

The Role of Employee Engagement in Linking Supportive Workplace Environment and Digital-Era Enablers to Employee Performance: Evidence from Indonesia

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ABSTRACT

In the era of digital transformation, organizations face increasing challenges in aligning Supportive Workplace Environment practices with various Digital-Era Enablers in order to sustain and enhance Employee Engagement and Employee Performance. This study aims to empirically examine the effects of Supportive Workplace Environment—comprising Work Recognition, Work Motivation, and Career Development—and Digital-Era Enablers—including Knowledge Sharing, Employee Mobility, Training & Development, and Psychological Empowerment—on Employee Engagement, as well as the subsequent effect of Employee Engagement on Employee Performance. This study employs a quantitative approach using a cross-sectional survey design involving 317 permanent employees across various industries in Indonesia. The research instrument was developed by integrating questionnaire items derived from two primary reference journals. Data were analyzed using multiple linear regression and simple linear regression with the assistance of SPSS software. The results indicate that Psychological Empowerment, Training & Development, Work Recognition, and Knowledge Sharing have positive and statistically significant effects on Employee Engagement. In contrast, Work Motivation, Career Development, and Employee Mobility do not exhibit statistically significant effects. Furthermore, Employee Engagement is found to have a positive and statistically significant effect on Employee Performance. These findings suggest that in an increasingly digitalized work environment, employee engagement is more strongly influenced by factors that enhance psychological autonomy, capability development, and knowledge exchange mechanisms than by traditional motivational practices. This study contributes to the literature by integrating Supportive Workplace Environment and Digital-Era Enablers into a single empirical framework.

INTRODUCTION

The acceleration of digital transformation has fundamentally altered job design, collaboration patterns, and competency expectations across organizations. The digitalization of core processes, the use of collaborative technologies, and the increasing flexibility of work arrangements have made organizations increasingly dependent on employees' adaptive capabilities in responding to rapid change (Bondarouk & Brewster, 2016; Malik & Sanders, 2021). In this context, sustaining employee engagement and employee performance has

become increasingly critical, as both reflect the quality of employees' psychological attachment and work behaviors within continuously evolving work environments.

In the organizational behavior literature, employee engagement is understood as a positive psychological state characterized by high levels of energy (vigor), dedication, and cognitive involvement (absorption) in one's work (Kahn, 1990; Bakker & Demerouti, 2008; Schaufeli, 2014). Engagement has consistently been positioned as a key determinant of employee performance, as engaged employees tend to demonstrate higher-quality contributions, stronger persistence, and more proactive work behaviors (Rich et al., 2010; Christian et al., 2011). Nevertheless, prior studies emphasize that engagement is multidimensional and shaped by a combination of organizational and psychological resources rather than a single factor (Macey & Schneider, 2008).

On one hand, research on supportive workplace environments highlights the importance of organizational practices that provide recognition of employee contributions (work recognition), strengthen motivational drivers (work motivation), and offer career development opportunities (career development). A supportive work environment is considered an important organizational resource that fosters positive social exchange processes, whereby employees reciprocate organizational support through increased work engagement (Bakker & Demerouti, 2008; Alfes et al., 2013). Within the framework of Social Exchange Theory, such support is interpreted as a form of social investment that encourages psychological reciprocation from employees (Blau, 1964; Cropanzano & Mitchell, 2005).

On the other hand, digital transformation has introduced various digital-era enablers that shape modern work experiences, including knowledge sharing, employee mobility, training and development, and psychological empowerment. Digital-era enablers function not only as technical facilitators but also as psychological enablers that support continuous learning, work flexibility, and employee autonomy in performing their roles (Hizam et al., 2023). Several studies demonstrate that these factors significantly contribute to enhancing employee engagement, particularly in increasingly digitalized work contexts.

Although prior literature has examined the effects of supportive workplace environments and digital-era enablers on employee engagement, most studies tend to investigate these two groups of factors separately. Research on supportive work environments generally focuses on relatively conventional work settings, whereas studies on digital-era enablers emphasize technological aspects and work flexibility without fully integrating the role of supportive organizational environments. Furthermore, in many studies, employee engagement is often positioned solely as a dependent variable rather than being explicitly tested as a mediating mechanism linking organizational practices to employee performance (Salanova et al., 2005; Shuck & Reio, 2014).

The Indonesian context further strengthens the urgency of empirically examining the integration of these two groups of factors. As a developing country with varying levels of digital readiness and heterogeneous workforce characteristics, organizations in Indonesia face the challenge of balancing traditional human resource management practices with the evolving demands of digital work environments. However, empirical evidence simultaneously examining the effects of work recognition, work motivation, career development, knowledge sharing, employee mobility, training and development, and psychological empowerment on

employee engagement—as well as the role of engagement in translating this combination into employee performance—remains limited.

Grounded in Social Exchange Theory, this study aimed to examine the mediating role of employee engagement in the relationship between supportive workplace environment and digital-era enablers on employee performance among office employees in Indonesia. By integrating two major streams of literature into a comprehensive empirical model, this study is expected to contribute theoretically to the advancement of employee engagement research while also offering practical implications for organizations in designing adaptive and sustainable human resource management strategies in the era of digital transformation.

METHOD

Research Design

This study employed a quantitative approach using a cross-sectional survey design to examine the effects of a supportive workplace environment—comprising work recognition, work motivation, and career development—and digital-era enablers—including knowledge sharing, employee mobility, training and development, and psychological empowerment—on employee engagement, as well as the subsequent effect of employee engagement on employee performance.

The analysis was conducted using linear regression techniques to test the hypothesized relationships among variables based on survey data.

Participants and Data Collection Procedure

Data were collected through an online questionnaire administered using Google Forms. Respondents consisted of permanent office employees from various industries across Indonesia. A cross-industry approach was employed to capture variations in organizational characteristics and levels of digital readiness while minimizing sector-specific bias.

Purposive sampling was used as the sampling technique, with the following respondent criteria:

1. Permanent employee status; and
2. A minimum tenure of one year within the organization.

These criteria were established to ensure that respondents possess sufficient familiarity with organizational practices and work systems relevant to the constructs examined in this study.

A total of 317 responses were deemed valid and included in the analysis after data cleaning procedures. This sample size satisfies statistical adequacy requirements for regression analysis in terms of both absolute sample size and the ratio between the number of observations and measurement indicators.

Instruments

All variables were measured using a five-point Likert scale (1 = strongly disagree to 5 = strongly agree). The research instrument was developed by adapting and integrating validated measurement items from the two primary reference journals used in this study, ensuring theoretical alignment and construct validity.

1. Supportive Workplace Environment was measured using three dimensions: Work Recognition, Work Motivation, and Career Development.

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2. Digital-Era Enablers were measured using four dimensions: Knowledge Sharing, Employee Mobility, Training & Development, and Psychological Empowerment.
 3. Employee Engagement was measured as a mediating construct representing the dimensions of vigor, dedication, and absorption.
 4. Employee Performance was measured as an outcome construct reflecting the effectiveness and quality of employee work performance.

All measurement items are presented in Appendix A

a. Work Recognition (WR)

Work Recognition was measured using four items adapted and modified from Furnham et al. (2021) as applied by Rasool et al. (2025). This construct captures employees' perceptions regarding the extent to which their contributions are acknowledged and appreciated by the organization.

b. Work Motivation (WM)

Work Motivation was measured using five items adapted from Gegenfurtner and Quesada-Pallarès (2022), following the operationalization used by Rasool et al. (2025). This construct reflects both intrinsic and extrinsic motivational aspects within the work context.

c. Career Development (CD)

Career Development was measured using four items adapted from Hirschi et al. (2018), consistent with their application in Rasool et al. (2025). These items reflect employees' perceptions regarding career advancement opportunities, promotion prospects, and organizational support for professional competence development.

d. Knowledge Sharing (KS)

Knowledge Sharing was measured using seven items adapted from Hizam et al. (2023). This construct reflects the extent to which employees actively share knowledge, information, and work-related experiences within the organization.

e. Employee Mobility (EM)

Employee Mobility was measured using six items adapted from Hizam et al. (2023), reflecting employees' perceptions regarding role mobility, cross-functional exposure, and flexibility of internal movement within the organization.

f. Training & Development (TD)

Training & Development was measured using five items adapted from Hizam et al. (2023). This construct reflects employees' perceptions of the relevance, quality, and availability of training and competency development programs within the organization.

g. Psychological Empowerment (PE)

Psychological Empowerment was measured using twelve items derived from the multidimensional scale developed by Gretchen Spreitzer. This scale includes four primary dimensions: meaning, competence, self-determination, and impact.

h. Employee Engagement (EE)

Employee Engagement was measured using thirteen items representing the dimensions of vigor, dedication, and absorption, adapted from Schaufeli et al. (2006) and aligned with the modern engagement literature (Bakker & Demerouti, 2008; Rich et al., 2010).

i. Employee Performance (EP)

Employee Performance was measured using four items adapted from Rasool et al. (2025) and Pradhan and Jena (2017). These items reflect several aspects of individual performance, including task effectiveness, work quality, punctuality, and work initiative.

Reliability and Validity Assessment

Instrument reliability was assessed using Cronbach’s alpha (α). A threshold value of $\alpha \geq 0.70$ was used as the minimum acceptable level of reliability in social and management research. The results indicate that all constructs achieved alpha values above this threshold, suggesting adequate to very high levels of internal consistency.

Construct validity was subsequently examined using Exploratory Factor Analysis (EFA). The suitability of the data for factor analysis was confirmed through Kaiser–Meyer–Olkin (KMO) values exceeding the threshold of 0.70 and significant results from Bartlett’s Test of Sphericity. Furthermore, all indicators demonstrated factor loadings above 0.50, thereby meeting the acceptable criteria for construct validity.

Data Analysis Technique

Data analysis was conducted using the Statistical Package for the Social Sciences (SPSS) through several analytical stages. Descriptive analysis was used to describe respondent characteristics and data distribution patterns. Pearson correlation analysis was then performed to examine the direction and strength of bivariate relationships among variables.

Hypotheses H1–H7 were tested using multiple linear regression with the enter method, while H8 was tested using simple linear regression. The regression approach was selected because it is appropriate for evaluating direct effects among variables and examining the role of Employee Engagement as a mediating mechanism within the research model.

To ensure model adequacy, relevant classical assumption tests were conducted, including multicollinearity assessment using Variance Inflation Factor (VIF) and tolerance values, as well as residual normality evaluation. All indicators confirmed that the regression assumptions were satisfied, allowing the results to be interpreted as statistically valid

RESULT AND DISCUSSION

Respondent Profiles

The analysis was conducted on 317 permanent employees who met the criteria for complete and valid questionnaire responses. The key demographic characteristics of respondents include gender, age group, education level, and organizational tenure.

Table 1. Profile of Respondents (N = 317)

Characteristics	Category	N	%
Employment status	Permanent employee	317	100.0
Gender	Male	143	45.1
	Female	174	54.9
Age group	Below 30 years	71	22.4
	31–40 years	124	39.1
	41–50 years	107	33.8
	Above 50 years	15	4.7
Education level	High school or below	16	5.0

	Diploma/Bachelor (D3/S1)	265	83.6
	Master/Doctoral (S2–S3)	36	11.4
Organizational tenure	< 1 year	23	7.3
	1–<3 years	44	13.9
	3–<5 years	45	14.2
	5–<10 years	85	26.8
	≥10 years	120	37.9

Overall, the composition of respondents indicates that the proportion of female respondents (54.9%) is slightly higher than that of male respondents (45.1%). The majority of respondents fall within the age range of 31–40 years (39.1%) and possess a Diploma or Bachelor's degree (83.6%). In terms of organizational tenure, most respondents have worked for their organization for ≥10 years (37.9%), indicating the dominance of employees with relatively extensive work experience. This demographic profile provides an adequate context for interpreting the subsequent analysis results.

Measurement Reliability and Validity

Reliability testing was conducted using Cronbach's alpha (α) to evaluate the internal consistency of each construct. All variables demonstrated α values exceeding the threshold of 0.70, ranging from 0.716 to 0.944, indicating reliability levels from acceptable to very high.

Tabel 2. Reliability and Validity Results

Construct	No. of Items	Cronbach's α
Work Recognition (WR)	4	0.789
Work Motivation (WM)	5	0.768
Career Development (CD)	4	0.716
Knowledge Sharing (KS)	7	0.913
Employee Mobility (EM)	6	0.898
Training & Development (TD)	5	0.909
Psychological Empowerment (PE)	12	0.931
Employee Engagement (EE)	13	0.944
Employee Performance (EP)	4	0.757

The highest α values were observed for Employee Engagement and Psychological Empowerment, reflecting very strong internal stability of these psychological constructs. No reliability issues were identified across the research variables.

Descriptive Statistics

Descriptive statistics for all research variables are presented in Table 3. All constructs were measured using a five-point Likert scale.

Tabel 3. Descriptive Statistics and Pearson Correlation Matrix (N = 317)

Tabel 4. Pearson Correlation Matrix (N = 317)

Variable	Mean	Std. Deviation	1	2	3	4	5	6	7	8	9
WR	3.894	0.625	1.000								
WM	3.888	0.544	0.748*	1.000							
CD	4.030	0.542	0.602*	0.639*	1.000						
KS	4.042	0.516	0.517*	0.535*	0.562*	1.000					
EM	3.761	0.673	0.598*	0.538*	0.636*	0.480*	1.000				
TD	3.872	0.645	0.641*	0.606*	0.586*	0.533*	0.697*	1.000			
PE	4.047	0.513	0.501*	0.557*	0.510*	0.597*	0.447*	0.525*	1.000		
EE	3.983	0.558	0.624*	0.595*	0.566*	0.639*	0.558*	0.658*	0.769*	1.000	
EP	3.995	0.563	0.459*	0.551*	0.560*	0.561*	0.478*	0.573*	0.650*	0.750*	1.000

Note: *p < .001

The mean values of all variables range from 3.76 to 4.05, indicating relatively positive respondent perceptions regarding Supportive Workplace Environment, Digital-Era Enablers, Employee Engagement, and Employee Performance. Psychological Empowerment (M = 4.05) and Knowledge Sharing (M = 4.04) exhibit the highest mean values, while Employee Mobility has the lowest mean value (M = 3.76), although still above the midpoint of the measurement scale.

In terms of response variability, Employee Mobility (SD = 0.673) and Training & Development (SD = 0.645) show relatively higher standard deviations compared to other variables, indicating greater variation in respondent perceptions toward these constructs.

Pearson correlation analysis was conducted to examine the direction and strength of bivariate relationships among variables prior to regression testing. The results indicate that all variables exhibit positive and statistically significant correlations at the $p < 0.01$ level. Employee Engagement demonstrates relatively strong positive correlations with all independent variables, with the highest correlation observed with Psychological Empowerment ($r = 0.769$). Additionally, Employee Engagement shows a strong correlation with Employee Performance ($r = 0.750$), providing preliminary evidence of a substantial relationship between employee engagement and employee performance.

All correlations among independent variables remain below the threshold of 0.85, indicating no serious multicollinearity concerns at the preliminary analysis stage. This suggests that each construct empirically represents distinct conceptual dimensions and is suitable for further testing within the regression model.

Common Method Bias and Outlier Diagnostics

Prior to hypothesis testing, several diagnostic tests were conducted to ensure data quality and model suitability. Since the data were collected using self-reported questionnaires, the potential presence of Common Method Bias (CMB) was examined using Harman's Single-Factor Test. The results indicate that the first single factor explains 40.62% of the total variance, which is below the threshold of 50%, suggesting that CMB does not pose a significant methodological concern.

Outlier diagnostics were also conducted using Cook's Distance. The maximum Cook's Distance value was 0.234, which is well below the threshold of 1.0, indicating that no individual observation exerts excessive influence on the regression model. Therefore, the dataset satisfies the assumptions required for further regression analysis..

Multiple Regression Analysis for Employee Engagement (H1–H7)

Multiple linear regression analysis was conducted to examine the effects of Work Recognition, Work Motivation, Career Development, Knowledge Sharing, Employee Mobility, Training & Development, and Psychological Empowerment on Employee Engagement. All predictors were entered simultaneously using the enter method.

The regression model is statistically significant overall ($F(7,309) = 110.503$; $p < 0.001$) and explains 71.5% of the variance in Employee Engagement ($R^2 = 0.715$; Adjusted $R^2 = 0.708$). The Durbin–Watson value of 1.759 indicates no evidence of residual autocorrelation.

Work Recognition, Knowledge Sharing, Training & Development, and particularly Psychological Empowerment demonstrate positive and statistically significant effects on Employee Engagement ($p < 0.001$). In contrast, Work Motivation, Career Development, and Employee Mobility do not show statistically significant partial effects ($p > 0.05$).

All VIF values fall below the conservative threshold, indicating no multicollinearity issues in the regression model.

Tabel 4. Hypothesis Testing Results (H1–H7)

Hypothesis	Path	Standardized coefficients (β)	t-values	<i>p</i> Values	Tolerance	VIF	Status
H1	WR → EE	0.169	3.364	0.001	0.365	2.739	Supported
H2	WM → EE	-0.030	-0.582	0.561	0.358	2.797	Unsupported
H3	CD → EE	0.011	0.235	0.815	0.436	2.292	Unsupported
H4	KS → EE	0.146	3.488	0.001	0.526	1.901	Supported
H5	EM → EE	0.037	0.803	0.423	0.424	2.360	Unsupported
H6	TD → EE	0.203	4.211	0.001	0.399	2.508	Supported
H7	PE → EE	0.485	11.756	0.001	0.544	1.839	Supported

All VIF values range from 1.839 to 2.797, well below the conservative threshold of 5.0, indicating no serious multicollinearity concerns within the model. Tolerance values above 0.10 further confirm that each predictor contributes relatively unique explanatory information in explaining variation in Employee Engagement.

The regression results indicate that four predictors provide statistically significant partial contributions to Employee Engagement when all variables are tested simultaneously. Work Recognition ($B = 0.151$; $\beta = 0.169$; $p < 0.001$), Knowledge Sharing ($B = 0.158$; $\beta = 0.146$; $p < 0.001$), Training & Development ($B = 0.175$; $\beta = 0.203$; $p < 0.001$), and particularly Psychological Empowerment ($B = 0.526$; $\beta = 0.485$; $p < 0.001$) are positively associated with Employee Engagement. Among the significant predictors, Psychological Empowerment emerges as the most dominant determinant, as indicated by the highest standardized coefficient (β).

These findings suggest that psychological factors related to autonomy, competence, meaningfulness, and perceived work impact play a central role in enhancing employee engagement.

Conversely, Work Motivation ($p = 0.561$), Career Development ($p = 0.815$), and Employee Mobility ($p = 0.423$) do not demonstrate statistically significant partial effects on Employee Engagement within the model. The lack of significance indicates that although these variables exhibit positive bivariate relationships with Employee Engagement, their explanatory

contribution is absorbed by more proximal and contextually relevant predictors in digital work environments—particularly empowerment, learning capability, and knowledge exchange mechanisms.

Overall, the regression results indicate that the development of Employee Engagement in the context of digital transformation is more strongly influenced by psychological and capability-based factors than by traditional motivational or structural factors. These findings reinforce the argument that empowerment, continuous learning, and knowledge exchange constitute critical mechanisms for sustaining high levels of engagement in increasingly digitalized work environments.

Simple Regression Analysis (H8: Employee Engagement → Employee Performance)

Simple linear regression analysis was conducted to examine the effect of Employee Engagement on Employee Performance. The regression model is statistically significant ($F(1,315) = 404.160$; $p < 0.001$) and explains 56.2% of the variance in Employee Performance ($R^2 = 0.562$; Adjusted $R^2 = 0.561$).

ANOVA results confirm that the simple regression model is statistically significant ($F(1,315) = 404.160$; $p < 0.001$). The R^2 value of 0.562 indicates that Employee Engagement explains 56.2% of the variance in Employee Performance. The magnitude of explained variance indicates that engagement represents a highly substantial predictor of employee performance within this study context.

Regression coefficients indicate that Employee Engagement is positively and significantly associated with Employee Performance ($B = 0.757$; $\beta = 0.750$; $t = 20.104$; $p < 0.001$). The high standardized beta coefficient indicates a substantial strength of relationship between engagement and performance within the model. In simple regression, the equivalence between β and the correlation coefficient ($R = 0.750$) further confirms the consistency of the strong relationship between the two variables.

Within the measurement scale used in this study, each one-unit increase in Employee Engagement is associated with an estimated increase of 0.757 units in Employee Performance based on the unstandardized coefficient (B). Nevertheless, this interpretation remains limited to statistical association identified from cross-sectional survey data and does not imply causal inference.

Overall, the simple regression results provide strong empirical support for Hypothesis H8, which proposes that Employee Engagement is positively associated with Employee Performance. These findings reinforce the central role of engagement as a key psychological mechanism that translates work conditions and employee experiences into individual performance outcomes. The strong explanatory power indicated by the high R^2 value further highlights the strategic relevance of engagement as a central focus in human resource management, particularly within increasingly digitalized work environments.

This study examines how Supportive Workplace Environment and Digital-Era Enablers contribute to Employee Engagement, as well as how Employee Engagement is associated with Employee Performance among permanent employees across industries in Indonesia. By integrating two streams of literature that have often developed relatively separately—traditional supportive work environment practices and digital transformation factors—this study provides a more comprehensive understanding of employee engagement dynamics within modern work contexts.

Overall, the findings indicate that Employee Engagement is shaped by a selective combination of traditional and digital job resources, with a stronger influence from psychological and capability-based factors. These results support the view that engagement represents a psychological response to the availability of valuable and contextually relevant job resources, as explained by Social Exchange Theory and the job resources framework. When organizations provide resources that are aligned with actual work demands, employees reciprocate through higher levels of engagement, which subsequently contributes to improved performance.

Determinants of Employee Engagement in a Digitalized Work Environment

The findings indicate that the formation of Employee Engagement in a digitalized work environment is not equally influenced by all workplace factors, but rather by a combination of factors that are most relevant to technological adaptation needs and employees' psychological demands. This result confirms that engagement is contextual and selective, rather than merely an accumulation of uniformly effective managerial practices.

Psychological Empowerment emerges as the most dominant predictor of Employee Engagement. This finding highlights that perceptions of meaningful work, competence, autonomy, and the ability to influence work outcomes represent fundamental drivers of employee engagement in digital work environments. The increasing complexity of modern work, higher requirements for autonomous decision-making, and continuous exposure to new technologies make empowerment a highly critical psychological resource. Therefore, employee engagement in the digital era is largely determined by the extent to which organizations are able to provide autonomy and a sense of control over work.

In addition to empowerment, Training & Development and Knowledge Sharing are also found to significantly contribute to Employee Engagement. Relevant training enhances competency readiness and reduces uncertainty when facing technological changes, while knowledge-sharing practices support collective learning and expand organizational adaptive capacity. Both factors function as important job resources that enable employees to navigate digital work demands more confidently and collaboratively.

Conversely, Work Motivation, Career Development, and Employee Mobility do not demonstrate significant effects on engagement when all variables are tested simultaneously. This finding suggests that traditional motivational and structural practices do not automatically enhance engagement in digitalized work contexts. Work motivation and long-term career opportunity perceptions appear to have less direct influence on day-to-day engagement, particularly when more proximal factors—such as empowerment and capability readiness—are taken into account. Similarly, employee mobility does not necessarily enhance engagement unless accompanied by increased autonomy, role clarity, or meaningful competency development opportunities.

From a theoretical perspective, these findings confirm that the relevance of traditional engagement determinants may evolve as work contexts change, particularly during digital transformation phases that require rapid adaptation and continuous learning.

The Role of Employee Engagement in Enhancing Employee Performance

The findings indicate that Employee Engagement is strongly and positively associated with Employee Performance. This result reinforces the role of engagement as a key psychological mechanism that translates work conditions and employee experiences into

individual performance outcomes. Engaged employees tend to invest greater levels of energy, focus, and commitment in their work, resulting in higher work quality and performance effectiveness.

An important contribution of this study lies in its empirical context. Unlike prior studies focusing on specific industries or organizational types, this research confirms the role of engagement among permanent employees across industries in Indonesia. This context introduces additional complexity, including variations in organizational culture, heterogeneous levels of digital readiness, and diverse work structures. The findings extend the generalizability of engagement as a psychological resource relevant across various organizational contexts, particularly in developing countries experiencing accelerated digital transformation.

Theoretical Implications

Theoretically, this study strengthens the position of Employee Engagement as a central linking mechanism within the Social Exchange Theory framework. When organizations provide valuable job resources—particularly psychological empowerment, relevant training, and knowledge-sharing mechanisms—employees reciprocate through increased engagement. Engagement subsequently functions as a psychological process that bridges organizational support and improved performance outcomes.

Furthermore, this study contributes theoretically by integrating Supportive Workplace Environment and Digital-Era Enablers within a single empirical model. This integrative approach extends the literature that has traditionally examined these streams separately and demonstrates that digital and psychological factors may play a relatively more dominant role in shaping engagement than traditional motivational practices. These findings encourage the development of engagement theory that is more contextualized and responsive to digital work dynamics.

The non-significant results observed for several traditional variables also contribute theoretically by indicating that the effects of such factors may be contingent upon contextual conditions. Thus, this study challenges assumptions regarding the universal applicability of engagement determinants and highlights the importance of considering work environment dynamics when developing theoretical models.

Practical Implications

From a practical perspective, the findings provide important implications for organizations in Indonesia undergoing digital transformation. First, organizations should prioritize policies that strengthen psychological empowerment, including increasing work autonomy, clarifying organizational goals, and involving employees in decision-making processes. Second, Training & Development should be positioned as a continuous process aligned with digital competency requirements rather than merely an administrative program.

Third, Knowledge Sharing practices should be facilitated through mechanisms and platforms that encourage cross-functional interaction and accelerate knowledge dissemination. Fourth, organizations are encouraged to re-evaluate the effectiveness of traditional practices related to motivation, career development, and internal mobility, ensuring that these practices are implemented in alignment with employees' psychological and capability development needs in response to technological change.

CONCLUSION

This study provides a comprehensive understanding of how supportive workplace environments and digital-era enablers contribute to employee engagement and influence employee performance among permanent employees across industries in Indonesia. The findings reveal that employee engagement in modern work settings is no longer driven solely by conventional workplace practices, but is increasingly shaped by psychological and capability-based resources that enable employees to adapt, learn continuously, and make autonomous decisions within rapidly evolving digital transformation environments. Psychological empowerment emerged as the strongest predictor of employee engagement, followed by training and development as well as knowledge sharing, indicating that engagement is more strongly associated with factors that enhance autonomy, competence, and adaptability than with traditional structural factors such as work motivation, career development, or employee mobility. Furthermore, the study confirms that employee engagement has a strong positive relationship with employee performance, reinforcing its role as a critical psychological mechanism through which organizational support translates into productive work behavior. Theoretically, this research contributes to the employee engagement literature by integrating supportive workplace environments and digital-era enablers into a unified empirical framework, while practically emphasizing the importance of combining traditional and digital job resources—particularly psychological empowerment, capability development, and continuous learning—to sustainably improve employee engagement and organizational performance in increasingly digitalized work environments.

REFERENCE

- Albrecht, S. L., Bakker, A. B., Gruman, J. A., Macey, W. H., & Saks, A. M. (2015). Employee engagement, human resource management practices and competitive advantage. *Journal of Organizational Effectiveness: People and Performance*, 2(1), 7–35. <https://doi.org/10.1108/JOEPP-08-2014-0042>
- Bakker, A. B., & Demerouti, E. (2008). The job demands–resources model: State of the art. *Journal of Managerial Psychology*, 22(3), 309–328. <https://doi.org/10.1108/02683940710733115>
- Bakker, A. B., & Demerouti, E. (2008). Towards a model of work engagement and performance. *Career Development International*, 13(3), 209–223. <https://doi.org/10.1108/13620430810870476>
- Bakker, A. B., Hakanen, J. J., Demerouti, E., & Xanthopoulou, D. (2013). Job resources boost work engagement, particularly when job demands are high. *Journal of Educational Psychology*, 99(2), 274–284. <https://doi.org/10.1037/0022-0663.99.2.274>
- Christian, M. S., Garza, A. S., & Slaughter, J. E. (2011). Work engagement: A quantitative review and test of its relations with task and contextual performance. *Personnel Psychology*, 64(1), 89–136. <https://doi.org/10.1111/j.1744-6570.2010.01203.x>
- Cropanzano, R., & Mitchell, M. S. (2005). Social exchange theory: An interdisciplinary review. *Journal of Management*, 31(6), 874–900. <https://doi.org/10.1177/0149206305279602>

- Demerouti, E., Bakker, A. B., Nachreiner, F., & Schaufeli, W. B. (2001). The job demands–resources model of burnout. *Journal of Applied Psychology*, 86(3), 499–512. <https://doi.org/10.1037/0021-9010.86.3.499>
- Hizam, S. M., Akter, H., Sentosa, I., Ahmed, W., Masrek, M. N., & Ali, J. (2023). Predicting workforce engagement towards digital transformation through a multi-analytical approach. *Sustainability*, 15(8), 6835. <https://doi.org/10.3390/su15086835>
- Kahn, W. A. (1990). Psychological conditions of personal engagement and disengagement at work. *Academy of Management Journal*, 33(4), 692–724. <https://doi.org/10.5465/256287>
- Macey, W. H., & Schneider, B. (2008). The meaning of employee engagement. *Industrial and Organizational Psychology*, 1(1), 3–30. <https://doi.org/10.1111/j.1754-9434.2007.0002.x>
- Malik, A., & Sanders, K. (2021). HRM practices, employee engagement and performance in the digital era. *Human Resource Management Review*, 31(2), 100788. <https://doi.org/10.1016/j.hrmr.2020.100788>
- Pradhan, R. K., & Jena, L. K. (2017). Employee performance at workplace: Conceptual model and empirical validation. *Business Perspectives and Research*, 5(1), 69–85. <https://doi.org/10.1177/2278533716671630>
- Rasool, S. F., Mohelska, H., Rehman, F. U., Raza, H., & Asghar, M. Z. (2025). Exploring the nexus between a supportive workplace environment, employee engagement, and employee performance in the Kingdom of Saudi Arabia. *Administrative Sciences*, 15(6), 230. <https://doi.org/10.3390/admsci15060230>
- Rasool, S. F., Wang, M., Zhang, Y., & Samma, M. (2020). Sustainable work performance: The roles of workplace violence and employee engagement. *Sustainability*, 12(1), 5. <https://doi.org/10.3390/su12010005>
- Rich, B. L., Lepine, J. A., & Crawford, E. R. (2010). Job engagement: Antecedents and effects on job performance. *Academy of Management Journal*, 53(3), 617–635. <https://doi.org/10.5465/amj.2010.51468988>
- Salanova, M., Agut, S., & Peiró, J. M. (2005). Linking organizational resources and work engagement to employee performance and customer loyalty: The mediating role of service climate. *Journal of Applied Psychology*, 90(6), 1217–1227. <https://doi.org/10.1037/0021-9010.90.6.1217>
- Schaufeli, W. B., & Bakker, A. B. (2004). Job demands, job resources, and their relationship with burnout and engagement: A multi-sample study. *Journal of Organizational Behavior*, 25(3), 293–315. <https://doi.org/10.1002/job.248>
- Schaufeli, W. B., Salanova, M., González-Romá, V., & Bakker, A. B. (2002). The measurement of engagement and burnout: A two sample confirmatory factor analytic approach. *Journal of Happiness Studies*, 3(1), 71–92. <https://doi.org/10.1023/A:1015630930326>
- Schneider, B., Yost, A. B., Kropp, A., Kind, C., & Lam, H. (2018). Work engagement: What it is, what drives it, and why it matters. *Annual Review of Organizational Psychology and Organizational Behavior*, 5, 427–451. <https://doi.org/10.1146/annurev-orgpsych-032117-104640>

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- Shuck, B., Twyford, D., Reio, T. G., Jr., & Shuck, A. (2014). Human resource development practices and employee engagement: Examining the connection with employee turnover intentions. *Human Resource Development Quarterly*, 25(2), 239–270. <https://doi.org/10.1002/hrdq.21190>
- Spreitzer, G. M. (1995). Psychological empowerment in the workplace: Dimensions, measurement, and validation. *Academy of Management Journal*, 38(5), 1442–1465. <https://doi.org/10.2307/256865>
- Taneja, S., Pryor, M. G., & Hayek, M. (2016). Leaping innovation barriers to small business longevity. *Journal of Business Strategy*, 37(3), 44–51. <https://doi.org/10.1108/JBS-12-2014-0145>