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# Generative Artificial Intelligence (GAI) in Hospitality and Tourism Marketing: Perceptions, Risks, Benefits, and Policy Implications

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## Abstract

This study investigates the integration of generative artificial intelligence (GAI) into hospitality and tourism marketing and its implications for industry professionals in the United States. This study employed a mixed methods approach, gathering qualitative insights from 20 professionals and quantitative data from a sample of 163 participants. The qualitative study revealed concerns about data privacy, customer trust, and ethical considerations regarding GAI implementation. However, participants acknowledged its potential to enhance personalization, engagement, and operational efficiency. The quantitative study supported these findings by showing a level of concern about risks but agreement on the benefits of GAI. Additionally, the participants were highly familiar with GAI, highlighting its adaptation to the industry. This study emphasizes the importance of ethical practices in utilizing AI technologies while following established principles and guidelines. Policy implications highlight the necessity for regulations that address legal and social challenges that may arise. Theoretical implications expand the understanding of GAI's impact on marketing practices, while practical implications guide industry stakeholders.

**Keywords:** GAI adoption, ethical considerations, data privacy, competitive advantage, hospitality industry

## Introduction

Over the years, organizations have placed more emphasis on technological innovation, especially in artificial intelligence –AI (Apell & Eriksson, 2023; Bahoo et al., 2023; Mondal & Das, 2023). AI is a range of technologies that can follow human intelligence in problem-solving (McCartney & McCartney, 2020) and perform tasks including learning, reasoning, and decision-making (Rodgers et al., 2023). This expansion is attributed to improvements in computing power, increased data, and the continuous development of algorithms. The global AI market is composed of tremendous growth, estimated to reach \$190.61 billion by 2025 and expected to contribute \$15.7 billion to global GDP by 2030 (Todorov, 2021). According to IBM (2022), AI has become an essential part of various business functions, especially customer service, cybersecurity, fraud management, and inventory management, and about 40% of companies leverage AI technology to enhance the efficiency of customer service agents, provide personalized experiences for customers and employees, streamline information searches, and address routine queries.

The Adoption of AI has spread across sectors such as healthcare, education, finance, entertainment, sports, and government/civil services. The hospitality and tourism sector has emerged as a significant beneficiary of AI, leveraging its capabilities to navigate challenges such as changing customer dynamics, global competition, sustainability concerns, and technological disruptions (Bulchand-Gidumal et al., 2023). AI can help hospitality and tourism businesses perform various tasks and functions such as data analysis, forecasting, optimization, automation, personalization, recommendation, and communication (Ivanov & Webster, 2019). Marketers, as reported by Todorov (2021), recognize the benefits of AI, with 71% considering it beneficial for personalization. This reflects in integrating chatbots into customer experience channels, as evidenced by an 80% adoption rate by 2020. Additionally, nearly half (48%) of marketing leaders recognized the profound influence of digital and mobile technologies, such as chatbots, on enhancing customer engagement. Regarding enhancing customer experience through technology, 34% of sales and marketing leaders consider AI a top priority (Todorov, 2021).

The generative artificial intelligence (GAI) has emerged as a transformative force within the AI domain, generating fresh and unique content by leveraging pre-existing data sources, such as text, images, audio, or video. AI stands out as a promising and inventive form of AI that has gained extensive acceptance and application, notably within the marketing domain (Mariani et al., 2023). Unlike traditional AI methods, GAI possesses an exceptional capacity to produce original, varied, authentic, imaginative, and contextually pertinent content, rendering it highly attractive for sectors such as hospitality and tourism. GAI has various applications and implications in the hospitality and tourism industry, such as content marketing, customer service, and product design (Guha et al., 2023). Additionally, GAI assists hospitality and tourism businesses in enhancing their strategies by providing a powerful tool to create personalized and efficient content. This content attracts and retains customers and sets them apart from their competitors (Israfilzade, 2023; Wahid et al., 2023; Yoo & Piscarac, 2023). According to the Precedence Research (2023), market analysts predict significant growth in the GAI sector, projections indicate that the market value will increase from \$10.79 billion in 2022 to an estimated \$118.06 billion by 2032, reflecting a compound annual growth rate of 27.02%. The GAI is an essential tool with vast potential across various industries (Bandi et al., 2023).

GAI is vital in empowering hospitality and tourism enterprises to enhance their marketing strategies by creating slogans, product reviews, blog posts, headlines, and summaries on various topics (Wahid et al., 2023). This can be achieved by utilizing specific keywords, headlines, or outlines provided by users, enabling businesses to generate tailored and captivating content that resonates with their desired audiences (Dwivedi et al., 2023; Ooi et al., 2023). For instance, the Generative Pre-trained Transformer (GPT) is a language model capable of producing coherent and fluent text on almost any given topic with appropriate input or prompts. Moreover, GAI can assist hospitality and tourism businesses in creating personalized and pertinent marketing campaigns, offers, recommendations, and feedback for each customer based on their preferences, requirements, and behaviors. Persado, for example, is a platform that utilizes AI to generate and optimize marketing messages that effectively resonate with the audience and prompt desired actions. Furthermore, AI can aid hospitality and tourism businesses in developing conversational and interactive customer service agents that can naturally answer inquiries, provide information, resolve issues, and handle requests in a human-like manner. Additionally, the Rasa framework leverages AI to create and deploy customized chatbots and voice assistants, enhancing the overall customer experience within the industry.

Despite the increasing implementation of GAI in this field, further investigation is required to gain a deeper understanding of this technology's ethical implications and responsible deployment. However, research studies conducted by Dwivedi et al. (2023), Ooi et al. (2023), and Kunz and Wirtz (2023) acknowledge the potential ethical challenges posed by GAI and there needs to be more research on how organizations address these. According to IBM (2022), a substantial number of organizations that utilize AI still need to undertake vital measures to ensure the reliability and accountability of their AI systems. These measures include reducing bias, monitoring performance fluctuations, and explaining AI-driven decisions. It raises concerns about how ethical considerations are integrated into deploying GAI in hospitality and tourism industry marketing practices. Thus, this study aims to fill this gap by comprehensively studying GAI's potential benefits and challenges in hospitality and tourism marketing. As such, this study has employed a combination of methods by conducting two distinct studies. The initial study opted for an approach centered around gathering insights directly from professionals in the industry, establishing the groundwork for the subsequent study, which focused on quantitative analysis. To ensure the study, the second study integrated qualitative themes from the first study and collected quantitative data from a larger sample. Therefore, the investigation aimed to address the following research questions:

- RQ1: What are the perceived risks of using GAI in hospitality and tourism marketing?
- RQ2: What are the perceived benefits of using GAI in hospitality and tourism marketing?

This study will (a) define and explain the concepts and techniques of GAI and its applications in hospitality and tourism marketing. (b) Explore and analyze the perceived risks and benefits of using GAI in hospitality and tourism marketing from the perspective of hospitality and tourism marketing professionals in the United States. (c) Provide recommendations and implications for using GAI in hospitality and tourism marketing responsibly and effectively based on the findings and analysis.

## Literature Review

The area of AI studies how to create machines and systems that can perform tasks that normally require human intelligence, such as thinking, learning, seeing, and creating. The beginnings of AI can be traced back to the seminal works of three researchers: Alan Turing, John von Neumann, and Marvin Minsky, who proposed the Turing test, cellular automaton, and artificial neural network as methods of modeling computation and intelligence (Ndzendze & Marwala, 2023). AI is a diverse and multidisciplinary field with many branches and applications, such as genetic algorithms, evolutionary computation, swarm intelligence, artificial life, fractal geometry, chaos theory, complex systems, computational creativity, and deep learning, which investigate the different facets and dimensions of intelligence and creativity (Dwivedi et al., 2023; Yuksel et al., 2023). GAI is a branch of AI that can produce new content from existing data using methods and functions such as variational autoencoders, generative adversarial networks (GANs), autoregressive models, normalizing flows, transformers, and neural style transfer (Goodfellow et al., 2016). In AI, the GAI has emerged as a transformative power. GAI is a term that encompasses machine-learning methods that learn from a vast amount of data and can produce fresh content based on the user's input (Sætra, 2023). GAI is an advanced neural network architecture such as OpenAI's GPT (Bandi et al., 2023). GAI models can comprehend and replicate patterns in data and generate diverse outputs in various domains (Ooi et al., 2023). For instance, Gatys et al. (2016) used neural networks to synthesize images, demonstrating the ability to create fresh, visually

appealing images. Similarly, Goodfellow et al. (2014) developed GANs, demonstrating how AI systems can learn to produce realistic images by competing. GAI can facilitate creativity, innovation, and personalized content generation (Sætra, 2023).

### ***Application of AI and GAI in Marketing***

Artificial Intelligence is a robust technology capable of analyzing extensive datasets and creating various content formats, including text, images, audio, and video. AI has been widely applied in marketing because it can improve various aspects of marketing performance and outcomes, such as personalization, communication, prediction, and innovation (Mustak et al., 2021). Artificial Intelligence has been used in marketing for different purposes, such as customization and recommender systems, which adapt content and offers to customers' preferences and needs, increasing their engagement and loyalty (Bulchand-Gidumal, 2022). Conversational systems such as voice assistants and chatbots can interact with customers (Loureiro et al., 2022) and provide them with information and assistance, enhancing their experience and satisfaction (Bulchand-Gidumal, 2022; Shaik, 2023). Projection and forecasting systems, which examine data and trends and provide insights and recommendations for the future, help marketers plan, and optimize their strategies and campaigns (Bulchand-Gidumal, 2022; Huang & Rust, 2022).

Smart travel assistants support customers in planning and booking their trips, offering them valuable information and services that contribute to a more accessible and enjoyable travel experience (Davenport et al., 2020). Language translation applications play a crucial role in enabling customers to access and communicate content in various languages, thereby expanding the reach and impact of marketing messages (Wu & Monfort, 2023). These applications serve as prime examples of how AI can enhance marketing efforts by creating and delivering customer-centric content that is relevant, engaging, and personalized (Huang & Rust, 2022). The benefits that arise from the integration of AI in marketing could lead to enhanced customer satisfaction, increased loyalty and retention, and improved efficiency and effectiveness (Salem, 2021). Additionally, Dwivedi et al. (2021) have emphasized the critical role of AI in enhancing productivity, reducing costs and risks, and fostering creativity and innovation in marketing strategies.

The GAI has been raised as a transformative power within the AI domain. GAI has significantly impacted marketing by offering various applications to optimize content quality and foster innovation (Soni, 2023). For instance, one of the most prominent and widely used GAI tools in marketing is OpenAI's ChatGPT. This AI chatbot can generate natural and engaging conversations with users based on their input and preferences. ChatGPT finds widespread use among the public and marketing professionals because it delivers personalized and interactive customer services (Ali et al., 2023), valuable feedback, and tailored recommendations (Guha et al., 2023). Several surveys, such as Bank of America's June 2023 survey and Botco.AI's study, have confirmed the popularity and satisfaction of ChatGPT among Internet users and marketing practitioners, as well as its positive impact on customer retention and loyalty (Kshetri et al., 2023). ChatGPT is not the only GAI tool that can assist marketers in creating and delivering content. Many other examples of GAI tools can generate different types of content for various marketing purposes, such as brainstorming, content creation, personalization, learning, and image generation (Rane et al., 2023). Notable examples of these tools include GPT-4, DALL-E2, Midjourney, Jasper.AI, Meta's

AI Sandbox, Peppertype.AI, and Copy.AI, which highlight the diverse selection of GAI applications in marketing (Kshetri et al., 2023).

These tools demonstrate the diversity and versatility of GAI applications in marketing and their potential for innovation and creativity. Among these tools, GPT-4 is particularly noteworthy because it is the latest and most advanced version of OpenAI's GPT model, which can generate high quality, and coherent natural language texts based on a given prompt or context. GPT-4 is instrumental in assisting marketers in creating compelling and contextually relevant content across diverse channels and platforms, including blogs, social media, emails, advertisements, and websites. GPT-4 can also generate content in different languages, styles, and tones, depending on the target audience and marketing goals (Maijanen, 2023). Therefore, integrating GAI tools in marketing has yielded significant advantages for marketers and customers. Recent surveys conducted by Salesforce, Boston Consulting Group, and Botco.AI underscore the substantial advantages of GAI in marketing, encompassing time savings, heightened personalization, improved efficiency, increased productivity, and overall enhanced performance (Kshetri et al., 2023). GAI can help marketers automate and personalize their marketing tasks, enhance customer satisfaction and loyalty, provide insights and analytics, and optimize their strategies and tactics.

### ***Application of AI and GAI in Hospitality and Tourism Marketing***

Artificial Intelligence and GAI are changing the hospitality and tourism industry by providing better customer experiences and marketing solutions. AI is a transformative force, utilizing extensive datasets to create a spectrum of content forms spanning text, images, audio, and video (Mustak et al., 2021). AI applications in the hospitality and tourism industry significantly elevate marketing performance, impacting personalization, communication, prediction, and innovation (Dwivedi et al., 2021). Some AI systems used in tourism and hospitality marketing are recommender systems, personalization techniques, smart tourism destinations, conversational systems, autonomous agents, language translation applications, and forecasting tools (Bulchand-Gidumal, 2022). For example, personalized recommender systems, tailoring content, and offers to align with customer preferences. This strategic approach enhances customer engagement and fosters loyalty (Gentsch, 2018; Paschen et al., 2019). In addition, AI smart travel assistants, where AI aids customers in planning and booking trips, ensuring a seamless and enjoyable travel experience (Bulchand-Gidumal, 2022); conversational systems, including voice assistants and chatbots, play a crucial role in hospitality and tourism marketing, interacting with customers to provide information and assistance, thereby enriching their experience and satisfaction (Shaik, 2023). Language translation applications extend the reach of hospitality and tourism marketing messages by enabling access to content in different languages (Bulchand-Gidumal, 2022).

Artificial Intelligence predictive and forecasting systems provide valuable insights for future hospitality and tourism marketing planning. Marketers can optimize strategies and campaigns by analyzing data and trends and aligning them with emerging demands (Davenport et al., 2020). These hospitality and tourism-specific applications underscore AI's potential to enhance marketing by delivering relevant, engaging, and personalized content (Huang & Rust, 2022). Hospitality and tourism-marketing advantages include increased customer satisfaction, loyalty, retention, and enhanced efficiency and effectiveness (Salem, 2021). AI also plays a crucial role in increasing productivity, reducing costs and risks, and fostering creativity and innovation in

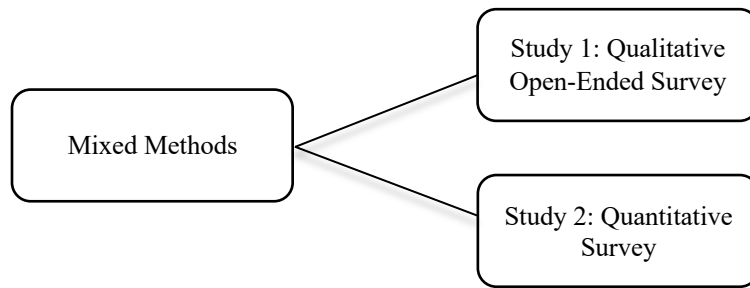
hospitality and tourism marketing strategies, as highlighted by Dwivedi et al. (2021), and Haleem et al. (2022).

The GAI is reshaping hospitality and tourism marketing, leading to exceptional customer personalization (Abrokwah-Larbi, 2023). Notably, advanced models, such as OpenAI's GPT-3, are becoming integral in creating contextually relevant content for hospitality and tourism businesses, spanning marketing, customer communication, and personalized recommendations (Abrokwah-Larbi, 2023). For instance, within the hospitality and tourism marketing field, ChatGPT has emerged as a versatile tool that allows hotels and travel agencies to provide personalized and interactive customer services, tailored recommendations, and engaging feedback (Guha et al., 2023). For example, the application of GAI extends beyond ChatGPT, with various tools such as GPT-4, DALL-E2, Meta's AI Sandbox, Jasper.AI, Midjourney, Peppertype.AI, and Copy.AI showing diverse possibilities in hospitality and tourism marketing (Kshetri et al., 2023). Take GPT-4, the latest version of OpenAI's GPT model, for example; it excels in generating high-quality, multilingual content tailored for different platforms, including blogs, social media, emails, ads, and websites, allowing hospitality and tourism businesses to communicate effectively with diverse audiences (Robbert et al., 2023). Recent surveys by Salesforce, the Boston Consulting Group, and Botco.AI highlight the substantial advantages of incorporating GAI marketing. These include significant time savings, enhanced personalization, improved efficiency, increased productivity, and better overall marketing performance (Kshetri et al., 2023). Through the automation and personalization of marketing tasks, GAI contributes to heightened customer satisfaction, loyalty, and strategic optimization in the ever-evolving landscape of hospitality and tourism marketing.

## **Overview of Studies**

This study investigated the risks and benefits of integrating GAI into hospitality and tourism marketing, as perceived by professionals in the United States. The study incorporated a mixed-methods approach, combining qualitative and quantitative methods. The first study utilized a qualitative research approach to collect insights directly from industry professionals, setting the foundation for the subsequent quantitative study (Hollin et al., 2020). The second study utilized a quantitative design, integrating qualitative themes identified in the initial study to collect quantitative data from a larger sample (Hendren et al., 2023). Figure 1 shows the research design for both studies.

In Study 1, a qualitative study was conducted where 20 hospitality and tourism marketing professionals were selected based on their expertise and industry experience. Participants actively expressed their perceptions of the benefits and limitations of GAI in hospitality and tourism marketing through 200-word open-ended responses. The goal of this method was to obtain the perspectives and observations. Thematic analysis is applied to systematically examine and categorize the interview data, highlighting consistent patterns and themes (Peel, 2020). Professionals expressed concerns regarding potential data privacy issues associated with GAI, the impact on customer trust, and the absence of clear ethical guidelines.

**Figure 1: Research Design*****Study 1: Qualitative Study***

Additionally, there were reflections on the risk of over-reliance on GAI in marketing campaigns and the adequacy of current security measures. On the positive side, participants acknowledged the potential for GAI to enhance customer personalization and engagement, improve operational efficiency, provide a competitive advantage, drive innovation in marketing strategies, and contribute to better predictive analytics for decision-making in the hospitality and tourism sector. These qualitative insights from Study 1 laid the groundwork for developing the closed-ended survey questions used in the subsequent quantitative study of Study 2.

***Study 2: Quantitative Study***

The second study utilized a quantitative design, integrating qualitative themes from the initial study to collect quantitative data from a larger sample. This study utilized a self-administered online survey as the data collection instrument (Hands, 2022). The survey consisted of 10 closed-ended questions divided into two main categories: risk-related and benefits-related questions. The risk-related questions aimed to assess the level of concern and awareness of the potential challenges and threats associated with using GAI in hospitality and tourism marketing, such as data privacy, customer trust, ethical considerations, dependency on technology, and security measures. The benefits-related questions aimed to evaluate the degree of appreciation and recognition of the potential advantages and opportunities offered using GAI in hospitality and tourism marketing, such as personalization and engagement, operational efficiency, competitive advantage, innovation impact, and predictive analytics. Participants responded to the questions using a 5-point Likert scale. The survey also included demographic questions to collect information about the participants' profile, such as gender, age, years of experience, position, type of organization, current use of GAI, familiarity with GAI, and geographical location.

A convenience sample of 163 hospitality and tourism-marketing professionals in the United States received the survey, with outreach conducted through various industry associations and networks. The email invitation explained the purpose and scope of the study, the expected duration and format of the survey, the confidentiality and anonymity of the responses, and the researcher's contact details. The email also provided a link to access the online survey hosted on Amazon Mechanical Turk (Ali et al., 2023; Cobanoglu et al., 2021), and the data collection period lasted for two weeks, from November 15, 2023, to November 29, 2023. To analyze the data used descriptive statistics and frequency distributions to summarize the responses and identify the main trends and patterns among the participants (Mooi et al., 2018).



## Findings

This study's sample population comprised 163 hospitality and tourism-marketing professionals from diverse regions across the United States. These professionals participated in an online survey to assess the risks and benefits of GAI implementation within their industry. The demographic characteristics of the participants are in Table 1. Most respondents were male, 74%, while females comprised 26% of the sample. The average age of participants was 41.2 years ( $SD = 9.5$ ). On average, respondents reported 8.6 years of experience in hospitality and tourism marketing ( $SD = 5.2$ ). Participants held various positions within the industry, with 40% serving as marketing managers, 30% as digital marketing specialists, 20% as public relations managers, and 10% in other roles. Regarding organizational affiliation, 50% of respondents worked for hotels/resorts, 20% for travel agencies, 20% for tour operators, and 10% for other entities, including car rental companies, airlines, cruise lines, and online travel platforms.

**Table 1.** Demographic Characteristics of the Participants

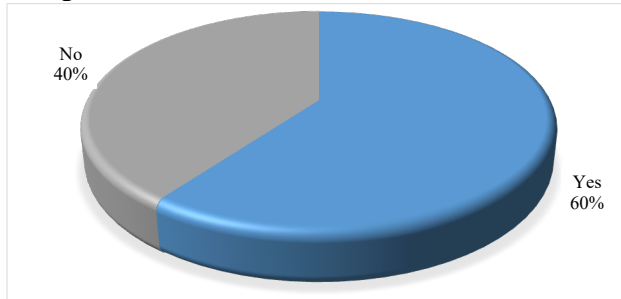
Demographic Variable	Category	%
Gender	Male	74
	Female	26
Age	25-34	18
	35-44	30
	45-54	40
	55+	12
Years of experience	Less than five years	30
	5 to 10 years	40
	10 to 15 years	20
	15 years or more	10
Position	Marketing manager	40
	Digital marketing specialist	30
	Public relations manager	20
	Other	10
Type of organization	Hotels/resort	50
	Travel agency	20
	Tour operator	20
	Other	10

The results indicate more than half of the participants (60.1%) utilized GAI for their marketing activities, whereas the remaining participants (39.9%) did not. This suggests widespread adaptation and positive reception of GAI within the hospitality and tourism marketing sector (Capgemini, 2023). The high adoption rate arose from the anticipated benefits that GAI offers, including customized learning support, writing, and brainstorming help, and research and analysis skills (Kshetri et al., 2023). The data presented in Graph 1 highlights the prevalent adoption of GAI among participants and highlights its significance as a strategic tool in contemporary marketing endeavors within the hospitality and tourism industry.

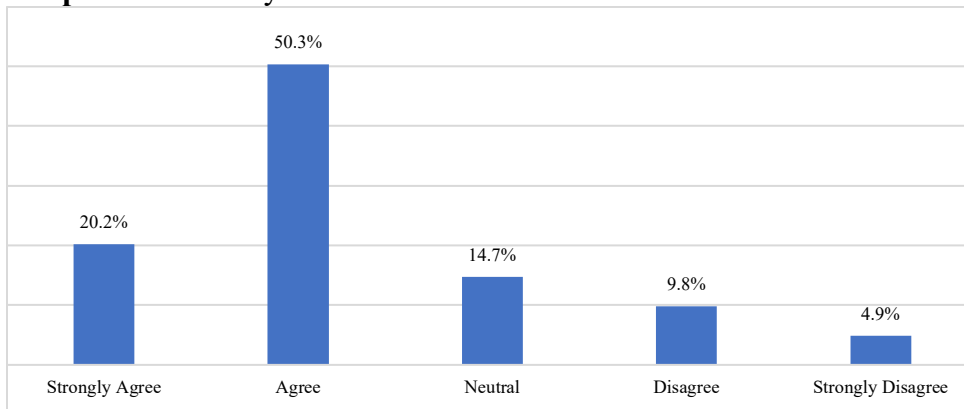
The result also reveals a significant trend regarding participants' familiarity with GAI. A significant majority of respondents (70.5%) either agreed or strongly agreed that they possessed knowledge of GAI, while a minority (14.7%) disagreed or strongly disagreed with this statement. Indicates a strong awareness and understanding of GAI among the participants, suggesting that they have encountered or utilized GAI tools and applications in their professional or educational settings. This high familiarity level is credited to the accessibility, availability, and popularity of

GAI platforms such as ChatGPT, Google’s Bard, and Microsoft’s Bing, which facilitate interaction with large language models for generating content on diverse topics. The result presented in Graph 2 highlights the substantial level of familiarity with GAI among participants, indicating a notable shift in the perception and adoption of this technology within the hospitality and tourism industry.

**Graph 1.** The Results of the Current Use of GAI

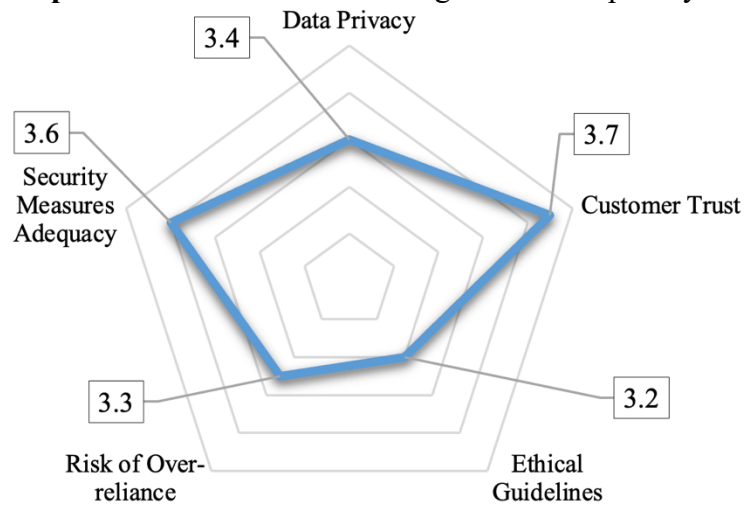


**Graph 2.** Familiarity With GAI



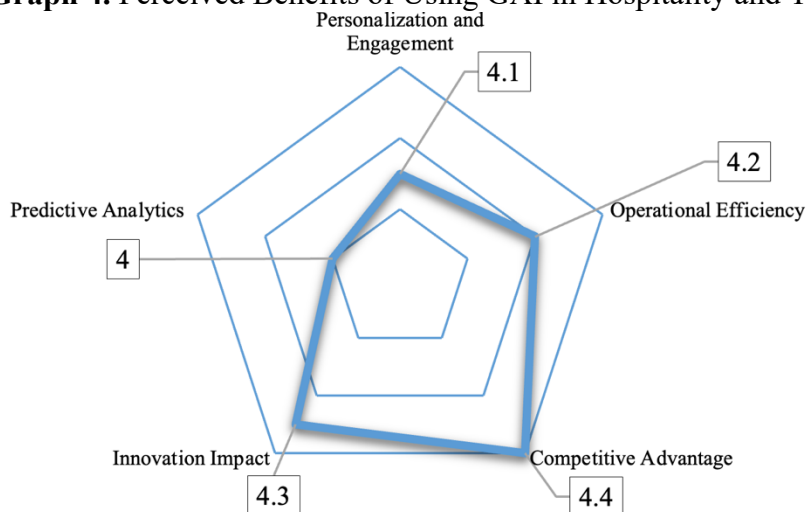
### ***Perceived Risks of Using GAI in Hospitality and Tourism Marketing***

The participants were asked to rate their concern about five potential risk factors associated with using GAI in hospitality and tourism marketing: data privacy, customer trust, ethical considerations, dependency on technology, and security measures. The results indicate that the participants were moderately concerned about the potential risks of using GAI in hospitality and tourism marketing, with customer trust and security measures being the most concerning factors and ethical considerations being the least concerning factor. These results suggest that the participants perceived different levels of risk associated with using GAI in hospitality and tourism marketing and that customer trust and security measures were the most important factors to consider when implementing GAI in the industry. The data presented in Graph 3 offers valuable insights into the involved perspectives of hospitality and tourism marketing professionals regarding the perceived risks associated with GAI adoption in their industry. The survey results are in Graph 3 below.

**Graph 3.** Perceived Risks of Using GAI in Hospitality and Tourism Marketing

### ***Perceived Benefit of Using GAI in Hospitality and Tourism Marketing***

The participants rate their level of agreement with five potential benefit statements related to the use of GAI in hospitality and tourism marketing: personalization and engagement, operational efficiency, competitive advantage, innovation impact, and predictive analytics. The results indicate that the participants agreed with the potential benefits of using GAI in hospitality and tourism marketing, with competitive advantage and innovation impact being the most agreed-upon statements and predictive analytics being the least agreed-upon statement. These results suggest that the participants perceived different levels of benefit associated with using GAI in hospitality and tourism marketing and that competitive advantage and innovation impact were the most valued benefits of using GAI in the industry. The result presented in Graph 4 explains the perceptions of hospitality and tourism marketing professionals regarding the potential benefits associated with integrating GAI into their industry. The survey results in Graph 4 below.

**Graph 4.** Perceived Benefits of Using GAI in Hospitality and Tourism Marketing

## Discussion

The study used a mixed-methods approach, consisting of a qualitative and a quantitative study, to collect and analyze the data from 20 and 163 participants, respectively. The qualitative study revealed five main themes related to the perceived risks of using GAI in hospitality and tourism marketing: data privacy, customer trust, ethical considerations, dependency on technology, and security measures. These themes were consistent with the literature review, which identified similar challenges and concerns associated with the use of GAI in various domains and contexts (Floridi, 2023; Raj et al., 2023; Yallop et al., 2023). The quantitative study confirmed that the participants were moderately concerned about the potential risks of using GAI in hospitality and tourism marketing, with customer trust and security measures being the most concerning factors and ethical considerations being the least concerning factor. These results suggest that the participants were aware of the possible negative consequences of using GAI in their industry and that they valued the quality and credibility of the information and services provided by their organizations and the privacy and safety of their customers and partners (Bulchand-Gidumal et al., 2023).

The study also revealed differences and similarities between the qualitative and quantitative data regarding the perceived risks of using GAI in hospitality and tourism marketing. For example, the qualitative data showed that the participants were concerned about the accuracy of the generated content and the possibility of generating false or misleading information that could harm their reputation or trust. However, the quantitative data showed that the participants were less concerned about accuracy than other risk factors. Indicate that the participants had different levels of awareness or experience with the accuracy of GAI or that they had different expectations or standards for the quality of the generated content. Another example is that the qualitative data showed that the participants were concerned about the ethical issues related to the use of GAI, such as the ownership, authorship, and responsibility of the generated content and the potential impact on human creativity and agency. However, the quantitative data showed that the participants were the least concerned about the ethical factor among the risk factors. Indicate that the participants had different views or values on the ethical aspects of GAI or that they had different priorities or preferences for the use of GAI in their industry.

The qualitative study revealed five main themes related to the perceived benefits of using GAI in hospitality and tourism marketing: personalization and engagement, operational efficiency, competitive advantage, innovation impact, and predictive analytics. These themes were consistent with the literature review, highlighting the potential advantages and opportunities of using GAI in various domains and contexts (Baidoo-Anu & Ansah, 2023; Rane et al., 2023). The quantitative study confirmed that the participants agreed with the potential benefits of using GAI in hospitality and tourism marketing, with competitive advantage and innovation impact being the most agreed-upon statements and predictive analytics being the least agreed-upon statement (Ghimire et al., 2023). These results suggest that the participants recognized the value and potential of using GAI in their industry and that they appreciated the ability and flexibility of GAI to create novel and personalized content for their customers and partners (Dogru et al., 2023).

The study also revealed differences and similarities between the qualitative and quantitative result regarding the perceived benefits of using GAI in hospitality and tourism marketing. For example, the qualitative data showed that the participants believed that GAI could enhance customer

personalization and engagement by creating customized and relevant content that matches customers' needs, preferences, and behavior. However, the quantitative data showed that the participants agreed less with the personalization and engagement statement than the other benefit statements. Indicate that the participants had different perceptions or experiences with the personalization and engagement of GAI or that they had different challenges or barriers to implementing GAI in their customer relationship management. Another example is that the qualitative data showed that the participants believed that GAI could improve operational efficiency and reduce costs by automating and optimizing the content creation and distribution process. However, the quantitative data showed that the participants agreed less with the operational efficiency statement than the other benefit statements. Indicate that the participants had different opinions or evidence on GAI's operational efficiency and cost reduction or had different trade-offs or considerations for using GAI in their marketing operations.

## **Conclusion**

The study conducted a comprehensive investigation of the use of GAI in hospitality and tourism marketing, applying a mixed-methods approach that combined quantitative and qualitative data to understand the views of 163 industry professionals on the potential benefits and risks of adopting GAI in their businesses. The study revealed that GAI has considerable potential to enhance marketing strategies by creating personalized and engaging content and services that cater to the needs and preferences of customers and partners. However, the study also identified ethical and social challenges that may arise from using GAI in marketing, such as data protection, intellectual property, consumer protection, competition, or human rights. The study advocated for a responsible and ethical approach to implementing GAI in marketing, emphasizing the importance of adhering to established principles and guidelines of responsible and ethical AI and ensuring transparency, accountability, and human involvement in the content creation process. Furthermore, the study highlighted the policy implications of employing GAI in marketing and emphasized the necessity for clear and consistent rules and regulations addressing ethical, legal, and social issues and challenges. These regulations should align with existing or emerging legal and ethical frameworks and standards, such as the General Data Protection Regulation (GDPR) from the European Union, the California Consumer Privacy Act (CCPA), and the UNESCO Recommendation on the Ethics of AI.

## ***Theoretical Implications***

This study explores the theoretical implications of GAI for hospitality and tourism marketing. It adds to the existing literature on GAI by revealing its advantages and disadvantages for this specific industry (Dogru et al., 2023). It also investigates the views and experiences of industry experts, enhancing the academic discussion on using GAI in marketing settings and providing valuable insights into its diverse aspects (Abrokwah-Larbi, 2023). Furthermore, the study explains the complex interaction between technological innovation and industry practices, providing theoretical foundations for understanding the complexities involved in GAI adoption (Wach et al., 2023). This deeper theoretical understanding opens the door to creating detailed frameworks and models. This study explains how technology transforms marketing strategies in the hospitality and tourism industry. (Ooi et al., 2023). Therefore, the theoretical implications of this study extend far beyond its immediate scope, offering valuable contributions to the broader landscape of marketing theory and practice. Scholars can examine the underlying theories explaining its adoption to hold

the complex interactions involving GAI for hospitality and tourism marketing. This can help them to build models that are more robust and inform future studies and applications in this changing domain.

### ***Practical Implications***

The findings of this research hold significant practical implications for practitioners and stakeholders in the hospitality and tourism marketing domain. It informs industry professionals of the benefits and risks of adopting GAI, giving them valuable insights to guide their strategic choices (Kar et al., 2023). Practitioners can use the benefits of GAI, such as improved personalization and engagement, operational effectiveness, and competitive edge, to enhance their marketing strategies and boost their business performance (Bulchand-Gidumal, 2022). Additionally, being aware of the potential risks, such as data privacy issues and ethical concerns, enables stakeholders to take preventive actions to address these challenges and build trust among customers and partners (Dogru et al., 2023). Furthermore, the study highlights the need to adopt ethical and responsible frameworks for GAI integration, stressing transparency, accountability, and human involvement in content creation processes (Ooi et al., 2023). By following these principles, practitioners can manage the complexities of GAI implementation while maintaining ethical standards and protecting consumer trust, thereby maximizing the technology's potential to create value in the hospitality and tourism marketing landscape.

### ***Limitations and Future Research***

The study has some limitations that can be acknowledged and considered when interpreting the results and conclusions. First, the study used a convenience sample of hospitality and tourism-marketing professionals in the United States contacted through various industry associations and networks. This limits the representativeness and generalizability of the findings, as the sample may not reflect the diversity and characteristics of the population of interest. Second, the study used a self-administered online survey as the data collection instrument for the quantitative study. This may introduce some biases and errors, such as social desirability bias, response bias, or measurement error, as the participants may not answer the questions honestly, accurately, or consistently. Third, the study used a mixed-methods approach, consisting of a qualitative exploration and a quantitative investigation, to collect and analyze the data. This may introduce some challenges and difficulties, such as the data integration and interpretation, the findings' validity and reliability, and the conclusions' consistency and coherence. Future studies should refine measurement tools for assessing GAI adoption in hospitality and tourism marketing by adapting or developing new scales. These methodological improvements contribute to a better understanding of GAI's implications in the industry, supporting informed decision-making and advancing scholarly discourse.

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