

The Effect Of Digital Leadership On Work Productivity Based On Employee Motivation And Engagement At Maison Aurelia Sanur Hotel

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Abstract

Digital transformation in the hospitality industry demands adaptive leadership capable of leveraging technology to sustain employee productivity. This study examines the influence of digital leadership on employee motivation, employee engagement, and work productivity, as well as the mediating roles of motivation and engagement in that relationship, at Maison Aurelia Sanur Hotel, Bali, Indonesia. Employing a quantitative explanatory design, data were collected via structured questionnaires administered to all 40 hotel employees through a saturated (census) sampling technique. Partial Least Squares – Structural Equation Modelling (PLS-SEM) was applied using SmartPLS 4 software to test direct and indirect hypothetical relationships. Results confirm that digital leadership positively and significantly influences employee motivation ($\beta = 0.482$, $t = 2.730$, $p = 0.006$), employee engagement ($\beta = 0.764$, $t = 9.147$, $p = 0.000$), and work productivity ($\beta = 0.318$, $t = 3.458$, $p = 0.001$). Employee motivation ($\beta = 0.386$, $t = 3.988$, $p = 0.000$) and employee engagement ($\beta = 0.357$, $t = 3.294$, $p = 0.001$) also significantly predict work productivity. Mediation testing further establishes that both variables serve as significant mediators, with indirect effects of 0.186 (through motivation, $p = 0.019$) and 0.272 (through engagement, $p = 0.003$) respectively. The model accounts for 79.5% of the variance in work productivity ($R^2 = 0.795$; $Q^2 = 0.934$). These findings underscore the strategic importance of strengthening digital leadership as a managerial approach to



improving employee productivity through motivational and engagement mechanisms in the hospitality context.

Keywords: digital leadership, employee motivation, employee engagement, work productivity, hospitality industry

INTRODUCTION

The rapid acceleration of digital transformation has fundamentally reshaped organizational landscapes across all industries, redefining communication patterns, work processes, and leadership paradigms. This shift is not gradual but inherently disruptive, compelling organizations to adapt swiftly and continuously. Within this context, digital leadership has emerged as a strategic approach that transcends the mere utilization of technological tools; it emphasizes vision, empathy, and the capacity to manage change effectively (Ongena, Morsch, & Ravesteijn, 2024). Effective digital leaders are expected to integrate technology into work processes while preserving the humanistic values that underpin organizational interaction.

The hospitality industry, as one of the most competitive and service-intensive sectors, faces significant pressure to transform digitally. Guests increasingly demand rapid, responsive, and personalized services—characteristics achievable only through efficient technology integration. From online reservation systems and mobile check-in applications to AI-driven customer service chatbots and data analytics for understanding guest preferences, technology has fundamentally altered hotel operations. Yet technology alone is insufficient; without leadership capable of strategically and humanely directing its application, digitalization risks becoming a mere technical undertaking devoid of tangible impact on service quality and employee productivity (Sacavém, Correia, & Reis, 2025).

Maison Aurelia Sanur Hotel in Bali, Indonesia, provides a concrete case for examining how digital leadership challenges and opportunities can be strategically addressed. Operating within a highly competitive tourism environment, the hotel confronts the imperative to adopt digital leadership approaches that integrate technology into human resource management and guest service delivery. Data from the hotel's operational records for 2023 and 2024 reveal that only 70% of room reservations were conducted digitally, compared to the global industry benchmark of 85–95% (Statista Global Hospitality Report, 2022). This gap signals sub-optimal digital transformation, presenting opportunities for evaluation and development of digital leadership capabilities.

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Prior research substantiates the centrality of digital leadership in organizational productivity. A meta-analysis of 16 international studies by Okunlola (2025) demonstrated positive correlations between digital leadership and employee engagement, internal innovation, and organizational goal achievement. Azmy and Priyono (2022) further highlighted that leadership style is a key determinant of employee productivity in digital start-up environments. In hospitality settings where human interaction is paramount, leadership that combines technological competency with a humanistic approach becomes essential. Employee productivity not only affects operational efficiency but also directly shapes guest experience quality.

Despite the growing body of literature on digital leadership, empirical evidence on the mediating mechanisms through which it influences productivity in the hospitality industry remains limited, particularly in the context of small-to-medium hotels in developing tourism destinations. This study addresses that gap by investigating the influence of digital leadership on work productivity and examining the mediating roles of employee motivation and employee engagement at Maison Aurelia Sanur Hotel. The research questions are: (1) Does digital leadership significantly influence employee motivation? (2) Does digital leadership significantly influence work productivity? (3) Does digital leadership significantly influence employee engagement? (4) Does employee motivation significantly influence work productivity? (5) Does employee engagement significantly influence work productivity? (6) Does employee motivation mediate the relationship between digital leadership and work productivity? (7) Does employee engagement mediate the relationship between digital leadership and work productivity?

THEORETICAL FRAMEWORK

Digital Leadership

Digital leadership refers to the capability of leading individuals, teams, and organizations by leveraging digital thinking and technology-driven decision-making to achieve organizational objectives (Zia et al., 2024). Unlike traditional leadership approaches, digital leadership encompasses strategic, technical, and interpersonal competencies that enable leaders to read technological trends, understand the business implications of digital innovation, and translate insights into strategies relevant for teams and organizations. Avolio (2014) foundational work on E-Leadership conceptualizes how advanced information technology mediates leadership processes, enabling leaders to influence followers' attitudes and behaviors across digital platforms. Effective digital leaders build collaborative work cultures, support continuous learning, and promote open

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innovation—competencies increasingly critical in technology-intensive hospitality environments (El Sawy et al., 2022). In this study, digital leadership is operationalized through five indicators: (1) digital vision clarity, (2) data-driven decision-making, (3) facilitation of digital capability, (4) effective digital communication, and (5) technology-based collaboration.

Employee Motivation

Employee motivation, in the context of this research, is grounded in Self-Determination Theory (SDT) as developed by Deci and Ryan (1985, 2000, 2020). SDT posits that intrinsic motivation—arising from psychological needs for autonomy, competence, and relatedness—is a more sustainable driver of behavior and performance than extrinsic motivation alone. In digitally transforming organizations, leaders who create environments supporting these psychological needs through technology-enabled autonomy, competency development through digital training, and social connectedness via digital platforms foster higher intrinsic motivation. Maslow's Hierarchy of Needs (1943) and Herzberg's Two-Factor Theory further complement this framework by distinguishing between motivators and hygiene factors in work performance. Employee motivation is operationalized here through five indicators: (1) enthusiasm toward work, (2) recognition and reward, (3) creative behavior, (4) long-term career commitment, and (5) self-directed development.

Employee Engagement

Employee engagement is conceptualized following Kahn's (1990) seminal framework as a psychological condition in which individuals express themselves physically, cognitively, and emotionally in the execution of organizational roles. The Change Engagement Model (Albrecht et al., 2020) extends this by emphasizing psychological readiness, work energy, and a positive orientation toward organizational change—critical attributes in digital transformation contexts. Additionally, Meyer and Allen's (1991) Organizational Commitment Theory underscores the affective, normative, and continuance dimensions of employee attachment, all of which manifest in the consistency with which employees fulfill responsibilities in digitalized work environments. Employee engagement in this study is measured through five indicators: (1) active participation in organizational processes, (2) cognitive involvement in digital work systems, (3) emotional dedication to organizational goals, (4) adherence to digital operational procedures, and (5) proactive problem-solving in digital contexts.

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Work Productivity

Work productivity (employee job performance) is theorized based on Bernardin and Russell's (1993; 2013) multidimensional framework, which defines performance as the results achieved by employees in fulfilling their tasks according to organizational criteria. This framework encompasses dimensions of work quality, work quantity, timeliness, cost-effectiveness, and task independence. Robbins and Judge's (2017) Organizational Behavior perspective complements this by emphasizing that productive work behaviors are shaped by individual factors—job satisfaction, motivation, commitment—and organizational factors—leadership style, work systems, organizational culture. In digital transformation contexts, McAfee and Brynjolfsson (2017, 2020) illustrate how data analytics and digital information systems enhance organizational decision-making speed and accuracy, thereby elevating overall workforce productivity. Work productivity is operationalized through five indicators: (1) time efficiency, (2) work quantity achievement, (3) data accessibility, (4) output quality standards, and (5) performance target fulfillment.

Research Hypotheses

Based on the theoretical framework and empirical evidence from prior studies, the following hypotheses are proposed:

- H1: Digital leadership has a significant positive effect on employee motivation.
- H2: Digital leadership has a significant positive effect on work productivity.
- H3: Digital leadership has a significant positive effect on employee engagement.
- H4: Employee motivation has a significant positive effect on work productivity.
- H5: Employee engagement has a significant positive effect on work productivity.
- H6: Employee motivation significantly mediates the effect of digital leadership on work productivity.
- H7: Employee engagement significantly mediates the effect of digital leadership on work productivity.

RESEARCH METHOD

Research Design

This study employs a quantitative approach with an explanatory (causal) research design, aiming to examine and explain causal relationships among the research variables. The research was conducted at Maison Aurelia Sanur Hotel, Denpasar, Bali, Indonesia, during January–February 2026.

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Population and Sample

The study population comprised all employees of Maison Aurelia Sanur Hotel. A saturated sampling (census) technique was applied, meaning the entire population served as the study sample, totaling 40 respondents. This approach is appropriate given the relatively small population size, ensuring representativeness without sampling error (Sugiyono, 2008). Respondents were predominantly aged 41–50 years (50%), with the majority holding Diploma-level education (52.5%) and having a minimum of five years of work experience at the hotel (62.5%), indicating a stable, experienced workforce profile.

Data Collection

Primary data were gathered using a structured questionnaire instrument with a five-point Likert scale (1 = Strongly Disagree to 5 = Strongly Agree). The questionnaire was distributed directly to all respondents. Prior to the main data collection, an instrument validity and reliability pilot test ($n = 30$) was conducted. Results confirmed that all items achieved Pearson correlation coefficients above 0.30 (validity criterion) and Cronbach's Alpha values ranging from 0.887 to 0.950, exceeding the 0.70 reliability threshold, demonstrating that all instruments were valid and reliable for use in the main study.

Data Analysis

Data analysis was conducted using Partial Least Squares – Structural Equation Modelling (PLS-SEM) via SmartPLS 4 software. PLS-SEM was selected for its capacity to handle complex structural models with smaller sample sizes ($n < 200$) and non-normal data distributions (Ghozali & Latan, 2017). The analytical process involved two stages: (1) Outer Model Evaluation to assess construct validity (convergent and discriminant validity through outer loadings, $AVE \geq 0.50$, and Fornell–Larcker criterion) and reliability (Composite Reliability ≥ 0.70 , Cronbach's Alpha ≥ 0.70); and (2) Inner Model Evaluation to test hypothetical structural relationships using path coefficients, R-square, Q-square predictive relevance, T-statistics (> 1.96), and p-values (< 0.05). Mediation effects were examined through bootstrapping with 5,000 resampling iterations.

RESULTS

Measurement Model Evaluation

All outer loadings for indicators of digital leadership (0.585–0.858), employee motivation (0.781–0.927), employee engagement (0.635–0.811), and work productivity (0.748–0.951) exceeded the 0.50 threshold, with T-statistics above 1.96 and p-values of

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0.000, confirming convergent validity. Discriminant validity was established through the Fornell–Larcker criterion, where the square root of each construct's AVE exceeded inter-construct correlations. Composite reliability values ranged from 0.835 to 0.934, all surpassing the 0.70 benchmark, confirming construct reliability.

Table 1. Composite Reliability and AVE Values

Variable	Composite Reliability	AVE ($\sqrt{\text{AVE}}$)	Cronbach's Alpha
Digital Leadership	0.841	0.521 (0.722)	0.887
Employee Motivation	0.932	0.732 (0.855)	0.919
Employee Engagement	0.835	0.505 (0.711)	0.950
Work Productivity	0.934	0.739 (0.860)	0.917

Structural Model Evaluation

The structural model demonstrated strong predictive power. The R^2 value for work productivity was 0.795, indicating that 79.5% of its variance is explained by the model. Employee engagement achieved $R^2 = 0.583$, and employee motivation $R^2 = 0.233$. The overall model fit, assessed via Q^2 predictive relevance, was 0.934, approaching 1.0, confirming excellent goodness-of-fit and validating the model's explanatory capacity.

Table 2. Structural Model R^2 Values

Dependent Variable	R^2 Value	Interpretation
Employee Motivation	0.233	Moderate
Employee Engagement	0.583	Substantial
Work Productivity	0.795	Substantial

Hypothesis Testing – Direct Effects

Results of direct path coefficient testing are presented in Table 3. All five direct hypotheses (H1–H5) were supported at the 5% significance level.



Table 3. Path Coefficient Results – Direct Effects

Hypothesis	Path	β	T-Statistic	p-Value	Decision
H1	DL $\rightarrow$ EM	0.482	2.730	0.006	Supported
H2	DL $\rightarrow$ WP	0.318	3.458	0.001	Supported
H3	DL $\rightarrow$ EE	0.764	9.147	0.000	Supported
H4	EM $\rightarrow$ WP	0.386	3.988	0.000	Supported
H5	EE $\rightarrow$ WP	0.357	3.294	0.001	Supported

Note: DL = Digital Leadership; EM = Employee Motivation; EE = Employee Engagement; WP = Work Productivity

Hypothesis Testing – Indirect (Mediation) Effects

Bootstrapping with 5,000 resampling iterations confirmed both mediation hypotheses. Both H6 and H7 were supported, demonstrating that employee motivation and employee engagement function as significant mediating mechanisms in the relationship between digital leadership and work productivity.

Table 4. Path Coefficient Results – Indirect Effects (Mediation)

Hypothesis	Indirect Path	β (Indirect)	T-Statistic	p-Value	Decision
H6	DL $\rightarrow$ EM $\rightarrow$ WP	0.186	2.346	0.019	Supported
H7	DL $\rightarrow$ EE $\rightarrow$ WP	0.272	3.004	0.003	Supported

Descriptive Statistics Summary

Descriptive analysis revealed that all research variables were perceived favorably by respondents. Digital leadership recorded an overall mean of 3.70 (Good), with effective digital communication as the highest-scoring indicator (mean = 3.85) and data-driven decision-making as the lowest (mean = 3.59). Employee motivation achieved an overall mean of 3.73 (Good), led by work enthusiasm (mean = 3.84), while reward acquisition and creative behavior recorded lower scores (mean = 3.65). Employee engagement had an overall mean of 3.67 (Good), with digital task completion and adherence to operational procedures achieving the highest scores, and active problem-solving in digital contexts



scoring lowest (mean = 3.13). Work productivity yielded the highest overall mean of 3.80 (Good), with data accessibility as the strongest indicator (mean = 3.85).

DISCUSSION

Digital Leadership and Employee Motivation (H1 Supported)

The finding that digital leadership positively and significantly influences employee motivation ($\beta = 0.482$, $p = 0.006$) is consistent with prior research. Sangapan et al. (2025) demonstrated through SEM-PLS analysis of 220 respondents that adaptive and inspirational leadership significantly drives work motivation in digital transformation contexts. Yustika (2025) similarly found that transformational leadership—which shares core characteristics with digital leadership including vision clarity, communication, and empowerment—substantially enhances employee motivation. In the present study, digital leaders at Maison Aurelia Sanur who communicate digital vision clearly and provide structured digital training create environments where employees perceive their work as meaningful and feel recognized, fulfilling intrinsic motivational needs as described by Deci and Ryan's (1985, 2020) Self-Determination Theory. The relatively moderate path coefficient (0.482) suggests that while digital leadership contributes meaningfully to motivation, additional organizational factors such as compensation systems and peer recognition may further amplify motivational outcomes.

Digital Leadership and Work Productivity (H2 Supported)

Digital leadership demonstrated a direct, positive, and significant effect on work productivity ($\beta = 0.318$, $p = 0.001$). This finding aligns with Samuel and Ramli (2022) who identified direct and significant relationships between digital leadership and individual work outcomes in manufacturing contexts, and with Nurshinta, Usman, and Widyastuti (2023) who found that digital leadership significantly predicts organizational performance across Jabodetabek-based organizations. In the hospitality context, digital leaders who establish clear operational guidance, facilitate efficient digital workflows, and provide real-time performance monitoring systems enable employees to accomplish tasks more efficiently and with higher quality. The notable R^2 value of 0.795 for work productivity confirms that the comprehensive model—encompassing both direct and mediated pathways—substantially explains productivity variance, underscoring the strategic leverage of digital leadership in hotel management.



Digital Leadership and Employee Engagement (H3 Supported)

The strongest direct effect in the model was between digital leadership and employee engagement ($\beta = 0.764$, $p = 0.000$), suggesting that leadership quality in the digital domain profoundly determines the extent to which employees psychologically and behaviorally invest in their work roles. This finding resonates with Saputra et al. (2022) who found that digitally capable leaders increase employees' sense of ownership, enthusiasm, and organizational commitment, particularly during dynamic digital transformation periods. Li et al. (2024) corroborate this with evidence from hybrid work environments showing that middle managers' digital leadership significantly increases work engagement ($\beta = 0.36$, $p < 0.001$). At Maison Aurelia, leaders who leverage digital communication platforms, engage in two-way feedback, and foster cross-departmental collaboration through technology create a psychologically safe and empowering environment that catalyzes deep employee engagement.

Employee Motivation and Work Productivity (H4 Supported)

Employee motivation exerted a significant positive influence on work productivity ($\beta = 0.386$, $p = 0.000$). This result is consistent with a substantial body of literature. Agus (2017) demonstrated that both intrinsic and extrinsic motivation significantly influence work productivity in telecommunications employees, while Djunaid and Astuti (2024) identified recognition, incentives, and meaningful role assignment as key motivation-to-productivity drivers. In this study, the highest-scoring motivational indicators—meaningfulness of work and leadership recognition of contributions—aligned with Montani, Boudrias, and Pigeon's (2020) finding that employee recognition enhances behavioral involvement through perceived meaningfulness as a key psychological mediator. These patterns affirm that when hotel employees perceive their work as impactful to guest satisfaction and receive consistent recognition, they are intrinsically motivated to elevate their work quality and productivity.

Employee Engagement and Work Productivity (H5 Supported)

Employee engagement significantly predicted work productivity ($\beta = 0.357$, $p = 0.001$), confirming Kahn's (1990) theoretical proposition that deep psychological involvement in work roles translates into superior performance outcomes. Harter, Schmidt, and Hayes' (2002) landmark meta-analysis of 7,939 business units established empirical precedent for this relationship, finding that engagement consistently correlates with productivity, profitability, and customer loyalty. More recently, Rani et al. (2025)

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documented that organizations building robust digital engagement through work platforms experience productivity gains and reduced turnover. In the hotel context, employees who actively engage with digital systems—completing tasks according to digital protocols, adhering to technology-based procedures, and proactively resolving technical issues—demonstrate the focused, responsible work behavior that translates directly into higher productivity and enhanced guest service quality.

Mediation by Employee Motivation (H6 Supported)

The significant indirect effect of digital leadership on work productivity through employee motivation ($\beta = 0.186$, $p = 0.019$) establishes motivation as a meaningful psychological mediating mechanism. This finding extends prior research by Vebryana et al. (2024), who demonstrated that motivation mediates the influence of digital leadership on the performance of civil servants in East Java, and Azzahra et al. (2025) who found that digital leadership enhances work motivation, which in turn drives company performance at PT Telkom Indonesia. In this study's context, digital leadership does not automatically improve productivity merely through technological provision; rather, it operates through its capacity to ignite employees' internal drive to use technology optimally and meaningfully. When digital leaders connect technology use to enhanced service quality and guest satisfaction, they strengthen intrinsic motivation, which subsequently drives more productive work behaviors.

Mediation by Employee Engagement (H7 Supported)

Employee engagement emerged as a stronger mediator ($\beta = 0.272$, $p = 0.003$) than employee motivation in transmitting digital leadership's influence to work productivity. This finding is particularly relevant for hospitality operations where service delivery quality depends on collective, coordinated engagement across departments. The research of El-Sayed Aly (2024/2025) in five-star hospitality settings similarly established that employee engagement mediates the relationship between digital leadership and operational performance, while Mollah (2024) found that engagement forms a strong mediation pathway between digital leadership and employee outcomes. In the hotel context, digital leaders who cultivate transparent, collaborative, and responsive digital environments—through effective platform use, participatory decision-making, and open communication channels—generate high engagement levels. This engagement manifests as the focused, responsible, technology-assisted work behavior that delivers superior productivity and service excellence.



Practical and Theoretical Implications

Theoretically, this study contributes to the digital leadership literature by providing empirical evidence from a small-to-medium hospitality enterprise in a developing tourism destination, a context underrepresented in extant research. The dual mediation model—both motivational and engagement-based—offers a nuanced theoretical contribution by demonstrating that digital leadership's productivity impact operates through complementary psychological and behavioral mechanisms simultaneously. Practically, hotel management should prioritize strengthening data-driven decision-making capabilities (the lowest-scoring digital leadership indicator) through targeted analytics training and structured weekly data review protocols. Formal recognition systems—performance-linked digital award programs—should be implemented to address the lowest motivation scores. Refresher digital training programs and responsive IT helpdesk support systems can enhance digital task completion as the lowest-performing engagement indicator.

CONCLUSION

This study investigated the influence of digital leadership on work productivity, mediated by employee motivation and employee engagement, at Maison Aurelia Sanur Hotel. Based on PLS-SEM analysis of 40 respondents using a saturated sampling approach, seven hypotheses were examined and all were empirically supported. Digital leadership positively and significantly influences employee motivation ($\beta = 0.482$), employee engagement ($\beta = 0.764$), and work productivity directly ($\beta = 0.318$). Employee motivation ($\beta = 0.386$) and employee engagement ($\beta = 0.357$) both significantly predict work productivity. Crucially, both variables function as significant mediators: motivation accounts for an indirect effect of $\beta = 0.186$, and engagement accounts for the stronger indirect effect of $\beta = 0.272$. The model explains 79.5% of work productivity variance ($Q^2 = 0.934$), confirming its robust predictive relevance.

These findings emphasize that effective digital leadership in hospitality organizations transcends technical competence—it must encompass motivational and engagement strategies that psychologically empower employees to leverage digital systems productively. Future research should examine these relationships in larger multi-hotel samples, incorporate qualitative methodologies to explore contextual nuances, and investigate additional mediating variables such as digital self-efficacy and organizational digital culture.



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