

When Agility Meets Engagement: Unveiling The Mechanism Of Employee Performance Enhancement

Irawati^{1*}, Puspa Dewi², Ivalaina Astarina³, Tomy Fitrio⁴

^{1,2,3,4} Department of Management, Institut Teknologi dan Bisnis Indragiri, Indonesia

*Corresponding Author: irawatiidrus1107@gmail.com

Received: 21/04/2026 | Revised: 28/04/2026 | Accepted: 30/05/2026 | Published: 19/06/2026

Abstract: This study aims to develop a conceptual model of workforce agility, learning agility, and employee performance in Regional-Owned Enterprises (BUMD) in Indragiri Hulu Regency, with employee engagement as a mediating variable. Previous studies have reported inconsistent findings regarding the effect of workforce agility on employee performance and have generally examined workforce agility and learning agility separately. This study addresses this gap by integrating both constructs into a single model. A cross-sectional survey was conducted using a 5-point Likert-scale questionnaire administered to all employees of BUMD in Indragiri Hulu Regency, resulting in 169 respondents. Data were analyzed using Partial Least Squares Structural Equation Modeling (PLS-SEM) with SmartPLS 4.1. The results show that workforce agility has no direct effect on employee performance, whereas learning agility does. Employee engagement mediates the relationships between workforce agility, learning agility, and employee performance. The novelty of this study lies in integrating workforce and learning agility with employee engagement as a mediating variable in the BUMD context. The findings extend the Job Demands-Resources Theory and Dynamic Capabilities Framework by highlighting employee engagement as a key mechanism linking agility and performance. Practically, BUMD managers should strengthen employee engagement and continuous learning to improve organizational adaptability and employee performance.

Keywords: *employee performance, workforce agility, learning agility, employee engagement, job demands-resources theory, dynamic capabilities theory*

How to Cite: Irawati, Dewi, P., Astarina, I., & Fitrio T. (2026). *When Agility Meets Engagement: Unveiling The Mechanism Of Employee Performance Enhancement*. *Journal of Economics and Management*, 4(2), 291-309. <https://doi.org/10.70716/ecoma.v4i2.490>

INTRODUCTION

Regional-Owned Enterprises (BUMD) in Indonesia are facing increasingly complex challenges due to regulatory changes, digital transformation, and growing demands for organizational performance. In Indragiri Hulu Regency, the fictitious credit case at BPR Indra Arta highlights the importance of employees' ability to adapt, continuously learn, and remain engaged with the organization in responding to various risks and changes in the work environment. However, studies examining the roles of workforce agility and learning agility in influencing employee performance through employee engagement within the context of BUMD remain limited. Therefore, this study seeks to address this research gap.

The contemporary business environment is increasingly characterized by volatility, uncertainty, complexity, and ambiguity (VUCA), compelling organizations to enhance dynamic capabilities to maintain competitiveness (Tripathi, 2024). In this context, agility emerges as a crucial organizational capability for anticipating and responding to

disruptive change. Workforce agility, defined as the collective capacity of employees to adapt quickly and effectively to dynamic conditions, is considered essential for ensuring organizational resilience and sustained performance (Alviani et al., 2024). At the individual level, learning agility-the ability to acquire knowledge from prior experiences and apply it to new situations-has gained attention as a key competency in addressing technological advancements and evolving labor market demands (Park & Park, 2021; Gnanapragasam et al., 2019). Previous studies indicate that both workforce agility and learning agility significantly contribute to employee performance (Athamneh & Jais, 2023; Abdelhamid & Sposato, 2019). However, these relationships do not always occur directly. Employee engagement, understood as a positive, meaningful, and work-related psychological state, is hypothesized to mediate the translation of agility capabilities into enhanced employee performance (Jo & Hong, 2022; Wijayanti et al., 2021).

Some studies report that workforce agility positively affects employee performance (Abrishamkar et al., 2021; Edward et al., 2025; Munteanu et al., 2020; Raut et al., 2022; Saraf & Kachole, 2025; Varshney & Varshney, 2025; Fitrio et al., 2023), whereas others find no significant effect (Alviani et al., 2024; Setiyawan et al., 2025). Similarly, research on learning agility shows mixed results, with some studies confirming its positive impact on employee performance (Ghosh & Muduli, 2021; Hidayat et al., 2025; Khalid & Al Zahrani, 2024; Tripathi, 2024; Vinesian et al., 2023), and others finding no significant relationship (Bedford, 2011; Rahardi et al., 2022). The inconsistent findings regarding the effects of workforce and learning agility on employee performance call for a mediating variable that enhances performance, which this study proposes as employee engagement (Jo & Hong, 2022; Kelly et al., 2025; Saptarini & Mustika, 2023). Previous studies have reported inconsistent findings regarding the effects of workforce agility and learning agility on employee performance. While some studies found significant positive relationships, others reported insignificant results. These inconsistencies suggest that the relationship between agility and employee performance remains inconclusive and that important explanatory mechanisms have yet to be fully explored. Moreover, prior research has largely examined workforce agility and learning agility separately, resulting in a limited understanding of how these two capabilities jointly contribute to employee performance. In addition, the mediating role of employee engagement in linking workforce agility and learning agility to employee performance has received limited attention, particularly in the context of Regional-Owned Enterprises (BUMD), which operate in environments characterized by regulatory changes, market dynamics, and increasing public service demands. Therefore, this study addresses these gaps by developing and testing an integrated model examining the effects of workforce and learning agility on employee performance through employee engagement in BUMD in Indragiri Hulu Regency.

Employee engagement reflects the extent to which employees are emotionally attached. Employee engagement is selected as a mediating variable because, according to the Job Demands-Resources (JD-R) Theory, individual resources, such as workforce and learning agility, do not automatically lead to higher performance. Instead, these resources first create positive psychological conditions that foster employees' attachment to their work. Employees who adapt to change and learn from experience tend to exhibit higher levels of energy, dedication, and involvement in their tasks. These positive psychological states subsequently enhance work effort, creativity, and performance quality. Therefore, employee engagement serves as a mechanism that explains how workforce agility and learning agility are translated into improved employee performance.

Although academic interest in workforce, learning, and employee agility has continued to grow, previous studies have generally examined these forms of agility separately and have primarily focused on their direct effects on performance. Consequently, there is still limited understanding of how workforce and learning agility operate simultaneously to influence employee performance through underlying psychological mechanisms. Furthermore, empirical evidence regarding the mediating role of employee engagement remains inconclusive, particularly in the context of Regional-Owned Enterprises (BUMD), which face high adaptation demands due to regulatory changes, market dynamics, and increasing public service expectations. Therefore, this study offers a novel contribution by developing an integrated model that links workforce agility and learning agility as adaptive capabilities, employee engagement as a motivational mechanism, and employee performance as an organizational outcome. Theoretically, this study extends the application of the Job Demands-Resources (JD-R) Theory and the Dynamic Capabilities Framework by explaining how individual adaptive capabilities are translated into performance through work engagement. Empirically, this study provides new evidence from the BUMD context, which remains relatively underexplored in the agility and employee performance literature.

The Job Demands-Resources (JD-R) Theory, developed by Bakker & Demerouti (2008), explains how the balance between job demands and job resources influences employee performance and well-being. Job demands refer to aspects of work that require significant physical, emotional, or cognitive effort, such as high workload and time pressure, which, when excessive, can lead to stress and burnout (Demerouti et al., 2001). Conversely, job resources, such as supervisor support, autonomy, and feedback, can enhance motivation, work engagement, and performance (Schaufeli et al., 2002). Dynamic Capability Theory was proposed by Teece et al. (1997) as a framework to understand how organizations can achieve sustainable competitive advantage in dynamic environments. This theory emphasizes an organization's ability to integrate, build, and reconfigure internal and external resources adaptively in response to market and technological changes. Organizations with high dynamic capabilities can rapidly adjust strategies, processes, and structures, maintaining relevance and competitiveness under uncertainty (Teece et al., 2005). These capabilities encompass three main dimensions: sensing (identifying opportunities and threats), seizing (capturing opportunities through innovation and resource allocation), and transforming (restructuring organizational assets and processes) (Teece, 2016).

Based on the theoretical arguments of the Job Demands-Resources (JD-R) Theory and the Dynamic Capabilities Framework, workforce agility and learning agility can be viewed as critical adaptive resources that enable employees to respond effectively to changing work demands. However, the mechanisms through which these capabilities influence employee performance remain insufficiently understood, particularly in the context of Regional-Owned Enterprises (BUMD). Therefore, this study aims to examine the effects of workforce agility and learning agility on employee performance through employee engagement. The study contributes theoretically by extending the application of JD-R Theory and the Dynamic Capabilities Framework through an integrated model that explains how adaptive capabilities are translated into performance outcomes via a motivational mechanism. Empirically, this study provides evidence from the BUMD context, which has received limited attention in the agility literature. The findings are also expected to offer practical insights for managers in strengthening employee engagement, adaptability, and learning capabilities to improve organizational performance.

Employee performance refers to the extent to which employees achieve the tasks, responsibilities, and targets set by the organization (Campbell et al., 1990). Employee performance is influenced by multiple factors, including individual competencies, motivation, work engagement, job resources, and organizational support (Bakker & Demerouti, 2008). Performance encompasses not only quantitative output but also quality, efficiency, and contributions to strategic organizational goals (Rotundo & Sackett, 2002). Studies indicate that improving employee performance is closely associated with work engagement, learning capacity, and effective management of job demands and resources, making it a key indicator for evaluating human resource management effectiveness and organizational success. Workforce agility refers to the ability of individuals or teams to respond to change, adjust to new demands, and work effectively in dynamic situations (Sherehiy & Karwowski, 2014). This concept emphasizes flexibility, adaptability, and speed in decision-making and task completion under uncertainty. Research shows that workforce agility plays a critical role in enhancing employee performance, innovation, and organizational competitiveness, especially in VUCA environments (Joiner & Josephs, 2007). Workforce agility is also linked to the development of learning agility and the optimal utilization of job resources, thereby supporting the effective achievement of organizational goals.

Learning agility refers to the ability of individuals to learn from experience, adapt to new situations, and apply acquired knowledge effectively in different contexts (De Meuse et al., 2010). This concept emphasizes cognitive flexibility, rapid learning, and readiness to face new challenges in dynamic work environments. Research indicates that learning agility significantly enhances employee performance, problem-solving capabilities, and adaptation to organizational change (Lombardo & Eichinger, 2000). Learning agility is often considered a mediator in the relationship between job resources and performance, as agile learners are better able to leverage opportunities and manage job demands effectively. Employee engagement refers to the level of employees' emotional, cognitive, and behavioral involvement in their work and organization (Schaufeli et al., 2002). Engaged employees demonstrate high motivation, commitment to organizational goals, and a willingness to contribute beyond formal job requirements. Research indicates that employee engagement is influenced by job resources, organizational support, and leadership, and has a significant impact on performance, productivity, and employee retention (Bakker & Demerouti, 2008). Furthermore, employee engagement can also be mediated or moderated by factors such as learning agility and workforce agility, which enable individuals to adapt and remain productive in dynamic work environments.

The concept of agility in the industrial and business context has undergone significant development, beginning with organizational agility and extending to individual motivational agility. (Prahalad & Hamel, 2009) define workforce agility as the motivation possessed by employees to proactively develop and innovate their skill base prior to the emergence of change demands. In line with this, Petermann & Zacher (2022) emphasize that employee agility has a positive relationship with job performance, both in terms of enhanced performance and well-being. Although theoretically, employee agility is expected to foster improvements in individual and organizational performance, empirical research on this topic remains relatively limited (Sherehiy & Karwowski, 2014). Addressing this gap, Petermann & Zacher (2022) conducted an empirical study that developed and validated a measurement instrument for employee agility and found that agility significantly influences several important factors, including innovative

performance, task performance, organizational citizenship behavior, exhaustion, and job satisfaction.

Hypothesis 1: Workforce Agility has a positive and significant effect on Employee Performance.

The concept of learning agility has gained increasing attention in human resource management studies, as it is considered a key competency for navigating complex, uncertain work environments. Learning agility is an individual's ability to rapidly learn from experience and apply that learning to novel situations (DeRue et al., 2012). Individuals with high levels of learning agility demonstrate cognitive, behavioral, and social flexibility when facing challenges, thereby enhancing work effectiveness. In line with this, Lombardo & Eichinger (2000) argue that learning agility is a critical predictor of performance, particularly in organizational contexts that demand continuous innovation and adaptation. Empirical findings further indicate that learning agility is positively associated with multiple aspects of job performance, including task performance, organizational citizenship behavior, and work engagement (Mitchinson & Morris, 2014). Thus, it can be asserted that learning agility makes a strategic contribution to improving employee performance at both the individual and organizational levels.

Hypothesis 2: Learning Agility has a Positive and Significant Effect on Employee Performance.

In response to complex business environments, organizations must build adaptive human resources by enhancing workforce and learning agility, as well as employee engagement. Workforce agility allows employees to respond quickly, flexibly, and proactively to changes, maintaining effectiveness while leveraging new opportunities under uncertainty (Sherehiy & Karwowski, 2014; Ghosh & Muduli, 2021). Learning agility, as the capacity to learn from experience and apply knowledge in new contexts, is a critical predictor of performance in continuously changing organizations (Lombardo & Eichinger, 2000; DeRue et al., 2012). Employee engagement is a positive psychological state characterized by dedication, enthusiasm, and full involvement in work, fostering productivity, creativity, and organizational citizenship behavior (Kahn, 1990; Bakker & Demerouti, 2008). Collectively, these dimensions complement each other, creating employees who are cognitively and behaviorally agile and motivated to contribute optimally, thus enhancing individual and organizational performance sustainably.

Hypothesis 3: Workforce Agility has a positive and significant effect on Employee Engagement.

In human resource management, learning agility is considered a key competency influencing employee engagement. Employees with high learning agility tend to be confident in facing challenges, demonstrate flexibility in work, and perceive meaning and development opportunities in every situation (DeRue et al., 2012). This enhances emotional and psychological engagement with work and the organization. Previous studies show that learning agility positively correlates with employee engagement, as continuous learning boosts intrinsic motivation, commitment, and dedication (Mitchinson & Morris, 2014; De Meuse et al., 2010).

Hypothesis 4: Learning Agility has a positive and significant effect on Employee Engagement.

Employee engagement is a primary determinant of employee performance. Engaged employees exhibit vigor, dedication, and absorption in their work (Kahn, 1990; Schaufeli et al., 2002). High engagement leads to greater energy, commitment to organizational goals, and active participation in tasks and challenges, which directly enhances work

effectiveness, creativity, and organizational citizenship behavior. Empirical studies confirm a positive relationship between employee engagement and performance, including task performance, innovation, and organizational performance (Rich et al., 2010).

Hypothesis 5: Employee Engagement has a positive and significant effect on Employee Performance.

In the HRM literature, employee engagement often serves as a psychological mechanism that bridges individual capabilities and performance. Workforce agility and learning agility enable employees to adapt to change, learn from experience, and act proactively (Sherehiy & Karwowski, 2014; DeRue et al., 2012). However, these capabilities do not automatically lead to improved performance without emotional attachment and dedication to work. Employee engagement mediates the influence of workforce and learning agility on employee performance, as agile and learning-oriented employees are more likely to feel engaged, leading to increased productivity, task effectiveness, and organizational citizenship behavior (Jo & Hong, 2022; Kelly et al., 2025; Saptarini & Mustika, 2023).

Hypothesis 6: Employee Engagement mediates the effect of Workforce Agility on Employee Performance.

Hypothesis 7: Employee Engagement mediates the effect of Learning Agility on Employee Performance.

The conceptual framework of this study is presented as follows:

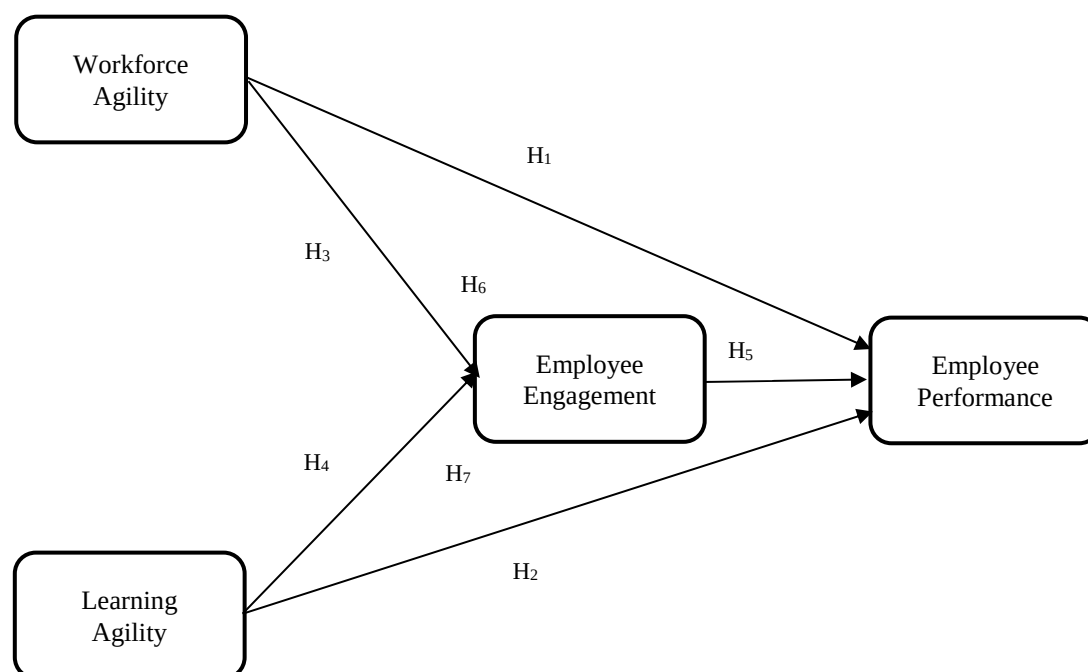


Figure 1. Research Framework

RESEARCH METHODS

This study involved a sample of 169 employees from Regional-Owned Enterprises (BUMD) in Indragiri Hulu Regency. The study population comprised all employees of three Regional-Owned Enterprises (BUMD) in Indragiri Hulu Regency: BPR Indra Arta, PDAM Tirta Indra, and PD Indragiri. Given the relatively small population and the aim of obtaining comprehensive information from all employees, this study employed a saturated sampling (census) technique, in which all members of the population were included as respondents. The use of saturated sampling minimizes sampling bias and ensures that the findings accurately reflect the population's characteristics. The respondents consisted of employees occupying managerial, supervisory, administrative, and operational positions across different organizational units, thereby providing a comprehensive representation of workforce agility, learning agility, employee engagement, and employee performance within the participating BUMD. Due to the relatively small population, a saturated sampling technique was employed, in which all employees were selected as respondents. The use of saturated sampling ensured complete population coverage and reduced the potential for sampling bias. The respondents comprised employees from various organizational levels and functional units, including managerial, administrative, and operational positions, providing comprehensive representation of the workforce within the participating BUMD. The sampling technique employed was saturated sampling, where the entire population was surveyed.

Data collection was conducted from May to July 2025 through offline surveys and online forms to maximize response rates. Out of 169 distributed questionnaires to all employees of the participating BUMD using a census approach. Data collection was conducted with the support and permission of each BUMD's management, which facilitated the distribution and collection of questionnaires during working hours. Respondents were given sufficient time to complete the questionnaires, and follow-up reminders were provided to ensure participation. As a result, all 169 questionnaires were returned and deemed complete and valid for analysis, yielding a 100% response rate. The data were subsequently analyzed using SPSS 29 and SmartPLS 4.1.

Employee performance was measured using the scale proposed by Koopmans et al. (2014) with the following indicators: 1) task performance, 2) contextual performance, 3) adaptive performance, and 4) counterproductive work behavior. Employee performance is measured using eight statement items. Workforce agility was measured based on Sherehiy & Karwowski (2014), with indicators: 1) adaptability, 2) flexibility, 3) proactivity, and 4) ability to work in cross-functional teams. Workforce agility is measured using eight statement items. Learning agility was assessed using DeRue et al. (2012), with indicators: 1) learning from past experiences, 2) quickly understanding new concepts, 3) flexibility in work approaches, and 4) seeking feedback for self-development. Learning agility is measured using eight statement items. Employee engagement was measured following Schaufeli et al. (2002), with indicators: 1) vigor, 2) dedication, and 3) absorption. Employee engagement was measured using eight statement items. Prior to the main survey, a pre-test of the research instrument was conducted with 30 respondents who were similar to the target population. The pre-test aimed to assess the clarity of the wording, the instrument's contextual suitability, and its overall quality. The results indicated that all questionnaire items met the validity criteria, as evidenced by their correlation coefficients, and demonstrated satisfactory reliability, with Cronbach's Alpha values exceeding the recommended minimum threshold of 0.70. Therefore, all

items were considered valid and reliable and were deemed suitable for use in the main data collection process.

Primary data were collected using a 5-point Likert-scale questionnaire covering workforce agility, learning agility, employee engagement, and employee performance. The research instrument was developed by adapting validated measurement scales from previous studies and tailoring them to the BUMD context. Prior to the main survey, a pre-test was conducted with 30 respondents who possessed characteristics similar to those of the target population to ensure the clarity, appropriateness, validity, and reliability of the instrument. The pre-test results indicated that all questionnaire items were valid and reliable. Subsequently, the questionnaires were distributed directly to all employees of the participating BUMDs, with approval from each organization's management. Data collection was conducted during working hours, with assistance from the administrative and human resources departments to ensure optimal participation.

RESULTS AND DISCUSSION

The analysis of respondents' demographic characteristics, including gender, age, and educational level, is presented as follows.

Table 1. Respondent Profil

Characteristic	Category	Percentage (%)
Genders	Male	45.00
	Female	55.00
Age	29-35	24.10
	36-40	35.50
	40-45	10.30
	45-50	20.00
	>50	10.10
	Senior High School	17.50
Level of Education	Associate Degree	30.50
	Bachelor's Degree	40.00
	Master's Degree	12.00

Source: Processed data

The respondent profile in this study indicates a relatively balanced gender distribution, comprising 45.00% male and 55.00% female respondents. In terms of age, the majority of respondents were between 36–40 years old (35.50%), followed by 29–35 years (24.10%), 45–50 years (20.00%), over 50 years (10.10%), and 40–45 years (10.30%). Regarding educational background, most respondents held a bachelor's degree (40.00%), followed by a diploma (30.50%), high school (17.50%), and a master's degree (12.00%). These characteristics indicate that the majority of respondents were in their productive age and possessed relatively high educational qualifications, which may support their ability to adapt to change, engage in continuous learning, and maintain a higher level of involvement in their work. In the context of Regional-Owned Enterprises (BUMD), which face increasing demands arising from regulatory changes, digital transformation, and service quality improvement, these characteristics are particularly relevant, as they may influence workforce and learning agility and employee engagement, which in turn contribute to enhanced employee performance.

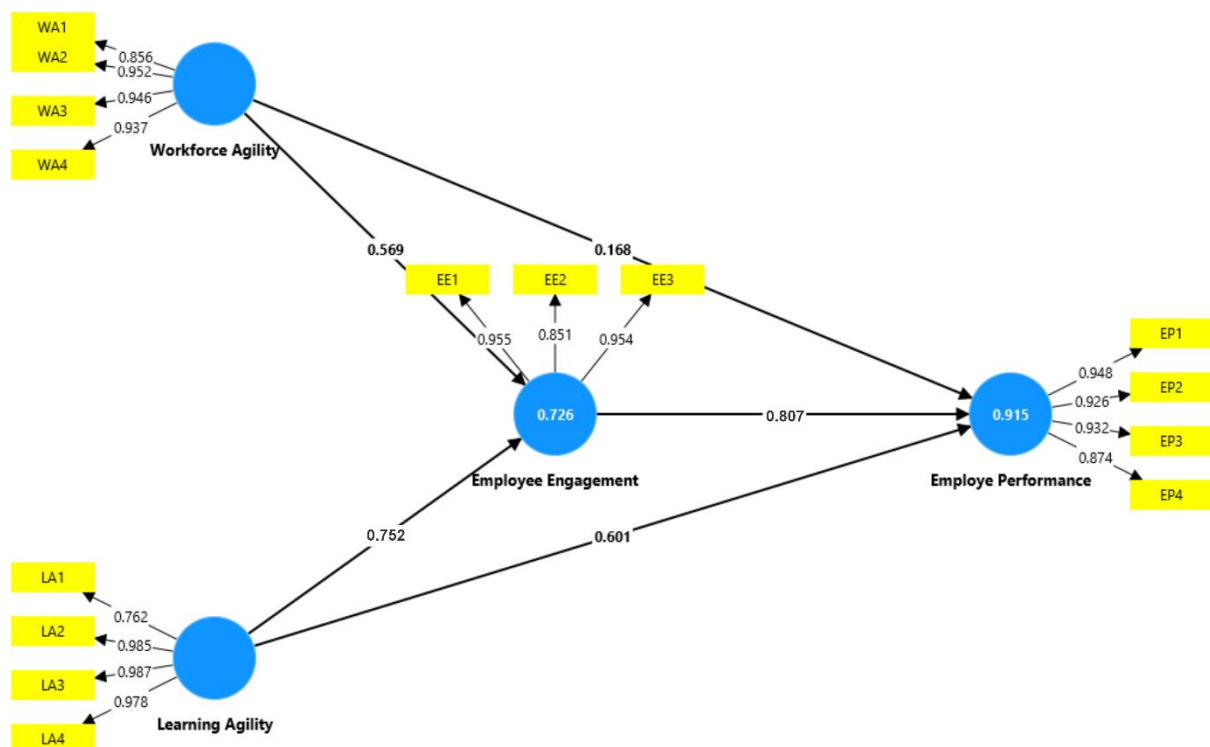
Table 2. Descriptive Statistics

Variable	Mean	Standard Deviation	Min	Max
Employee Performance	4.03	0.79	3	5
Workforce Agility	4.04	0.75	4	5
Learning Agility	4.06	0.70	3	5
Employee Engagement	4.07	0.81	4	5

Source: Processed data

Descriptive analysis results show that the employee performance variable had a mean of 4.03, a standard deviation of 0.79, a minimum of 3.00, and a maximum of 5.00. The workforce agility variable had a mean of 4.04, a standard deviation of 0.75, a minimum of 4.00, and a maximum of 5.00. The learning agility variable obtained a mean of 4.06, a standard deviation of 0.70, a minimum of 3.00, and a maximum of 5.00. Meanwhile, the employee engagement variable had a mean of 4.07, a standard deviation of 0.81, a minimum of 4.00, and a maximum of 5.00. These findings indicate that all study variables are at a high level, reflecting respondents' positive perceptions of employee performance, workforce agility, learning agility, and employee engagement. All variables exhibited relatively high mean scores with low response variation, indicating a generally homogeneous perception among respondents. As the data were collected using self-report questionnaires, the possibility of social desirability bias cannot be entirely ruled out. However, the confidentiality of responses and the inclusion of employees from various organizational units and job levels were expected to minimize such bias. These findings may also reflect the relatively high levels of adaptability, continuous learning, and work engagement among employees in BUMD, as they face increasing organizational and environmental changes.

The following figure presents the measurement model results of the study.

**Figure 2.** Results of the Measurement Model

Source: Processed data

The measurement model evaluation results indicate that all indicators of Workforce Agility, Learning Agility, Employee Engagement, and Employee Performance have outer loading values above 0.70. This finding demonstrates that each indicator adequately represents its respective construct and satisfies the criterion for convergent validity. The highest loading values were observed for LA3 (0.987), EE1 (0.955), WA2 (0.952), and EP1 (0.948), indicating that these indicators are the strongest representations of their respective constructs.

Substantively, these results suggest that the ability to learn from and adapt to new experiences is the most dominant aspect of learning agility, while EE1 most strongly reflects employee engagement. For workforce agility, WA2 serves as the primary indicator of workforce adaptability and responsiveness, whereas EP1 most strongly represents employee performance. Therefore, all indicators are considered valid and appropriate for measuring the study constructs and supporting further structural model analysis.

The following presents the validity and reliability of the research model, represented by factor loadings, Cronbach's alpha, composite reliability (CR), and Average Variance Extracted (AVE).

Table 3. Factor Loading, Reliability, and Validity Test

Construct	Item	Loading Factor	Cronbach's Alpha	CR	AVE
Employee Performance	EP1	0,948	0,939	0,943	0,847
	EP2	0,926			
	EP3	0,932			
	EP4	0,874			
Workforce Agility	WA1	0,856	0,942	0,943	0,853
	WA2	0,952			
	WA3	0,946			
	WA4	0,937			
Learning Agility	LA1	0,762	0,947	0,966	0,870
	LA2	0,985			
	LA3	0,987			
	LA4	0,978			
Employee Engagement	EE1	0,955	0,909	0,909	0,848
	EE2	0,851			
	EE3	0,954			

Source: Processed data

The measurement model assessment demonstrates that all indicators achieved loading factors above the recommended threshold of 0.70, confirming adequate convergent validity. Furthermore, the Cronbach's Alpha values range from 0.909 to 0.947, Composite Reliability (CR) values range from 0.909 to 0.966, and Average Variance Extracted (AVE) values range from 0.847 to 0.870. These results indicate that all constructs exhibit satisfactory internal consistency reliability and explain more than 50% of the variance of their respective indicators. Therefore, the measurement model can be considered both reliable and valid for subsequent structural model analysis.

However, several indicators exhibit very high loading factors, particularly LA2 (0.985), LA3 (0.987), LA4 (0.978), EE1 (0.955), and EE3 (0.954). While these values strengthen convergent validity, they may also suggest potential item redundancy, indicating that some indicators capture highly similar aspects of the same construct. This pattern is also reflected in the exceptionally high Composite Reliability value of Learning Agility (CR = 0.966).

Although the values remain within acceptable limits and do not warrant indicator removal, future studies may consider re-examining the wording and conceptual distinctiveness of these items to reduce potential overlap and improve construct parsimony. Overall, all constructs meet the recommended cut-off criteria (factor loading >0.70; Cronbach's Alpha >0.70; CR >0.70; and AVE >0.50) (Hair et al., 2019).

The following section presents the results of the discriminant validity analysis for each research variable.

Table 4. Discriminant Validity

Construct	1	2	3	4
Employee Performance	0,920			
Employee Engagement	0,859	0,921		
Learning Agility	0,933	0,792	0,933	
Workforce Agility	0,871	0,834	0,834	0,924

Source: Processed data

The results of the discriminant validity test presented in Table 4 indicate that the square root values of the AVE (diagonal) for each construct are higher than the correlations among other constructs. This finding demonstrates that each research variable possesses good discriminant validity, thereby confirming its ability to be clearly distinguished from other constructs in the research model.

Table 5. HTMT Ratio

Variabel	HTMT Criteria	WA	EE	LA	EP
Workforce Agility	<0,9				
Employee Engagement	<0,9	0,557			
Learning Agility	<0,9	0,434	0,390		
Employee Performance	<0,9	0,672	0,637	0,530	

Source: Processed data

The table shows that all HTMT values are below the recommended threshold of 0.90. Consequently, all constructs satisfy the discriminant validity requirement based on the Heterotrait-Monotrait Ratio (HTMT) assessment and are therefore considered valid.

After validating the measurement model through reliability and validity tests, the study proceeded to examine the structural relationships among the core variables. Table 5 presents the results of the analysis for each hypothesized relationship. These findings provide important insights into the strength and direction of the proposed relationships, serving as the basis for evaluating the research hypotheses.

Measurement Model Analysis (Inner Model)

Coefficient of Determination (R^2)

The following are the R-square values from this study, shown in Table 6.

Table 6. R-Square

	R Square	R Square Adjusted
Employee Performance	0.915	0.915

Source: Processed data

R^2 values of 0.67, 0.33, and 0.19 indicate "substantial," "moderate," and "weak" model strength, respectively (Hair et al., 2019). Based on Table 6, the adjusted R-square value for employee performance is 0.915. This means that workforce agility, learning agility, and

employee engagement collectively explain 91.50% of the variance in employee performance. Therefore, the model is categorized as strong.

Predictive Relevance (Q²)

The Q² value has a similar meaning to the coefficient of determination (R²). A Q² value of 0 indicates that the model has predictive relevance, whereas a Q² value below 0 indicates that the model has no predictive relevance. In other words, higher Q² values suggest that the model has better predictive relevance and a better fit with the data (Hair et al., 2019). The Q² value in this study is calculated as follows:

$$Q^2 = 1 - (1 - R_{12}^2)(1 - R_{22}^2) \dots (1 - R_{n2}^2)$$

$$Q^2 = 1 - (1 - 0.915)$$

$$Q^2 = 1 - 0.085$$

$$Q^2 = 0.915$$

The results of the calculation indicate a Q² value of 0.915, suggesting that this model explains the variables studied. At the same time, the remaining 0.085 is influenced by other variables not included in this study.

Effect Size (F²)

The following is the effect size table of the study.

Table 7. Effect Size

Relationship	F ²	Effect Size
WA-> EE	0.14	Small effect
LA-> EE	0.16	Medium effect
WA->EP	0.30	Medium effect
LA-> EP	0.37	Large effect
EE->EP	0.21	Medium effect

Source: Processed data

The effect size (f²) analysis was conducted to assess the contribution of each exogenous construct to the endogenous constructs. According to Cohen (1988), f² values of 0.02, 0.15, and 0.35 indicate small, medium, and large effect sizes, respectively. The results show that the predictors exhibit varying levels of influence on the endogenous variables, ranging from small to large effects, indicating differences in their practical significance within the proposed model.

The following are the results of the hypothesis testing.

Table 8. Effect Size

Path	Original Sampel	T Statistic	P Value	Note
Workforce Agility -> Employee Performance	0.168	1.362	0.081	Rejected
Learning Agility -> Employee Performance	0.601	25.221	0.000	Accepted
Workforce Agility -> Employee Engagement	0.569	15.859	0.000	Accepted
Learning Agility -> Employee Engagement	0.752	28.725	0.000	Accepted
Employee Engagement -> Employee Performance	0.807	41.215	0.000	Accepted
Workforce Agility -> Employee Engagement -> Employee Performance	0.138	3.072	0.002	Accepted
Learning Agility -> Employee Engagement -> Employee Performance	0.607	41.617	0.000	Accepted

Source: Processed data

The analysis reveals that Workforce Agility does not have a significant effect on Employee Performance ($\beta = 0.168$; $t = 1.362$; $p > 0.05$). This finding suggests that although employees demonstrate high agility, it is not sufficient to improve performance directly. This

may be attributed to the structured nature of work or organizational procedures that limit the immediate impact of agility on performance outcomes. This result is consistent with prior studies (Alviani et al., 2024; Setiyawan et al., 2025). Learning agility, on the other hand, has a positive and significant effect on Employee Performance ($\beta = 0.601$; $t = 25.221$; $p < 0.001$). This indicates that employees' ability to learn from experience, adapt to new situations, and effectively apply new knowledge directly enhances individual performance. In other words, Learning Agility plays a crucial role in achieving optimal work outcomes. This finding aligns with studies by Ghosh & Muduli (2021), Hidayat et al. (2025), Khalid & Al Zahrani (2024), Tripathi (2024), and Vinesian et al. (2023).

In the context of BUMD, the absence of a direct effect of workforce agility on employee performance can be explained by the hierarchical and formal nature of bureaucratic structures. The multi-layered decision-making system often limits employees' ability to translate workforce agility into improved performance outcomes directly. Although employees may be able to adapt and respond quickly to changes, the implementation of such initiatives must still pass through established procedures and managerial approvals, thereby weakening their direct impact on individual performance. In addition, the rigidity of public-sector organizations serves as a constraining factor. BUMD entities are generally bound by regulations, standard operating procedures (SOPs), and a conservative work culture, which restricts flexibility in work execution. As a result, workforce agility tends to operate more as an internal employee capability than as a factor that can be directly translated into measurable performance outcomes. Furthermore, limitations in operational-level decision-making imply that the influence of agility is more likely to be indirect, mediated by other variables such as leadership, organizational systems, or organizational support.

Workforce Agility has a positive and significant influence on Employee Engagement ($\beta = 0.569$; $t = 15.859$; $p < 0.001$). This highlights that agility fosters stronger emotional and cognitive attachment to work. Employees who are flexible and adaptable in their roles tend to be more enthusiastic and committed to their jobs. This finding corroborates prior research (Hatunoğlu, 2024; Saptarini & Mustika, 2023; Sutardi & Novitasari, 2024). Similarly, Learning Agility positively and significantly affects Employee Engagement ($\beta = 0.752$; $t = 28.725$; $p < 0.001$). This implies that continuous learning and self-reflection enhance emotional attachment, motivation, and active participation in work. Employees who actively develop their skills are more likely to be engaged in both their jobs and their organizations. This is consistent with findings from Hamdani & Pratminingsih (2025) and Zamralita & Reza (2025). Employee Engagement has a positive and significant impact on Employee Performance ($\beta = 0.807$; $t = 41.215$; $p < 0.001$). This finding underscores the importance of engagement as a key determinant of employee performance. Motivated, committed, and actively involved employees tend to deliver higher levels of performance. These findings are consistent with those of Arwab et al. (2023), Bhardwaj & Kalia (2021), Godbless (2021), Jabeen & Rahim (2021), Nguyen & Nguyen (2023), and J. Park et al. (2022).

The mediation analysis demonstrates that Employee Engagement partially mediates the effect of Workforce Agility on Employee Performance ($\beta = 0.138$; $t = 3.072$; $p < 0.01$). This suggests that agility contributes to improved performance indirectly through enhanced engagement. Agile employees tend to be more engaged, and this engagement subsequently drives better performance outcomes. This finding aligns with those of Jo & Hong (2022), Kelly et al. (2025), and Saptarini & Mustika (2023). Employee Engagement also mediates the relationship between Learning Agility and Employee Performance ($\beta = 0.607$; $t = 41.617$; $p < 0.001$). This indicates that Learning Agility not only directly impacts performance but also fosters greater engagement, which in turn amplifies employee performance. In other words,

engagement serves as an essential mechanism linking learning ability to performance outcomes. This result is supported by Jo & Hong (2022), Kelly et al. (2025), and Saptarini & Mustika (2023).

The findings suggest that developing workforce agility in BUMD should be guided by more structured, actionable strategies to ensure a tangible impact on employee performance. Accordingly, organizations are advised to implement structured workforce agility training programs that focus on enhancing adaptability, problem-solving skills, and rapid decision-making within a bureaucratic context. In addition, the implementation of systematic mentoring and coaching programs should be strengthened to facilitate effective knowledge transfer from senior or supervisory employees to junior staff, thereby enabling the practical application of agility competencies in daily work activities. Furthermore, strengthening an adaptive organizational culture requires promoting innovation, flexibility, and cross-functional collaboration. This can be supported by implementing continuous performance feedback systems and by establishing pilot projects or dedicated task forces that provide employees with real opportunities to apply agile working principles in operational practices.

CONCLUSION AND RECOMMENDATIONS

The study provides an integrated understanding of agility within organizational performance by distinguishing the different roles of Learning Agility and Workforce Agility. The findings indicate that Learning Agility plays a direct and meaningful role in enhancing Employee Performance, suggesting that individual capacity to learn, adapt, and apply new knowledge is a critical driver of performance outcomes. In contrast, Workforce Agility does not demonstrate a direct effect on performance, highlighting that structural and organizational-level agility alone may not be sufficient to improve individual outcomes without being translated through more proximal psychological or behavioral mechanisms.

Importantly, both Learning Agility and Workforce Agility significantly contribute to Employee Engagement, which functions as a key mediating mechanism linking agility constructs to performance. This finding underscores the central role of engagement as a motivational and psychological pathway through which agility is converted into performance improvement. Theoretically, the study contributes to the agility literature by clarifying the hierarchical influence of agility constructs: individual-level agility (Learning Agility) has stronger direct explanatory power for performance than organizational-level agility. At the same time, engagement serves as a critical bridging construct. Empirically, the study provides evidence from the BUMD context that organizational agility must be accompanied by robust mechanisms for employee engagement to translate agility resources into tangible performance outcomes effectively.

These findings extend both the Job Demands–Resources (JD-R) Theory and the Dynamic Capabilities Theory by offering a more differentiated explanation of how agility constructs operate in relation to employee performance. Within the JD-R framework, the results refine the role of Employee Engagement as a critical motivational pathway by demonstrating that engagement does not merely act as a general psychological resource but functions as a central mediating mechanism through which both individual (Learning Agility) and organizational-level (Workforce Agility) resources are translated into performance outcomes. This strengthens the JD-R assumption that resources are most effective when they are internalized at the psychological level, while also extending the theory by showing that structural organizational agility alone is insufficient unless it activates employee engagement.

From the perspective of Dynamic Capabilities Theory, this study advances the framework by distinguishing the relative explanatory power of Learning Agility and Workforce Agility in driving performance outcomes. The findings suggest that Learning Agility represents a more immediate micro-foundation of dynamic capability, directly enhancing employee performance through continuous learning and adaptation. In contrast, Workforce Agility operates as a higher-order organizational capability that requires mediating employee engagement to generate performance effects. This extends the theory by clarifying the hierarchical and mediated nature of dynamic capabilities in practice, particularly in bureaucratic organizational settings such as BUMD, where organizational agility must be activated through employee-level engagement to translate into tangible performance improvements effectively.

Based on these findings, BUMD management should implement more operational and context-specific human resource development strategies to translate agility into performance outcomes effectively. For Learning Agility, organizations are recommended to establish structured agility development programs such as quarterly competency-based training modules focusing on adaptive problem-solving, scenario-based simulations of regulatory changes, and cross-functional job rotation schedules (e.g., 3–6 months per unit) to strengthen employees' ability to learn and adapt in dynamic bureaucratic environments. In addition, a formal mentoring system should be introduced, pairing junior employees with senior supervisors, using a competency logbook and monthly coaching sessions to ensure continuous tracking of learning progress and real-time feedback.

To enhance Employee Engagement, BUMD management should develop a more systematic engagement strategy through the implementation of a structured recognition system linked to Key Performance Indicators (KPIs), regular "employee voice forums" at unit level to capture feedback on operational constraints, and transparent communication channels between management and staff regarding organizational targets and policy changes. Furthermore, engagement can be strengthened by establishing agile pilot units or task forces that enable employees to work in semi-autonomous teams on strategic projects, thereby increasing ownership, motivation, and involvement. These practical interventions ensure that both learning and workforce agility are developed conceptually and embedded in daily organizational practices that directly support performance improvement.

An integrated HR development strategy that combines these two capabilities is expected to enhance employees' flexibility, productivity, and effectiveness, while simultaneously strengthening organizational competitiveness in a dynamic environment. More importantly, this study makes a clear theoretical contribution by demonstrating the differentiated roles of agility constructs: Learning Agility functions as a direct driver of Employee Performance, while Workforce Agility operates primarily through Employee Engagement as a mediating mechanism. This result offers a novel perspective on the existing literature by clarifying the hierarchical, indirect pathway through which agility effects operate, particularly in bureaucratic organizational contexts such as BUMD. In addition, the study enriches the academic discourse on Workforce Agility, Learning Agility, and Employee Engagement by emphasizing that organizational agility must be activated through psychological engagement to generate measurable performance outcomes, thereby extending prior studies that often treat agility as a direct antecedent of performance.

However, this study has several limitations that should be acknowledged. First, the use of a cross-sectional research design limits the ability to capture changes in agility, engagement, and performance over time and to establish stronger causal inferences. Second, the research was conducted in a specific BUMD context, which may limit the generalizability of the findings to other organizational settings, such as private-sector companies or other types of public organizations. Third, the use of self-reported questionnaires may introduce common-method bias, as responses are based on individual perceptions rather than objective performance data. Future research is encouraged to address these limitations by adopting longitudinal designs, expanding the scope of organizational contexts, and incorporating multi-source or objective performance measures to enhance the robustness of the findings.

ACKNOWLEDGEMENTS

We want to express our sincere gratitude to the employees of the Regional-Owned Enterprise (BUMD) in Indragiri Hulu for their valuable support and participation as research subjects in this study. Your willingness to contribute time, information, and insights has been essential to the successful completion of this research. We truly appreciate your cooperation, openness, and professionalism throughout the research process. This study would not have been possible without your meaningful involvement.

REFERENCES

- Abdelhamid, M., & Sposato, M. (2019). The role of organizational learning in creating an agile workforce in Dubai. *International Journal of Work Organization and Emotion*, 10(3), 262–279.
- Abrishamkar, M. M., Abubakar, Y. A., & Mitra, J. (2021). The influence of workforce agility on high-growth firms: The mediating role of innovation. *International Journal of Entrepreneurship and Innovation*, 22(3), 146–160. <https://doi.org/10.1177/1465750320973896>
- Alviani, D., Hilmiana, Widiyanto, S., & Muizu, W. O. Z. (2024). Workforce agility: A systematic literature review and research agenda. *Frontiers in Psychology*, 15, 1376399.
- Arwab, M., Adil, M., Nasir, M., & Ali, M. A. (2023). Task performance and training of employees: The mediating role of employee engagement in the tourism and hospitality industry. *European Journal of Training and Development*, 47(9), 900–920.
- Athamneh, M. H. A., & Jais, J. (2023). Factors affecting human resource agility: A literature review and future research directions. *Cogent Business & Management*, 10(1), 2193181.
- Bakker, A. B., & Demerouti, E. (2008). Towards a model of work engagement. *Career Development International*, 13(3), 209–223.
- Bedford, C. L. (2011). *The role of learning agility in workplace performance and career advancement* (Doctoral dissertation, University of Minnesota).
- Bhardwaj, B., & Kalia, N. (2021). Contextual and task performance: Role of employee engagement and organizational culture in the hospitality industry. *Vilakshan - XIMB Journal of Management*, 18(2), 187–201. <https://doi.org/10.1108/XJM-08-2020-0089>
- Campbell, J. P., McHenry, J. J., & Wise, L. L. (1990). Modeling job performance in a population of jobs. *Personnel Psychology*, 43(2), 313–575.

- De Meuse, K. P., Dai, G., & Hallenbeck, G. S. (2010). Learning agility: A construct whose time has come. *Consulting Psychology Journal: Practice and Research*, 62(2), 119.
- 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.
- DeRue, D. S., Ashford, S. J., & Myers, C. G. (2012). Learning agility: In search of conceptual clarity and theoretical grounding. *Industrial and Organizational Psychology*, 5(3), 258–279.
- Edward, Y. R., Goh, T. S., & Toni, N. (2025). The role of digital innovation behaviour, employee satisfaction and workforce agility on employee performance during digital era. *Economics-Innovative and Economics Research Journal*, 13(3), 319–339.
- Fitrio, T., Remofa, Y., Hardi, H., & Ismail, Y. (2023). The role of service quality agility, competence, and organizational commitment in improving employee performance. *Jurnal Aplikasi Manajemen*, 21(1), 228–241. <https://doi.org/10.21776/ub.jam.2023.021.1.17>
- Ghosh, S., & Muduli, A. (2021). Learning agility, culture and outcome: An empirical study. *International Journal of Indian Culture and Business Management*, 23(1), 95. <https://doi.org/10.1504/IJICBM.2021.115413>
- Gnanapragasam, D., Nizam, I., & Khan, K. H. (2019). Impact of artificial intelligence on human capital management in Malaysia. *International Journal of Information Systems and Engineering*, 7(2), 10–35.
- Godbless, E. E. (2021). Moral leadership, shared values, employee engagement, and staff job performance in the university value chain. *International Journal of Organizational Leadership*, 10(1).
- Hair, J. F., Risher, J. J., Sarstedt, M., & Ringle, C. M. (2019). When to use and how to report the results of PLS-SEM. *European Business Review*, 31(1), 2–24. <https://doi.org/10.1108/EBR-11-2018-0203>
- Hamdani, M., & Pratminingsih, S. A. (2025). Strategy to increase employee engagement through learning agility and organizational citizenship behavior in the National Defense Agency at the district level. *Indonesian Journal of Strategic Management*, 8(2), 63–68.
- Hatunoğlu, Ş. B. (2024). Workforce agility: A systematic literature review and comparison with domestic studies. *Journal of Management, Marketing and Logistics*, 11(2), 101–121.
- Hidayat, Z., Yatminiwati, M., & Ermawati, E. (2025). The role of learning agility in performance improvement. *International Journal of Accounting and Management Research*, 6(1), 23–29.
- Jabeen, R., & Rahim, N. (2021). Exploring the effects of despotic leadership on employee engagement, employee trust and task performance. *Management Science Letters*, 11, 223–232. <https://doi.org/10.5267/j.msl.2020.8.012>
- Jo, Y., & Hong, A. J. (2022). Impact of agile learning on innovative behavior: A moderated mediation model of employee engagement and perceived organizational support. *Frontiers in Psychology*, 13, 900830.
- Joiner, B., & Josephs, S. (2007). Leadership agility. *Insight*, 33(3), 32–37.
- Kahn, W. A. (1990). Psychological conditions of personal engagement and disengagement at work. *Academy of Management Journal*, 33(4), 692–724.
- Kelly, A. J., Zamralita, Z., & Putra, I. R. P. (2025). The role of learning agility on work engagement with organizational commitment as a mediator for employees. In

- Proceedings of the Tarumanagara International Conference on the Applications of Social Sciences and Humanities (TICASH 2024)* (pp. 255–263).
- Khalid, K., & Al Zahrani, M. A. K. (2024). Investigating the dynamics of workforce stability: The influence of perceived employability on career resilience, task performance, learning agility and employee retention. *European Journal of Sustainable Development*, 13(3), 389.
- Koopmans, L., Bernaards, C. M., Hildebrandt, V. H., De Vet, H. C. W., & Van Der Beek, A. J. (2014). Construct validity of the individual work performance questionnaire. *Journal of Occupational and Environmental Medicine*, 56(3), 331–337.
- Lombardo, M. M., & Eichinger, R. W. (2000). High potentials as high learners. *Human Resource Management*, 39(4), 321–329.
- Ludviga, I., & Kalvina, A. (2025). Can strategic agility help retain public sector employees in times of uncertainty? A longitudinal study. *Administrative Sciences*, 15(5), 165.
- Mitchinson, A., & Morris, R. (2014). *Learning about learning agility*. Center for Creative Leadership, 10, 1–18.
- Munteanu, A. I., Bibu, N., Nastase, M., Cristache, N., & Matis, C. (2020). Analysis of practices to increase workforce agility and to develop a sustainable and competitive business. *Sustainability*, 12(9). <https://doi.org/10.3390/SU12093545>
- Nguyen, H. M., & Nguyen, L. V. (2023). Employer attractiveness, employee engagement, and employee performance. *International Journal of Productivity and Performance Management*, 72(10), 2859–2881.
- Park, J., Han, S. J., Kim, J., & Kim, W. (2022). Structural relationships among transformational leadership, affective organizational commitment, and job performance: The mediating role of employee engagement. *European Journal of Training and Development*, 46(9), 920–936.
- Park, S., & Park, S. (2021). How can employees adapt to change? Clarifying the adaptive performance concepts. *Human Resource Development Quarterly*, 32(1), E1–E15.
- Petermann, M. K. H., & Zacher, H. (2022). Workforce agility: Development and validation of a multidimensional measure. *Frontiers in Psychology*, 13. <https://doi.org/10.3389/fpsyg.2022.841862>
- Prahalad, C. K., & Hamel, G. (2009). The core competence of the corporation. In *Knowledge and strategy* (pp. 41–59). Routledge.
- Rahardi, D., Nurbaiti, B., & Fauzi, A. (2022). The effects of job satisfaction, learning agility, and resilience on performance, with work stress as an intervening variable, among sales department employees of PT Bungasari Flour Mills Indonesia during the COVID-19 pandemic. *Dinasti International Journal of Management Science*, 3(4), 715–724.
- Raut, P. K., Das, J. R., Gochhayat, J., & Das, K. P. (2022). Influence of workforce agility on crisis management: Role of job characteristics and higher administrative support in public administration. *Materials Today: Proceedings*, 61, 647–652. <https://doi.org/10.1016/j.matpr.2021.08.121>
- 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.
- Rotundo, M., & Sackett, P. R. (2002). The relative importance of task, citizenship, and counterproductive performance to global ratings of job performance: A policy-capturing approach. *Journal of Applied Psychology*, 87(1), 66.

- Saptarini, N. I., & Mustika, M. D. (2023). Workforce agility and adaptive performance in government institution: The mediating role of work engagement. *Jurnal Manajemen dan Kewirausahaan*, 25(1), 55–62.
- Saraf, G. K., & Kachole, S. P. (2025). The role of workforce agility in organizational innovation. In *Proceedings of the International Conference on Entrepreneurship and Innovation* (pp. 349–349).
- 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.
- Setiyawan, A. I., Gunawan, A., & Priyono, D. (2025). The influence of knowledge sharing on employee performance, mediated by workforce agility. *Journal of Educational Management Research*, 4(5), 1769–1786.
- Sherehiy, B., & Karwowski, W. (2014). The relationship between work organization and workforce agility in small manufacturing enterprises. *International Journal of Industrial Ergonomics*, 44(3), 466–473. <https://doi.org/10.1016/j.ergon.2014.01.002>
- Sutardi, D., & Novitasari, D. (2024). The impact of learning agility on work engagement is mediated by psychological empowerment and resilience in millennial workers. *Kontigensi: Jurnal Ilmiah Manajemen*, 12(1), 125–132.
- Teece, D. J. (2016). Dynamic capabilities and entrepreneurial management in large organizations: Toward a theory of the entrepreneurial firm. *European Economic Review*, 86, 202–216.
- Teece, D. J., Pisano, G., & Shuen, A. (1997). Dynamic capabilities and strategic management. *Strategic Management Journal*, 18(7), 509–533.
- Teece, D. J., Pisano, G., & Shuen, A. (2005). Dynamic capabilities and strategic management. In *Knowledge management: Critical perspectives on business and management* (Vol. 2, p. 234).
- Tripathi, A. (2024). Organizational learning culture and firm performance: The mediating role of learning agility. *Vikalpa*, 49(2), 129–142.
- van Lieshout, J. W. F. C., Van der Velden, J. M., Blomme, R. J., & Peters, P. (2021). The interrelatedness of organizational ambidexterity, dynamic capabilities, and open innovation: A conceptual model toward competitive advantage. *European Journal of Management Studies*, 26(2/3), 39–62.
- Varshney, D., & Varshney, N. K. (2025). Does empowering leadership behavior affect employee performance? The mediating role of workforce agility. *International Journal of Productivity and Performance Management*, 74(4), 1425–1451.
- Vinesian, G. T., Suryanto, S., & Sari, R. L. (2023). Factors related to learning agility: A systematic literature review. *Journal of Business Studies and Management Review*, 6(2), 182–186. <https://doi.org/10.22437/jbsmr.v6i2.24817>
- Wijayanti, L. M., Purba, J. T., Hariandja, E. S., & Sijabat, R. (2021). Organizational agility in educational setting: A case study of Sekolah Murid Merdeka. *Jurnal Studi Guru dan Pembelajaran*, 4(3), 649–661.
- Zamralita, A. J. K. Z., & Reza, I. (2025). The role of learning agility on work engagement with organizational commitment as a mediator for employees. In *Proceedings of the Tarumanagara International Conference on the Applications of Social Sciences and Humanities (TICASH 2024)* (Vol. 946, p. 255).