all be considered 'antifragile' entrepreneurial traits. These traits are instrumental in the entrepreneurial process and link the entrepreneur's societal context with the results of their entrepreneurial endeavors.

The consistent growth of the tourism industry and consequent escalation in tourism revenue has fueled investments in the tourism sector and given rise to a burgeoning group of tourism entrepreneurs (Soylu & Ceylan, 2019). Although tourism entrepreneurship shares its foundation with general entrepreneurial principles, it distinguishes itself through unique aspects (McGehee & Kline, 2008). Rural tourism entrepreneurship has emerged as a significant sub-field among the different categories within the tourism industry. Rural entrepreneurship refers to establishing a new organization that introduces innovative products, services, or technologies in rural regions (Wortman, 1990). Rural tourism entrepreneurs leverage rural areas' historical, natural, cultural, and agricultural resources (Aydemir et al., 2016; Çeken et al., 2007; Zurnacı, 2012). These entrepreneurs and farmers operating in rural areas play a pivotal role in fostering the rural tourism sector and enhancing the economy of rural areas by profitably harnessing the potential of agriculture, handicrafts, nature, culture, tourism, and education.

Various studies have explored the motivations of rural tourism entrepreneurs. For instance, Calza et al., (2018) found national cultural dimensions to influence European rural entrepreneurs' diversification into tourism-based agricultural activities. Similarly, Carmichael & Ainley, (2014) revealed that small businesses could drive innovation in rural tourism, which should be intentional, risk-taking, and profit-driven. Further, while some rural businesses might be driven by 'lifestyle' over pure profit, their activities could still contribute to rural economies' diversity (Ateljevic & Doorne, 2000; Carmichael & Ainley, 2014). Marques & Cunha (2013) highlighted that rural tourism entrepreneurship, influenced significantly by lifestyle aspirations derived from literary heritage, has a significant socio-economic impact on the local population. Other studies have shown that

rural tourism entrepreneurship contributes to social enterprises' performance in the context of rural tourism (Naderi et al., 2019). Utami, Dhewanto & Lestari (2023) examined the success factors, built the framework of rural tourism entrepreneurship for a sustainable tourism village, and revealed ten factors for creating a successful sustainable tourism village through rural tourism entrepreneurship.

Other researchers focused on rural tourism entrepreneurs' human resources. The motivation of human resources is deemed crucial in fostering entrepreneurship in the tourism sector (Setiyo et al., 2022). Women entrepreneurs are particularly active in rural tourism, and relevant promotional programs have been successful in China (Rao et al., 2021). Fidan & Nam (2012) emphasized that supporting women entrepreneurs is essential for developing rural tourism. The entrepreneurial potential of young people has also been highlighted as crucial for the growth of rural green tourism in Ukraine (Martynova & Laromenko, 2020).

Additionally, literature has examined the conditions fostering the growth of rural tourism entrepreneurs. Factors such as unique tourist attractions, historical heritage, local traditions, local cuisine, unique natural environments, and local entrepreneurs and initiatives are crucial in activating the potential of rural tourism (Zurnaci, 2012). The importance of regional and national policy support for rural tourism entrepreneurs has been underscored (Ndabeni & Rogerson, 2005). The role of the digital economy in promoting innovation in rural tourism entrepreneurship has been identified (Tang et al., 2022), and social entrepreneurship and community mobilization have been proposed as effective strategies to promote rural tourism entrepreneurship and enhance rural residents' quality of life (Zhang et al., 2022).

3. Method

This study has been done within the scope "Anti-Fragile Young Entrepreneurs for Sustainable Rural Tourism: YES for Rural Tourism" which is funded by Erasmus+ Programme European Union under the grant no: 2021-1-TR01-KA220-YOU-000028958.

This study adopts a qualitative research approach, specifically using focus group interviews to gather data on rural tourism entrepreneurship. Research questions were developed following a comprehensive literature review on rural tourism, sustainable tourism, and tourism entrepreneurship. The primary aim of conducting focus group interviews was to gain expert insights into the needs of rural tourism entrepreneurs. Focus group interviews allow knowledgeable individuals to discuss the research topic. These interviews offer advantages such as allowing participants to share thoughts and experiences, gain access to a larger sample in a shorter period, encounter various perspectives on the same issue through discussion, and quickly generate a broad range of ideas. The focus group interview process encompassed several stages: review of the research objective, development of focus group interview questions, planning the venue

and technology, piloting the process, participant identification and invitation, conducting the interviews, and data organization and analysis. The recommended participant count for focus group interviews is 6-8 individuals, as handling larger groups can be challenging.

3.1. Sampling and data collection

Given that the research population comprised rural tourism entrepreneurs from Italy, Spain, and Türkiye, focus group interviews were conducted with rural tourism professionals from these nations. The study involved three focus group meetings with 26 participants, all professional rural tourism entrepreneurs with experience in tourism activities. Information on each group is given in Table 1:

Table 1. Information on Professional Rural Tourism Entrepreneurs (Italy, Spain and Türkiye)

Information on focus group interview participants	
Place of residence	Description/specialization
1. Spain	The owner of a tourism company
2. Spain	Operations Manager of a rural tourism company
3. Spain	Legal advisor and Aid Manager
4. Spain	Municipal Technician of Culture and Tourism of Benameji, Director of the Municipal Museum, Curator and Ethnographer
5. Spain	Project Coordinator
6. Spain	Tourism and Equality Officer
7. Spain	Owner of several tourist hostels
8. Spain	Owner of a rural tourist hostel
9. Italy	Company representative, Hospitality sector
10. Italy	Company representative, Hospitality sector
11. Italy	Company representative, Hospitality sector
12. Italy	Professional Association representative, Agriculture Sector
13. Italy	Municipality Employee
14. Italy	Municipal Representative, Politician
15. Italy	Advisor to the Municipality's Director of Disabled People
16. Italy	Municipal Representative, Politician
17. Italy	Company representative, Wine industry
18. Italy	Company representative, Wine industry
19. Italy	Local NGO representative
20. Italy	Company representative, Wine industry
21. Türkiye	A representative of an agricultural and tourism association
22. Türkiye	Owner of rural tourism facility
23. Türkiye	A representative of an agricultural and tourism association
24. Türkiye	Owner of a rural tourism facility
25. Türkiye	Rural tourism operator
26. Türkiye	Permaculture farm tourism operator

The focus group in Spain included 8 rural tourism professionals and was conducted in September. The participating professionals had an experience range of 25-30 years. The focus group discussion in Italy, held on September 14, 2022, involved 12 participants engaged in rural tourism activities. This two-hour meeting, where participants addressed all questions, was conducted in the Conference Room of the Town Hall of the Municipality of Ponte di Piave. Lastly, the focus group interview in Türkiye included

six rural tourism professionals. These interviews were conducted in September via Zoom under the supervision of two expert moderators. The participating professionals in this group had at least 20 years of experience in the sector.

3.2 Analyzing data

The data acquired from the focus group interviews were subjected to descriptive analysis. In this type of analysis, direct quotations are commonly employed to represent the views of the interviewees or observed individuals strikingly. The goal of this analysis is to provide the reader with an organized and interpreted presentation of the findings (Yıldırım & Şimşek, 2013).

Themes and sub-themes were constructed by four researchers in pairs through a detailed data reading. Subsequently, common themes and sub-themes were recognized by all four researchers. The researchers responsible for the analysis are experts in tourism management, gastronomy, and tourism geography.

4. Findings

The data analysis from the focus group interview involving rural tourism professionals from Türkiye, Spain, and Italy revealed five key themes. The following sections provide a detailed explanation of these themes.

4.1. Attractive aspects of rural tourism entrepreneurship

Upon querying about the attractive facets of rural tourism entrepreneurship, the professionals underscored *economic and social growth, cultural enrichment, modernization, promoting local cuisine, proximity to nature, freedom, engagement in farm activities, and population conservation.*

“It is an opportunity for the town to grow economically and socially and reach a higher cultural level.” (P5, ES)

“From a cultural point of view, it is always positive to meet new people from other cultures or environments, which allows us to see society from another perspective. Socially, connections are made with different people and friendships are made that keep these tourists coming back.” (P3, ES)

“Social entrepreneurs have a very important role to play in protecting and using.” (P1, TR)

“Rural tourism has always been an opportunity for all sectors, from the region where it occurs to local governments. Since 2020, partly due to the pandemic, the rural environment is being promoted more, as more open spaces are sought after due to confinement.” (P7, ES)

“It modernizes the village and the arrival of tourists from other regions makes people more open-minded and tolerant.” (P1, ES).

“Recently, the tourist's quest has changed; they want to know the local area, so it is important for us to give information and directions to make them feel included. We have more and more young tourists and want to create an

experience for our customers. After Covid-19, tourists prefer to stay in the most natural places.” (P1, IT)

We are a wine region, so we want to promote not only famous wines like prosecco but also our local wines. (P4, IT)

“It can be interesting to rediscover traditional processes such as rushing, which is rarely done anymore.” (P5, IT)

“We can also see ourselves as a center in terms of the road, we should not forget that. Also, strengthen the sector by combining the work of culinary, hospitality, not only wine, but also the whole food and wine part, popular culture and television. We have characteristics (culinary, regional and cultural) that need to be valued and known.” (P7, IT)

“You can do whatever you want. That's the most enjoyable part for me. So, you're free here.” (P2, TR).

“Being alone with nature is the most important attraction of rural tourism entrepreneurship.” (P3, TR).

“Therefore, it is very important to introduce both production and places to the public, especially in childhood, and rural tourism is very important for children to have a proper and balanced diet.” (P3, TR).

“The region values the landscape, the countryside, the activities that occur there... which has led to some of the population returning to the villages. Idle sectors have woken up and rehabilitated the region. We also see that in the villages, thanks to rural tourism, the loneliness and abandonment in forgotten areas has decreased, and depopulation has stopped.” (P6, ES)

“Rural tourism offers a wide range of activities to prevent depopulation and benefits the entire economy of the region.” (P8, ES)

4.2. Competences of a rural tourism entrepreneur

When asked about the essential competencies for a rural tourism entrepreneur, the professionals cited *knowledge in economics, tourism, legislation, and marketing/advertising, understanding of nature and rural environment, risk-taking, knowledge of traditions, awareness of disadvantaged tourists, patience, communication skills, and familiarity with destination programs.*

“Basically, you should have a good knowledge of economics: you should know how to recognize and balance expenses and income, and you should know state and/or local legislation. Of course, knowledge of tourism...” (P5, ES)

“The business part is very important, knowing how to start a company (in my case I already had an experienced expert). On the other hand, the marketing/advertising part, because it is difficult to take a group of people to a small and unknown village. And of course, economics.” (P3, ES)

“I come from a different region from this region, the Jeso solo region, and together with them we have worked with training to improve the quality of the tourist offer, this is also

through hospitality skills. So, it is important to know the territory and to have hospitality skills." (P4, IT)

"A rural tourism entrepreneur must love the countryside and have the qualifications to adapt to living in the countryside. This is the most important thing. Of course, he must also be hospitable. He must be willing to move away from his comfort zones." (P2, TR).

"First of all, the entrepreneur who wants to do this business should love to host guests and his/her family should volunteer for this business as he/she can do it with his/her family workforce." (P3, TR).

"Recognizing the natural and orographic aspects of the region, knowing how to develop businesses within the framework of sustainability." (P2, IT)

"It is very important for entrepreneurs to be aware of the environment they live in. What I want to say is that they should be aware of their environment and nature and at least have an idea of what they are going to do." (P1, TR)

"That is the difficult part of the job, but first I believe that the person who will be an entrepreneur should know the rural area they want to work in very well." (P1, TR)

"Unfortunately, rural tourism cannot be practiced without knowing the nature." (P1, TR)

"The entrepreneur must be a native of the region with an inherent desire to exist." (P1, IT)

"They should know the history, traditions and sagas of the region in depth." (P10, IT)

"We need people who can connect the dots between what the region has to offer and know how to read tourist needs, understand the entrepreneurial possibilities and take some risks." (P11, IT)

"He has to accept everything. He has to be a problem solver. He shouldn't sulk." (P1, TR).

"To be competent about the need for a person with a disability or who is particularly able to meet those who are different." (P7, IT)

"Patience and perseverance, there are many people who will tell you that what you are doing is wrong or will never work. You have to endure." (P3, IT)

"Knowing how to communicate with their territories." (P5, IT)

"So, they need to be good communicators. So being a good communicator should be just one of the basic skills to be a harmonious nexus between urban and rural." (P2, TR).

"Cold-bloodedness" (P2, IT)

"And we need to develop and promote various destination programs. Whether in NGOs, professional chambers, schools or different industrial zones, people want to visit such places." (P3, TR).

4.3. Training/support needed

Upon discussing the training and support required for a rural tourism entrepreneur, professionals highlighted foreign language proficiency, technology, geography, archaeology, food culture, customer service, sustainability management, marketing and advertising, business management, entrepreneurship, social media management, and local knowledge.

"As we have a lot of foreign visitors, it is very important that they know the language, but above all it is important that they know about the region itself." (P2, ES)

"People who are in charge of a museum, a hotel, a business needs cultural and language training because tourists from the countryside are educated people looking for quality tourism, looking for handicrafts and things of value, and these people need to be provided with information about the region. We need to provide them with information about the region. Events to make them more dynamic, local concerts... more than a brochure. We have to offer not only a good product, but we have to make sure that everything is clean so that the image of rural tourism is a good image." (P4, ES)

"Networking, communication between local companies, alone you go faster, together you go further!" (P8, IT)

"The people who are going to do this work should do it with love. And they may have farmer friends or other entrepreneurs who can cooperate with them. What we call the network, that is, those ties should be able to determine the issues that can cooperate and accelerate this work as a catalyst with them." (P3, TR)

"For me it is knowledge about the management of a business, the business plan, the risk assessment, the planning of the use of resources over time. Knowing how to make a business plan is very important to be able to open a company." (P4, IT)

"Supporting a network of tourism projects in the area where the entrepreneur can work." (P3, IT)

"First of all, he needs nature-education. He needs to study ecology. He needs to know about protected flora. He needs to know about archaeology. About history." (P1, TR)

"Therefore, you need to know the geography, which is also your branch. When you come without knowing these things, the entrepreneur himself becomes a tourist." (P1, TR).

"First of all, the culture of the region, whether it is food culture, historical culture, and when you make a business plan, the issue of budgeting is important because where and how much money you will spend and how you will recover it later, you should put it on a piece of paper and plan it before you start this business on paper." (P2, TR).

"When it comes to women, one of the main fears is not being able to manage businesses. The next problem is economic; they need immediate, not long-term and conditional,

help to start a business. In parallel, basic training in entrepreneurship, language, social media management and online marketing.” (P8, ES)

“Knowledge and training are the foundations of successful management: the trend, the technology used, the rural market... All these are indispensable for an entrepreneur who will use innovation and creativity to surprise tourists and make them feel special. On the other hand, the development of new technologies has transformed the visitor from a mere spectator into a protagonist. The main training needs are customer service, sustainability management, diversity or languages.” (P6, ES)

“We try to hire local people, but sometimes it is difficult due to lack of education or qualifications, so we also hire people from the capital. Traditionally young people work in the countryside or go to study abroad, so there is no investment in the area or emphasis on supporting the rural environment. As I mentioned before, some advertising support or marketing courses to promote the business would be very interesting.” (P3, ES)

“Lack of awareness on marketing to make rural areas attractive to urban people.” (K7, İS)

“I would say how to welcome people, guest management, building quality services, managing all cases that fall into the categories of diversity and vulnerability.” (P12, IT)

“It provides a kind of training certificate that allows us to improve quality. This means training people in different areas (history of the territory, how to deal with people with vulnerabilities, craftsmanship, bureaucracy, etc.). It is also essential to train stakeholders in welcoming people with disabilities and vulnerable people.” (P4, IT)

4.4. Barriers encountered

When asked about the key difficulties and barriers faced as a rural tourism entrepreneur, participants emphasized *administrative procedures, managerial barriers, a lack of qualifications or motivation among local people, significant financial expenditure, and bureaucratic obstacles.*

“We have very demanding administrative procedures. When it comes to women, the importance of their entrepreneurship is not valued.” (P2, ES)

“In many cases, there is a lack of qualification or motivation of the local population, but above all, there are excessive and complex administrative procedures that make it very difficult to market products and services properly in terms of access to resources (personnel, financial, technological) and lack of advice and information on business opportunities in this area.” (P6, ES)

“There is a lot of paperwork, a significant financial outlay, supplies, insurance And being accepted by the community, accepting the traditions and cultural richness; we had problems in some areas, because the local people think that if outsiders come in, their environment will be polluted

or they will lose their intimacy, they see it as a threat. Finding professionals is also a problem.” (P3, ES)

“There is a situation where the use of rural material is not promoted in the right way. We have historical events in the whole region (civil war, holy wars, caliphate, ...): our history was almost entirely rural and that is where we are today. ... The main problems for an entrepreneur are the bureaucratic obstacles to register as a company or partnership.” (P7, ES)

“Every entrepreneur faces the great wall of bureaucracy in our country, the lack of support in the municipal councils and delegations that should accompany people in the process of reinvesting in rural tourism, the procedures to be carried out, and how to manage public aid.” (P4, ES)

“Often the presence of tourists, the demand for tourist services in the region is not always constant, there must be a real return on investments.” (P10, IT)

“The challenge is that this area cannot be considered as a tourism destination in its own right. The biggest challenge we need to find solutions to is how do we create demand?” (P9, IT)

“First of all, what we call materiality.” (P1, TR).

“But is there a fund? There is if you have a certain number of resources. So, the European Union grant does not come and give money to those who do not have money in their pockets. If you have half in your pocket, I will give you half. Apart from that, taxation is very important.” (P2, TR)

“I think the most difficult issue is the tax issue, it has to be exempt. It should be exempt from tax.” (P2, TR).

“In our country, the entrepreneur is alone in this regard. I mean, this is one of the difficulties, they are alone. In other words, while providing this training or preparing more resources, it should be emphasized that people should organize and struggle together.” (P2, TR).

4.5. Utilization of rural elements in tourism

In response to how rural elements are incorporated in their tourism practices, professionals listed *outdoor activities, gastronomy and culture.*

“In my case, I work in an environment that makes outdoor activities very easy: hiking, trekking, motorcycling, ATV (All-terrain vehicle) ... there are a lot of mountains and countryside.” (P5, ES)

“We offered camps and activities for children (6-8), for young adults (+18), with companies (coaching, emotional intelligence in nature), introduction to adventure sports, activities in a rural house, We even organized a few days of 'autumn knowledge' with a group of Erasmus students from the university, picking chestnuts and mushrooms in the area.” (P3, ES)

“The region we are in is a dam area and there is a canyon. We also produce olives. There is an olive oil factory.” (P2, TR).

“Even cycling can be an opportunity to raise awareness about the region and its rural characteristics.” (P5, IT)

“We show our gastronomy, our landscape, how we live every day... and people learn more about our culture. Now that it is the season of mushrooms or chestnuts, we have bonfires at night to collect them and people are very involved. I would never let animal husbandry disappear, or the typical cheese maker who makes the cheeses very rich and with love, the typical lady who embroiders by hand and has been doing it all her life and sells you that souvenir... everything that has nothing to do with industrial products, that is made by hand, with care and with love.” (P1, ES)

“Rural tourism homes should reflect the culture of the region, reflect its heritage and identity, be full of the aromas, colors, textures and flavors of the region; good rural tourism comes to find something authentic. Festivals, scenery, traditions, fairs, festivals.” (P4, ES)

Lastly, the experts provided several suggestions for promoting rural tourism entrepreneurship and facilitating the training of rural tourism entrepreneurs. They highlighted the pivotal role of local administrations in establishing a range of services, local communities in welcoming and accommodating visitors, and tourists in maintaining the peaceful everyday lives of the locals. The importance of sustained interaction among all stakeholders was underlined. The use of local guides was suggested as a means to stimulate economic and social development in the region. The significance of investing in the area's cultural heritage, monitoring homestay facilities, and promoting local food culture was also stressed. Professionals advocated for diversification of training programs and providing on-the-job training, particularly for young individuals. Lastly, they emphasized the power of dreams, as dreams can inspire tangible opportunities.

5. Conclusion

The study aimed to recognize the critical attributes necessary for rural tourism entrepreneurship. By examining the perspectives of rural tourism professionals in Italy, Spain, and Türkiye, five essential themes emerged, including the attractive aspects of rural tourism entrepreneurship, competencies of a rural tourism entrepreneur, required training/support, barriers faced, and the utilization of rural elements in tourism. These findings not only align with previous studies (Kruzmetra et al., 2013; Wilson et al., 2001; Zurnacı, 2012; Ateljevic & Doorne, 2000; Calza et al., 2018; Carmichael & Ainley, 2014; Marques & Cunha, 2013; Jaafar et al., 2021; Zhang et al., 2022; Aydemir et al., 2016; Çeken et al., 2007; Zurnacı, 2012) but also provide novel insights with implications for theory, practice, and policy.

5.1. Controversial implications

The results may ignite debate around the role of rural tourism in preserving traditional lifestyles, reducing rural-urban migration, and promoting social and economic

growth. Critics may question whether rural tourism exploits local cultures and the environment or if it genuinely provides long-term benefits to the communities involved. These discussions can lead to new research perspectives on the balance between tourism development and sustainability.

5.2. Theoretical implications

The findings affirm and build upon extant literature by revealing the importance of various competencies and the necessity for specific training in rural tourism entrepreneurship. Future research may wish to explore these themes in depth, providing a more detailed understanding of the unique skillsets and knowledge areas needed in this specific form of tourism entrepreneurship.

5.3 Managerial implications

From a practical perspective, identifying common barriers provides valuable insights for potential rural tourism entrepreneurs, suggesting the need for strategic planning and problem-solving skills. The emphasis on nature-based and cultural activities presents a potential blueprint for developing unique, authentic rural tourism experiences that can attract tourists while preserving local heritage. The noted necessity for long-term interaction among stakeholders indicates that success in this sector may require robust community engagement strategies and partnership models.

Moreover, the findings underline the significance of training in foreign languages, technology, sustainability management, and local knowledge. This insight can guide educational institutions and policy-makers in designing relevant and impactful curricula and training programs to equip future rural tourism entrepreneurs with the necessary competencies.

Nevertheless, the study is not without its limitations. Its focus is confined to only three countries, which may not provide a comprehensive overview of rural tourism entrepreneurship in different global contexts. Furthermore, it exclusively represents the perspectives of professionals. Future research could thus aim for a broader representation, incorporating local governments, tourists, prospective entrepreneurs, and academic experts to achieve a more holistic understanding of rural tourism entrepreneurship.

Author contributions

The authors declare that they equally contributed to the design and implementation of the research, the analysis of the results, and the writing of the article.

Disclosure statement

The authors reported no potential competing interest.

Ethics committee approval

All responsibility belongs to the researchers. This study has been done within the scope "Anti-Fragile Young Entrepreneurs for Sustainable Rural Tourism: YES for Rural

Tourism" which is funded by Erasmus+ Programme European Union under the grant no: 2021-1-TR01-KA220-YOU-000028958..

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