AIDRIVEN DIGITAL MARKETING STRATEGIES FOR AGROTOURISM DEVELOPMENT IN RURAL AREAS: A FRAMEWORK FOR SUSTAINABLE TOURISM GROWTH IN GORJ COUNTY

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ABSTRACT: This study explores the role of Artificial Intelligence (AI) in enhancing digital marketing strategies for agritourism development in rural areas, with a specific focus on Gorj County. As AI tools such as predictive analytics, automated content generation, and intelligent chat bots gain importance in tourism marketing, understanding their applicability in rural and agritourism environments becomes essential. To investigate this, the research relies exclusively on a field-based empirical method: a structured questionnaire administered to 100 respondents, including agritourism operators, rural entrepreneurs, and visitors. The questionnaire examined digital practices, perceptions of AI technologies, awareness levels, and readiness for adopting AI-driven marketing solutions. The findings reveal a strong interest in digital transformation, but also highlight significant challenges, such as limited technological knowledge, insufficient resources, and low familiarity with AI tools among rural stakeholders. Despite these barriers, respondents expressed openness toward integrating AI in future promotional activities, recognizing its potential to improve visibility, personalize communication, and strengthen competitiveness within the agritourism sector. The study contributes to current literature by offering empirical insights into AI adoption in a rural context and proposes strategic directions for fostering digitally enhanced and sustainable agritourism development in Gorj County.
KEYWORDS: agritourism; artificial Intelligence (AI); digital marketing; rural tourism development; Technological Adoption; Tourism Innovation.

1.INTRODUCTION

Agritourism has become an increasingly important component of rural development strategies, offering opportunities for economic diversification, cultural preservation, and community resilience. As rural destinations compete for visibility in an increasingly digitalized tourism market, effective marketing becomes essential for attracting visitors and communicating authentic rural experiences. In this context, Artificial Intelligence (AI) has emerged as a transformative force reshaping how tourism businesses plan, implement, and evaluate their digital marketing efforts. Recent studies show that AI technologies such as predictive analytics, machine learning, chatbots, and automated content generation significantly enhance destination marketing performance by enabling tourism operators to better understand consumer behaviour, personalize communication, and optimize online visibility (Florido-Benítez & del Alcázar Martínez, 2024). The integration of AI into digital marketing strategies has been identified as one of the key pillars

supporting the development of smart tourism destinations, helping both urban and rural businesses adapt to evolving digital expectations (Muntean et al., 2024). In the broader tourism industry, AI has already demonstrated its potential to automate tasks, improve customer engagement, and support data-driven marketing decisions (Antczak, 2025). For small rural tourism enterprises including agritourism farms and guesthouses AI tools can compensate for limited human resources, reduce operational effort, and increase digital competitiveness, particularly when used for social-media content automation, chatbot customer service, and personalized recommendations. Research also highlights that digital transformation is essential for rural tourism growth, helping rural destinations enhance their visibility and strengthen their connection with the online consumer (Zhang et al., 2024). Despite these advantages, the adoption of AI tools in agritourism marketing remains limited, particularly in rural regions where technological awareness, digital skills, and financial resources are often insufficient. Literature suggests that rural tourism operators may perceive AI as complex, inaccessible, or incompatible with small-scale operations (Li et al., 2022). This highlights the need for empirical research focused on understanding how rural entrepreneurs perceive AI technologies, what barriers they encounter, and to what extent they are willing to integrate AI-driven marketing solutions into their businesses.

To address this gap, the present study explores the role of AI-driven digital marketing strategies in agritourism development based entirely on a questionnaire applied to 100 respondents involved in rural tourism. The research assesses their perceptions, current practices, expectations, and readiness to adopt AI technologies in promotional activities. By analyzing their responses, the study aims to identify opportunities, challenges, and potential directions for integrating artificial intelligence into rural marketing practices, with a specific focus on the agritourism context.

2.METHODOLOGY

Understanding how Artificial Intelligence (AI) can enhance digital marketing in agritourism is essential because rural tourism operators often struggle to remain visible and competitive in an increasingly digital environment. Despite the tourism potential of Gorj County, many businesses lack the digital skills, financial resources, and technological support necessary to adopt modern promotional tools. At the same time, AI is becoming a central element of tourism

marketing, helping destinations attract visitors through personalized communication, automated customer interaction, and improved online visibility. However, little is known about how rural entrepreneurs perceive AI, whether they are willing to integrate it, and what barriers prevent them from doing so. For this reason, the present research relies exclusively on a questionnaire administered to 100 participants involved in agritourism activities. The goal is to better understand their digital practices, awareness of AI tools, challenges faced in adopting new technologies, and expectations regarding future innovation. By identifying these perceptions and limitations, the study provides valuable insights into how AI-driven strategies can realistically support agritourism development in Gorj County and similar rural regions. The use of a questionnaire is highly relevant for this study because AI adoption in agritourism is strongly influenced by the perceptions, attitudes, and digital behaviours of the people directly involved in rural tourism. Unlike large tourism companies, agritourism businesses operate at a small scale, where individual knowledge, experience, and willingness to use technology play a decisive role in shaping marketing practices. Therefore, understanding how operators, entrepreneurs, and visitors evaluate AI tools is essential for identifying real needs, barriers, and opportunities. A questionnaire applied to 100 participants provides direct, first-hand insights into the current level of digitalization, awareness of AI technologies, and openness toward integrating AI-driven marketing strategies. These perspectives cannot be captured through secondary data alone, because official statistics do not measure technological readiness, perceived usefulness, or the specific challenges rural businesses face. By collecting empirical data through the questionnaire, the study can accurately assess the local context of Gorj County, help evaluate the feasibility of AI adoption, and support the development of practical, evidence-based strategies for enhancing digital competitiveness in agritourism. The research was based on a structured quantitative questionnaire applied to 100 participants involved in agritourism activities, including operators, rural entrepreneurs, and visitors. The questionnaire was designed using a Likert-type scale from 1 to 5, where:

1 = very low / strongly disagree

2 = low

3 = moderate

4 = high

5 = very high / strongly agree

The instrument contained multiple items grouped into three key variables relevant for this study: AI Awareness, Digital Marketing Use, and Willingness to Adopt AI. Each participant selected a number from 1 to 5, reflecting their level of knowledge, usage, or interest. These values generated the numerical dataset shown in the table of 100 responses. The questionnaire used in this research was a structured quantitative instrument based on a 1–5 Likert scale. It measured three key variables: AI Awareness, Digital Marketing Use and Willingness to Adopt AI. The numerical responses provided by 100 participants were analyzed to identify patterns, and interpretation was based on the distribution of scores within each variable.

Table no.1 Interpretation of Questionnaire Results

Variable	Findings	Interpretation
AI Awareness Moderate Knowledge	Most values between 2–4. Respondents have heard about AI and understand the basic idea, but lack deep knowledge or practical experience.	Respondents know what AI is, but they are not yet confident in how to use it for marketing or tourism activities. Awareness exists, but real understanding is still limited.
Digital Marketing Use Fairly High Usage	Most values between 3–5. Rural operators already use tools like Facebook, Instagram, Booking, and websites, showing comfort with digital platforms.	Digital marketing tools are already used by many participants. This provides a strong foundation for introducing AI, as basic digital behaviors are already in place.
Willingness to Adopt AI Very High	Most values between 4–5. Participants are highly open to integrating AI tools such as chatbots, automated content, AI ads, and recommendation systems.	Even if respondents don't fully understand AI, they are curious, motivated, and willing to adopt it in the future. Openness is high, making AI adoption realistic if training is provided.

Based on the distribution of the values, the results from the table no.1 show that although AI awareness is moderate, digital marketing use is already well established and the willingness to adopt AI is very high, indicating strong potential for future technological integration in agritourism.

3.CONCLUSION

The results obtained from the questionnaire provide a clear foundation

for understanding the digital and technological readiness of agritourism stakeholders in Gorj County, and they strongly support the overall conclusions of this study. The table shows that AI awareness is only moderate, with most respondents scoring between 2 and 4, indicating that while people have heard about AI, they lack deeper knowledge of how to apply it in practice. This aligns with the conclusion that training and educational support are essential for AI adoption in rural tourism. At the same time, the variable measuring Digital Marketing Use demonstrates higher scores, mostly between 3 and 5, which confirms that many rural operators already use digital tools such as social media, booking platforms, and websites. This finding supports the idea that agritourism businesses have already begun their digital transformation and possess the basic digital behaviours that can help them integrate more advanced technologies like AI. The most encouraging result is the consistently high scoring on Willingness to Adopt AI, where most responses fall between 4 and 5. This strong openness toward future adoption directly reinforces the study's conclusion that AI implementation in agritourism is not only possible but also highly promising. Even if operators do not have deep AI knowledge, their motivation to learn and adopt new tools creates an opportunity for innovation and growth.

Taken together, the results in the table validate the study's main argument: rural tourism in Gorj County has a solid digital base, strong interest in AI, and clear potential for technological development, but success will depend on improving knowledge, offering training programs, and providing accessible AI solutions tailored to rural needs.

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