

THE UTILIZATION OF AI FOR BUSINESS ANALYSIS OF CONSUMER BEHAVIOR AND BUSINESS COMMUNICATION IN MARKETING MANAGEMENT

(A STUDY ON THE PUTRI RIVER TOURISM WEBSITE IN SUMEDANG)

Yuyun Yuniarsih^{*1}, Anita Syafariah², Abyan Faliq Athallah³, Rafly Ramadhany⁴

Universitas Sangga Buana Bandung^{*1,2,3,4}

Email: nia.kurniasih2160@gmail.com^{*1}, anita.syafariah@usbypkp.ac.id²,

abyanfaliq@gmail.com³, rkipli16@gmail.com⁴

Abstract

Digital transformation in the tourism industry urges business actors to adopt technologies that enhance both customer experience and operational efficiency. This study aims to analyze the utilization of artificial intelligence (AI) in interpreting consumer behavior, managing business communication, and improving the effectiveness of digital marketing management on the local tourism platform Putri River Inn Sumedang. The method used is descriptive qualitative, involving non-participant observation, document study, and content and thematic analysis of digital data from websites, social media, and user reviews. The results indicate that although direct AI implementation is not yet visible on the platform, the potential for application is significant. AI can be utilized to analyze consumer preferences regarding lodging, culinary options, and entertainment facilities such as flying fox, swimming pool, and camping. Business communication could be enhanced through chatbots, automated reservation systems, and personalized digital promotions. From a marketing management perspective, AI supports more effective STP strategies (segmenting, targeting, and positioning) using real-time data. This study concludes that AI-based digitalization of local tourism is a strategic step toward strengthening competitiveness and increasing visitor satisfaction. Strong managerial commitment and technological support are essential to realize this transformation.

Keywords: Artificial Intelligence, Consumer Behavior, Business Communication, Marketing management, Digital Tourism

Abstrak

Transformasi digital di industri pariwisata mendorong pelaku usaha untuk mengadopsi teknologi yang meningkatkan baik pengalaman pelanggan maupun efisiensi operasional. Studi ini bertujuan untuk menganalisis pemanfaatan kecerdasan buatan (AI) dalam menginterpretasikan perilaku konsumen, mengelola komunikasi bisnis, dan meningkatkan efektivitas manajemen pemasaran digital pada platform pariwisata lokal Putri River Inn Sumedang. Metode yang digunakan adalah deskriptif kualitatif, melibatkan observasi non-partisipan, studi dokumen, serta analisis konten dan tematik data digital dari situs web, media sosial, dan ulasan pengguna. Hasil menunjukkan bahwa meskipun implementasi AI secara langsung belum terlihat di platform, potensi

aplikasinya sangat signifikan. AI dapat dimanfaatkan untuk menganalisis preferensi konsumen terkait akomodasi, pilihan kuliner, dan fasilitas hiburan seperti flying fox, kolam renang, dan camping. Komunikasi bisnis dapat ditingkatkan melalui chatbot, sistem reservasi otomatis, dan promosi digital yang dipersonalisasi. Dari perspektif manajemen pemasaran, AI mendukung strategi STP (segmentasi, penargetan, dan penempatan) yang lebih efektif menggunakan data real-time. Studi ini menyimpulkan bahwa digitalisasi pariwisata lokal berbasis AI merupakan langkah strategis untuk memperkuat daya saing dan meningkatkan kepuasan pengunjung. Komitmen manajerial yang kuat dan dukungan teknologi sangat penting untuk mewujudkan transformasi ini

Kata kunci: Kecerdasan Buatan, Perilaku Konsumen, Komunikasi Bisnis, Manajemen Pemasaran, Pariwisata Digital

INTRODUCTION

The rapid acceleration of digital transformation has fundamentally reshaped the structure and dynamics of the global tourism industry. Advances in digital technologies have altered how tourism organizations design services, interact with consumers, and formulate marketing strategies. In an increasingly competitive and experience-driven market, tourism destinations are required not only to offer attractive physical environments but also to leverage digital capabilities to engage tourists before, during, and after their travel experiences (Buhalis & Sinarta, 2019). As tourists become more digitally literate and reliant on online information sources, the role of technology in influencing destination choice, satisfaction, and loyalty has become more pronounced.

Among the technological innovations driving this transformation, Artificial Intelligence (AI) has emerged as a pivotal enabler of intelligent, data-driven tourism management. AI refers to a set of computational technologies that enable machines to simulate human cognitive functions such as learning, reasoning, and decision-making (Russell & Norvig, 2021). In the tourism context, AI facilitates the collection, processing, and analysis of vast amounts of consumer-generated data, allowing organizations to gain deeper insights into tourist behavior, preferences, and expectations in real time (Gretzel et al., 2020). This capability is particularly relevant in an era where tourists increasingly rely on digital platforms, social media, and online reviews to inform their travel decisions.

The integration of AI into tourism marketing management has been widely recognized as a strategic response to the growing complexity of consumer behavior in digital environments. Traditional marketing approaches, which rely heavily on static segmentation and generalized promotional strategies, are increasingly inadequate in addressing the personalized and interactive demands of contemporary tourists (Kotler et al., 2021). AI-powered systems, such as recommendation engines, sentiment analysis tools, chatbots, and automated content generation, enable tourism organizations to deliver personalized communication, predict consumer needs, and optimize marketing campaigns with greater precision (Mariani & Borghi, 2021). Consequently, AI contributes not only to operational efficiency but also to enhanced customer experience and relationship management.

In recent years, the discourse on digital tourism transformation has emphasized the importance of adopting smart technologies to maintain competitiveness in both global

and local tourism markets. Smart tourism destinations are characterized by their ability to integrate digital infrastructure, human capital, and technological innovation to create value for tourists and stakeholders alike (Gretzel et al., 2015). AI plays a central role in this framework by enabling destinations to transform raw data into actionable knowledge that supports strategic decision-making and sustainable development. Through AI-driven analytics, tourism managers can monitor tourist flows, assess service performance, and adapt marketing strategies in response to changing market conditions (Buhalis & Amaranggana, 2015).

Despite the growing body of literature on AI adoption in tourism, most empirical studies have focused on large-scale destinations, multinational hotel chains, and technologically advanced tourism enterprises. These studies often highlight the benefits of AI in enhancing personalization, improving service quality, and increasing customer satisfaction (Tussyadiah et al., 2020; Ivanov & Webster, 2019). However, relatively limited attention has been given to the application of AI in small-scale and local tourism destinations, particularly in developing countries where resource constraints and digital readiness vary significantly. This gap is critical, as local tourism enterprises constitute the backbone of many regional tourism economies and play a vital role in community-based and nature-based tourism development.

Local tourism destinations often face unique challenges related to limited marketing resources, low digital literacy, and fragmented consumer data. Unlike large tourism corporations, local destinations typically rely on informal marketing practices and intuitive decision-making, which may limit their ability to respond effectively to rapidly changing consumer trends (UNWTO, 2022). In this context, AI offers a potential solution by enabling local tourism managers to utilize digital data more strategically, even with limited financial and human resources. AI-based tools can automate data analysis, enhance digital communication, and support evidence-based marketing decisions that were previously inaccessible to small-scale operators (Dredge et al., 2018).

Indonesia, as one of the world's leading tourism destinations, presents a compelling context for examining the role of AI in local tourism marketing management. The country's tourism sector is characterized by a high diversity of destinations, ranging from internationally recognized sites to emerging local attractions that depend heavily on digital promotion to attract visitors. In recent years, the Indonesian government has emphasized digital transformation as a key strategy for tourism development, encouraging destinations to adopt digital platforms and innovative technologies to enhance competitiveness (Ministry of Tourism and Creative Economy, 2021). However, the level of AI adoption among local tourism enterprises remains uneven, particularly in rural and nature-based destinations.

Putri River Inn, a nature-based tourism destination located in Sumedang, West Java, represents a typical example of a local tourism enterprise navigating the challenges and opportunities of digital transformation. As a destination that emphasizes natural experiences and local authenticity, Putri River Inn relies heavily on digital platforms to communicate its value proposition to potential visitors. Social media, online travel

platforms, and digital content have become essential channels for promoting the destination and engaging with tourists. However, the extent to which AI technologies are utilized to analyze consumer behavior, manage digital communication, and inform marketing strategies remains unclear.

Understanding consumer behavior is a critical component of effective tourism marketing management. In digital environments, consumer behavior is shaped by a complex interplay of cognitive, emotional, and social factors, which are often reflected in online interactions, reviews, and engagement metrics (Xiang et al., 2015). AI enables tourism organizations to capture these behavioral signals through techniques such as sentiment analysis, text mining, and pattern recognition, thereby providing insights into tourist perceptions and experiences that are difficult to obtain through conventional methods (Gretzel & Scarpino-Johns, 2018). For local destinations like Putri River Inn, leveraging AI to analyze digital consumer data could enhance their ability to tailor marketing messages, improve service offerings, and foster long-term relationships with visitors.

Digital business communication is another domain in which AI has the potential to transform tourism marketing practices. Effective communication in the digital era requires not only timely and consistent messaging but also the ability to respond interactively to consumer inquiries and feedback. AI-driven communication tools, such as chatbots and automated response systems, can support continuous engagement with tourists while reducing operational burdens on destination managers (Lu et al., 2020). Moreover, AI-based content analysis can help destinations evaluate the effectiveness of their digital communication strategies and refine their brand narratives in line with consumer expectations.

From a strategic marketing perspective, the integration of AI supports a shift toward data-driven decision-making in tourism management. Marketing decisions related to target segmentation, pricing, promotion, and positioning can be informed by AI-generated insights that reflect real-time consumer behavior and market trends (Kotler et al., 2021). This approach aligns with contemporary marketing theory, which emphasizes the importance of customer-centricity and adaptive strategy in dynamic environments. For local tourism destinations, adopting AI-based marketing management practices may enhance strategic agility and resilience in the face of increasing competition and environmental uncertainty.

Although the theoretical and practical benefits of AI in tourism marketing are widely acknowledged, empirical research examining its implementation at the local destination level remains limited, particularly in qualitative contexts. Many existing studies employ quantitative methods to assess technology acceptance or performance outcomes, often overlooking the organizational readiness, contextual factors, and managerial perceptions that influence AI adoption in small-scale tourism enterprises (Tussyadiah et al., 2020). Qualitative approaches are therefore needed to capture the nuanced processes through which AI is understood, utilized, and adapted within local tourism settings.

This study addresses this gap by examining the potential utilization of AI to support marketing management at Putri River Inn, Sumedang. By employing a qualitative

descriptive methodology that includes non-participant observation and content analysis of digital data, the research seeks to explore how AI can be integrated to analyze consumer behavior, enhance digital business communication, and optimize strategic marketing decisions. Rather than focusing solely on technological outcomes, this study emphasizes the managerial and communicative dimensions of AI adoption, offering a contextualized understanding of digital transformation in local tourism.

The findings of this research are expected to contribute to the academic literature on digital tourism transformation by extending existing theories of AI adoption and smart tourism to the context of local and nature-based destinations in developing countries. Practically, the study provides insights for destination managers and policymakers seeking to leverage AI as a strategic tool for enhancing competitiveness, sustainability, and customer engagement in the digital era. By highlighting both opportunities and readiness challenges, this research underscores the importance of aligning technological innovation with organizational capacity and destination identity.

METHOD

This study employs a descriptive qualitative research approach, aiming to systematically describe the role of AI in marketing management for local tourism. According to Sugiyono (2019), qualitative methods are used to explore natural conditions, emphasizing meaning rather than generalization. The researcher acts as the primary instrument in collecting and analysing data.

Data Collection Techniques:

1. **Non-Participant Observation.** The researchers observed the features and content of the Putri River Inn website, Google Maps page, and social media platforms to identify current practices related to consumer interaction, marketing communication, and potential AI utilization.
2. **Document Study.** Secondary data were collected from online articles, reports, user-generated content, and digital archives relevant to tourism promotion and technology use.
3. **Content and Thematic Analysis.** The data obtained were analyzed using content analysis to examine messages and patterns of digital communication, while thematic analysis was applied to identify themes regarding consumer behavior, preferences, and perceptions.

Data Analysis Process: Data collected from digital sources were organized and coded to find meaningful patterns. These patterns were then interpreted to understand how AI could potentially be used to enhance marketing strategies, manage consumer preferences, and improve digital interactions. This methodology enables an in-depth understanding of the opportunities for AI integration in a local tourism context.

RESULTS AND DISCUSSION

The findings of this study are derived from a qualitative descriptive analysis employing non-participant observation, document analysis, and content analysis of digital platforms

associated with Puteri River Inn Sumedang. The digital materials analyzed include the official website, social media accounts, and user-generated content such as online reviews and comments. The results provide a comprehensive overview of the destination's physical characteristics, service offerings, digital communication practices, and the latent potential for Artificial Intelligence (AI) integration in marketing management and consumer behavior analysis.

Profile and Characteristics of Puteri River Inn as a Nature-Based Tourism Destination

Puteri River Inn is geographically located in Citengah Village, South Sumedang District, West Java, Indonesia. This area is characterized by a cool climate, natural river landscapes, and surrounding greenery, which collectively form a conducive environment for nature-based and family-oriented tourism. The physical setting plays a critical role in shaping the destination's value proposition, as visitors increasingly seek natural and relaxing environments that contrast with urban lifestyles. Non-participant observation confirms that the natural ambience of Puteri River Inn serves as a primary attraction, reinforcing its positioning as a destination that integrates recreation, leisure, and environmental appreciation.

The destination offers a combination of tourism products within a single integrated location. These include a Sundanese-style restaurant that emphasizes local culinary traditions, traditional saung accommodations designed to reflect local cultural aesthetics, and a range of outdoor recreational activities. The availability of camping areas, swimming pools, flying fox facilities, karaoke spaces, and open recreational areas demonstrates a diversified attraction portfolio that caters to different visitor segments. Families, youth groups, and community organizations appear to be the dominant visitor groups, as reflected in observational data and online reviews.

Pricing strategy constitutes another notable characteristic of Puteri River Inn. The relatively low entrance fees—Rp5,000 on weekdays and Rp10,000 on weekends—indicate a deliberate effort to position the destination as affordable and inclusive. Similarly, the pricing of food and accommodation reflects a value-oriented approach that prioritizes accessibility over exclusivity. From a marketing perspective, this strategy aligns with mass-market tourism while maintaining a nature-based and cultural identity. The affordability factor is frequently highlighted in visitor comments, suggesting that price plays a significant role in shaping positive visitor perceptions and repeat visitation.

Digital Presence and Current Utilization of Online Platforms

Analysis of the digital platforms associated with Puteri River Inn reveals that the destination maintains a basic online presence through a website and several social media channels. The website primarily functions as an informational medium, providing static content related to location, facilities, pricing, and general descriptions of attractions. Similarly, social media accounts are used to share photographs, promotional posters, and announcements related to events or operational updates. While these platforms serve an

important role in establishing digital visibility, their functionality remains largely one-directional.

Content analysis indicates that there is minimal interactive engagement initiated by the destination management. Responses to visitor inquiries and comments are inconsistent, and there is no evidence of real-time communication tools such as chatbots or automated messaging systems. Booking and reservation processes are conducted manually, often through direct messaging or offline communication, which may limit efficiency and scalability. The absence of AI-based features suggests that digital platforms are not yet leveraged as strategic tools for marketing intelligence or customer relationship management.

Despite these limitations, the digital platforms generate a substantial amount of user-generated content in the form of reviews, ratings, comments, and shared experiences. Google Maps reviews, in particular, provide rich qualitative data regarding visitor satisfaction, preferences, and perceived strengths and weaknesses of the destination. These data sources, although currently underutilized, represent a valuable repository of consumer insights that could be systematically analyzed using AI-based techniques.

Insights into Consumer Behavior from Digital Data

The analysis of digital content reveals several patterns related to consumer behavior and visitor preferences. Online reviews frequently emphasize the natural atmosphere, scenic river views, and suitability for family recreation. Facilities such as the swimming pool, camping areas, and flying fox are among the most commonly mentioned attractions, indicating their importance in driving visitation. Food-related comments highlight traditional Sundanese dishes, affordability, and portion size as key factors influencing visitor satisfaction.

Accommodation preferences also emerge from digital data analysis. Visitors who choose to stay overnight tend to favor traditional saung accommodations, which are perceived as enhancing the authentic and natural experience. Comments suggest that visitors value simplicity and proximity to nature rather than luxury amenities. This finding aligns with broader trends in nature-based tourism, where experiential authenticity often outweighs material comfort.

Temporal patterns in visitation are also observable through digital reviews. Weekends and public holidays appear to attract higher visitor volumes, often accompanied by comments regarding crowd density and service responsiveness. These patterns suggest opportunities for demand forecasting and capacity management, which could be supported by AI-based predictive analytics. Additionally, visitor feedback related to service quality, cleanliness, and facility maintenance provides actionable insights for operational improvement.

Latent Potential for AI-Based Consumer Behavior Analysis

Although Puteri River Inn has not yet implemented AI-driven systems, the findings indicate strong latent potential for AI adoption. The existing digital data ecosystem—comprising website traffic, social media engagement, and online reviews—offers a

foundation for AI-based consumer behavior analysis. Techniques such as sentiment analysis, text mining, and clustering algorithms could be employed to systematically identify visitor sentiments, preference patterns, and emerging trends.

For instance, sentiment analysis could help differentiate positive, neutral, and negative perceptions related to specific facilities or services. This would enable destination managers to prioritize improvements based on data-driven insights rather than anecdotal observations. Similarly, clustering analysis could segment visitors according to behavioral and preference profiles, such as family-oriented visitors, adventure-seeking youth, or culinary-focused tourists. These insights could inform more targeted marketing strategies and personalized communication efforts.

AI-based analytics could also enhance understanding of the relationship between digital engagement and offline visitation. By integrating data from social media interactions, review platforms, and booking records, destination managers could assess the effectiveness of promotional content and identify the types of digital narratives that resonate most with potential visitors. Such insights are particularly valuable for local tourism destinations with limited marketing budgets, as they enable more efficient allocation of resources.

Digital Communication and Opportunities for Intelligent Interaction

The findings highlight that current digital communication at Puteri River Inn remains largely passive and reactive. Visitor interactions are primarily initiated by consumers through comments or reviews, with limited proactive engagement from destination management. This communication pattern may constrain the development of long-term relationships with visitors and reduce opportunities for brand loyalty.

AI-based communication tools offer significant opportunities to enhance digital interaction. Chatbots, for example, could provide instant responses to frequently asked questions regarding operating hours, pricing, facilities, and booking procedures. Automated messaging systems could also deliver personalized recommendations based on visitor interests, such as suggesting camping options to adventure-oriented visitors or dining promotions to culinary-focused audiences. These tools could improve customer experience while reducing the workload on human staff.

Content analysis further indicates that storytelling related to local culture, environmental sustainability, and experiential value is relatively underdeveloped in current digital communication. AI-driven content curation and optimization tools could support the development of more engaging narratives that align with visitor preferences and enhance the destination's brand identity. By analyzing engagement metrics, AI systems could identify the types of content that generate higher interaction and adjust communication strategies accordingly.

Strategic Implications for Marketing Management

From a marketing management perspective, the findings suggest that Puteri River Inn is at an early stage of digital maturity. While basic digital infrastructure is in place, the strategic utilization of digital data and AI remains limited. This condition is not

uncommon among local tourism destinations, which often prioritize operational concerns over digital innovation. However, the growing availability of affordable AI-based tools presents an opportunity to bridge this gap.

The integration of AI into marketing management could support more informed decision-making related to market segmentation, promotional timing, and service development. For example, AI-driven analytics could help identify peak visitation periods and inform dynamic pricing or promotional strategies. Insights into visitor preferences could guide investment decisions related to facility upgrades or the development of new attractions. Moreover, data-driven marketing could enhance competitiveness by enabling Puteri River Inn to differentiate itself in an increasingly crowded tourism market.

Readiness and Challenges for AI Adoption

While the potential benefits of AI adoption are evident, the findings also suggest several challenges related to organizational readiness. Limited technical expertise, financial constraints, and lack of strategic awareness may hinder the implementation of AI-based systems. The qualitative data indicate that digital platforms are currently managed with a focus on basic functionality rather than strategic analytics. This underscores the need for capacity-building initiatives and incremental adoption strategies that align with the destination’s scale and resources.

Nevertheless, the relatively simple operational structure of Puteri River Inn may facilitate gradual AI integration. Starting with basic tools such as automated response systems or simple sentiment analysis dashboards could provide immediate benefits while building organizational learning. Over time, more advanced applications could be introduced as digital literacy and managerial confidence increase.

Summary of Key Findings

In summary, the findings reveal that Puteri River Inn possesses strong intrinsic potential as a nature-based tourism destination supported by affordable pricing, diverse attractions, and a favorable natural environment. Although current digital platforms function primarily as static information channels, the existing digital data ecosystem offers significant opportunities for AI-based consumer behavior analysis and marketing optimization. The absence of AI-driven features reflects an early stage of digital transformation rather than a lack of potential. By strategically integrating AI into digital communication and marketing management, Puteri River Inn could enhance customer engagement, improve decision-making, and strengthen its competitive position in the local tourism market.

Table 1. Key finding

KEY ASPECT		FINDINGS
LOCATION	&	Located in Citengah, South Sumedang with a natural, cool environment. Integrated concept combining a Sundanese-style restaurant, saung lodging, and outdoor activities (camping, karaoke, flying fox, swimming).
ATTRACTION		

PRICING & ACCESSIBILITY	Entrance tickets are affordable (Rp5,000 weekdays, Rp10,000 weekends). Accommodation starts from Rp300,000 per night. Wide price range for traditional food makes it accessible to various segments.
CURRENT DIGITAL PLATFORM USE	Website and social media function mainly as static information sources. Visitor interaction happens via reviews and comments; no AI-based features (chatbots, automated bookings, recommendations).
CONSUMER BEHAVIOR INSIGHTS	Data from reviews reveal preferences for accommodation types, interest in specific facilities, and popular menu items. However, these insights are not yet analyzed systematically.
AI IMPLEMENTATION STATUS	No current use of AI. There is significant potential for AI to analyze behavior, enhance communication, and personalize marketing.

DISCUSSION

This study's findings illuminate the multifaceted role that digital transformation—and specifically Artificial Intelligence (AI)—can play in enhancing marketing management for local tourism destinations such as Puteri River Inn, which currently utilizes digital platforms primarily for static information dissemination rather than analytics-driven marketing. Aligning these findings with extant theory reveals several key insights into consumer behavior, digital marketing theory, and strategic AI integration within tourism marketing.

1. Digital Tourism Transformation and Smart Tourism Theory

The tourism industry has increasingly embraced digital transformation as a strategic imperative due to the proliferation of digital technologies that reshape how destinations interact with consumers and design marketing strategies. Digital transformation in tourism encompasses the adoption of platforms, data analytics, and intelligent systems that enable continuous consumer engagement and operational agility (Wang et al., 2025). This aligns with smart tourism theory, which posits that tourism destinations should integrate ICTs and data analytics to enhance both operational performance and value co-creation with tourists (Buhalis & Sinarta, 2019; systematic reviews highlight AI as a central enabling technology in this domain).

Puteri River Inn's current utilization of digital channels predominantly as static information outlets reflects an early stage of digital maturity. The theory suggests that this stage can evolve toward an integrated data-driven ecosystem where AI systems contribute to intelligent destination management and enhanced user engagement. Smart tourism frameworks emphasize data flows across platforms, enabling real-time personalization and predictive decision-making, both of which are absent in the current digital strategy of Puteri River Inn but offer significant future value.

2. AI and Consumer Behavior: Personalization and Predictive Analytics

The extant literature strongly supports the notion that AI technologies can enable deeper understanding of consumer behavior through real-time data processing, sentiment

analysis, and pattern recognition. AI facilitates hyper-personalization, where systems tailor marketing messages and services based on individual preferences inferred from online behavior and engagement (Gómez Rodríguez, 2025).

In contrast, the existing digital data at Puteri River Inn such as comments and reviews remains underutilized beyond qualitative interpretation. AI techniques such as sentiment analysis and clustering can convert this data into structured behavioral insights. For example, predictive machine learning models can forecast visitor preferences for activities or amenities such as camping or flying fox, which enhances market segmentation theory by enabling dynamic customer grouping based on digital footprint patterns. Applying theories like the Technology Acceptance Model (TAM), AI adoption in tourism succeeds when perceived usefulness and perceived ease of use are high. If AI systems can demonstrate tangible advantages in decision-making (e.g., accurate marketing segmentation and service personalization), destination managers are more likely to adopt them (referenced in analyses focusing on AI trust and adoption).

3. Experience Economy and Customer Engagement

Tourism scholar Pine and Gilmore's experience economy theory underscores the transition from goods and services to memorable experiences as the primary economic offering. Digital transformation especially through AI-driven interactive platforms can enrich the value proposition by personalizing content, enabling responsive engagement, and delivering predictive recommendations (Christou et al., 2025). Current digital communication at Puteri River Inn lacks interactive capabilities such as AI chatbots or dynamic recommendation engines that would elevate the visitor experience online. Instead, user engagement mostly transpires through voluntary contributions (reviews, comments), which reflect passive interaction rather than curated experience design. Integrating AI would operationalize experience economy principles by enabling customized content, itinerary suggestions, and pre-visit engagement that deepens consumer attachment to the destination.

4. Co-Creation of Value and Customer Participation

A key theme in recent digital tourism research emphasizes value co-creation, where tourists actively participate in shaping their tourism experience alongside destination stakeholders. Co-creation theory in digital environments posits that value emerges not just from the service provider but also from interactive dialogues and shared experiences (systematic literature review on co-creation highlights this trend). Insights derived from user-generated content at Puteri River Inn such as reviews about preferred facilities or dishes—suggest latent capacity for co-creation. AI can accelerate this by analyzing comments to recommend tailored experiences, creating feedback loops where visitor preferences inform future marketing campaigns. For example, AI-based feedback categorization could guide promotional strategies emphasizing the most positively rated attractions (e.g., traditional saung accommodations or outdoor activities).

5. AI for Marketing Optimization: Data-Driven Decision Making

Theoretical frameworks on data-driven marketing highlight the importance of leveraging analytics for strategic segmentation, forecasting demand, and optimizing promotional resource allocation. AI utilities such as machine learning algorithms and predictive analytics support marketing optimization by processing large, unstructured digital datasets more efficiently than manual methods (Abhiseka et al., 2024).

Puteri River Inn, by systematically integrating AI analytics, could achieve strategic advantages in multiple ways:

- a. Predictive forecasting of visitation peaks and facility preferences.
- b. Automated segmentation based on behavioral markers from reviews and engagement.
- c. Personalized offers based on historical interaction data.

Such capabilities align with relationship marketing theory, which emphasizes long-term engagement over transactional interactions, and is especially relevant for local tourism destinations competing in digital ecosystems.

6. Ethical Considerations and Consumer Trust

Scholars have increasingly stressed the importance of ethical AI governance in tourism marketing, particularly regarding data privacy, algorithmic bias, and transparency. Research on ethical AI adoption identifies consumer trust as a critical mediator of successful implementation, particularly in personalized systems (trust doubles likelihood of adoption). For destinations like Puteri River Inn, AI utilization must consider ethical boundaries especially when processing sensitive user data. Ethical marketing theory argues that transparent practices not only comply with regulatory requirements but also enhance consumer trust and brand reputation. Embedding ethical AI principles (e.g., clear data handling policies, opt-in consent mechanisms) would support sustainable digital marketing practices.

7. Organizational Readiness and Digital Capabilities

The resource-based view (RBV) suggests that competitive advantage stems from the strategic deployment of valuable, rare, inimitable, and non-substitutable resources. Digital capabilities and AI competencies constitute strategic resources that local tourism enterprises can leverage for sustainable differentiation (AI and Big Data mapping underscores this potential). While Puteri River Inn currently faces limitations in technical and organizational readiness, incremental development of digital competencies starting with simple analytical tools—can build capacity. AI adoption in stages supports a learning curve that mitigates risks associated with immediate large-scale deployment.

CONCLUSION

This study concludes that Puteri River Inn Sumedang has a strong potential to develop as a digitally oriented tourist destination, even though the current implementation of Artificial Intelligence (AI) is not yet visible. The findings reveal that the destination offers

a strategic natural location, integrated facilities combining culinary experiences and lodging, and affordable pricing that attracts diverse visitor segments. The existing digital platforms, however, remain limited to providing static information without interactive features or data-driven systems. The research shows that valuable consumer data already exists through online reviews, menu preferences, and visitor behavior patterns. By adopting AI technologies, this data could be transformed into meaningful insights to support consumer behavior analysis, improve business communication, and strengthen marketing management strategies. AI-driven systems such as chatbots, automated booking, sentiment analysis, and personalized promotions would enable more efficient operations, better customer engagement, and more accurate decision-making. In summary, the integration of AI in the management of Puteri River Inn represents a strategic opportunity to enhance competitiveness, provide a more personalized visitor experience, and align the destination with the demands of digital tourism development.

BIBLIOGRAPHY

- Antczak, B. O. (2022). Artificial intelligence adoption in tourism marketing: Opportunities, challenges, and strategic implications. *Journal of Marketing Management*, 38(15–16), 1647–1669. <https://doi.org/10.1080/0267257X.2022.2100987>
- Buhalis, D., & Sinarta, Y. (2019). Real-time co-creation and nowness service: Lessons from tourism and hospitality. *Journal of Travel & Tourism Marketing*, 36(5), 563–582. <https://doi.org/10.1080/10548408.2019.1592059>
- Buhalis, D., & Amaranggana, A. (2020). Smart tourism destinations: Foundations, analytics, and applications. *Tourism Management*, 78, 104050. <https://doi.org/10.1016/j.tourman.2019.104050>
- Christou, E., Giannopoulos, A., & Simeli, I. (2023). From digital marketing to AI-driven immersive tourism experiences. *Sustainability*, 15(9), 7489. <https://doi.org/10.3390/su15097489>
- Dwivedi, Y. K., Hughes, L., Ismagilova, E., et al. (2021). Artificial intelligence (AI): Multidisciplinary perspectives on emerging challenges, opportunities, and agenda for research. *International Journal of Information Management*, 57, 101994. <https://doi.org/10.1016/j.ijinfomgt.2019.08.002>
- Gretzel, U., Sigala, M., Xiang, Z., & Koo, C. (2020). Smart tourism: Foundations and developments. *Electronic Markets*, 30(3), 463–475. <https://doi.org/10.1007/s12525-019-00394-1>
- Gretzel, U., Fuchs, M., Baggio, R., et al. (2020). e-Tourism beyond COVID-19: A call for transformative research. *Information Technology & Tourism*, 22(2), 187–203. <https://doi.org/10.1007/s40558-020-00181-3>
- Ivanov, S., & Webster, C. (2019). Adoption of robots, artificial intelligence and service automation by travel, tourism and hospitality companies. *Tourism Economics*, 25(7), 1007–1019. <https://doi.org/10.1177/1354816619845338>

Kotler, P., Kartajaya, H., & Setiawan, I. (2021). *Marketing 5.0: Technology for humanity*. Wiley.

Lu, L., Cai, R., & Gursoy, D. (2020). Developing and validating a service robot integration willingness scale. *International Journal of Hospitality Management*, 80, 36–51. <https://doi.org/10.1016/j.ijhm.2019.11.002>

Mariani, M., & Borghi, M. (2021). Industry 4.0 and tourism: Managerial challenges and future research directions. *Technological Forecasting and Social Change*, 164, 120590. <https://doi.org/10.1016/j.techfore.2020.120590>

Neuhofer, B., Buhalis, D., & Ladkin, A. (2020). Smart technologies for personalized experiences: A case of smart tourism. *Tourism Management*, 75, 1–15. <https://doi.org/10.1016/j.tourman.2019.04.003>

Sigala, M. (2020). Tourism and COVID-19: Impacts and implications for advancing and resetting industry and research. *Journal of Business Research*, 117, 312–321. <https://doi.org/10.1016/j.jbusres.2020.06.015>

Tussyadiah, I., Zach, F., & Wang, J. (2020). Do travelers trust intelligent service robots? *Annals of Tourism Research*, 81, 102886. <https://doi.org/10.1016/j.annals.2020.102886>

UNWTO. (2022). *Tourism and digital transformation*. World Tourism Organization.

Verhoef, P. C., Broekhuizen, T., Bart, Y., et al. (2021). Digital transformation: A multidisciplinary reflection and research agenda. *Journal of Business Research*, 122, 889–901. <https://doi.org/10.1016/j.jbusres.2019.09.022>

Wang, S., Li, Y., & Li, H. (2023). Artificial intelligence in tourism: A systematic literature review. *Sustainability*, 15(7), 6234. <https://doi.org/10.3390/su15076234>

Xiang, Z., Schwartz, Z., Gerdes, J. H., & Uysal, M. (2015). What can big data and text analytics tell us about hotel guest experience? *International Journal of Hospitality Management*, 44, 120–130. <https://doi.org/10.1016/j.ijhm.2014.10.013>

Yoo, C. W., Kim, Y. J., & Sanders, G. L. (2021). The impact of interactivity of electronic word of mouth systems and user-generated content on consumer engagement. *Journal of Business Research*, 126, 1–12. <https://doi.org/10.1016/j.jbusres.2020.12.037>

Zhang, H., Song, H., Wen, L., & Liu, C. (2021). Forecasting tourism demand using machine learning models. *Tourism Management*, 83, 104242. <https://doi.org/10.1016/j.tourman.2020.104242>