

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

Şirvan Şen Demir<sup>1</sup> and Mahmut Demir<sup>2</sup>

<sup>1</sup>Süleyman Demirel University, FEAS, Department of Tourism Management, Isparta, Türkiye, <https://orcid.org/0000-0003-3253-1001>

<sup>2</sup>Isparta University of Applied Sciences, Tourism Faculty, Department of Tourism Management, Isparta, Türkiye, <https://orcid.org/0000-0002-5878-2717>

---

### 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

E-mail: [sirvansendemir@gmail.com](mailto:sirvansendemir@gmail.com)

**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.

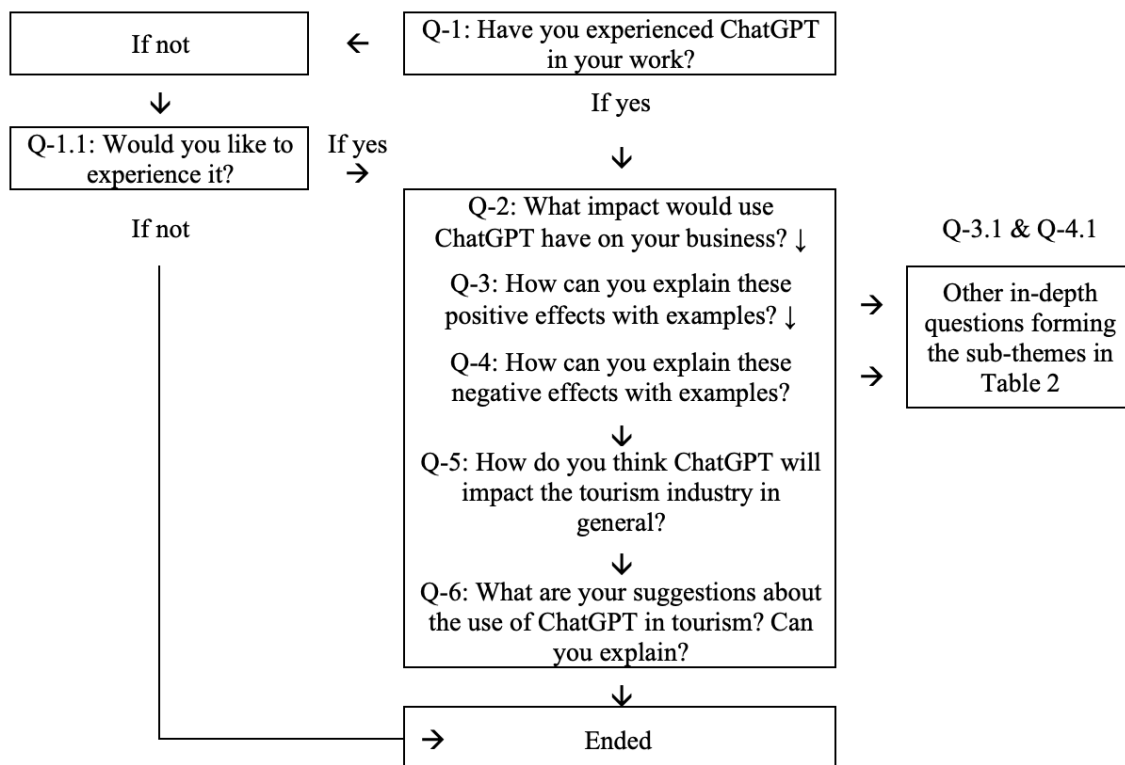


Figure 1. Interview questions and steps

### 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

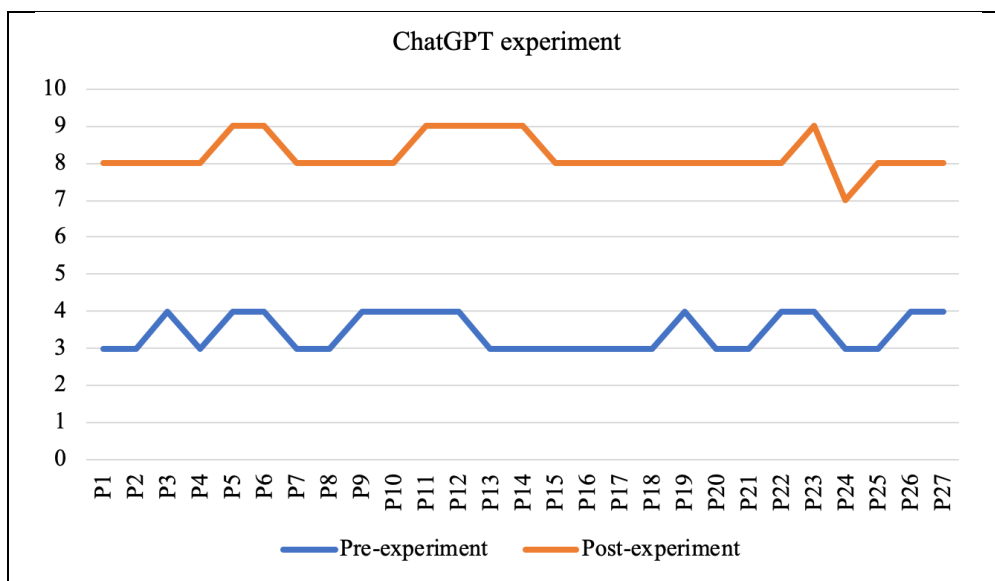


Figure 2. The graphical results of the scores of the ChatGPT experiment

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.

## References

- Akter, S., Hossain, M.A., Sajib, S., Sultana, S., Rahman, M., Vrontis, D., & McCarthy, G. (2023). A framework for AI-powered service innovation capability: Review and agenda for future research. *Technovation*, 125, 1-17.
- Ali, F. (2023). Let the devil speak for itself: Should ChatGPT be allowed or banned in hospitality and tourism schools?. *Journal of Global Hospitality and Tourism*, 2(1), 1-6.
- Arici, H.E., Saydam, M.B., & Koseoglu, M.A. (2023). How Do Customers React to Technology in the Hospitality and Tourism Industry? *Journal of Hospitality & Tourism Research*, <https://doi.org/10.1177/10963480231168609>
- Ausat, A.M.A., Azzaakiyyah, H.K., Permana, R.M., Riady, Y., & Suherlan, S. (2023). The Role of ChatGPT in Enabling MSMEs to Compete in the Digital Age. *Innovative: Journal Of Social Science Research*, 3(2), 622-631.
- Bahrini, A., Khamoshifar, M., Abbasimehr, H., Riggs, R.J., Esmaili, M., Majdabadkohne, R. M., & Pasehvar, M. (2023). *Systems and Information Engineering Design Symposium (SIEDS)*, Charlottesville, VA, USA, 2023, pp. 274-279, doi: 10.1109/SIEDS58326.2023.10137850.
- Bowden, C., & Galindo-Gonzalez, S. (2015). Interviewing when you're not face-to-face: The use of email interviews in a phenomenological study. *International Journal of Doctoral Studies*, 10(12), 79-92.
- Boyatzis, R.E. (1998). *Transforming qualitative information: Thematic analysis and code development*. Sage Publications Inc., Thousand Oaks, CA.
- Burger, B., Kanbach, D.K., Kraus, S., Breier, M., & Corvello, V. (2023). On the use of AI-based tools like ChatGPT to support management research. *European Journal of Innovation Management*, 26(7), 233-241.
- Cai, W., Richter, S., & McKenna, B. (2019). Progress on technology use in tourism. *Journal of Hospitality and Tourism Technology*, 10(4), 651-672.
- Carvalho, I., & Ivanov, S. (2023). ChatGPT for tourism: applications, benefits and risks. *Tourism Review*, 1-14. <https://doi.org/10.1108/TR-02-2023-0088>
- Charmaz, K. & Bryant, B. (2010). Grounded Theory. In (Eds.) P. Peterson, E. Baker, B. McGaw, *International Encyclopedia of Education* (third ed.), Elsevier, Oxford (2010), pp. 406-412
- Chaturvedi, R., Verma, S., Das, R., & Dwivedi, Y.K. (2023). Social companionship with artificial intelligence: Recent trends and future avenues. *Technological Forecasting and Social Change*, 193, 1-20.
- Corbin, J. & Strauss, A. (2008). *Basics of qualitative research: Procedures and techniques for developing grounded theory* (3rd ed.), Sage, Thousand Oaks, CA.
- Creswell, J.W., & Creswell, J.D. (2018). *Research Design: Qualitative, Quantitative, and Mixed Methods Approaches*. Sage Publications.
- Creswell, J.W. (2013). *Qualitative Inquiry and Research Design: Choosing Among Five Approaches*. Sage publications, Thousand Oaks, California.
- Demir, M. & Demir, Ş.Ş. (2015). *Otel işletmelerinde yenilik yönetimi: ilkeler ve örnekler*. Ankara: Detay Yayıncılık.
- Demir, M., Demir, Ş.Ş., & Aktürk, O. (2023). The Effects of Distance Education Capabilities and Competencies on Learning Outcomes During COVID-19 in Higher Education Institutions. *Journal of Hospitality & Tourism Education*, 1-12. <https://doi.org/10.1080/10963758.2023.2191966>
- Demir, M., Demir, Ş.Ş. & Yaşar, E. (2022). Big data and innovative organizational performance: Evidence from a moderated-mediated model. *Creativity and Innovation Management*, 31(4), 696-709.
- Demir, M., Yaşar, E. & Demir, Ş.Ş. (2023). Digital transformation and human resources planning: the mediating role of innovation. *Journal of Hospitality and Tourism Technology*, 14(1), 21-36. <https://doi.org/10.1108/JHTT-04-2021-0105>
- Deng, J., & Lin, Y. (2022). The Benefits and Challenges of ChatGPT: An Overview. *Frontiers in Computing and Intelligent Systems*, 2(2), 81-83.
- Dingwall, R., Murphy, E., Watson, P., Greatbatch, D., & Parker, S. (1998). Catching goldfish: Quality in qualitative research. *Journal of Health Services Research and Policy*, 3(3), 167-172.
- Drisko, J.W. & Maschi, T. (2015). *Content analysis*. Oxford University Press, New York.
- Dwivedi, Y.K., Kshetri, N., Hughes, L., Slade, E.L., Jeyaraj, A., Kar, A.K., ... & Wright, R. (2023a). "So what if ChatGPT wrote it?" Multidisciplinary perspectives on opportunities, challenges and implications of generative conversational AI for research, practice and policy. *International Journal of Information Management*, 71, 1-63. <https://doi.org/10.1016/j.ijinfomgt.2023.102642>
- Dwivedi, Y.K., Sharma, A., Rana, N.P., Giannakis, M., Goel, P., & Dutot, V. (2023b). Evolution of artificial intelligence research in Technological Forecasting and Social Change: Research topics, trends, and future directions. *Technological Forecasting and Social Change*, 192, 1-17. <https://doi.org/10.1016/j.techfore.2023.122579>
- Emerging Europe (2023). *Managing ChatGPT in the corporate environment? Six crucial risk factors highlighted by Gartner*. <https://emerging-europe.com/partner-content/managing-chatgpt-in-the-corporate-environment-six-crucial-risk-factors-highlighted-by-gartner/> (accessed 22 May 2023).
- Fraçkiewicz, M. (2023). *Chat GPT-4 in Travel and Tourism: Enhancing Experiences with AI*. <https://ts2.space/en/chat-gpt-4-in-travel-and-tourism-enhancing-experiences-with-ai/#:~:text=Overall%2C%20AI%2Dpowered%20chat%20GPT,and%20automate%20customer%20support%20tasks> (accessed 12 April 2023).
- Frederico, G.F. (2023). ChatGPT in Supply Chains: Initial Evidence of Applications and Potential Research Agenda. *Logistics*, 7(2), 1-9.
- Fusté-Forné, F., & Orea-Giner, A. (2023). Gastronomy in tourism management and marketing: an interview with ChatGPT. *ROBONOMICS: The Journal of the Automated Economy*, 4, 1-13.
- George, A.S., & George, A.H. (2023). A review of ChatGPT AI's impact on several business sectors. *Partners Universal International Innovation Journal*, 1(1), 9-23.
- Gupta, B., Mufti, T., Sohail, S.S., & Madsen, D. Ø. (2023). *ChatGPT: A Brief Narrative Review*. Preprints.org. <https://doi.org/10.20944/preprints202304.0158.v1>
- Gursoy, D., Li, Y., & Song, H. (2023). ChatGPT and the hospitality and tourism industry: an overview of current trends and future

- research directions. *Journal of Hospitality Marketing & Management*, 1-14.
- Haleem, A., Javaid, M., & Singh, R.P. (2022). An era of ChatGPT as a significant futuristic support tool: A study on features, abilities, and challenges. *BenchCouncil Transactions on Benchmarks, Standards and Evaluations*, 2(4), 1-8.
- Harahap, M.A.K., Ausat, A.M.A., Rachman, A., Riady, Y., & Azzaakiyyah, H.K. (2023). Overview of ChatGPT Technology and its Potential in Improving Tourism Information Services. *Jurnal Minfo Polgan*, 12(2), 424-431.
- Hassani, H., & Silva, E.S. (2023). The role of ChatGPT in data science: how ai-assisted conversational interfaces are revolutionizing the field. *Big Data and Cognitive Computing*, 7(2), 1-16.
- Hewson, C., & Laurent, D. (2008). Research design and tools for internet research. In N. Fielding, R. Lee, G. Blank (Eds.), *The Sage Handbook of Online Research Methods*, Sage, London, pp. 58-78.
- Huang, Y.C., Chang, L.L., Yu, C.P., & Chen, J. (2019). Examining an extended technology acceptance model with experience construct on hotel consumers' adoption of mobile applications. *Journal of Hospitality Marketing & Management*, 28(8), 957-980.
- Iskender, A. (2023). Holy or unholy? Interview with open AI's ChatGPT. *European Journal of Tourism Research*, 34, 1-11.
- Ivanov, S., & Soliman, M. (2023). Game of algorithms: ChatGPT implications for the future of tourism education and research. *Journal of Tourism Futures*, 1-8. <https://doi.org/10.1108/JTF-02-2023-0038>
- Jockims, T.L. (2023). *ChatGPT and generative A.I. are already changing the way we book trips and travel*. <https://www.cnbc.com/2023/04/22/how-chatgpt-generative-ai-are-changing-how-we-book> (accessed 22 April 2023).
- Johnson, R.H. (2012). *Manifest rationality: A pragmatic theory of argument*. Routledge, New Jersey.
- Kalla, D., & Smith, N. (2023). Study and Analysis of Chat GPT and its Impact on Different Fields of Study. *International Journal of Innovative Science and Research Technology*, 8(3), 1-7.
- Korzynski, P., Mazurek, G., Altmann, A., Ejdy, J., Kazlauskaitė, R., Paliszkievicz, J., Wach, K., & Ziemia, E. (2023). Generative artificial intelligence as a new context for management theories: analysis of ChatGPT. *Central European Management Journal*, 1-11. <https://doi.org/10.1108/CEMJ-02-2023-0091>
- Lee, M., Sisson, A. D., Costa, R., & Bai, B. (2023). Disruptive technologies and innovation in hospitality: A computer-assisted qualitative data analysis approach. *Journal of Hospitality & Tourism Research*, 47(4), 47-61.
- Lee, T.W. (1999). *Using Qualitative Methods in Organizational Research*. Sage, Thousand Oaks, CA.
- Lehrer, C., Wieneke, A., Vom Brocke, J.A.N., Jung, R., & Seidel, S. (2018). How big data analytics enables service innovation: materiality, affordance, and the individualization of service. *Journal of Management Information Systems*, 35(2), 424-460.
- Mehroliya, S., Alagarsamy, S., Moorthy, V., & Jeevananda, S. (2023). Will Users Continue Using Banking Chatbots? The Moderating Role of Perceived Risk. *FIIB Business Review*, 1-19. <https://doi.org/10.1177/23197145231169900>
- Mich, L., & Garigliano, R. (2023). ChatGPT for e-Tourism: a technological perspective. *Information Technology & Tourism*, 25, 1-12.
- Misak, C. (2023). *To my best belief: just what is the pragmatic theory of truth?* <https://aeon.co/ideas/to-my-best-belief-just-what-is-the-pragmatic-theory-of-truth> (accessed 20 April 2023).
- Mondal, S., Das, S., & Vrana, V.G. (2023). How to bell the cat? A theoretical review of generative artificial intelligence towards digital disruption in all walks of life. *Technologies*, 11(2), 1-17.
- Panda, S., & Kaur, N. (2023). Exploring the viability of ChatGPT as an alternative to traditional chatbot systems in library and information centers. *Library Hi Tech News*, 40(3), 22-25.
- Paul, J., Ueno, A., & Dennis, C. (2023). ChatGPT and consumers: benefits, pitfalls and future research Agenda. *International Journal of Consumer Studies*, 1-13.
- Prayag, G. & Ryan, C. (2011). The relationship between the "push" and "pull" factors of a tourist destination: The role of nationality—an analytical qualitative research approach. *Current Issues in Tourism*, 14(2), 121-143.
- Principe Vancia, A.P., Băltescu, C.A., Brătucu, G., Tecău, A.S., Chițu, I.B., & Duguleană, L. (2023). Examining the Disruptive Potential of Generation Z Tourists on the Travel Industry in the Digital Age. *Sustainability*, 15(11), 1-19.
- Qureshi, R., Shaughnessy, D., Gill, K. A., Robinson, K.A., Li, T., & Agai, E. (2023). Are ChatGPT and large language models "the answer" to bringing us closer to systematic review automation?. *Systematic Reviews*, 12(1), 1-4.
- Ray, P.P. (2023). ChatGPT: A comprehensive review on background, applications, key challenges, bias, ethics, limitations and future scope. *Internet of Things and Cyber-Physical Systems*. 1-34. <https://doi.org/10.1016/j.iotcps.2023.04.003>
- Reisenbichler, M., Reutterer, T., Schweidel, D.A., & Dan, D. (2022). Frontiers: Supporting content marketing with natural language generation. *Marketing Science*, 41(3), 441-452.
- Ritchie, J., Lewis, J., Nicholls, C.M., & Ormston, R. (2013). *Qualitative research practice: A guide for social science students and researchers*. Sage, Los Angeles, CA.
- Saunders, M., Lewis, P., & Thornhill, A. (2009). *Research methods for business students* (5th ed.). Harlow, England; New York: FT/Prentice Hall.
- Singh, H., & Singh, A. (2023). ChatGPT: Systematic Review, Applications, and Agenda for Multidisciplinary Research. *Journal of Chinese Economic and Business Studies*, 21(2), 193-212.
- Skavronskaya, L., Hadinejad, A., & Cotterell, D. (2023). Reversing the threat of artificial intelligence to opportunity: a discussion of ChatGPT in tourism education. *Journal of Teaching in Travel & Tourism*, 23(2), 253-258.
- Strauss, A., & Corbin, J. (1990). *Basics of qualitative research*. Sage Publications, Thousand Oaks, CA.
- Strübing, J. (2010). Research as pragmatic problem-solving: The pragmatist roots of empirically-grounded theorizing. In (Edts: K. Charmaz and A. Bryant), *The SAGE Handbook of Grounded Theory*: Paperback Edition, pp. 580-602.
- Sudirjo, F., Diawati, P., Riady, Y., Ausat, A.M.A., & Suherlan, S. (2023). The Role of ChatGPT in Enhancing the Information Search and Decision-Making Process of Travellers. *Jurnal Minfo Polgan*, 12(2), 500-507.

- Thomas, E.J., McLeod, D.L., & Hylton, L.F. (1960). *The experimental interview: A technique for studying casework performance*. *Social Work*, 52-58.
- Thorp, H. H. (2023). ChatGPT is fun, but not an author. *Science*, 379(6630), 313-313.
- Vorobeva, D., Costa Pinto, D., António, N., & Mattila, A.S. (2023). The augmentation effect of artificial intelligence: can AI framing shape customer acceptance of AI-based services?. *Current Issues in Tourism*, 1-21.
- Wu, T., He, S., Liu, J., Sun, S., Liu, K., Han, Q. L., & Tang, Y. (2023). A Brief Overview of ChatGPT: The History, Status Quo and Potential Future Development. *IEEE/CAA Journal of Automatica Sinica*, 10(5), 1122-1136.
- Yaşar, E., Demir, M., & Taşdemir, T. (2023). Embedded big data in packaged foods: examining consumer sentiment during the purchasing process post-COVID-19. *British Food Journal*. 1-17. <https://doi.org/10.1108/BFJ-12-2022-1124>

## 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.