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HAPSAY: A Booking Platform for Staycation in Caraga Region

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ABSTRACT: The increasing use of digital platforms has transformed the way accommodations are promoted and booked. However, many staycation providers in the Caraga Region still depend on manual booking methods and social media messaging, which often result in scheduling conflicts, limited exposure, and inefficient reservation management. This study developed HAPSAY, a web-based booking platform designed to provide a centralized and convenient system for staycation reservations in the Caraga Region.

KEYWORDS: Staycation Booking Platform, Web-Based System, Tourism Technology, Caraga Region, Online Reservation

I. INTRODUCTION

This study introduces Hapsay, a smart tourism platform developed to improve travel planning in the Caraga Region. Traditional booking methods and existing tourism platforms often fail to meet modern travelers' needs for convenience, personalization, and easy access to information, particularly in rural areas. Hapsay addresses these issues by integrating accommodation booking, food and dining discovery, and an online marketplace for local products, helping tourists access authentic local experiences.

The platform aims to strengthen Caraga's tourism ecosystem by supporting both travelers and local entrepreneurs. Through features such as mobile accessibility, multilingual support, and flexible payment options, including online payments and Cash on Delivery (COD), Hapsay promotes cultural engagement, supports small businesses, and contributes to the sustainable economic development of the region.

II. LITERATURE REVIEW

In the study of Sustacha, et al. (2023) meta-analysis confirmed that smart technologies enhance tourist experiences in smart destinations by increasing informativeness, interactivity, and ease of navigation. Nevertheless, the study cautions that unresolved issues related to security and privacy concerns can undermine these benefits, suggesting that technological advancement alone is insufficient without effective governance and trust-building strategies.

Orias and Borbon (2022) investigated the adoption of digital marketing practices among farm-tourism sites in Quezon Province and identified perceived usefulness as the primary factor influencing adoption. Their findings underscore the importance of social media platforms and official websites in enhancing destination visibility and stimulating visitor interest, although limitations persist in terms of synchronicity and real-time interaction. Nonetheless, the authors conclude that digital platforms substantially expand outreach capacity, even if such exposure does not immediately lead to increased purchase intention.

Expanding the scope of analysis, Abari and Malibiran (2022) examined the tourism development dynamics and challenges in the Philippines, emphasizing sustainability, cultural heritage preservation, and community engagement as central pillars of national tourism growth. Within this broader context, they argue that digital platform when designed to be inclusive, culturally sensitive, and locally embedded can foster more equitable development by supporting

community-based tourism initiatives, enhancing information dissemination, and enabling small local enterprises to access broader markets.

In accommodation level, Marcelo (2023) demonstrates that entrepreneurial hotels in the Philippines have increasingly embraced digital technologies to enhance operational efficiency and ensure guest safety in the post-COVID context. These establishments commonly adopt online booking platforms, digital marketing practices, contact less payment systems, and health-related digital protocols. These findings indicate that digital transformation has shifted, from being a competitive advantage to a fundamental necessity for sustaining market competitiveness and strengthening traveler confidence in an increasingly health-conscious tourism environment.

In a similar vein, Pascual et al. (2023/2024) assessed the effectiveness of digital marketing platforms such as Facebook, email campaigns, websites, and YouTube in promoting local tourism establishments in the municipality of Calintaan. Their findings reveal that these digital tools significantly enhance brand awareness, customer patronage, and visitor satisfaction. In underserved and remote areas, such platforms serve as cost-effective yet powerful promotional channels, enabling local enterprises to compete more effectively in both domestic and international markets.

Table 1. Summary of Relevant Literatures

No.	Paper Title	Author Name	Key Points	Remark
1	Smart Technologies and Tourist Experience in Smart Destinations	Sustacha et al. (2023)	Smart technologies improve tourist experience through increased informativeness, interactivity, and ease of navigation; security and privacy issues may reduce effectiveness.	Supports the need for secure and well-governed smart tourism platforms like Hapsay.
2	Digital Marketing Adoption among Farm-Tourism Sites in Quezon Province	Orias & Borbon (2022)	Perceived usefulness drives adoption of digital platforms; social media and websites enhance visibility, though real-time interaction remains limited.	Validates the importance of digital platforms in improving tourism visibility and outreach.
3	Tourism Development Dynamics and Challenges in the Philippines	Abari & Malibiran (2022)	Emphasizes sustainability, cultural preservation, and community engagement; inclusive digital platforms support community-based tourism and local enterprises.	Justifies Hapsay's focus on cultural relevance and support for local businesses.
4	Digital Transformation of Entrepreneurial Hotels in the Philippines	Marcelo (2023)	Hotels adopt online booking, digital marketing, contactless payments, and health protocols to improve efficiency and guest confidence post-COVID.	Supports the integration of online booking and digital payment features in Hapsay.
5	Conceptual Foundations of Smart Tourism and Smart Tourism Tools	Galvão et al. (2024)	Highlights gaps in smart tourism research that overemphasize technology while neglecting cultural, social, and sustainability aspects.	Reinforces the need for a holistic, community-centered smart tourism

In summary, the reviewed literature confirms that smart tourism technologies significantly enhance tourist experience, destination visibility, and operational efficiency through improved accessibility, interactivity, and digital integration. Studies emphasize the growing importance of online booking systems, digital marketing, and contactless payment solutions in sustaining competitiveness, particularly in the post-pandemic tourism environment. However, several authors highlight existing challenges such as security and privacy concerns, limited real-time interaction, and the overemphasis on technology without sufficient attention to cultural, social, and sustainability dimensions. These findings support the development of Hapsay as a localized, inclusive, and community-centered smart tourism platform designed to promote cultural engagement, empower local enterprises, and contribute to the sustainable tourism development of the Caraga Region.
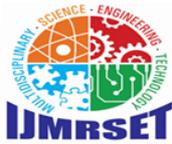
III. METHODOLOGY

Research Design

This study employed a descriptive-developmental research design to design, develop, and evaluate the HAPSAY: A Booking Platform for Staycations in the Caraga Region. The developmental aspect focused on creating a web-based booking system using the Agile Methodology, which facilitated iterative cycles of planning, development, and testing to ensure the platform met the specific needs of local staycation owners and tourists. The descriptive aspect assessed the system's quality and performance based on user evaluations, determining its readiness for deployment and its effectiveness in streamlining booking processes.

Instrument

The primary research instrument used was a structured survey questionnaire adapted from the ISO/IEC 25010 Software Quality Model. The questionnaire measured the system's performance across several domains: Functional Suitability, Performance Efficiency, Compatibility, Usability, Reliability, Security, Maintainability, and Portability. Responses were gathered using a five-point Likert scale (ranging from 1 = Not Acceptable to 5 = Very Highly Acceptable) to quantify user satisfaction. The instrument was reviewed and validated by IT experts to ensure that the technical criteria were relevant and easy for respondents to understand.

Data Collection and Participants

Data were collected from a targeted group of respondents within the Caraga Region. The participants included:

- Staycation/Accommodation Owners and Staff: To evaluate the system's management and vendor-side features.
- Travelers and General Users: To evaluate the user interface and booking experience.
- IT Practitioners/Experts: To provide a technical assessment of the system's architecture and security.

Participants were given a guided demonstration of the HAPSAY platform, allowing them to navigate the booking, search, and management modules before completing the evaluation survey.

Data Analysis

The data collected from the evaluation instruments were processed using the following statistical and analytical treatments:

1. Descriptive Statistics – Frequency and percentage distributions were used to profile the feedback from different respondent groups.

2. Weighted Mean Analysis – This was used to calculate the average score for each ISO/IEC 25010 quality characteristic, providing a clear numerical value for system performance.

3. Verbal Interpretation – The calculated weighted means were translated into verbal descriptions (e.g., "Very Functional" or "Highly Acceptable") to provide a qualitative understanding of the results.

4. Qualitative Feedback Analysis – Comments and suggestions from the open-ended section of the survey were analyzed to identify specific strengths to be enhanced and technical weaknesses that required refinement.

IV. RESULTS AND DISCUSSION

System Features

Hapsay successfully digitized and integrated key tourism services in the Caraga Region through a unified smart tourism platform. The system provides secure user registration with role-based access control for tourists, accommodation providers, food vendors, local product sellers, and administrators. It enables real-time accommodation booking, food and dining discovery, and an online marketplace to prevent information fragmentation and improve service accessibility. Additional features include service management tools, flexible payment options including online transactions and Cash on Delivery (COD), automated notifications, and user feedback and rating modules to support service quality monitoring. An administrative dashboard with reporting and monitoring tools allows efficient system oversight, data management, and decision-making, ensuring a streamlined and transparent tourism service operation across the region.

Performance Evaluation

The Hapsay system achieved a Very Highly Acceptable (VHA) overall rating based on the ISO/IEC 25010 software quality model. Among the evaluated quality characteristics, Usability and Functional Suitability obtained the highest mean scores, indicating that the system is user-friendly and effectively meets the needs of both tourists and local service providers. Other quality attributes, including Reliability, Performance Efficiency, Security, Portability, and
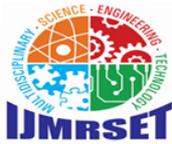
Overall Quality, also received high acceptability ratings. These results demonstrate the system's effectiveness, stability, and suitability as a smart tourism platform that enhances user experience, supports local enterprises, and contributes to the sustainable tourism development of the Caraga Region.

Table 2. Performance Evaluation System Tabulation

Table	Quality Characteristic	Mean	Verbal Interpretation
1	Functional Suitability	4.46	Very Highly Acceptable (VHA)
2	Performance Efficiency	4.43	Very Highly Acceptable (VHA)
3	Compatibility	4.41	Very Highly Acceptable (VHA)
4	Usability	4.65	Very Highly Acceptable (VHA)
5	Reliability	4.42	Very Highly Acceptable (VHA)
6	Security	4.44	Very Highly Acceptable (VHA)
7	Portability	4.44	Very Highly Acceptable (VHA)
	Over-all Mean	**4.60**	**Very Highly Acceptable (VHA)**

V. CONCLUSION

The development and implementation of HAPSAY successfully addressed the challenges of traditional tourism services in the Caraga Region by providing an integrated, smart tourism platform that enhances accessibility, efficiency, and user experience. By combining accommodation booking, food and dining discovery, and an online marketplace for local products into a single system, HAPSAY streamlined travel planning while promoting local culture and supporting community-based enterprises.

Based on the system evaluation using the ISO/IEC 25010 software quality model, HAPSAY achieved a Very Highly Acceptable (VHA) overall rating, indicating strong performance across all quality characteristics, particularly in usability, functional suitability, security, and reliability. These results confirm that the system is user-friendly, dependable, and suitable for real-world tourism applications. Overall, HAPSAY demonstrates its potential as a sustainable digital solution that supports regional tourism development, empowers local entrepreneurs, and enhances the overall tourism experience in the Caraga Region.

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