

Digital Transformation-Based Project Management Innovation in The Hospitality Industry: A Case Study of Bintang Bali Resort

Risa Pratini¹, Ni Putu Ayu Trefi Cahaya Wati², Ni Made Yudhaningsih³, I Dewa Nyoman Usadha⁴
^{1,2,3,4}Mahendradatta University, Indonesia



DOI : <https://doi.org/10.61796/ejcblt.v3i2.1693>



Sections Info

Article history:

Submitted: December 30, 2025
Final Revised: January 15, 2026
Accepted: January 31, 2026
Published: February 23, 2026

Keywords:

Project management innovation
Digital transformation
HRIS
PMS
Revenue management
Work productivity

ABSTRACT

Objective: This study aims to analyze the implementation of digital transformation-based project management innovations at Bintang Bali Resort to improve operational efficiency and organizational performance. The innovations implemented include the integration of Channel Manager with Property Management System (PMS) in revenue management and the implementation of Human Resource Information System (HRIS) in human resource management. The main problem before the implementation of the innovation was the manual process that caused a high risk of errors, delays in data processing, and low work efficiency. **Method:** The method used is a descriptive approach with an analysis of the implementation of organizational and business innovations. **Results:** The results show that system integration can improve data accuracy, operational efficiency, service quality, and support data-based decision-making. Digital transformation also contributes to increased employee productivity and company competitiveness in the hospitality industry. **Novelty:** This study highlights the integrated implementation of Channel Manager-PMS and HRIS within a hospitality setting as a digital transformation-based project management innovation to address operational inefficiencies and enhance organizational performance.

INTRODUCTION

Advances in information technology have driven the hotel industry to undertake digital transformation to improve operational efficiency and service quality. Increasingly fierce competition in the hospitality industry requires companies to adapt to technological changes and implement continuous innovation to remain competitive. Utilizing integrated information systems is a key strategy for improving operational effectiveness and supporting data-driven decision-making.

Bintang Bali Resort is a five-star hotel with 401 rooms and various supporting facilities such as a restaurant, bar, fitness center, swimming pool, and spa. Since 2000, Bintang Bali Resort has implemented various innovations in its operations, particularly in its reservation and payment systems, data management, and guest review management. However, the rapid advancement of technology demands further innovation to improve the efficiency and effectiveness of hotel operations.

The main problem Bintang Bali Resort faced before implementing the innovation was the lack of integration of the Channel Manager with the Property Management System (PMS) for revenue management. Furthermore, the human resource management system was still manual due to the lack of a Human Resource Information System (HRIS).

To address these issues, Bintang Bali Resort management implemented digital transformation-based innovations through the integration of Channel Managers with the

Property Management System (PMS) and the implementation of a Human Resource Information System (HRIS). The implementation of information technology-based innovations not only improves operational efficiency but also contributes to improving service quality and the company's competitiveness. Therefore, a study is needed regarding the implementation of digital transformation-based project management innovations carried out by Bintang Bali Resort to improve organizational performance.

RESEARCH METHOD

This study uses a qualitative approach with descriptive methods to deeply understand the implementation of digital transformation innovation at Bintang Bali Resort. This approach was chosen because it is able to describe the actual conditions of hotel operations and the innovation implementation process carried out comprehensively, particularly in the integration of Channel Manager with Property Management System (PMS) and the implementation of Human Resource Information System (HRIS). Research data was obtained through interviews with management and related staff, direct observation of the use of hotel operational systems, and documentation in the form of company data and reports supporting the implementation of innovation.

Data analysis was conducted through data reduction, data presentation, and conclusion drawing to identify the forms of product, process, organizational, and business innovation implemented. Furthermore, a SWOT analysis was used to identify the strengths, weaknesses, opportunities, and threats in the implementation of digital transformation innovation. The results of this analysis served as the basis for evaluating the role of digital transformation innovation in improving operational efficiency and competitiveness at Bintang Bali Resort.

RESULTS AND DISCUSSION

Results

a. Challenges and Background of Innovation Implementation

The implementation of project management innovation at Bintang Bali Resort was motivated by increasing competition in the hospitality industry, which demands companies improve service quality and operational efficiency. The modern hospitality industry requires effective project management to enhance competitiveness and guest satisfaction. According to PMI [1], structured project management enables organizations to achieve their goals more effectively through time, cost, and quality control.

Bintang Bali Resort faced various challenges in implementing operational projects, such as delays in completion, lack of coordination between departments, and a suboptimal work monitoring system. This situation aligns with Kerzner's [2] opinion, which states that a lack of project coordination and oversight can lead to decreased work efficiency and the quality of project results.

Furthermore, increasingly dynamic guest needs require hotels to continuously innovate. According to Tidd and Bessant [3], organizations that effectively manage

innovation will be more adaptable to changes in the business environment and have a stronger competitive advantage.

Under these conditions, Bintang Bali Resort views project management innovation as a crucial strategy for improving work effectiveness and service quality. This aligns with Jones and Lockwood's [4] argument, which explains that implementing project management in the hospitality industry can improve operational efficiency and the successful implementation of hotel work programs.

b. Forms of Innovation Carried Out

1) Product Innovation

Product innovation at Bintang Bali Resort is realized through the development of a technology-based service system that supports improved guest service quality. This innovation is evident in the implementation of a more integrated reservation system through the integration of the Channel Manager with the Property Management System (PMS), allowing room availability and pricing to be updated automatically and in real time. This system helps improve information accuracy and makes it easier for guests to make reservations.

According to Tidd and Bessant [3], product innovation encompasses more than just new products, but also the development of new services or improvements to existing ones. Implementing an integrated reservation system is a form of service innovation that can improve customer satisfaction and service efficiency.

The implementation of this product innovation has had a positive impact on Bintang Bali Resort because the reservation process has become faster, more accurate, and more accessible to guests through various online booking platforms.

2) Process Innovation

Process innovation at Bintang Bali Resort is achieved through the implementation of a more efficient work system utilizing information technology in hotel operations. The integration of the Channel Manager with the Property Management System (PMS) allows for automated reservation management, reducing manual work and minimizing data entry errors.

Furthermore, implementing a Human Resource Information System (HRIS) helps expedite employee administration processes such as managing employee data, attendance, and work reports. This system helps improve operational efficiency and streamlines human resource management.

According to Kerzner [2], process innovation in project management aims to improve work efficiency through the use of more effective methods and technologies. More structured work processes enable organizations to complete tasks more quickly and accurately.

With process innovation, Bintang Bali Resort is able to increase operational efficiency and reduce the risk of work errors that previously often occurred in manual systems.

3) Organizational Innovation

Organizational innovation at Bintang Bali Resort is achieved through improved coordination and communication between departments in operational activities and work projects. The implementation of a more structured work system helps each department understand its respective duties and responsibilities, enabling more effective work.

Furthermore, the use of digital-based information systems helps management monitor and make decisions more quickly. This improved work coordination helps create a more integrated and efficient work system.

According to Robbins and Judge [5], organizations that have good communication and coordination systems will have higher levels of performance because each member of the organization understands their role clearly.

The organizational innovation implemented at Bintang Bali Resort has had a positive impact on increasing work effectiveness and smooth hotel operations.

4) Business Innovation

Business innovation at Bintang Bali Resort is reflected in the implementation of a digital transformation-based project management strategy aimed at improving operational efficiency and competitiveness. The use of digital systems for managing reservations and human resources enables the hotel to provide faster and more accurate service to guests.

According to PMI [1], implementing effective project management helps organizations achieve strategic goals through more efficient resource management. Bintang Bali Resort's business innovations are part of the company's strategy to sustainably improve organizational performance.

Furthermore, implementing technology-based innovations also helps hotels improve service quality and guest satisfaction. According to Jones and Lockwood [4], innovation in hotel operational management can improve service quality and strengthen a company's competitiveness.

Overall, the business innovations undertaken by Bintang Bali Resort demonstrate that the application of technology and good project management can improve operational effectiveness and support the company's success in facing competition in the hospitality industry.

Discussion

The research results show that the implementation of digital transformation-based project management innovation at Bintang Bali Resort plays a significant role in improving operational efficiency and hotel service quality. The integration of the Channel Manager with the Property Management System (PMS) and the implementation of the Human Resource Information System (HRIS) enables the hotel to manage operations more effectively and data-driven. This digital transformation helps reduce manual work, improve data accuracy, and accelerate the guest service process. This is in line with the

opinion of Tidd and Bessant [3], who stated that technology-based innovation can improve organizational performance and strengthen company competitiveness.

In terms of product innovation, Bintang Bali Resort develops technology-based services through the integration of Channel Manager with PMS and the implementation of HRIS, resulting in a faster and more accurate service system. The integrated reservation system allows for real-time updates of prices and room availability, thereby reducing the risk of data errors and overbooking. Furthermore, the implementation of HRIS creates a more modern human resource management system through integrated, digital-based administration. According to Tidd and Bessant [3], product innovation in the service sector can take the form of developing new service systems that provide added value to customers. The implementation of this innovation has been proven to improve service quality and hotel operational efficiency.

In terms of process innovation, the integration of Channel Manager with PMS enables the automation of reservation management, allowing previously manual tasks to be performed more accurately and automatically. Furthermore, the implementation of HRIS allows for more efficient employee administration processes, such as employee data management, attendance, and payroll. According to Kerzner [2], process innovation aims to improve operational efficiency through the use of more effective work methods and technology. With this process innovation, Bintang Bali Resort was able to reduce errors and increase employee productivity.

Organizational and business innovation also played a crucial role in supporting the successful implementation of digital transformation at Bintang Bali Resort. The implementation of a data-driven system enabled management to make faster and more accurate decisions and improved coordination between departments. Furthermore, the use of HRIS encouraged the creation of a more integrated and efficient work system. According to the OECD [6], organizational innovation is a crucial factor supporting the success of technological innovation in improving organizational performance.

In terms of business innovation, the integration of PMS and Channel Manager enables hotels to expand their market reach through various online reservation platforms and manage room rates more flexibly. This system helps hotels increase revenue and strengthen their competitiveness. Furthermore, the use of HRIS enables more efficient human resource management, saving time and operational costs. According to Teece [7], business model innovation enables organizations to create new value through the use of technology and more effective resource management.

Based on the implementation of the innovation that has been discussed, there is a study of strengths, weaknesses, opportunities and threats or a SWOT analysis in this case as follows:

1) Strengths

Bintang Bali Resort's main strength lies in its integrated digital system implementation, which integrates its Channel Manager with its Property Management System (PMS) and its Human Resource Information System (HRIS). This system integration automates reservation management, improving operational efficiency and

data accuracy [8]. The integrated system also allows management to obtain real-time reports, simplifying decision-making [9]. Furthermore, the digital system implementation helps improve guest service quality by speeding up and accurately processing reservations [10]. More structured human resource management also contributes to improving employee effectiveness [11].

2) Weaknesses

The main weakness in implementing innovation at Bintang Bali Resort is the significant cost required to procure and maintain the technology systems used [12]. Furthermore, the use of integrated digital systems creates a high dependency on technology, which can disrupt hotel operations if a system failure occurs [13]. Furthermore, employee skills in using the new system still need to be improved through training to ensure optimal system utilization [14].

3) Opportunities

A key opportunity for Bintang Bali Resort lies in the increasing use of online reservation platforms, enabling the hotel to reach a wider domestic and international market. The integration of Channel Manager with PMS allows the hotel to distribute rooms more efficiently across multiple reservation platforms. Furthermore, the implementation of an HRIS system opens up opportunities for the company to develop human resources in a more structured manner through better employee data management. The use of digital technology also opens up opportunities for the company to improve operational efficiency and service quality.

4) Threats

A key opportunity for Bintang Bali Resort lies in the increasing use of online reservation platforms, enabling the hotel to reach a wider domestic and international market [15]. The integration of Channel Manager with PMS allows the hotel to distribute rooms more efficiently across multiple reservation platforms. Furthermore, the implementation of an HRIS system opens up opportunities for the company to develop human resources in a more structured manner through better employee data management. The use of digital technology also opens up opportunities for the company to improve operational efficiency and service quality.

CONCLUSION

Fundamental Finding : The implementation of digital transformation-based project management innovation at Bintang Bali Resort positively improves operational efficiency and hotel service quality through the integration of Channel Manager with the Property Management System (PMS), the implementation of the Human Resource Information System (HRIS), and the adoption of product, process, organizational, and business innovations supported by digital technology. **Implication :** Continuous development of digital transformation-based innovation is necessary for Bintang Bali Resort to enhance organizational performance and sustain competitiveness amid increasing digital platform adoption and intensifying competition in the hospitality industry. **Limitation :** Despite strengths in integrated digital systems and service quality improvement, the

company faces limitations related to technology implementation costs and the need to enhance employee digital competencies. **Future Research** : Future studies may further explore strategies to optimize cost efficiency and employee capability development in digital system adoption while addressing rapid technological change and competitive pressures in the hospitality sector.

REFERENCES

- [1] Project Management Institute (PMI), *A Guide to the Project Management Body of Knowledge (PMBOK® Guide)*, 7th ed. Newtown Square, PA, USA: Project Management Institute, 2021.
- [2] H. Kerzner, *Project Management: A Systems Approach to Planning, Scheduling, and Controlling*, 12th ed. Hoboken, NJ, USA: Wiley, 2017.
- [3] J. Tidd and J. Bessant, *Managing Innovation: Integrating Technology, Market and Organizational Change*, 6th ed. Hoboken, NJ, USA: Wiley, 2018.
- [4] P. Jones and A. Lockwood, *The Management of Hotel Operations: An Innovative Approach to the Study of Hotel Management*. London, U.K.: Thomson Learning, 2004.
- [5] S. P. Robbins and T. A. Judge, *Organizational Behavior*, 17th ed. Harlow, U.K.: Pearson Education, 2017.
- [6] OECD, *Oslo Manual 2018: Guidelines for Collecting, Reporting and Using Data on Innovation*, 4th ed. Paris, France: OECD Publishing, 2018.
- [7] D. J. Teece, "Business models, business strategy and innovation," *Long Range Planning*, vol. 43, no. 2-3, pp. 172-194, 2010.
- [8] M. Mariani and M. Borghi, "Industry 4.0 and digital transformation in the hospitality industry," *International Journal of Hospitality Management*, vol. 89, 2020.
- [9] A. Neirotti, E. Raguseo, and E. Paolucci, "Are customers' reviews creating value in the hospitality industry?," *International Journal of Information Management*, vol. 36, no. 6, 2016.
- [10] F. A. Anwar et al., "Digital transformation in the hospitality industry: Improving efficiency and guest experience," *International Journal of Hospitality Management*, 2024.
- [11] J. Strohmeier, "Research in e-HRM: Review and implications," *Human Resource Management Review*, vol. 17, no. 1, 2007.
- [12] T. Verhoef et al., "Digital transformation: A multidisciplinary reflection," *Journal of Business Research*, vol. 122, 2021.
- [13] A. Vial, "Understanding digital transformation: A review and research agenda," *Journal of Strategic Information Systems*, vol. 28, no. 2, 2019.
- [14] R. Bondarouk and C. Brewster, "Conceptualising the future of HRM and technology research," *International Journal of Human Resource Management*, vol. 27, no. 21, 2016.
- [15] S. Kimes, "Hotel revenue management in an online distribution environment," *International Journal of Revenue Management*, vol. 3, no. 3, 2009.

Risa Pratini

Mahendradatta University, Indonesia

Ni Putu Ayu Trefi Cahaya Wati

Mahendradatta University, Indonesia

Ni Made Yudhaningsih

Mahendradatta University, Indonesia

I Dewa Nyoman Usadha
Mahendradatta University, Indonesia
