



**THE EFFECT OF WORK SYSTEM DIGITALIZATION AND COMPETENCE
ON EMPLOYEE PERFORMANCE (A STUDY ON EMPLOYEES OF PT
RIZQOENA SENTOSA RAYA)**

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Abstract

This study examines the effect of work system digitalization and competence on employee performance at PT Rizqoena Sentosa Raya, a building and development company in Cirebon Regency, West Java, Indonesia. Using a quantitative associative research design, data were collected from 30 respondents through simple random sampling (Slovin formula, error tolerance 5%) and analyzed using multiple linear regression via IBM SPSS. The results indicate that work system digitalization has a positive and significant partial effect on employee performance ($t = 7.311$, sig. < 0.001), and competence has a positive and significant partial effect on employee performance ($t = 5.772$, sig. < 0.001). Simultaneously, both variables exert a positive and significant influence on employee performance ($F = 42.344$, sig. < 0.001). The model explains 75.8% of the variance in employee performance ($R^2 = 0.758$; Adjusted $R^2 = 0.740$), with work system digitalization emerging as the more dominant predictor ($\beta = 0.692$) relative to competence ($\beta = 0.546$). These findings suggest that building and development organizations can optimize employee performance by pursuing concurrent investment in digital work system integration and workforce competence development.

Keywords: Work System Digitalization, Competence, Employee Performance, Building and Development, Multiple Linear Regression



INTRODUCTION

Organizations across sectors are reconfiguring their work systems in response to advancing digital technologies, shifting from conventional operational methods toward digitally integrated processes that reshape how work is performed, coordinated, and managed (Hirsch-Kreinsen, 2016; Jarrahi et al., 2021; Vial, 2019; Wolf et al., 2018). Within the Socio-Technical Systems Theory (STS Theory) framework, this transformation is understood as a realignment between the technical subsystem comprising digital tools, platforms, and processes and the social subsystem comprising human actors, roles, and collaborative structures (Y. Abbas & Michael, 2025). The theory asserts that organizational performance is not determined by technology alone, but by the quality of interaction between these two subsystems. Consequently, the success of digital work system adoption depends as much on the readiness of the workforce as on the sophistication of the technology deployed.

In the building and development sector, this dynamic carries distinctive operational significance. Unlike service or manufacturing environments, building and development activities are structured around project-based workflows, multi-stakeholder coordination, real-time field supervision, cost management, and document-intensive administrative processes. Digitalization in this context extends beyond administrative efficiency; it directly influences project execution speed, inter-team coordination, decision-making accuracy, and the overall quality of project outcomes (S. Dewi Hajar, 2023). PT Rizqoena Sentosa Raya, a building and development company located in Cirebon Regency, West Java, has progressively integrated digital systems into its operational activities. In practice, however, this integration has surfaced challenges related to variation in employees' technology adoption rates and uneven capability to operate digital platforms- conditions that complicate the relationship between digitalization and actual employee performance.

Beyond organizational-level factors, individual-level capabilities also shape how digitalization translates into performance. Competence understood as the capacity to use digital technologies effectively across work tasks, information management, and organizational communication has been consistently identified as a determinant of how productively employees engage with digital work environments (Blanka et al., 2022; Y. H. Wang & Ha-Brookshire, 2018). Grounded in Human Capital Theory, this perspective holds that an individual's knowledge, skills, and adaptive capacity represent a form of organizational investment that directly contributes to productive output (Becker, 1964). When employees lack



the competence to operate and adapt to digital systems, the potential performance gains from digitalization may remain unrealized, regardless of how advanced the deployed technology is. This suggests that work system digitalization and employee competence function not as independent determinants of performance but as complementary factors that must develop in parallel.

Prior research has examined each of these variables with generally positive findings. Studies conducted in financial institutions and state-owned enterprises document that digital work system adoption improves operational efficiency, coordination effectiveness, and productivity (S. Dewi Hajar, 2023). Similarly, investigations into digital competence report its positive association with employee performance, work efficiency, and adaptive capacity in technology-driven environments (Blanka et al., 2022; Rahmawati et al., 2025; B. Wang & Ha-Brookshire, 2018). However, the majority of these studies are drawn from service, education, or manufacturing sectors. Empirical examination of the simultaneous influence of work system digitalization and employee competence on performance within a building and development firm in Indonesia remains limited, leaving a contextual and integrative gap that this study addresses.

This study examines the effect of work system digitalization and competence on employee performance at PT Rizqoena Sentosa Raya, analyzing both the independent contribution of each factor and their combined influence on performance outcomes. The findings are expected to provide context-specific empirical evidence on the interplay between organizational and individual determinants of performance in a building and development company undergoing digital transition, with practical implications for workforce development strategy and digital transformation management.

LITERATURE REVIEW

Theoretical Foundation

Socio-Technical Systems (STS) Theory holds that organizations function as systems in which two subsystems technical and social operate simultaneously and must be aligned for optimal organizational outcomes (Y. Abbas & Michael, 2025; Emery & Trist, 1965). The technical subsystem encompasses the technologies, tools, and digital platforms deployed to support work, while the social subsystem comprises the human actors, collaborative structures, and competencies that animate those technologies. The theory's central insight is that neither subsystem independently determines performance; it is the quality of interaction between them that shapes how effectively organizations achieve their



objectives. Applied to digitalization, STS Theory suggests that the introduction of digital work systems alters the technical subsystem, but performance gains materialize only when the social subsystem in this case, employee competence develops in parallel. A digital system deployed without a workforce capable of operating it creates misalignment that limits the realized benefits of technological investment.

Human Capital Theory provides the complementary lens for understanding the individual-level dimension. In the foundational formulation advanced by Becker (1964), the knowledge, skills, and abilities that individuals accumulate through education, training, and experience constitute a form of investment one that yields returns in the form of higher individual productivity and organizational output. This perspective positions employee competence not as a static endowment but as a developable asset. Organizations that invest in enhancing workforce capabilities stand to realize productivity gains proportionate to the quality of that investment. In digital work environments, this translates directly to the need for competence in using and adapting to technology the capacity to extract value from digital tools rather than merely possessing access to them.

The Goal-Setting and Performance Theory advanced by Locke (1968) further grounds the analysis of employee performance. Locke's framework conceptualizes performance as a function of the multiplicative relationship between individual ability and the motivational orientation toward task completion. Employees with clearly defined objectives and adequate ability are expected to achieve higher performance than those lacking either condition. Within the present study's context, both work system digitalization and individual competence function as enabling conditions: a well-designed digital work system structures the task environment and reduces operational friction, while competence equips the employee with the capability to exploit that environment effectively. Together, they address both the contextual and individual preconditions for performance.

Work System Digitalization

Work system digitalization refers to the transformation of organizational work activities through the adoption and integration of digital technologies that change how work is performed, coordinated, and managed (Cascio & Montealegre, 2016; Hirsch-Kreinsen, 2016; Wolf et al., 2018). This transformation is not limited to the substitution of analog tools with digital equivalents; it encompasses broader changes in workflow architecture, the structure of information flows, and the operational logic through which tasks are assigned,



executed, and controlled. At its operational level, digitalization involves the conversion of previously manual activities documentation, scheduling, coordination, data retrieval into digital formats that can be processed, transmitted, and analyzed through electronic systems (T. Dewi Hajar & Dwiridotjahjono, 2023). The practical effect is a reorganization of work around digital platforms that, when functioning well, accelerate task completion, reduce administrative error, and support more tightly coordinated inter-unit collaboration.

In the context of building and development operations, these changes carry particular significance. Project management, field supervision, procurement documentation, and cross-team coordination all generate information-intensive workflows that benefit from digital integration. Work system digitalization in this setting can therefore be assessed through three operational dimensions: technology utilization in work execution, information system integration in data management, and process efficiency achieved through digital means. Across each dimension, the degree of digitalization reflects how substantially digital platforms have displaced or transformed conventional work patterns.

Competence

Competence, within the framework of digital work environments, is understood as the capacity to use digital technologies confidently, critically, and purposefully in the execution of work tasks, information management, and organizational communication (B. Wang & Ha-Brookshire, 2018). It encompasses not only technical proficiency with specific tools but also the broader constellation of knowledge, attitudes, and adaptive strategies that allow individuals to navigate changing technological demands (Blanka et al., 2022; Rahmawati et al., 2025; Spencer & Spencer, 1993). As digital environments evolve and the platforms used in daily work are updated or replaced, competence extends to include the disposition and ability to learn and adapt not merely to operate current systems but to remain effective as those systems change.

In organizations undergoing digital transition, the distribution of competence across the workforce shapes how evenly the benefits of digitalization are realized. Where competence is unevenly developed, digitalized systems may be used differently across roles or teams, or underutilized entirely. Three operational dimensions capture the relevant variation: technical digital ability the capacity to operate the hardware and software deployed in work; digital information management, the capacity to access, interpret, store, and apply



information through digital platforms; and technology adaptation the readiness to learn and integrate new or updated digital tools as they are introduced.

Employee Performance

Employee performance denotes the quality and extent of work outcomes that individuals achieve in fulfilling the tasks and responsibilities assigned by the organization (Hermina & Yosepha, 2019; Mangkunegara, 2017; Mathis & Jackson, 2011). Performance reflects both what is accomplished the volume and quality of output and how it is accomplished, including the degree of individual responsibility, accuracy, and effectiveness brought to bear on the work (Setyo Widodo & Yandi, 2022). Because organizational success is ultimately mediated through the cumulative performance of its workforce, performance is a central construct in human resource management research. The determinants of individual performance span both individual-level factors capability, motivation, goal clarity and organizational-level factors the quality of the work system, the availability of resources, and the degree of technological support provided to employees (Locke, 1968). Four dimensions operationalize this construct in the present study: work quality, work quantity, responsibility, and task effectiveness (Avni et al., 2015).

Prior Research and Research Gap

A growing body of literature confirms that digital transformation broadly understood as the organizational integration of digital technologies across operations, processes, and value chains, yields performance-enhancing outcomes when managed effectively (Hanelt et al., 2021; Vial, 2019). (T. Dewi Hajar & Dwiridotjahjono, 2023) documented performance gains at the unit level within a state enterprise when an archival management information system was digitalized, while (Hirsch-Kreinsen, 2016) demonstrates that digitalization consistently reorganizes industrial work processes to improve coordination and task execution. Across these studies, the mechanism is consistent: digital platforms restructure task workflows in ways that accelerate execution and reduce manual processing errors.

Evidence on competence is similarly consistent. (Blanka et al., 2022) examined the intersection of digital transformation and employee competency in a design science study, finding that competence development mediates the productive uptake of digital change within organizations. (B. Wang & Ha-Brookshire, 2018) identified specific digital competency requirements within supply chain operations and associated them with higher performance and adaptive capacity. (Rahmawati et al., 2025) found that targeted competence development in digital marketing improved organizational productivity among

SME operators. (Setyo Widodo, 2022) concluded through a literature review that individual competence is a robust predictor of employee performance across HR management contexts, a finding corroborated by (Hermina & Yosepha, 2019), who placed capability as a central explanatory variable in a multi-context model of employee performance.

Taken together, prior studies support the expectation that both digitalization and competence are positively associated with employee performance. However, most of these investigations are situated in service, financial, or manufacturing sectors; none specifically addresses a building and development company. More critically, studies integrating both variables within a single empirical model on this sector remain scarce, limiting the generalizability of findings to contexts where project-based, coordination-intensive work characterizes daily operations. This study addresses that gap.

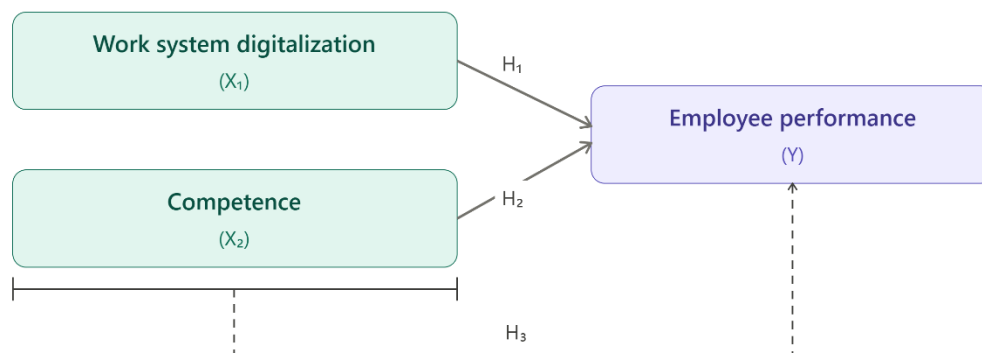


Figure 1.
Conceptual Framework

RESEARCH METHOD

This study employed a quantitative approach with an associative research design, aimed at examining the causal relationships among the study variables. A quantitative strategy was selected because the research objectives required hypothesis testing through numerical measurement and statistical inference (Sugiyono, 2020). The associative design is appropriate when the research purpose is to determine whether and to what degree one variable systematically influences another, as is the case when examining the independent effects of work system digitalization and employee competence on performance outcomes.

The study population comprised all 32 employees of PT Rizqoena Sentosa Raya, a building and development company located in Cirebon Regency, West Java, Indonesia. The sample size was determined using the Slovin formula at a margin of error of 5%, yielding a calculated sample of 30 respondents. Sampling



was conducted through simple random sampling, ensuring that each employee in the population had an equal probability of selection. Data were collected over the period of 7 to 11 March 2026 through a closed-ended questionnaire administered directly to respondents at the company's operational site. The questionnaire employed a five-point Likert scale ranging from 1 (strongly disagree) to 5 (strongly agree), covering a total of 27 items across the three study variables. Respondents were informed of the research objectives prior to completing the questionnaire, and participation was voluntary. All data were used exclusively for academic purposes, and respondent identities were kept confidential in accordance with the ethical guidelines of Universitas Swadaya Gunung Jati.

The respondent profile indicates that the sample was predominantly in the productive age range of 26 to 30 years, representing 40.0% of respondents, followed by the 31 to 35 years group at 33.3%, and the 20 to 25 years group at 26.7%. In terms of educational attainment, 53.3% held a bachelor's degree (S1), 30.0% had completed senior secondary school (SMA), and 16.7% were senior vocational school (SMK) graduates. Regarding organizational tenure, 56.7% of respondents had worked at the company for three years, 30.0% for two years, and 13.3% for one year. The predominance of bachelor's degree holders and employees with three years of tenure suggests a workforce with sufficient educational background and organizational experience to provide informed assessments of the study variables.

The operationalization of each variable is presented in Table 1. Work system digitalization (X_1) was conceptualized within the Socio-Technical Systems Theory framework and measured across three dimensions: technology utilization in work execution, information system integration, and process efficiency. Competence (X_2), grounded in Human Capital Theory, was assessed through three dimensions: technical digital ability, digital information management, and technology adaptation. Employee performance (Y), anchored in Locke's (1968) Goal-Setting and Performance Theory, was operationalized through work quality, work quantity, and responsibility and task effectiveness. Each dimension was measured by three indicators, yielding nine items per variable and 27 items in total.



Table 1.
Operational Variable

Variable	Theory	Dimension	Indicators
Work System Digitalization (X ₁)	Socio-Technical Systems Theory	Technology utilization	• Use of digital applications or systems in work • Use of digital devices to support tasks • Intensity of digital system use in task completion
		Information system integration	• Work information connected through digital systems • Work coordination using digital platforms • Work data stored digitally
		Process efficiency	• Work completed more quickly • Work errors reduced • Work processes more effective
Competence (X ₂)	Human Capital Theory	Technical digital ability	• Ability to operate digital devices • Ability to use work applications • Ability to use technology to complete tasks
		Digital information management	• Ability to search for digital information • Ability to understand digital information • Ability to store and process digital data
		Technology adaptation	• Ease of learning new technology • Ability to adapt to digital work systems • No difficulty following changes in work technology
Employee Performance (Y)	Goal-Setting and Performance Theory (Locke, 1968)	Work quality	• Precision in work • Work outcomes meet standards • Minimal work errors



		Work quantity	• Tasks completed on time • Work volume achieved • High work productivity
		Responsibility and task effectiveness	• Responsible toward assigned tasks • Ability to work efficiently • Ability to achieve work targets

Source: Adapted from proposal instrument (2026)

Instrument validity was assessed using the Pearson Product Moment correlation, with items considered valid when the calculated r-value exceeded the r-table value of 0.361 at a significance level of 0.05 for $n = 30$. Reliability was evaluated using Cronbach's Alpha, with a threshold of $\alpha \geq 0.70$ indicating acceptable internal consistency (Ghozali, 2018). Data analysis was conducted using IBM SPSS, encompassing descriptive statistics, classical assumption tests including normality, multicollinearity, and heteroscedasticity, multiple linear regression, and hypothesis testing through the t-test for partial effects and F-test for simultaneous effects. The coefficient of determination (R^2) was used to quantify the proportion of variance in employee performance explained by the two independent variables.

RESULTS AND DISCUSSION

Descriptive Statistics

Table 2.
Descriptive Statistics

Variable	Min	Max	Mean	Std. Deviation
Work System Digitalization (X_1)	1.89	5.00	3.9222	0.79759
Competence (X_2)	2.22	4.89	3.2926	0.66889
Employee Performance (Y)	2.33	4.22	3.5667	0.43216

Source: Data Processed (2026)

The descriptive statistics in Table 2 indicate that Work System Digitalization (X_1) recorded the highest mean score among the three variables ($M = 3.92$, $SD = 0.80$), reflecting a generally favorable perception of digital work system adoption among respondents. Competence (X_2) showed the lowest mean ($M = 3.29$, $SD = 0.67$), suggesting moderate but uneven development of digital capabilities across the workforce. Employee Performance (Y) fell within a moderate-to-high range ($M = 3.57$, $SD = 0.43$), with a relatively small standard deviation indicating consistent performance levels across respondents. In each



case, the standard deviation is smaller than the corresponding mean, confirming acceptable data dispersion.

Validity and Reliability Tests

Table 3.
Validity Test Results

Variable	Item	r-table	r-count	Conclusion
Work System Digitalization (X_1)	X1_1	0.361	0.851	Valid
	X1_2	0.361	0.855	Valid
	X1_3	0.361	0.831	Valid
	X1_4	0.361	0.851	Valid
	X1_5	0.361	0.796	Valid
	X1_6	0.361	0.911	Valid
	X1_7	0.361	0.859	Valid
	X1_8	0.361	0.883	Valid
	X1_9	0.361	0.874	Valid
Competence (X_2)	X2_1	0.361	0.774	Valid
	X2_2	0.361	0.815	Valid
	X2_3	0.361	0.840	Valid
	X2_4	0.361	0.820	Valid
	X2_5	0.361	0.823	Valid
	X2_6	0.361	0.870	Valid
	X2_7	0.361	0.774	Valid
	X2_8	0.361	0.779	Valid
	X2_9	0.361	0.741	Valid
Employee Performance (Y)	Y_1	0.361	0.781	Valid
	Y_2	0.361	0.546	Valid
	Y_3	0.361	0.609	Valid
	Y_4	0.361	0.580	Valid
	Y_5	0.361	0.636	Valid



	Y_6	0.361	0.450	Valid
	Y_7	0.361	0.750	Valid
	Y_8	0.361	0.594	Valid
	Y_9	0.361	0.623	Valid

Source: Data Processed (2026)

Table 4.
Reliability Test Results

Variable	Cronbach's Alpha	Conclusion
Work System Digitalization (X_1)	0.966	Reliable
Competence (X_2)	0.951	Reliable
Employee Performance (Y)	0.877	Reliable

Source: Data Processed (2026)

All 27 questionnaire items demonstrated validity, with r-count values ranging from 0.796 to 0.911 for X_1 , 0.741 to 0.870 for X_2 , and 0.450 to 0.781 for Y all exceeding the r-table threshold of 0.361 at $\alpha = 0.05$ for $n = 30$. Reliability coefficients for all three variables exceeded the 0.70 threshold (Ghozali, 2018), with X_1 at $\alpha = 0.966$, X_2 at $\alpha = 0.951$, and Y at $\alpha = 0.877$, confirming strong internal consistency across the instrument.

Classical Assumption Test

Normality Test

Table 5.
Normality Test Results

Test	Statistic	Sig.	Decision
Kolmogorov-Smirnov		0.200	Normally distributed
Shapiro-Wilk		0.682	Normally distributed

Source: Data Processed (2026)

Normality of residuals was assessed using both the Kolmogorov-Smirnov (K-S) test and the Shapiro-Wilk (S-W) test. As shown in Table 5, the K-S significance value of 0.200 and the S-W significance value of 0.682 both exceed the 0.05 threshold, indicating that residuals are normally distributed and that the normality assumption for multiple linear regression is satisfied.



Heteroscedasticity Test

The scatterplot of standardized residuals against standardized predicted values (Figure 2) shows that data points are distributed randomly above and below zero on the vertical axis without forming any discernible pattern, confirming the absence of heteroscedasticity in the regression model.

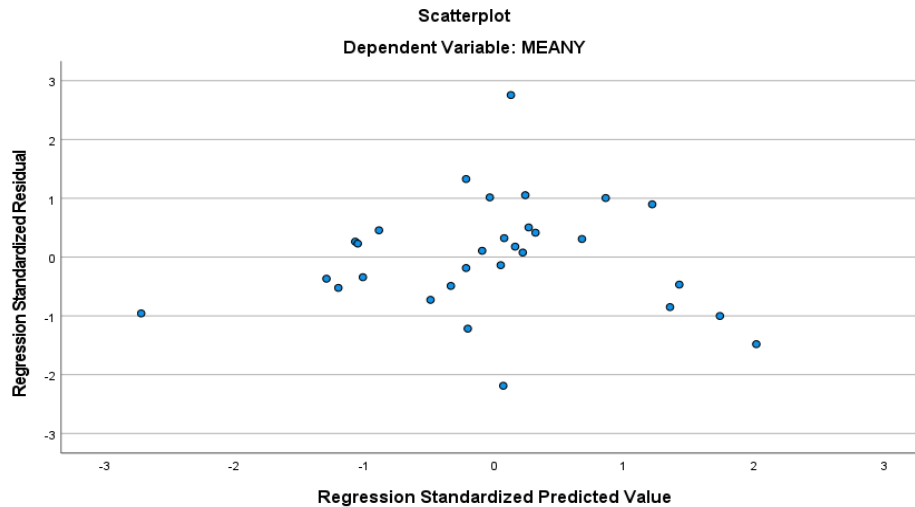


Figure 2.
Scatterplot – Heteroscedasticity Test
Source: Data Processed (2026)

Multicollinearity Test

Table 6.
Multicollinearity Test Results

Variable	Tolerance	VIF	Decision
Work System Digitalization (X_1)	0.999	1.001	No multicollinearity
Competence (X_2)	0.999	1.001	No multicollinearity

Source: Data Processed (2026)

The multicollinearity test results in Table 6 indicate that both independent variables recorded Tolerance values of 0.999, substantially above the 0.10 minimum threshold, and VIF values of 1.001, well below the maximum of 10. These results confirm that no multicollinearity exists between Work System Digitalization and Competence, and that both variables are suitable for inclusion in the regression model.



Multiple Linear Regression

Table 7.
Multiple Linear Regression Results

Model	B	Std. Error	Beta	t	Sig.	R	R ²	Adj. R ²
(Constant)	0.934					0.871	0.758	0.740
Work System Digitalization (X ₁)	0.375	0.051	0.692	7.311	<0.001			
Competence (X ₂)	0.353	0.061	0.546	5.772	<0.001			

Source: Data Processed (2026)

The multiple linear regression analysis yielded the following equation:

$$\hat{Y} = 0.934 + 0.375X_1 + 0.353X_2$$

The constant value of 0.934 indicates the baseline level of employee performance when both independent variables are held at zero. The regression coefficient for Work System Digitalization ($B = 0.375$; $\beta = 0.692$) indicates that each one-unit increase in digitalization is associated with a 0.375-unit increase in employee performance, with Competence held constant. The coefficient for Competence ($B = 0.353$; $\beta = 0.546$) indicates that each one-unit increase in competence is associated with a 0.353-unit increase in employee performance, with Work System Digitalization held constant. Both coefficients are positive, consistent with the directional hypotheses of this study. The model accounts for 75.8% of the variance in employee performance ($R^2 = 0.758$; Adjusted $R^2 = 0.740$), indicating strong explanatory power. The correlation coefficient ($R = 0.871$) confirms a very strong relationship between the combined independent variables and the dependent variable.

Hypothesis Testing

Table 8.
t-test Results (Partial Hypothesis Testing)

Variable	t	Sig.	Decision
Work System Digitalization (X ₁)	7.311	<0.001	H ₁ Accepted
Competence (X ₂)	5.772	<0.001	H ₂ Accepted

Source: Data Processed (2026)



Table 9.
F-test Results (Simultaneous Hypothesis Testing)

Model	F	Sig.	Decision
Regression	42.344	<0.001	H ₃ Accepted

Source: Data Processed (2026)

The t-test results in Table 8 indicate that Work System Digitalization (X_1) produced a t-value of 7.311 with significance < 0.001 , leading to the acceptance of H_1 . Competence (X_2) produced a t-value of 5.772 with significance < 0.001 , leading to the acceptance of H_2 . The F-test result in Table 9 shows an F-value of 42.344 with significance < 0.001 , confirming that the two independent variables jointly and significantly predict employee performance, thereby supporting H_3 . Comparing the standardized beta coefficients, Work System Digitalization ($\beta = 0.692$) exerts a more dominant influence than Competence ($\beta = 0.546$), indicating that organizational-level digitalization contributes more strongly to performance outcomes than individual-level capability in this context.

Effect of Work System Digitalization on Employee Performance

The acceptance of H_1 indicates that work system digitalization has a positive and significant effect on employee performance at PT Rizqoena Sentosa Raya. As the organization has progressively integrated digital platforms into its project management, coordination, documentation, and administrative workflows, employees have been able to complete tasks more quickly, reduce procedural error, and maintain more consistent output. This is consistent with Socio-Technical Systems Theory, which holds that when the technical subsystem is well-suited to the nature of work and the capabilities of the workforce, performance outcomes improve (R. Abbas & Michael, 2025).

T. Dewi Hajar & Dwiridotjahjono (2023) found that the digitalization of an archival management information system at PT Petrokimia Gresik increased both productivity and accuracy at the unit level, and Hanelt et al. (2021) confirm through a systematic review of the digital transformation literature that such performance-enhancing outcomes are consistent across organizational contexts. The consistency of this finding across sectors including the building and development context of the present study indicates that the performance-enabling function of digital work systems extends beyond industry-specific conditions. Within PT Rizqoena Sentosa Raya, the higher mean score on Work System Digitalization ($M = 3.92$) relative to Competence ($M = 3.29$) suggests that



employees perceive the digital infrastructure as relatively well-established, and the stronger standardized coefficient for digitalization ($\beta = 0.692$ versus $\beta = 0.546$) confirms its more dominant role in driving performance outcomes.

Effect of Competence on Employee Performance

The acceptance of H₂ establishes that employee competence has a positive and significant effect on performance at PT Rizqoena Sentosa Raya. Employees who demonstrated stronger capacity to operate digital tools, manage digital information, and adapt to evolving technology reported higher performance levels. This relationship is grounded in Human Capital Theory: when organizations invest in developing individual capabilities, those capabilities translate into productive returns in the form of improved task outcomes (Becker, 1964).

The finding is consistent with Blanka et al. (2022), who identified competence as a central mediating factor between digital transformation and work productivity, arguing that the benefits of organizational digitalization are contingent on employees' ability to engage meaningfully with new systems. Wang & Ha-Brookshire (2018) found that digital competency requirements were directly associated with performance capacity in a supply chain context, while Rahmawati et al. (2025) documented the contribution of digital literacy development to organizational productivity. Setyo Widodo & Yandi (2022) confirmed the robust relationship between individual competence and employee performance across multiple HR management contexts, and Hermina & Yosepha (2019) established that human resource capability constitutes a primary predictor of performance effectiveness. The present finding extends this body of evidence to a building and development company, suggesting that the competence–performance relationship holds across operationally intensive, project-based work environments.

Simultaneous Effect of Work System Digitalization and Competence on Employee Performance

The acceptance of H₃ confirms that Work System Digitalization and Competence jointly and significantly predict employee performance, with the combined model explaining 75.8% of performance variance ($R^2 = 0.758$). This result supports the integrated theoretical framework of this study, which positions digitalization and competence as complementary rather than substitutable determinants of performance. Consistent with Socio-Technical Systems Theory, organizational performance is most effectively supported when the technical subsystem (digitalization) and the social subsystem (competence)



develop in alignment (R. Abbas & Michael, 2025). A digital work system deployed without a competent workforce fails to realize its potential; conversely, a highly competent workforce in a low-digitalization environment lacks the technological scaffolding to maximize its productivity.

The remaining 24.2% of unexplained variance suggests that additional factors, including work motivation, organizational discipline, the physical work environment, compensation structures, and leadership effectiveness also contribute to performance outcomes (Hermina & Yosepha, 2019; Setyo Widodo & Yandi, 2022), and may warrant examination in future research. The explanatory power of the current model is nonetheless substantial, and the findings carry clear managerial implications: sustained investment in digital work system development and targeted competence-building programs, pursued in tandem, constitute the most effective organizational strategy for improving employee performance at PT Rizqoena Sentosa Raya.

CONCLUSION

This study examined the effect of work system digitalization and employee competence on employee performance at PT Rizqoena Sentosa Raya, a building and development company in Cirebon Regency. Based on the multiple linear regression analysis and hypothesis testing conducted on 30 respondents, three conclusions are drawn. First, work system digitalization has a positive and significant effect on employee performance ($t = 7.311$, sig. < 0.001), indicating that more advanced integration of digital platforms into operational workflows is associated with higher individual performance outcomes. Second, competence has a positive and significant effect on employee performance ($t = 5.772$, sig. < 0.001), demonstrating that employees with stronger capacity to operate digital tools, manage digital information, and adapt to technological change are more effective in their work. Third, work system digitalization and competence simultaneously exert a positive and significant effect on employee performance ($F = 42.344$, sig. < 0.001), with the combined model explaining 75.8% of the variance in employee performance ($R^2 = 0.758$). Among the two independent variables, work system digitalization is the more dominant contributor, as evidenced by its higher standardized coefficient ($\beta = 0.692$) relative to competence ($\beta = 0.546$).

These findings carry practical implications for the management of PT Rizqoena Sentosa Raya. Given that work system digitalization is the more dominant factor, sustaining and improving the organization's digital



infrastructure including the platforms used for project coordination, document management, field supervision, and inter-team communication is a priority investment. At the same time, because competence independently and significantly predicts performance, ensuring that employees possess the capability to engage productively with these digital systems is equally necessary. Organizations that expand digital infrastructure without a parallel commitment to competence development may find that the expected performance gains are only partially realized. Structured training programs, technology familiarization sessions, and ongoing mentoring in digital tool usage would reduce the capability gap observed in the lower mean score recorded for competence relative to digitalization.

The study is subject to several limitations that qualify the generalizability of its findings. The sample was drawn from a single company with 30 respondents, which limits the statistical power of the analysis and restricts the scope of inference to the organizational context of PT Rizqoena Sentosa Raya. The cross-sectional design captures conditions at a single point in time, precluding causal inference about how digitalization and competence development influence performance trajectories over time. Additionally, the unexplained 24.2% of performance variance suggests that factors outside the current model including work motivation, leadership style, compensation, organizational discipline, and physical work environment also shape performance in meaningful ways. Future research would benefit from larger, multi-company samples drawn from the broader building and development sector, the inclusion of these additional variables, and longitudinal designs capable of tracking how organizational digital transformation and individual competence development jointly evolve alongside performance outcomes.

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