

INTEGRATING GENERATIVE AI FOR CULTURAL INTELLIGENCE DEVELOPMENT AND BUSINESS MODEL INNOVATION IN TOURISM ENTREPRENEURSHIP

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Abstract

Cultural intelligence, including foreign language skills, is essential in tourism business services. However, it often remains a communication gap between many tourism entrepreneurs and international tourists. Meanwhile, the rapid development of AI technology presents new opportunities to bridge this gap through interactive-adaptive language learning, contextual translation, as well as creative content creation for tourism product promotion. This article discusses the potential integration of generative artificial intelligence (GenAI) and cultural intelligence (CQ) in encouraging tourism business model innovation in tourism entrepreneurship, particularly among micro and small enterprises (MSEs). This article employs qualitative descriptive method based on conceptual approach. The study critically evaluates the role of GenAI in enhancing the cultural intelligence, innovative tourism product development, and business model innovation (BMI). It is concluded that AI literacy and language competencies are fundamental aspects in digital transformation process toward sustainable smart tourism entrepreneurship practice.

Keywords: Tourism business, Business Model Innovation, Generative AI, Cultural Intelligence, Innovation

A. INTRODUCTION

Tourism sector is one of the strong drivers of creative economy in a country which could involve active interaction with foreign languages and cultures. In the context of tourism micro and small enterprises (MSEs), the ability to communicate with foreign languages and understand different cultures are essential both in attracting and retaining the foreign tourists as costumers. However, tourism sub-sectors differ significantly in terms of resources, access to finance, skills, culture, and other contextual factors, making digital transformation a considerable challenge for tourism business organizations (Santarsiero et al., 2024) . Generally, tourism MSEs face challenges and limitations in terms of foreign language and cultural understanding as well as to innovate their business within the global market.

The expansion of tourism entrepreneurship over the past decade has been driven by the pervasive integration of technology into tourists' daily lives and the growing demand for travel experiences that offer intangible value and distinctiveness (Varotsis, 2022) . In other words, the tourism industry is currently experiencing a transformative revolution driven by the rapid advancement and integration of digital technologies (Suanpang & Pothipassa, 2024). In this regard, the rapid development of generative artificial intelligence (AI), which is now publicly accessible, offers significant potential to address gaps in communication,

intercultural understanding, and business innovation. GenAI can therefore serve as a promising tool for new ventures to adapt to these emerging needs. Widely used platforms such as ChatGPT, Gemini, Meta AI, and Veo (for visual generation) enable tourism micro and small enterprises (MSEs) to engage with foreign languages in context, gain insights into market preferences across different countries, and create visual content at a low cost—or even free of charge. Thus, the emergence of artificial intelligence (AI) creates new prospects for business model innovation within enterprises (Zhang et al., 2025).

In addition, this trend aligns with the concept of inclusive digital transformation, wherein micro and small enterprises, compared to medium and large firms, often face resource constraints in marketing their businesses. They also tend to lack financial support and human resources for employee training. Within tourism ventures, AI can play a significant role in fostering innovation across products, marketing, and service quality. Such integration may lead to the transformation of tourism MSEs' business model innovation, positively influencing their product development, value propositions, customer relationships, and the personalization of tourism experiences.

The latest studies investigate the relationship between digital competencies and employability factors, including foreign language proficiency, among small and medium-sized enterprises (SMEs) operating in the tourism sector in Colombia (Zuñiga-Collazos et al., 2025). It is also noted that AI can effectively support business model innovation in digital platform enterprises. (Zhang et al., 2025). While regarding the vital role of understanding the tourists' cultural differences had been carried out to increase customer satisfaction for business competitive advantage in Thailand (Thitthongkam, 2013). However, the last paper does not include the integration of AI to encourage the intercultural intelligence among the tourism business in the region.

This article explores the potential integration of GenAI as a means to foster cultural intelligence, including language proficiency, as well as to encourage the creativity and innovation, positioning it as an innovative strategy within the business models of tourism SMEs.

B. RESEARCH METHOD

This study adopts a qualitative descriptive method within a conceptual framework, based on theory synthesis type (Jaakkola, 2020). The analysis is focused on the authors' perspectives on tourism entrepreneurship, digital transformation, and cross-cultural understanding issues in tourism context. This reflective approach is helpful to develop new insights for further empirical research, academic and professional discussion.

This study involves three main conceptualization processes. The first is the identification of key issues, namely the gap in foreign language proficiency, limited intercultural awareness, and low innovation capacity among tourism SMEs in the digital era. *Secondly*, the conceptual analysis, which aims at linking the key concept of Business Model Innovation (Osterwalder et al., 2010) and cultural intelligence (Earley & Ang, 2003) as well as the practical concept of integrating AI in enhancing the product and service innovation.

Thirdly, A reflective argumentation, which discusses opportunities and challenges in the integration of AI in encouraging digital transformation and sustainable innovation among tourism MSEs.

C. FINDINGS AND DISCUSSION

The fast-paced growth of technology, particularly artificial intelligence (AI), can be considered as a great opportunity in honing creativity and innovation among tourism MSMEs by ethically adopting its use in enhancing business creativity and innovation. Compared to medium and large enterprises, micro and small enterprises generally have limited resources facing digital transformation in marketing their businesses. Additionally, they may also have lack of financial supports and human resources for training their employees. In tourism ventures, AI would greatly influence such business in advancing innovation, either in their products, marketing, and service qualities. The following are the main insights and discussion on the fundamental role of incorporating GenAI in tourism business model to encourage innovation and empower cultural intelligence among the tourism entrepreneurs or employees.

Generative AI–Cultural Intelligence Framework for Business Model Innovation in Tourism SMEs

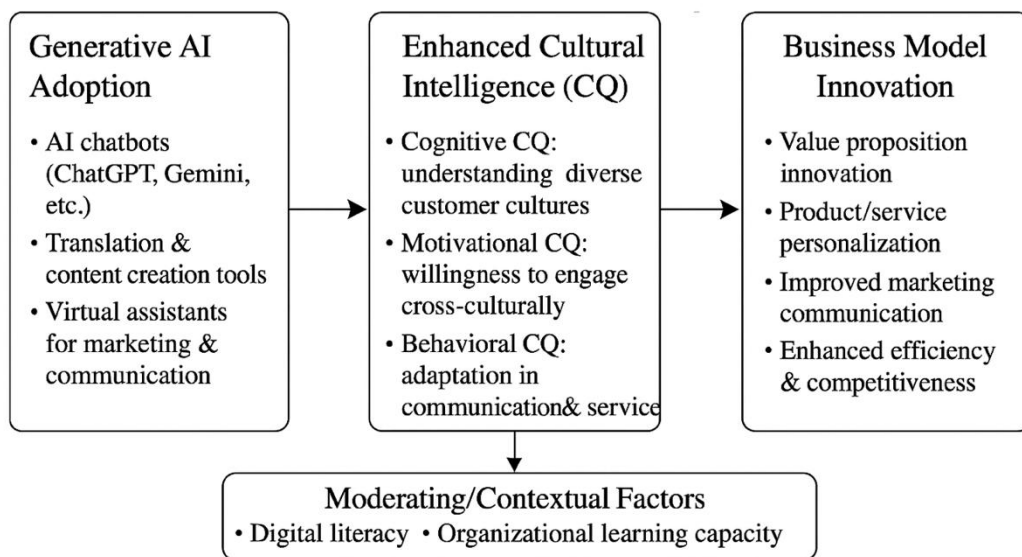


Figure 1. Generative AI-Cultural Intelligence Framework for Business Model Innovation

1. The Use of GenAI to Reinforce Cultural Intelligence

AI technology has been widely integrated across various companies to for value capture as well as products and services enhancement (Jobstreibizer et al., 2025; Jorzik et al., 2024) . To achieve success and remain competitive, individuals engaged in the tourism industry must recognize and understand the potential differences arising from diverse national and cultural backgrounds (Thitthongkam, 2013) . The ability to speak and

understand a foreign language, including just for the basic commands, serves as a fundamental aspect to effectively communicate with a foreign tourist as a customer. However, enrolling in a traditional language training may not be affordable by some micro and small businesses in terms of financial and time constraints. In this regard, AI, such as ChatGPT or Gemini, offers practical solution through adaptive and thematic language learning based on their needs and levels. This widely available platform allows its users to actively practice linguistic skills, especially speaking and writing, which will be highly beneficial both for direct interaction and in content creation for their marketing campaigns.

In addition to its role as a digital interactive language tutor and translation machine, AI allows a business organizer to develop cultural intelligence. For instance, by thoroughly analyzing data on tourists' reviews through the internet or social media, AI could identify the patterns of cultural preferences, communication styles, and the service expectation from international tourists. This information helps the MSEs workers to adapt with the promotional style, language choice, and service adjustment to better align with the overall tourist's characteristics.

2. AI as a Driver of Tourism Product and Marketing Innovation

Tourism entrepreneurship products, ranging from culinary, accommodation, attractions, as well as travel and tour guiding services, need to be actively and effectively promoted and delivered to prospective consumers. In the digital economy era, product and marketing innovation do not entirely rely to physical resources any more. GenAI allows tourism MSEs workers to offer creative tourism products with a minimum budget. AI platforms such as Veo or Veo3.1, Runway AI, and AI image generator could generate creative promotional videos automatically which display the product contents, such as food and beverages, fashions, tourism accommodation, objects of destination without hiring professional videographers or graphic designers. Furthermore, the generated video or image could be creatively combined with the non-AI contents for a more realistic result which could also strengthen the tourism destination branding.

While it has been widely acknowledged that digital marketing, such as social media, has been impactful in tourism business (Deb et al., 2024), AI could further assist the analysis of global tourism trend by identifying on-demand tourism products such as wellness tourism, eco-tourism, or digital nomad tourism. The result of the analysis could then serve as the innovation foundation of new offerings and as a more personalized communication strategy. In fact, in the tourism industry, artificial intelligence has been progressively adopted to enhance operational efficiency, tailor customer experiences, and optimize the use of resources (López-Naranjo et al., 2025).

In terms of marketing communication, AI could support multilingual marketing service, allowing tourism MSEs to spread promotional contents on social media in multiple languages. The selection of languages in business advertising can significantly shape consumer perceptions and communication strategies across different linguistic contexts, thereby enhancing the overall effectiveness of international marketing campaigns (Alcántara-Pilar et

al., 2024) . However, instead of the wide practices of relying heavily on AI automatic translation, whenever possible, MSEs workers should also use their own voices after learning the foreign languages and marketing strategies from AI. As a result, this practice could minimize promotional budget and expand the market segmentation.

3. *GenAI-Integrated Tourism Business Model*

In the modern era, the Business Model Canvas (BMC) emphasizes value creation and value propositions rather than solely focusing on how a business generates profit (Richards, 2021). At the same time, tourism companies have largely adopted digital business model in delivering value to consumers via multiple application services (Ammirato et al., 2022). The integration of GenAI in business has brought a significant change in tourism business model, especially in the aspect of value creation, delivery, and value capture. This means that the rise of digital technologies has profoundly reshaped how value is created in markets marked by diverse consumer demands, encouraging firms to reconfigure their business models and rethink the foundations of value creation (Aagaard & Tucci, 2024).

In terms of Business Model Canvas concept, GenAI could play an essential role in some aspects for the cultural intelligence development in tourism MSEs. In terms of *Value Proposition*, integrating GenAI enables the tourism entrepreneurs and workers to create and offer more personalized tourism experience through innovative products, tourists' preferences, and automatic recommendation. Responsibly utilizing AI can lead to potential creative product developments. This can be achieved by actively exploring valuable insights and critical ideas to propose innovative approaches through the products offered. Regarding *Customer Relationship*, the tourism SMEs workers could use GenAI to interactively act as a language tutor and intercultural communication consultant to improve the level of interaction with their costumers' and service satisfaction. Further, it offers multilingual chatbot and automatic recommendation system to establish fast and responsive communication with tourism costumers or clients.

In the *Channel* block, this aspect extends beyond how or where the consumers obtain the products, but also on how a business markets or promotes them. In this regard, the digital promotion could be visually more attractive and creative with the role of a GenAI platform. For instance, by using generative visual or audio contents to expand digital promotion reach. Lastly in the *Cost structure*, the relevant automatic responses related to the cultural intelligence (CQ) development and product or service designs could significantly contribute to the venture's budget efficiency in marketing campaign, product design, and staff training. For instance, reducing language and intercultural communication training, business publication designs, and product development ideas with the help of GenAI responses.

Additionally, in an increasingly dynamic and complex market environment, AI enables organizations to respond swiftly to market shifts, make data-informed decisions, and strengthen their core competitiveness (Wu, 2024) . GenAI helps tourism SMEs adapt to the consumer behaviour trends among tourists in the digitalization era. In which currently

tourists are inclined to actively looking for information on authentic experiences and tourism products online. Therefore, tourism ventures could design data-driven (consumer) services using GenAI without big infrastructure facilities with large budgets. This means, that AI could serve as a business model innovation catalyst that supports sustainability and inclusiveness of micro and small tourism business.

This means that GenAI is not only considered as a tool for efficiency, but also as a source of business model innovation which increase the business added-value and competitive advantage among tourism MSEs. Yet, it is undeniable that the success of this transformation depends heavily on the level of digital literacy, technological adoption readiness, as well as supports for tourism ecosystem which is adaptive to change.

D. CONCLUSION

This study suggests that the mastery of digital technologies and cultural intelligence substantially contributes to organizational effectiveness and competitiveness, fostering innovation and sustainable growth in rapidly changing business contexts (Zuñiga-Collazos et al., 2025) . Generative AI open opportunities to SMEs workers in tourism industry to strengthen cultural intelligence, including multilingual competencies, as well as business model innovation. Through the integration of GenAI, the tourism entrepreneurs can independently familiarize themselves with foreign cultures and languages, understand intercultural consumer preferences, and create visual promotional contents as well as product innovation ideas with minimum budget. As a result, this could enhance the efficiency and added value of tourism products.

In addition, the practical implication of this conceptual paper is the need to strengthen AI literacy and foreign language or culture competencies among (tourism) micro and small enterprise employees. Governmental agencies, tourism associations, and educational institutions should collaborate more in providing affordable and applicable trainings related to this skillset, so that AI technology can be optimally integrated in their profession. Furthermore, policymakers should promote public and private investment in research and development (R&D) to foster AI-driven innovation and support scientific advancements that address digital transformation challenges in business (OECD, 2024) . The importance for tourism enterprises to invest in digital skill development, embed research and innovation within their organizational practices, enhance adaptability to change, and recognize foreign language proficiency as a strategic asset (Zuñiga-Collazos et al., 2025) . It is recommended that tourism businesses, particularly those in the creative industries, continue to embrace the latest trends in digital technology. Conceptually, this article contributes to the perspective development of the integration of GenAI for cultural intelligence development and business model innovation in tourism entrepreneurship context.

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