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The Role of AI-Driven Marketing Analytics and Revenue Management in Hotel Performance: A Strategic Management Perspective

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Abstract: *The hospitality business is facing rising demands of digital transformation and resorting to artificial intelligence-based marketing analytics and revenue management to boost competitiveness. However, the methods by which these competencies influence hotel performance through managerial decision effectiveness are still insufficiently experimentally studied, particularly when considering star-rated hotels in Indonesia. This study intends to assess the impacts of artificial intelligence driven marketing analytics capability and revenue management capability on hotel performance and to explore the mediating function of managerial decision effectiveness. The quantitative research was conducted by involving 200 managers from three, four, and five-star hotels in Indonesia by employing purposive sampling. A five-point Likert scale questionnaire was used for data collection and analysed using variance-based structural equation modelling (SmartPLS). The results show that all direct and indirect correlations are favourable and statistically significant. Marketing analytics capability driven by artificial intelligence has a higher effect on managerial decision efficacy, whereas revenue management capability has the largest direct effect on hotel performance. Managerial decision effectiveness also partially mediates the relationships between the two capabilities and hotel performance. The uniqueness of this work is to integrate these two strategic competencies in a single mediation model to explain how hotel performance can be enhanced through good managerial decision-making.*

Keyword: *AI-Driven Marketing Analytics Capability, Management Capability, Revenue Management Capability, Managerial Decision Effectiveness, Hotel Performance*

Abstrak: Industri perhotelan menghadapi tuntutan transformasi digital yang semakin meningkat melalui pemanfaatan analitik pemasaran berbasis kecerdasan buatan dan manajemen pendapatan () untuk memperkuat daya saing. Namun, mekanisme yang

menjelaskan pengaruh kedua kapabilitas tersebut terhadap kinerja hotel melalui efektivitas pengambilan keputusan manajerial masih memerlukan pengujian empiris, khususnya pada hotel berbintang di Indonesia. Penelitian ini bertujuan menganalisis pengaruh kapabilitas analitik pemasaran berbasis AI dan kapabilitas manajemen pendapatan terhadap kinerja hotel serta menguji peran mediasi efektivitas pengambilan keputusan manajerial. Penelitian menggunakan pendekatan kuantitatif dengan melibatkan 200 manajer hotel bintang tiga, empat, dan lima di Indonesia yang dipilih melalui teknik purposive sampling. Data dikumpulkan menggunakan kuesioner berskala Likert lima poin dan dianalisis dengan metode Partial Least Squares Structural Equation Modeling (PLS-SEM) menggunakan SmartPLS. Hasil penelitian menunjukkan bahwa seluruh hubungan langsung dan tidak langsung berpengaruh positif dan signifikan secara statistik. Kapabilitas analitik pemasaran berbasis AI memiliki pengaruh lebih kuat terhadap efektivitas pengambilan keputusan manajerial, sedangkan kapabilitas manajemen pendapatan menunjukkan pengaruh langsung terbesar terhadap kinerja hotel. Efektivitas pengambilan keputusan manajerial juga memediasi secara parsial hubungan kedua kapabilitas tersebut dengan kinerja hotel. Penelitian ini berkontribusi melalui integrasi kedua kapabilitas strategis dalam satu model mediasi untuk menjelaskan peran pengambilan keputusan manajerial dalam meningkatkan kinerja hotel.

Kata Kunci: Efektivitas Pengambilan Keputusan Manajerial, Kapabilitas Analitik Pemasaran Berbasis Kecerdasan Buatan, Kapabilitas Manajemen, Kapabilitas Manajemen Pendapatan, Kinerja Hotel

INTRODUCTION

The hospitality industry is experiencing significant strategic transformation as digital technologies and artificial intelligence (AI) continue to advance, increasing the need to incorporate market intelligence into business decision-making (Alrawadieh et al., 2021; Khalil et al., 2023; Sampson & Bhanugopan, 2022). Hotels must be able to interpret customer behaviour, anticipate demand, optimise pricing strategies, and allocate resources effectively (Buhalis et al., 2023; Mariani et al., 2021; Verhoef et al., 2021). Although data analytics can improve decision-making accuracy and strengthen competitiveness, its effectiveness relies on the alignment of technological capabilities, human resource competencies, and managerial processes (Ansari & Ghasemaghaei, 2023; Mikalef et al., 2020; Wamba et al., 2015; Alrawadieh et al., 2021; Khalil et al., 2023; Mariani et al., 2021). From a dynamic capabilities perspective, integrating AI-driven analytics, revenue management practices, and managerial decision-making is essential for enhancing long-term and sustainable hotel performance (Teece, 2020; Verhoef et al., 2021; Khalil et al., 2023; Rahman et al., 2022; Samson & Bhanugopan, 2022).

AI-driven marketing analytics capability is defined as the organisation's ability to apply AI and data analysis to obtain market knowledge, to anticipate customer behavior and to make better educated and strategic marketing decisions (Huang & Rust, 2021; Mikalef et al., 2020; Rahman et al., 2022). But this skill is more than simply embracing artificial intelligent technologies. It also includes the capacity to turn data into relevant insights and use that information to create effective marketing strategies (Huang & Rust, 2021; Mikalef et al., 2020). This ability is observable in the hospitality business where hotels analyze the visitor evaluations, identify customer segments, predict how they will respond to promotions, personalize the offers and evaluate the efficacy of the digital marketing campaigns (Agag et al., 2025; Huang & Rust, 2021). AI for hotel marketing can help personalize service and boost client engagement. However, the implementation of it demands to consider data governance, transparency, ethical norms and the alignment of technology solutions with

organizational goals (Buhalis et al., 2023; Huang & Rust, 2021; Wang, 2024). Marketing analytics and data capabilities are a crucial basis for AI-driven marketing, however their influence may vary according on the context and features of different hotels (Ansari & Ghasemaghaei, 2023; Huang & Rust, 2021; Khalil et al., 2023). In contrast, revenue management capability is defined as the hotel's ability to analyze demand, booking patterns, competitive situations, client segments and room availability to set optimal prices and strategically manage capacity (Alrawadieh et al., 2021; Ivanov & Zhechev, 2011; Noone et al., 2012). This capability can be expressed in a number of interrelated activities such as demand forecasting, room inventory management, market segmentation, distribution strategy development and revenue performance evaluation all contributing to the enhancement of hotel sales performance (Ivanov & Zhechev, 2011; Noone et al., 2012). Thus, revenue management capability is a strategic organizational capability which leads to better hotel performance by means of more efficient pricing, capacity allocation and revenue optimization. It also provides a basis for managerial decision-making, enabling managers to prioritize business according to demand conditions, market prospects, and revenue objectives (Ivanov & Zhechev, 2011; Khalil et al., 2023; Samson & Bhanugopan, 2022).

Managerial decision effectiveness is the extent to which managers can make informed decisions based on evidence, that are aligned with the organisation's strategic objectives and the present business environment (Samson & Bhanugopan, 2022; Wamba et al., 2015). While organizations are able to access vast volumes of data, access to information does not necessarily mean higher performance. What important is the ability of managers to analyze the data and transform the insights gained into actions that advance organizational goals (Ansari & Ghasemaghaei, 2023; Mikalef et al., 2020; Wamba et al., 2015). Samson and Bhanugopan (2022) and Rahman et al. (2022) in their earlier studies, emphasized the mediating function of executive decision making between analytics skills and organizational and marketing effectiveness. For effective managerial decisions in the hospitality industry, hotel managers need to integrate customer insights, demand forecasts, pricing information, and operational objectives when developing promotional strategies, setting room rates, allocating room inventory and prioritizing service delivery (Alrawadieh et al., 2021; Ivanov & Zhechev, 2011; Noone et al., 2012). Hence, managerial decision effectiveness is vital in connecting technological capabilities with organizational performance by ensuring that data-driven insights are meaningfully integrated into strategic planning, policy development, and resource allocation decisions (Rahman et al., 2022; Samson & Bhanugopan, 2022).

A number of links can be established between these organizational characteristics and hotel performance. AI-driven marketing analytics capability may help to improve the performance of hotels by enabling hotels to analyze consumer behavior, predict demand, assess marketing campaigns, and improve client segmentation and data-driven marketing strategies (Agag et al., 2025; Huang & Rust, 2021). Apart from its direct contribution to marketing activities, this capability can also enhance the effectiveness of managerial decisions by offering relevant insights for the development of promotional strategies, selection of distribution channels, and budget allocation according to organizational objectives (Abdellatif et al., 2024; Teece, 2007). However, the usefulness of these insights depends on data quality, the appropriateness of the technology, users' analytical competencies, and management's capacity to translate analytical discoveries into strategic actions (Mikalef et al., 2020; Huang & Rust, 2021). Hence, AI-driven analytics should be perceived as a tool to reinforce the knowledge accessible to managers rather than replacing their role in making strategic decisions (Abdellatif et al., 2024; Huang & Rust, 2021; Teece, 2007). Revenue management capability also contributes to the hotel performance through more effective pricing, demand forecasting, room capacity management and evaluation of distribution channel with the purpose of maximizing revenue (Binesh et al., 2021; Ivanov & Zhechev, 2011). Combining these operations, hotels can change room prices and assign

available inventory according to changing market situations and income potential of different client categories (Binesh et al., 2021). However, the benefits of revenue management depend on the accuracy of managerial decisions and the capacity to coordinate forecasting, pricing, capacity and distribution strategies with relevant information (Schwartz et al., 2025; Teece, 2007). Revenue management capability further enhances the effectiveness of managerial decision-making by furnishing data on demand patterns, room rates, availability, booking behavior, and revenue derived from various consumer categories (Binesh et al., 2021; Ivanov & Zhechev, 2011). This knowledge allows managers to compare pricing alternatives, prioritize space allocation, and evaluate costs and risks while ensuring service quality and alignment with corporate objectives (Binesh et al., 2021; Schwartz et al., 2025). Integrating revenue-related information into managerial processes leads to a better assessment of options and more informed strategic decisions (Abdellatif et al., 2024; Teece, 2007). Further potential to improve hotel performance is achievable through the integration of ai-driven marketing analytics capability and revenue management capability, by bringing together insights into customer behavior, promotional effectiveness, demand patterns, pricing, and revenue opportunities (Agag et al., 2025; Binesh et al., 2021; Huang & Rust, 2021). But having these qualities doesn't inevitably mean you'll do better. The extent of their involvement is governed by the capacity of the managers to understand the available information, appraise the possible courses of action, and select strategies that correspond to the commercial objectives of the hotel (Abdellatif et al., 2024; Ivanov & Zhechev, 2011). In this regard, Managerial Decision Effectiveness can act as a mediating mechanism through which analytical and revenue management capabilities influence hotel performance, because managers turn data-driven insights into effective marketing and revenue management decisions (Mikalef et al., 2020; Teece, 2007). Previous studies confirm the relevance of analytics capabilities and managerial decision-making, however, the mediating role of Managerial Decision Effectiveness in the relationship between revenue management capability and hotel performance still requires further empirical investigation (Abdellatif et al., 2024; Mamakou, 2026).

This research gap relates to the contribution of organisational capabilities to hotel performance and the mechanism by which these relationships occur in the Indonesian hospitality industry that need to be better understood. Earlier studies have examined related questions from a number of perspectives. For example, Khalil et al. (2023) examined data analytics capabilities, organisational agility, and innovation; while Rahman et al. (2022) explored marketing analytics capabilities, AI adoption, and marketing decision-making. Samson and Bhanugopan (2022) and Alrawadieh et al. (2021) also examined the managerial decision making, organisational performance, digital transformation and hotel revenue management. Despite these studies' valuable contributions, the different research foci indicate the need for an integrated framework that examines AI-Driven Marketing Analytics Capability and Revenue Management Capability in the same model. To bridge this gap, the present study identifies Managerial Decision Effectiveness as a mediating variable to uncover the relationship between these two capabilities and hotel performance in Indonesia (Alrawadieh et al., 2021; Khalil et al., 2023; Rahman et al., 2022; Samson & Bhanugopan, 2022). Theoretically, this study contributes by combining ai-driven marketing analytics capability and Revenue Management Capability under one framework and investigating the mediating effect of Managerial Decision Effectiveness on their relationships with Hotel Performance. The model proposed takes into account the direct effect of these capabilities on hotel performance and the indirect impact on managerial decision-making effectiveness. More specifically, it examines two mediation pathways including the relationship between ai-driven marketing analytics capability and hotel performance through managerial decision effectiveness and the relationship between revenue management capability and hotel performance through the same mechanism. Therefore, this study contributes to the dynamic

capabilities perspective by explaining how marketing analytics and revenue management capabilities may lead to hotel performance through effective managerial decision making, not merely through the possession of technological or strategic capabilities. From a practical point of view, the study aims to provide hotel managers with a framework to incorporate AI-driven marketing analytics capability and revenue management capability into their decision processes to support organisational performance. The proposed framework can assist managers in evaluating technology investments and revenue management strategies, while ensuring that analytical insights translate into appropriate strategic actions. It can also help to align marketing activities, revenue management and managerial decisions in areas like pricing, market segmentation, room allocation and performance evaluation. The empirical results will be used to develop managerial implications on how to apply the proposed model in the Indonesian hospitality industry. The recommendations will be based on the tested relationships and the extent to which managerial decision effectiveness mediates the direct and indirect relationships between the two strategic capabilities and hotel performance.

METODOLOGY

This study adopts a quantitative approach to examine the relationships between variables through hypothesis testing (Siratan & Liu, 2026). Data are collected using a non-probability sampling technique, specifically purposive sampling, whereby participants are selected based on predefined criteria relevant to the research objectives (Anton & Siratan, 2026).

In this study, the respondents are managers in three-, four- and five-star hotels in Indonesia with related knowledge or involvement in AI-driven marketing analytics, revenue management and managerial decision making. The study includes independent and chain hotels, but selection was based on the actual practice of AI-driven marketing analytics and revenue management practices, not star classification or brand affiliation. To be eligible to participate, respondents must have a minimum of one year of experience in the hospitality industry and hold relevant managerial roles such as general manager, hotel manager, marketing manager, revenue manager, finance manager, or other positions with responsibility for strategic hotel decisions. These positions are considered suitable because they provide access to strategic and operational information and an understanding of business processes, organisational policies, and the variables studied in this research. Also, the respondents must have involvement in at least one area of marketing or revenue management, so that they have sufficient knowledge to evaluate the relevant analytical capabilities. They should be involved in the implementation, evaluation or analytical decision-making processes regarding AI-driven marketing analytics so that their answers are based on practical experience rather than assumptions.

Data were collected through an online questionnaire that contained a five-point Likert scale, ranging from strongly disagree to strongly agree, to measure the respondents' agreement with statements that represented each of the construct indicators (Anton & Siratan, 2026). Since the population size was not known, the sample size was determined based on the guidelines proposed by Hair et al. (2022). In this study, the ten-times rule was used to take the highest number of indicators in a construct or the highest number of structural paths toward an endogenous construct to determine a target sample of 200 respondents using 20 indicators. The data were analysed using Partial Least Squares Structural Equation Modelling (PLS-SEM) with SmartPLS 3. The reason for this choice is that the study aims to explain and predict the endogenous constructs and to examine the relationships between the constructs in the one model which consists of two independent variables and one mediating variable. The analytical process consisted of two main stages: first, outer model assessment to assess the measurement model, and second, inner model assessment to test the structural relationship between constructs (Hair et al., 2022).

RESULT AND DISCUSSION

The study was conducted on 200 respondents working in star-rated hotels across Indonesia who met the eligibility criteria in terms of the use of AI-based marketing analytics. All respondents had relevant experience in the use or evaluation of artificial intelligence or related decision-making processes, especially in hotel marketing and revenue management. Of the demographic characteristics, 108 (54%) respondents were male and 92 (46%) were female. The biggest age group was 31–40 years old (43% of the sample), then respondents aged 41–50 years old (32.5%). Regarding the educational background, most of the respondents had a bachelor's degree (62.5%), which means that university graduates were the largest educational group in the sample. 37.5% of respondents had more than five years of professional experience in the hospitality industry. The majority of the participants were employed in four star hotels and represented a variety of operational and managerial functions, mainly marketing, revenue management and making strategic choices.

The respondents' engagement with the artificial intelligence (AI) technology suggests the relatively regular usage pattern. Some 30% said they used AI every day and 40% said they used it several times a week. The findings show that AI is a normal part of the professional work of many respondents, not a tool used from time to time. It is used to create marketing materials, analyse customer data, develop marketing strategies, prepare reports and support business decision making. The wide range of these activities suggests that AI is used not only in administrative tasks but also in analytical work and managerial decisions in hotel operations. The respondent profile is generally comprised of professional experience, educational qualifications and practical exposure to artificial intelligence (AI) technology. These characteristics provide a relevant empirical basis to examine the relationships between AI-Driven Marketing Analytics Capability, Revenue Management Capability, Managerial Decision Effectiveness and Hotel Performance in the star rated hotel industry in Indonesia.

Table 1. Results of Outer Loading for Convergent Validity Testing and Collinearity Statistics (VIF)

Variable	Item	Loadings	VIF
AI-Driven Marketing Analytics Capability (AIMA)	AIMA1	0.906	3.509
	AIMA2	0.899	3.432
	AIMA3	0.878	2.889
	AIMA4	0.872	2.852
	AIMA5	0.901	3.522
Hotel Performance (HP)	HP1	0.879	2.945
	HP2	0.903	3.441
	HP3	0.862	2.598
	HP4	0.887	3.059
	HP5	0.868	2.740
Managerial Decision Effectiveness (MDE)	MDE1	0.867	2.746
	MDE2	0.885	3.058
	MDE3	0.901	3.400
	MDE4	0.862	2.691
	MDE5	0.889	3.033
Revenue Management Capability (RMC)	RMC1	0.883	2.792
	RMC2	0.871	2.784
	RMC3	0.874	2.823
	RMC4	0.866	2.835
	RMC5	0.879	2.862

Source: Primary data processed using SmartPLS 3 (n= 200)

Table 1 presents the results of assessment from the 20 Indicators' convergent validity and multicollinearity using SmartPLS The outer loading values are between 0.862 and 0.906, and

all indicators are above the recommended threshold of 0.70 (Hair et al., 2022). AIMA1 has the highest loading (0.906) and MDE4 and HP3 the lowest (0.862). The variance inflation factor (VIF) values are between 2.598 and 3.522, which are below the conservative cut-off point of 5.00 (Hair et al., 2022). These results show that all indicators satisfy the recommended criterion for convergent validity at the indicator level and no critical multicollinearity concerns are observed based on the specified VIF threshold. The results generally support the adequacy of the measurement model for the subsequent structural model assessment.

Table 2. Results of Construct Reliability and Validity

Variable	Cronbach's Alpha	Composite reliability (rho_a)	Composite reliability (rho_c)	Average Variance Extracted (AVE)
AI-Driven Marketing Analytics Capability (AIMA)	0.935	0.936	0.951	0.794
Hotel Performance (HP)	0.927	0.928	0.945	0.775
Managerial Decision Effectiveness (MDE)	0.928	0.930	0.945	0.776
Revenue Management Capability (RMC)	0.923	0.929	0.942	0.765

Source: Primary data processed using SmartPLS 3 (n= 200)

Table 2 presents the results of reliability and convergent validity for the four research constructs with SmartPLS. All constructs revealed good internal consistency with Cronbach's alpha ranging from 0.923 to 0.935 and composite reliability (rho_c) ranging from 0.942 to 0.951, above the recommended level of 0.70 . The values of average variance extracted (AVE) are ranging from 0.765 to 0.794, which means that all constructs meet the minimum threshold of 0.50 (Hair et al., 2022). Of the four constructs, the AI-driven marketing analytics capability has the highest value for reliability and AVE. To summarise, the results suggest that the instruments used for measurement possess a good internal consistency and convergent validity, which justifies their utilisation in the subsequent analysis of the structural model.

Table 3. Fornell Larcker Results

Variable	AIMA	HP	MDE	RMC
AIMA	0.891			
HP	0.427	0.880		
MDE	0.521	0.626	0.881	
RMC	0.111	0551	0.473	0.875

Source: Primary data processed using SmartPLS 3 (n= 200)

Table 3 presents the results of the Fornell-Larcker criterion. The square root of AVE for AIMA (0.891), HP (0.880), MDE (0.881) and RMC (0.875) were larger than their corresponding correlations with other constructs. The highest correlation is between HP and MDE (0.626) and the lowest is between AIMA and RMC (0.111). The results indicate that each construct represents a different concept and can be empirically distinguished from the other constructs in the model. Hence, the four constructs fulfilll the discriminant validity requirement according to the Fornell-Larcker criterion, which supports the adequacy of the measurement model for further structural analysis (Hair et al., 2022).

Table 4. R-Square Test Results

Variable	R Square	R-square Adjusted
Hotel Performance (HP)	0.505	0.498
Managerial Decision Effectiveness (MDE)	0.446	0.440

Source: Primary data processed using SmartPLS 3 (n= 200)

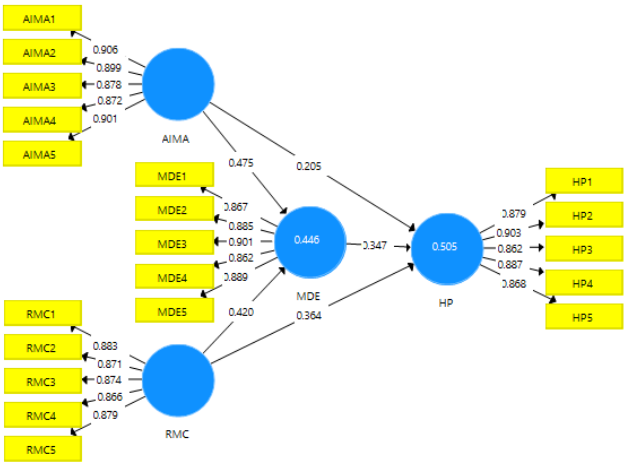
Table 4 presents the results of coefficient of determination and adjusted for the endogenous constructs. The R square value for Hotel Performance (HP) is 0.505 and adjusted R square is 0.498. The R square value for Managerial Decision Effectiveness (MDE) is 0.446 and adjusted R square is 0.440. The results of these analyses suggest that the model explains 50.5% of the variance in Hotel Performance and 44.6% of the variance in managerial decision effectiveness. The variance that is left in each construct is explained by factors that are not included in the research model. To summarise, the results suggest that the proposed model explains a significant amount of variation in both endogenous constructs (Hair et al., 2022).

Table 5. Hypothesis Testing Results (Direct Effects and Indirect Efects)

Coefficient Path	Original Sample (O)	Sample Mean (M)	Standard Deviation (STDEV)	T Statistic (|O/STDEV|)	P Value
AIMA -> HP	0.205	0.204	0.058	3.524	0.000
AIMA -> MDE	0.475	0.478	0.045	10.561	0.000
MDE -> HP	0.347	0.346	0.071	4.880	0.000
RMC -> HP	0.364	0.365	0.055	6.647	0.000
RMC -> MDE	0.420	0.421	0.051	8.289	0.000
AIMA -> MDE -> HP	0.165	0.165	0.038	4.318	0.000
RMC -> MDE -> HP	0.146	0.145	0.034	4.333	0.000

Source: Primary data processed using SmartPLS 3 (n= 200)

Table 5 summarises the direct and indirect effects among the research constructs. All the relationships show positive and statistically significant results ($p < 0.001$). AI-driven marketing analytics capability (AIMA) has the highest impact on managerial decision effectiveness (MDE) with a path coefficient of 0.475 ($t = 10.561$), followed by revenue management capability (RMC) with a coefficient of 0.420 ($t = 8.289$). RMC shows the highest direct effect on HP ($\beta = 0.364$), followed by MDE ($\beta = 0.347$) and AIMA ($\beta = 0.205$). The indirect effects through MDE are also statistically significant for both AIMA and HP ($\beta = 0.165$; $t = 4.318$) and for RMC and HP ($\beta = 0.146$; $t = 4.333$). These results indicate that MDE partially mediates both relationships, suggesting that AI-driven marketing analytics and revenue management capabilities contribute to hotel performance directly and indirectly through improved managerial decision making.



Source: Primary data processed using SmartPLS 3 (n = 200)

Figure 1. PLS-SEM Algorithm Output Model Results

The results of the PLS-SEM structural model are presented in Figure 1. Both AI-driven marketing analytics capability (AIMA) and revenue management capability (RMC) are

positively related to managerial decision effectiveness (MDE) with path coefficients of 0.475 and 0.420 respectively. AIMA (β = 0.205), RMC (β = 0.364) and MDE (β = 0.347) are also positively related to HP. The model explains 44.6% of the variance in MDE and 50.5% of the variance in HP. The results indicate that the proposed model is meaningful in terms of explanatory power, and the contributions of marketing analytics, revenue management, and managerial decision effectiveness to hotel performance are highlighted.

AI-driven marketing analytics capability (AIMA) has a positive effect on hotel performance. This implies that analytical capabilities can be strategic assets that aid organisations in identifying market opportunities, recognising profitable customer segments and establishing competitive advantages (Olabode et al., 2021). The use of big data and marketing analytics also enhances firms' marketing capabilities in areas like planning, implementation, product development, and interpretation of consumer input (Bulchand-Gidumal et al., 2023; Cao et al., 2021). These capabilities can enable organisational agility, foster marketing and organisational innovation in the star-rated hotel sector (Khalil et al., 2023). Moreover, AI-based marketing strategies can enhance firm performance, especially when backed by marketing capabilities, customer value co-creation, and market orientation (Wu & Monfort, 2022). In hotel operations, AI-driven analytical systems allow managers to leverage historical customer data, including buying patterns, preferences, and interests, to tailor marketing messages, pricing strategies, and promotional offers. Applications such as these can help improve conversion rates, boost consumer loyalty, and increase customer lifetime value (Bulchand-Gidumal et al., 2023). In addition to its contribution to marketing outcomes, AIMA can improve managerial decision effectiveness by facilitating faster and higher-quality decisions, which are essential to organisational performance (Neiroukh et al., 2024). These analytical capabilities enable hotel managers to go beyond relying primarily on intuition and adopt a more evidence-based approach to decision-making. However, their effective application requires leadership that develops analytical competencies and fosters a data-driven organisational culture, especially when translating strategic capabilities into operational improvements (Shamim et al., 2021). Furthermore, AIMA can help in targeting marketing decisions by reducing information uncertainty. Therefore, its contribution to competitive performance may depend on how effectively marketing analytics are integrated into broader managerial decision-making processes, with AI adoption further strengthening this relationship (Rahman et al., 2021).

Revenue management capability (RMC) is positively affecting hotel performance and managerial decision effectiveness (MDE). Such relationship is seen in revenue management practices like reservation payment policies, pricing strategies, revenue forecasting, price optimisation, social media strategies and demand forecasting which are linked to hotel financial performance (Murimi et al., 2021). It is also required to use relevant performance indicators to evaluate these practices, including gross operating profit per room, occupancy rate, average room rate, revenue per available room and total revenue per available room (Murimi et al., 2021). Therefore, RMC is the capacity of a hotel to manage revenue by analysing market demand, predicting occupancy, altering room prices dynamically, controlling room inventory, and optimising distribution channels to achieve its business objectives (Josephi et al., 2016). RMC is particularly important in the star-rated hotel industry, as managers need to react to changes in demand, booking patterns, customer attributes, competitor pricing and room availability across different time periods (Aydin & Birbil, 2018). Such capabilities enable managers to ascertain proper pricing, room allocation and distribution strategies in response to market competition and demand uncertainty (Altin et al., 2017; Josephi et al., 2016). At the same time, availability of demand data, forecasting results and pricing information can empower MDE by providing a more reliable base for managerial decisions (Aydin & Birbil, 2018). However, the effectiveness of these decisions also depends on managers' ability to interpret the recommendations generated by revenue

management systems in light of prevailing market conditions, customer characteristics and hotel strategies (Mohammed & Denizci Guillet, 2025; Haynes & Egan, 2024). Hence, RMC can enhance MDE if analytical insights, information quality and professional managerial judgement are integrated into the decision making process (Mohammed & Denizci Guillet, 2025).

Managerial Decision Effectiveness (MDE) is an important factor to improve hotel performance. Effective decision-making in the star-rated hotel industry includes managing daily operations, developing marketing strategies, allocating resources, and improving service quality in response to market conditions and customer expectations (Bangchokdee & Mia, 2016). Well-informed managerial decisions can lead to better hotel performance through more efficient cost control, revenue optimisation, increased customer satisfaction and stronger competitiveness (Monteiro et al., 2022). Managers can also align operational activities and departmental outcomes with the hotel's overall objectives through the use of financial and non-financial performance indicators (Bangchokdee & Mia, 2016). Hence, effective managerial decision-making can contribute to the development of both financial and non-financial performance, such as income generation, operational efficiency, and quality of service (Monteiro et al., 2022; Köseoglu et al., 2019). Beyond its direct relationship with hotel performance, MDE might also mediate the relationships between AIMA and RMC and hotel performance. In the case of AIMA, MDE helps to convert AI-generated marketing insights into strategic decisions to improve marketing effectiveness and strengthen hotels' competitive performance (Agag et al., 2025; Rahman et al., 2021). Revenue management systems and practices also produce economic value when their analytical outputs are used to make correct commercial decisions (Talón-Ballestero et al., 2023). The revenue management process is therefore vital to commercial decision-making, as it delivers managers with the information required to set room rates and distribution strategies in light of changing demand and market competition (Altin et al., 2017; Guillet & Chu, 2021). The process allows MDE to connect AIMA and RMC to hotel performance, helping managers to make strategic decisions about room pricing, room availability and sales with potentially positive impacts on occupancy rates and revenue per available room (RevPAR). However, these benefits depend on managers' ability to interpret the information related to revenues and translate the analytical findings into appropriate operational and strategic actions (Haynes & Egan, 2024; Altin et al., 2017; Chen et al., 2023).

CONCLUSION AND SUGGESTION

This study concludes that AI-driven marketing analytics capability (AIMA), revenue management capability (RMC), and managerial decision effectiveness (MDE) are important strategic factors contributing positively to the performance of three- to five-star hotels in Indonesia. The findings show that AIMA and RMC influence hotel performance both directly and indirectly through their contribution to managerial decision effectiveness, which highlight in translating analytical insights and revenue management information into effective managerial decisions.

Practically, star-rated hotel management should combine AI-powered marketing analytics with revenue management systems and strategic decision-making processes. Investments in technology must be accompanied by improvements in managerial analytical skills, data quality, interdepartmental coordination and performance evaluation using financial and operational indicators. Hotel managers are also encouraged to create internal measures of decision-making speed and quality, such as time to convert analytical insights into commercial actions, accuracy of demand forecasts and rate of adoption of system recommendations. Moreover, AIMA should be viewed as an organisational capability beyond technology adoption that encompasses data resources, technical expertise, managerial competencies, organisational learning and a data-driven culture. Theoretically, the study

extends the dynamic capabilities perspective by examining the AI-driven marketing analytics capability (AIMA) and revenue management capability (RMC) within an integrated framework, with managerial decision effectiveness (MDE) as a mediating mechanism to explain their relationships with hotel performance.

Several limitations of this study are acknowledged below. First, the use of questionnaire responses from 200 participants is subject to subjective bias and common method bias. The data represent respondents' perceptions rather than independently verified performance measures. Second, the use of purposive sampling might limit the generalisability of the findings to the wider hotel industry in Indonesia. Third, the quantitative survey design is not sufficient to establish temporal causal relationships among the research variables. Also, the study does not explore if there are differences in the relationships by hotel star classification, independent or chain affiliation, artificial intelligence (AI) technology maturity, or prevailing market conditions. The limitations should be taken into account in the interpretation of findings and should offer guidance for future research.

Future research could use a longitudinal design or objective hotel performance data to provide stronger evidence of causal relationships among the research variables. The future development of the model may include other factors such as organisational agility, data quality, managers' digital competencies and intensity of market competition. We will conduct comparative studies across hotel star classifications, geographical regions, and levels of AI adoption to identify the conditions under which the relationships between constructs become stronger or weaker. Moreover, combining survey data with in-depth interviews might offer deeper insight into how managers interpret analytical insights and translate them into strategic decisions. These approaches would contribute to a more holistic and contextually sensitive understanding of the mechanisms through which organisational capabilities and managerial decision-making contribute to hotel performance.

Author Contribution

All authors have made substantial contributions to the research, including the research design, strengthening the theoretical basis, conceptualisation, empirical analysis, interpretation of results and further development related to the study. All authors also contributed to reviewing and revising the manuscript, approved the final (revised) version and take responsibility for the integrity of the published scholarly work.

AI Disclosure Statement

The authors used artificial intelligence (AI) such as Quillbot tools to help edit the language, refine sentences and improve the overall clarity and readability of the manuscript. AI was used solely as a support tool and did not replace the intellectual contribution of the authors to the conceptualisation of the study, data collection, statistical analysis, interpretation of findings, or formulation of conclusions. All AI-assisted content was meticulously reviewed, verified and edited by the authors to ensure its accuracy and scientific integrity. The authors assume full responsibility for the originality, reliability and final content of the published work.

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