

How Do Learning Organization Drive Innovation in Hospitals? The Mediating Role of Employee Resilience and Work Engagement under High Job Demands

Windi Retno Dwi Mulia ¹, Fatmah Bagis ¹, Suyoto ¹, Arini Hidayah ¹, Ahmad Haruna Abubakar ²

¹ Universitas Muhammadiyah Purwokerto, Indonesia

² Management and Science University, Malaysia



Fatmahbagis2014@gmail.com*

Abstract

This study examines the effect of a learning organization on hospital innovation, with employee resilience and work engagement serving as potential mediating variables. The conceptual framework is grounded in Organizational Learning Theory and the Job Demands–Resources (JD-R) Theory. Employing a quantitative approach, this study replicates and extends the model proposed by Mohammad et al. (2024) within the healthcare context. The study population comprised 966 employees from three hospitals in Banjarnegara Regency, Indonesia. A sample of 342 respondents was selected using stratified random sampling. Data were collected through an online questionnaire and analyzed using Partial Least Squares Structural Equation Modeling (PLS-SEM). The results show that a learning organization significantly influences innovation and employee resilience, but not significantly on work engagement. Furthermore, employee resilience has a positive and significant effect on innovation and mediates the relationship between a learning organization and innovation. Conversely, work engagement has no significant effect on innovation and does not act as a mediator. These findings suggest that in a hospital context with high work demands and a procedural work structure, employee psychological resilience is a more important determinant of innovation than job engagement. Theoretically, this study enriches Organizational Learning Theory and JD-R Theory by confirming that under conditions of high job demands, innovation is driven more by psychological resilience than job engagement.

Keywords: Learning Organization, Employee Resilience, Work Engagement, Innovation

ARTICLE INFO

Article history:

Received
December 17,
2025

Revised
July 30, 2026

Accepted
August 28, 2026

Published by

Website

ISSN

Copyright



CV. Creative Tugu Pena

<https://attractivejournal.com/index.php/bpr>

2775-2305

This is an open access article under the CC BY SA license

<https://creativecommons.org/licenses/by-sa/4.0/>

@ 2026 by the authors

INTRODUCTION

The global healthcare sector is becoming increasingly complex due to technological advances and increasing societal needs following the COVID-19 pandemic (Kusumo et al., 2025). This condition encourages hospitals to adapt more quickly through innovation, both in service systems and human resource (Palapessy, 2025). The pandemic has also demonstrated that organizations need to learn from crisis experiences to strengthen the resilience and adaptive capabilities of healthcare workers. In this context, a learning organization is a crucial approach to maintaining continuous learning and improving the quality of hospital services (Alonazi, 2021).

In Indonesia, healthcare services still face various obstacles, such as limited digital competency, rigid bureaucracy, and low cross-professional collaboration (Palapessy, 2025). Ministry of Health data Kinerja & Kesehatan (2023) shows that many regional hospitals focus more on administrative efficiency than on developing a culture of learning and innovation. This condition demands an organizational learning system capable of strengthening employee adaptive capabilities in facing dynamic and stressful work environments (Bagis et al., 2024; Sari et al., 2023). According to Organizational Learning Theory, a learning organization can improve its performance through individual and group learning processes (Argyris & Schon, 1978).

An environment that supports knowledge exploration and reflection on experiences will foster innovation (Afriandika et al., 2025). When a learning culture is strong, healthcare workers become more open to change and willing to try new approaches (Mohammad et al., 2024). However, organizational learning does not always result in high innovation (Bagis et al., 2025). The hierarchical hospital structure, heavy workload, and psychological stress can hinder knowledge sharing and employee creativity (Ernes & Wanasida, 2023). Even stress and emotional exhaustion can reduce motivation and the ability to innovate, especially in high-risk work environments such as patient care (Mustikawati & Ernawaty, 2023).

Psychological factors such as employee resilience and work engagement are considered crucial for organizational learning to truly impact innovation (Bagis et al., 2021). Employee resilience helps employees remain resilient in the face of stress and use difficult experiences as a learning process (Bagis & Adawiyah, 2025; Lisbet et al., 2023). Meanwhile, work engagement reflects energy, dedication, and emotional involvement that can encourage creativity and innovative behavior (Hakim et al., 2025).

Previous research has shown a positive influence of learning organizations on innovation, but the results are still mixed (Çömlek, 2025; Muhsin et al., 2021; Rahayuningsih et al., 2025). Several studies, such as Du et al. (2022) and Ajie & Nugroho (2023) found an insignificant relationship when employee psychological factors were not strengthened. Rajak & Soleman (2022) showed that learning organizations had no significant effect on work engagement in the context of public service organizations in Indonesia. Furthermore, most research has been conducted in non-healthcare sectors such as banking and manufacturing (Mohammad et al., 2024), while innovation in hospitals focuses more on service innovation related to work methods, service systems, and patient safety (Mabrouk et al., 2024).

While there is evidence that a learning culture can strengthen employee resilience, research on this is limited in the context of hospitals experiencing high work pressure (Lyman et al., 2022). The relationship between learning organization and work engagement is also inconsistent, particularly when workload and organizational pressure are high (Li et al., 2022). Furthermore, the role of employee resilience and work engagement on innovation has not been widely tested in healthcare workers facing high stress and limited resources (Kiptulon et al., 2024; Sutarno et al., 2022). This indicates a research gap regarding how learning organization influences innovation through employee psychological mechanisms in the healthcare sector (Do et al., 2023), and few studies have examined both simultaneously (Zhou et al., 2023).

This study provides theoretical contributions by integrating Organizational Learning Theory and Job Demands-Resources Theory to explain the role of organizational learning systems and psychological resources in driving innovation in hospitals (Moreno Cunha et al., 2022; Slåtten et al., 2020). Practically, this research was conducted at three regional hospitals in Banjarnegara Regency which have high adaptation challenges but limited resources. The results are expected to provide strategic input for hospital management in strengthening a learning culture, increasing employee resilience, and fostering work engagement to encourage continuous service innovation (Alboliteh et al., 2022). Based on

this gap, empirical testing is needed that directly compares the role of employee resilience and work engagement as psychological mechanisms in the relationship between learning organization and innovation in the health sector.

Therefore, this study aims to analyze the effect of a learning organization on hospital innovation, with employee resilience and work engagement as mediating variables. Overall, this study is expected to enrich the literature on organizational learning and innovation in healthcare and provide evidence-based recommendations to improve the quality and competitiveness of hospitals in Indonesia. Specifically, this study extends the application of Job Demands-Resources Theory by showing that in the hospital context, psychological resilience plays a greater role than work engagement as a mechanism linking learning organization and innovation. These findings challenge common assumptions in previous literature that position work engagement as the primary pathway for innovation across organizational sectors.

Literature Review

Grand Theory

This research is based on two main theories, namely Organizational Learning Theory (Argyris & Schon, 1978) dan Job Demands-Resources (JD-R) Theory (Bakker & Demerouti, 2007). These two theories complement each other in explaining the relationship between organizational learning, employee resilience, work engagement, and innovation in the hospital environment (Mohammad et al., 2024). Based on Organizational Learning Theory, an effective organization is one that continuously facilitates learning at the individual and collective levels (Senge, 1990). Through this process, organizations are able to adapt to environmental changes and produce innovation (Ramadhan et al., 2025). In hospitals, organizational learning serves as a foundation for healthcare workers to develop new ideas, improve service quality, and find more efficient ways of working (Alonazi, 2021).

Meanwhile, JD-R Theory emphasizes the importance of a balance between job demands and job resources. Resources such as organizational learning, psychological resilience, and work engagement help employees maintain motivation, cope with stress, and remain productive (Bakker & Demerouti, 2007). In the emotionally stressful hospital work environment, these psychological resources serve as important intermediaries connecting organizational learning with innovative behavior (Aungsuroch et al., 2024). The integration of these two theories explains that learning organizations function not only as a structural mechanism but also as a psychological resource that strengthens employee resilience and engagement. A good learning process improves employees' cognitive, affective, and social capacities to deal with change, which ultimately drives continuous innovation in hospitals (Sholikhah et al., 2021).

Learning Organization and Innovation

A learning culture within an organization creates an environment that supports the exploration of ideas, reflection on mistakes, and the search for new (Darwish et al., 2020). In hospitals, learning organizations help healthcare workers improve work procedures, enhance service quality, and effectively adopt new technologies (Alrashidi et al., 2023). Organizations that support continuous learning enable employees to actively participate in innovation, both in service and management aspects. Several studies have shown that learning organizations have a positive effect on organizational innovation (Darwish et al., 2020; Gachanja et al., 2020). However, the results of Sholikhah et al. (2021) show that this effect is not always significant without the support of psychological factors and an adaptive organizational culture. In hospitals, these differences in outcomes suggest that organizational learning requires other supporting conditions to translate into innovative behavior. Therefore, the following hypothesis is proposed:

H₁: Learning organizations have a positive effect on innovation

Learning Organization and Employee Resilience

Organizations that facilitate learning encourage individuals to reflect, learn from experience, and develop adaptive skills in facing work challenges. This fosters employee resilience, the psychological capacity to recover from stress and remain productive (Biswas et al., 2025). In hospitals, organizational learning enables healthcare workers to discover new ways to cope with stress, manage emotions, and increase resilience to high workloads (Kumalasari et al., 2024). Previous research also indicates a positive relationship between learning organizations and employee resilience. However, there has not been much research examining this relationship in the healthcare sector, even though the characteristics of the hospital work environment demand high levels of adaptive capacity. Therefore, further research is needed to confirm the role of learning organizations in building psychological resilience among hospital employees (D. K. P. Ramadhan & Widiarini, 2022).

H₂: Learning organizations have a positive effect on employee resilience

Learning Organization and Work Engagement

According to JD-R Theory, organizational learning is a form of job resource that can increase employee motivation, energy, and involvement in work (Bakker & Demerouti, 2007). A work environment that supports learning creates a sense of meaning, challenge, and autonomy, which strengthens work engagement (Seng & Hee, 2021). Several studies have shown that a learning organization is positively related to work engagement (Aungsuroch et al., 2024; Bula & Wanyoike, 2021). However, in the healthcare sector, this relationship can vary depending on organizational conditions and levels of work pressure (Anshar et al., 2025). However, in the healthcare sector, this relationship can vary depending on organizational conditions and levels of work pressure (Ibrahim & Hussein, 2024). These findings suggest that organizational learning has significant potential to enhance work engagement, although outcomes may vary across hospital contexts

H₃: Learning organization has a positive effect on work engagement

Employee Resilience and Innovation

Employee resilience plays a crucial role in fostering innovation in a work environment that demands high levels of adaptability. Resilient employees are able to transform stress into learning opportunities, think creatively, and dare to try new approaches (Biswas et al., 2025). In hospitals, resilient healthcare workers adapt more quickly to technological changes or new medical procedures, thus contributing to service innovation. However, little research has explored how resilience influences innovation in the healthcare context. Most previous studies have focused on the manufacturing and education sectors (Kumalasari et al., 2024). Therefore, this study seeks to broaden the empirical context by examining the relationship between employee resilience and innovation in hospital environments in Indonesia.

H₄: Employee resilience has a positive effect on innovation

Work Engagement and Innovation

Work engagement describes a positive psychological condition characterized by enthusiasm, dedication, and full involvement in work (Bakker & Demerouti, 2007). Employees with high engagement are more likely to exhibit innovative behavior because they are motivated to make the best contribution to the organization (Seng & Hee, 2021). Various studies have shown that work engagement has a positive effect on innovation (Aungsuroch et al., 2024; Bula & Wanyoike, 2021). However, research findings in the healthcare sector have been inconsistent, as emotional stress, high workloads, and resource constraints can reduce employee engagement (Sholikhah et al., 2021). Therefore, it is important to review the role of work engagement in driving service innovation in hospitals.

H₅: Work engagement has a positive effect on innovation..

The Mediating Role of Employee Resilience and Work Engagement

Learning organizations can indirectly enhance service innovation through employee resilience and work engagement among healthcare workers. This dual mediation model provides a comprehensive understanding of the psychological mechanisms linking learning organizations and innovation in the healthcare sector. This mediation approach aligns with the view that organizational learning not only enhances knowledge and skills but also strengthens psychological capacities that enable employees to respond adaptively to work complexity. Employee resilience emerges as a personal resource that enables healthcare workers to remain productive under stressful conditions, ultimately driving innovation.

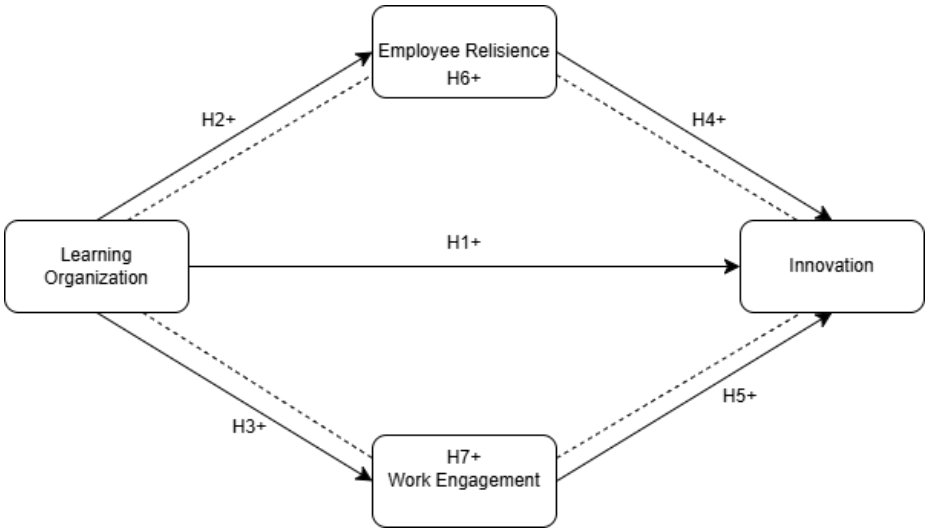
Recent research findings indicate that resilience plays a crucial role in facilitating individuals' ability to create novel solutions, particularly in uncertain work environments such as hospitals (Moreno Cunha et al., 2022). This suggests that organizational learning can strengthen employees' adaptive capacity, which in turn influences their propensity to innovate. Previous research suggests that learning organizations can influence performance and innovation through employee psychological mechanisms (Bula & Wanyoike, 2021). Employee resilience and work engagement serve as mediators that bridge this relationship. When organizations provide a conducive learning environment, employees become more resilient to stress and more engaged in their work, thereby increasing innovative behavior (Bula & Wanyoike, 2021).

On the other hand, work engagement is also seen as a crucial mechanism linking learning practices to innovation. A work environment that supports learning tends to increase employees' sense of meaning, energy, and dedication, making them more motivated to engage in the service improvement process. Several studies have shown that engagement is a psychological state that facilitates innovative behavior by increasing internal motivation and a willingness to contribute to work process improvements (Elamin et al., 2024). In the healthcare sector, engagement is crucial because service innovation often emerges from medical personnel who feel emotionally involved and motivated to improve service quality (Sandhe et al., 2025). Thus, both resilience and engagement play a crucial role in explaining how organizational learning generates innovation through the psychological mechanisms of its employees

H₆: Employee resilience mediates the relationship between learning organization and innovation.

H₇: Work engagement mediates the relationship between learning organization and innovation.

Figure 1. Conceptual Framework



METHOD

This study uses a quantitative methodology with a replication design that adopts the conceptual model from Mohammad et al. (2024) regarding Learning Organization, Employee Resilience, Work Engagement, and Innovation. This study is applied to the health sector to retest the model in a different sector, namely on employees at three hospitals in Banjarnegara, so as to obtain empirical evidence regarding the consistency of relationships between variables in the health care environment.

The study population consisted of 966 employees at three hospitals in Banjarnegara Regency. The determination of the minimum sample size was calculated using the Slovin formula with an error rate (e) of 0.05, so that a minimum sample of 282 respondents was obtained. To increase the power of the analysis and anticipate potential invalid data, the sample size was then increased to 342 respondents. The sampling technique used in this study was stratified random sampling. This technique was chosen because the study population came from three hospitals with different numbers of employees. The questionnaire was distributed online using Google Forms and distributed to hospital employees in Banjarnegara.

Data analysis was carried out using the Partial Least Squares Structural Equation Modeling (PLS-SEM) approach using SmartPLS software. Each respondent's answer has its own value arranged using stages based on five points on a Likert scale with Likert values, one strongly disagree, two disagree, three neutral, four agree, and five strongly agree. Measurement of each variable uses different references, the learning organization variable uses the Yang et al. (2004) scale consisting of 7 indicators, employee resilience uses the scale developed by Stephens et al. (2013) consisting of 6 questions, work engagement uses the Schaufeli et al. (2006) scale consisting of 3 indicators, and innovation consists of 3 indicators using the scale developed by (Atuahene-Gima, 2005; Herrmann et al., 2007; Kim et al., 2012; Lau et al., 2010; Valle & Vázquez-Bustelo, 2009).

RESULT AND DISCUSSION

This study uses Partial Least Square or PLS, with the aim of reducing variable variance when estimating model parameters. All questionnaire data was prepared for analysis and collected with a 100% return rate.

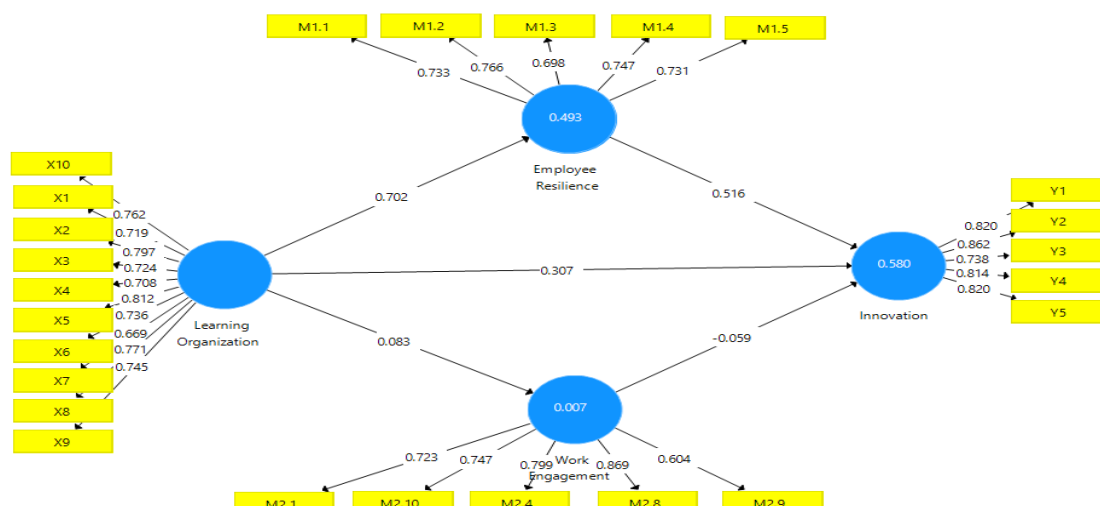
Table 1. Respondent Demographics

Identity	Description	Frequency	Percentage
Hospital	RS 1	167	48.8
	RS 2	134	39.2
	RS 3	41	12.0
Gender	Male	130	38.0
	Female	212	62.0
Age	18–25 Years Old	4	1.2
	>25–30 Years Old	44	12.9
	>30–35 Years Old	67	19.6
	>35–40 Years Old	51	14.9
	>40–50 Years Old	130	38.0
	>50 Years Old	46	13.5

Employment Category	Medis	303	88.6
	Nonmedis	39	11.4
Education	Senior High School	15	4.4
	Diploma	185	54.1
	Bachelor	102	29.8
	Postgraduate	28	8.2
Work Period	1–3 Years	14	4.1
	>3–6 Years	106	31.0
	>6–10 Years	77	22.5
	>10 Years	144	42.1

Shows demographic results Most of the respondents. The values obtained from the Hospital, namely Banjarnegara Regional Hospital, were 167 respondents (48.8%). In terms of gender, respondents were dominated by women, amounting to 212 respondents (62.0%). Judging from age, the majority of respondents were in the 40-50 year range, amounting to 130 respondents (38.0%), this shows that most employees are at a stable working age and have had quite a lot of experience. Based on the workforce category, the majority of respondents were medical personnel with 303 respondents (88.6%), while non-medical personnel with 39 respondents (11.4%) this dominance of medical personnel is reasonable considering that the study was conducted in three hospitals whose core activities focus on clinical services. Last education, most of the respondents came from diploma graduates with 185 respondents (54.1%), and some others came from undergraduate education with a total of 102 respondents (29.8%). In terms of length of service, the majority of respondents were more than 10 years (42.1%), indicating that there are good employee skills and a work commitment to health services. The results of the SEM-PLS model analysis were used to investigate the relationships between variables in this study. The analytical approach was conducted in two parts to ensure the validity and reliability of the model. The results of the SEM-PLS model analysis were used to investigate the relationships between variables in this study. The analytical approach was conducted in two parts to ensure the validity and reliability of the model. The results of the PLS test can also generate new insights that may need to be expressed in a simpler analysis.

Figure 2. Findings from SEM-PLS Model Analysis



Outer loading results for each studied variable. The data was analyzed in 2 rounds and eliminated indicators X11, X12, M1.6, M2.2, M2.3, M2.5, M2.6, M2.7, Y6. Because the indicator has an outer loading value below 0.5. Meanwhile, if the outer loading value was above 0.5, the indicator was considered appropriate (Hair et al., 2021).

Table 2. Outer Loading

	Statement Items	Outer Loading	Result
L01	I strive to continuously learn from work experience to improve the quality of patient care.	0.719	Accepted
L02	Hospitals provide opportunities for employees to learn from mistakes.	0.798	Accepted
L03	Coworkers help each other to improve their service skills.	0.723	Accepted
L04	Employees are encouraged to give each other feedback openly.	0.707	Accepted
L05	Every new idea is always discussed and appreciated within the work team.	0.812	Accepted
L06	There is a culture of asking and listening to other people's opinions in the workplace.	0.735	Accepted
L07	My team works together to find innovative solutions to service problems.	0.671	Accepted
L08	We learn from the experiences of other teams in the hospital.	0.771	Accepted
L09	Each work unit supports cross-professional collaboration for service improvement.	0.745	Accepted
L010	Leaders give employees the trust to make decisions related to work.	0.764	Accepted
L011	Leaders are role models in terms of learning and self-development.	0.058	Rejected
L012	I feel my ideas are supported by the hospital leadership.	0.040	Rejected
ER1	I am able to persevere and stay focused even when facing high work pressure.	0.733	Accepted
ER2	When I face difficulties at work, I try to find better solutions.	0.766	Accepted
ER3	I learned from hard experience to improve the way I work.	0.699	Accepted
ER4	I remain enthusiastic even though I experience failure in my work.	0.747	Accepted
ER5	I can adapt quickly to changes in hospital procedures or policies.	0.730	Accepted
ER6	I am confident in facing new challenges at work.	-0.043	Rejected
WE1	I feel full of energy when I work	0.642	Accepted
WE2	I remain enthusiastic about working	0.465	Rejected

	even when facing pressure.		
WE3	I am able to work for long periods with high focus.	0.424	Rejected
WE4	I am proud of my work at this hospital.	0.772	Accepted
WE5	My work gives me meaning and purpose.	0.217	Rejected
WE6	I am enthusiastic about providing the best service to patients.	0.430	Rejected
WE7	Time seems to fly when I'm working.	0.379	Rejected
WE8	I am completely immersed in my work.	0.863	Accepted
WE9	I find it hard to tear myself away from work because I enjoy it so much.	0.508	Accepted
WE10	I have skills in completing work	0.642	Accepted
Y1	I am involved in creating new ideas to improve the quality of patient care.	0.817	Accepted
Y2	My hospital encourages the development of new, more effective working methods.	0.861	Accepted
Y3	My work team participated in the implementation of a more efficient service system.	0.739	Accepted
Y4	I took the initiative to find new ways to improve patient satisfaction.	0.815	Accepted
Y5	Our hospital frequently reviews service processes to find new improvements.	0.821	Accepted
Y6	I feel encouraged to try new approaches despite the risk of failure.	-0.048	Rejected

The results of the outer loading values in the first round showed that there were 9 values below 0.5. Therefore, in the second round, low outer loading values were rejected to improve the consistency of the variable constructs. With these results, the variables learning organization, employee resilience, work engagement, and innovation have an outer loading value of more than 0.5.

Table 3. Construct Reliability and Validity

	Composite Reliability	Average Variance Extracted (AVE)
Employee Resilience	0.855	0.541
Innovation	0.906	0.659
Learning Organization	0.926	0.556
Work Engagement	0.866	0.568

The results of construct reliability and validity indicate that all variables in this study have met the criteria for good reliability and validity. This is proven by the Cronbach's Alpha and Composite Reliability values, which are all above 0.70, so that each variable is declared consistent and reliable in measuring its construct. Furthermore, AVE values greater than 0.50 for all variables indicate that each construct is able to explain more than half of the variance in its indicator. Thus, it can be concluded that the instrument used in this study is valid and reliable.

Table 4. Model Fit

	Saturated Model	Estimated Model
SRMR	0.065	0.065
d_ULS	1.371	1.371
d_G	0.486	0.486
Chi-Square	923.246	923.285
NFI	0.800	0.800

The results of the model fit test show that the SRMR value of 0.065 is below the limit of 0.08, so the model is declared to have a good fit (Hair et al., 2021). The NFI value of 0.800 also indicates that the model has met the adequate fit standards. Overall, these results indicate that the model used is appropriate and can be continued to the next stage of analysis

The R-Square value shows that the independent variables in the model are able to explain most of the variation in Employee Resilience of 49.3% and Innovation of 58%, so both are included in the moderate to strong category. Meanwhile, the R-Square value for Work Engagement is only 0.7%, which means that the variables in the model barely contribute to changes in work engagement. Overall, these results illustrate that the model has good predictive ability for the two main variables, but is not strong enough to explain variation in Work Engagement.

Table 5. Discriminant Validity

	Employee Resilience	Innovation	Learning Organization	Work Engagement
Employee Resilience	0.735			
Innovation	0.728	0.812		
Learning Organization	0.702	0.665	0.746	
Work Engagement	0.059	-0.003	0.083	0.754

Discriminant validity testing was conducted using the Fornell-Larcker criterion, which measures the extent to which a construct is truly distinct and distinguishable from other constructs in the research model (Hair et al., 2019). A construct is said to have good discriminant validity if the square root of the Average Variance Extracted (AVE) value of the construct is higher than the correlation value of the construct with all other constructs in the model. The analysis results show that all constructs in this study meet the discriminant validity criteria. This can be seen from the square root value of AVE for each variable which is consistently greater than the correlation value between variables. This finding confirms that each construct in the study, namely learning organization (LO), employee resilience (ER), work engagement (WE), and innovation (IN), has adequate conceptual uniqueness and does not experience measurement overlap with other constructs.

Table 6. Path Coefficients

	Original Sample (O)	Sample Mean (M)	Standard Deviation (STDEV)	T Statistics (O/STDEV)	P Values	Result
--	----------------------------	------------------------	-----------------------------------	---------------------------------	-----------------	---------------

H1: Learning Organization -> Innovation	0.307	0.305	0.063	4.858	0.000	Accepted
H2: Learning Organization -> Employee Resilience	0.702	0.704	0.033	21.420	0.000	Accepted
H3: Learning Organization -> Work Engagement	0.083	0.081	0.092	0.896	0.370	Rejected
H4: Employee Resilience -> Innovation	0.516	0.520	0.056	9.193	0.000	Accepted
H5: Work Engagement -> Innovation	-0.059	-0.057	0.039	1.524	0.128	Rejected
H6: Learning Organization -> Employee Resilience -> Innovation	0.362	0.366	0.044	8.224	0.000	Accepted
H7: Learning Organization -> Work Engagement -> Innovation	-0.005	-0.004	0.006	0.751	0.453	Rejected

Based on the results of hypothesis testing, the relationship is declared significant if the p-value <0.05 (Hair et al., 2021). Learning Organization is proven to influence Innovation and Employee Resilience (p = 0.000), so both hypotheses are accepted. On the other hand, learning organization has a positive and insignificant effect on work engagement (p = 0.370), so the hypothesis is rejected. Employee Resilience also has a significant effect on Innovation (p = 0.000), while Work Engagement is not significant (p = 0.128). In the mediation test, Learning Organization has a significant indirect effect on Innovation through Employee Resilience (p = 0.000), but not through Work Engagement (p = 0.453). Overall, Employee Resilience is an important mediator in the relationship between Learning Organization and Innovation, while Work Engagement does not contribute significantly

DISCUSSION

The study demonstrates that organizational learning does not uniformly activate innovation-related psychological mechanisms in high-demand healthcare environments; instead, resilience appears to function as a more proximal psychological pathway than work engagement

The Influence of Learning Organizations on Innovation

Learning organizations influence innovation. These findings indicate that when hospitals build a strong learning culture through knowledge sharing, reflection on experiences, and developing work methods, employees become more open to change and more capable of generating innovative ideas in the service process. This is in line with the view of Organizational Learning Theory which emphasizes that the collective learning

process can increase the adaptive capacity and creativity of individuals, thereby encouraging the formation of innovation in organizations (Garvin et al., 2008).

In a hospital environment, organizational learning is crucial given the complexity and dynamics of clinical situations that require continuous knowledge updating. When healthcare workers have the opportunity to discuss, evaluate procedures, and improve work practices, they are better able to create solutions that improve service quality. This finding aligns with research (Çömlek, 2025; Muhsin et al., 2021; Rahayuningsih et al., 2025) showing that learning-oriented organizations have a higher capacity for generating sustainable innovation. Therefore, a learning organization can be considered a crucial foundation for innovation development in hospitals.

The Influence of Learning Organizations on Employee Resilience

Learning organization has an influence on employee resilience. This suggests that when hospitals provide a supportive learning environment, such as training, feedback, and strong teamwork, employees become more resilient in the face of work pressure. Continuous learning helps employees develop adaptive mindsets, strengthens self-confidence, and improves their ability to recover from difficult situations.

This concept is in line with the job demands-resources theory, which holds that resilience is not only influenced by individual factors, but is also influenced by the organizational context that enables individuals to develop through the social learning process. Research by Lakshmi et al. (2024) and Kumalasari et al. (2024) also suggests that a learning culture strengthens employees' psychological responses to stress, thereby increasing their resilience. In the hospital context, resilience is crucial because healthcare workers face emotional burdens, occupational risks, and emergency situations that require mental stability. Therefore, the findings of this study confirm that a learning organization is a crucial determinant in shaping employee resilience in the healthcare sector

The Influence of Learning Organization on Work Engagement

Learning organizations have a positive but insignificant effect on work engagement. These findings suggest that while an organizational learning environment can theoretically increase employee motivation and work enthusiasm, this does not translate directly into engagement in hospitals. The hospital work environment is characterized by high work demands, emotional stress, and strict adherence to patient safety standards, which limit the psychological space for work engagement to develop into exploratory or creative energy. Organizational learning provides a space for employees to develop competencies through reflection, collaboration, and knowledge sharing. However, these findings indicate that this learning process has not been able to foster employees' emotional and psychological involvement in their work. Organizational learning theory explains that learning experiences should enhance employee understanding, adaptation, and readiness to face tasks (Senge, 1990). However, in a hospital environment, high operational pressure, administrative workloads, emotional demands from patients, and time constraints often prevent employees from experiencing the direct benefits of the learning process. This explains why engagement does not increase despite ongoing organizational learning.

The differences between this study's findings and previous studies suggest that the psychological mechanisms linking learning organizations and innovation are contextual, not universal. While research in the non-healthcare sector places work engagement as the primary mediator, the results of this study indicate that in the hospital sector, employee resilience is a more relevant mechanism. This finding aligns with Rajak & Soleman (2022) who stated that healthcare worker engagement is more influenced by work stress and fatigue than organizational learning, but is not in line with (Aungsuroch et al., 2024; Bula & Wanyoike, 2021) who found a positive influence of learning organization on engagement. However, previous research by Mohammad et al. (2024) found a learning

organization to have a positive and significant effect on work engagement in the Jordanian banking sector. These differences in results indicate that the relationship between learning organization and work engagement is more applicable to the banking sector, where organizational learning is directly linked to career development, competency enhancement, and work motivation. Conversely, in regional hospitals, organizational learning has not been accompanied by a reduction in workload or an increase in perceived resources, thus failing to foster positive psychological states such as vigor, dedication, and absorption. This aligns with the JD-R Theory, which asserts that job resources only increase engagement when they are able to balance job demands. Therefore, a learning organization is not yet strong enough to foster engagement in the stressful and procedural context of medical work. This finding extends the Job Demands–Resources Theory by showing that in high-demand jobs, employee resilience is more dominant than work engagement in explaining the relationship between organizational resources and innovation.

The Influence of Employee Resilience on Innovation

Employee resilience impacts innovation. These findings indicate that employees who are able to adapt to pressure and bounce back from difficult situations are more likely to generate new ideas, improve work procedures, and take innovative initiatives in healthcare. This shows that in high-pressure work conditions, employees' ability to survive, adapt, and recover from stress becomes a more relevant psychological resource than work engagement. Resilience enables employees to view challenges as learning opportunities, rather than obstacles, thus encouraging them to develop creative solutions that improve service quality.

These findings align with job demands-resources theory, which states that resilience is a crucial psychological resource for driving innovation, particularly in jobs requiring emotional stability and the ability to navigate uncertainty (Lisbet et al., 2023). Research by Moreno Cunha et al. (2022) also emphasizes that resilient individuals are better able to maintain performance and creativity despite work pressure. In the hospital context, medical situations are often unpredictable, so the ability to remain calm and focused is crucial for the emergence of innovation, both in clinical processes and administrative services. Thus, resilience can be seen as one of the most important factors in driving innovation in the healthcare sector and replacing the less effective role of work engagement in this context.

The Influence of Work Engagement on Innovation

Work engagement has a negative and insignificant effect on innovation. This finding indicates that while engagement is generally associated with energy, dedication, and work absorption, these conditions do not automatically result in innovative behavior in healthcare workers. Job demands-resources theory explains that engagement should encourage employees to show initiative, active involvement, and a desire for continuous improvement. However, in hospitals, which are full of regulations and standard operating procedures (SOPs), the space for experimentation and innovation is severely limited. Even highly motivated employees often have to adhere to strictly established workflows to ensure patient safety and consistent service. In other words, engagement in medical work tends to be operational, not creative, and therefore does not contribute significantly to the emergence of innovation.

These findings align with research (Ernes & Wanasida, 2023; Xu et al., 2024) which found that engagement does not always have a direct impact on innovation in high-pressure work environments. Furthermore, research by You et al. (2022) suggests that innovation requires structural support such as autonomy, resources, and opportunities for exploration, which are often inadequately provided in hospitals. These findings also differ from previous research by Mohammad et al. (2024) which found that work engagement positively impacts innovation in the banking sector. This difference suggests that the

relationship between engagement and innovation is more applicable to the banking sector, where levels of job autonomy, flexibility, and risk tolerance are relatively higher than in the healthcare sector. In a banking environment, engaged employees have more room to propose new ideas and make process improvements. Conversely, in hospitals, high workloads and emotional stress cause employees' energies to be focused on job resilience and completing routine tasks, making work engagement less of a primary driver of innovation. Thus, the results of this study confirm that work engagement is not the main factor driving innovation in the context of medical work, where operational stability is often prioritized over creativity.

The Mediation Role of Employee Resilience

Employee resilience can mediate the relationship between organizational learning and innovation. These findings suggest that organizational learning does not automatically generate innovative behavior but rather works by strengthening employees' abilities to cope with stress. From the perspective of organizational learning theory (Argyris & Schon, 1978), learning processes such as reflection on experiences, open dialogue, and shared knowledge creation are designed to strengthen individuals' adaptive capacity in dealing with complex work environments. When hospitals provide an environment that supports learning processes such as opportunities for reflection, case discussions, and skill enhancement, employees become more confident and more resilient when facing difficult work situations. Conceptually, this mechanism aligns with Bakker & Demerouti (2007) job demands-resources theory, which states that resilience functions as a psychological resource that enables individuals to effectively apply learning outcomes under demanding conditions.

In hospitals, where employees frequently face unpredictable clinical situations, emergencies, and high emotional burdens, the ability to bounce back from stress is a crucial prerequisite for innovation. Resilience enables employees to maintain clarity of thought, evaluate risks, and dare to try new approaches even in difficult situations. These findings align with research by Moreno Cunha et al. (2022) and Mohammad et al. (2024) which confirms that resilience is a key mechanism linking various organizational resources to innovative behavior. Therefore, it can be concluded that in complex work environments like hospitals, resilience is not merely a psychological attribute but also a foundation for employees to transform organizational learning into tangible innovation.

The Role of Work Engagement Mediation

Work engagement does not mediate the relationship between organizational learning and innovation. This finding illustrates that while organizational learning can create a positive work environment, it is not sufficient to foster engagement as a psychological bridge to innovation. In practice, engagement in healthcare workers is greatly influenced by physical workload, emotional stress, intense interactions with patients, and high professional demands. These conditions make engagement volatile and difficult to sustain in the long term, making it unable to act as a stable mediator in the relationship between organizational learning and innovation. This perspective aligns with Job Demands-Resources (JD-R) Theory, which explains that engagement can only be sustained when job demands are balanced with resources, while in the healthcare sector, job demands tend to dominate.

This finding aligns with research by Ajie & Nugroho (2023) which showed that engagement is less effective as a mediator in work environments with highly procedural structures, such as hospitals. Previous research also supports this finding. Research by Mustikawati & Ernawaty (2023) found that the engagement of healthcare workers is more susceptible to burnout and stress than organizational learning activities. These results also differ from previous research by Mohammad et al. (2024) conducted in the banking sector in Jordan, where work engagement was shown to be a significant mediator. These

differences in results indicate that work engagement mediation is more suitable for application in the banking sector, which has relatively stable job characteristics, more controlled work pressure, and wider cognitive space for employees to channel work engagement into innovative behavior. Conversely, in the hospital context, the high demands of clinical work, emotional stress, and the procedural orientation of patient care mean that work engagement cannot always be developed into innovation. Although healthcare workers demonstrate high dedication and engagement, this engagement is more directed at meeting safety and service quality standards than at generating new ideas. This explains why work engagement does not function as a mediator in the hospital context, in contrast to the banking sector which is more supportive of the exploration of ideas and innovation based on administrative and technology processes

CONCLUSION

The results of this study indicate that learning organizations play a significant role in driving innovation in hospitals by strengthening employee resilience, while work engagement was not proven to function as a mediating mechanism. These findings suggest that in the context of regional hospitals with high work pressure and procedural work structures, employee psychological resilience is a more determining factor than the level of work engagement. The practical contribution of this study for the three Banjarnegara hospitals is to provide an empirical basis that the development of service innovation needs to focus on strengthening a collaborative learning culture and increasing employee resilience through adaptation training, stress management, clinical reflection, and psychological support. This approach is expected to help hospitals improve service quality and organizational adaptability in a sustainable manner.

This study has limitations, as it was conducted only at three hospitals in Banjarnegara Regency, making it impossible to generalize to other regions. This study provides a reference regarding the factors influencing innovation in the healthcare sector, supported by the use of hospitals in Banjarnegara Regency as the subjects. However, this research is not free from limitations, so further research is needed to discuss the issue of innovation. Future research can be applied to the education or public service sectors, which have different working conditions. It is recommended that further research incorporate other psychological variables such as psychological empowerment, job satisfaction, perceived organizational support, or burnout to better understand the mechanisms influencing innovation in healthcare workers. Furthermore, research can be expanded by comparing public and private hospitals or hospitals in different regions to examine the influence of differences in organizational culture on learning organization, resilience, and innovation. Longitudinal research methods are also important to observe how the influence of learning culture and employee resilience evolves over time, given the rapidly changing dynamics of hospital work. By enriching the variables, methods, and research context, future studies are expected to provide a more comprehensive understanding of the factors driving innovation in the healthcare sector.

REFERENCES

- Afriandika, I. R., Bagis, F., Endratno, H., & Rahmawati, I. Y. (2025). Transformational Leadership and Work Motivation in Enhancing Innovative Work Behavior: The Mediating Role of Job Satisfaction in Hospitality Sector Employees. *Asian Journal of Management Analytics*, 4(3), 941–960. <https://doi.org/10.55927/ajma.v4i3.14598>
- Ajie, A. N. S., & Nugroho, M. (2023). Role of Knowledge Sharing and Employee Engagement Towards Innovative Performance with Learning Orientation as Moderating Variable. *Jurnal Maksipreneur: Manajemen, Koperasi, Dan Entrepreneurship*, 12(2), 511. <https://doi.org/10.30588/jmp.v12i2.1256>

- Alboliteeh, M., Alrashidi, M. S., Alrashedi, N., Gonzales, A., Mostoles, R. J., Pasay-an, E., & Dator, W. L. (2022). Knowledge Management and Sustainability Performance of Hospital Organisations: The Healthcare Managers' Perspective. *Sustainability*, 15(1), 203. <https://doi.org/10.3390/su15010203>
- Alonazi, W. B. (2021). Building learning organizational culture during COVID-19 outbreak: a national study. *BMC Health Services Research*, 21(1). <https://doi.org/10.1186/s12913-021-06454-9>
- Alrashidi, N. A., Lagura, G. A. L., & Celdran, M. C. B. (2023). Utilization of the dimensions of learning organization for enhanced hospital performance. *Frontiers in Communication*, 8. <https://doi.org/10.3389/fcomm.2023.1189234>
- Anshar, A., Pasinringi, S. A., Arifah, N., Rivai, F., Indahwaty Sidin, A., & Mallongi, A. (2025). Quality Organizational Culture, Job Satisfaction, Job Resources & Rewards On Employees ' Work Engagement At Hospital In Makassar. In *Journal of Neonatal Surgery ISSN* (Vol. 14, Issue 32s). <https://www.jneonatalurg.com>
- Argyris, C., & Schon, D. (1978). *Organizational learning : a theory of action perspective*.
- Atuahene-Gima, K. (2005). Resolving the Capability-Rigidity Paradox in New Product Innovation. *Journal of Marketing*, 69(4), 61–83. <https://doi.org/10.1509/jmkg.2005.69.4.61>
- Aungsuroch, Y., Gunawan, J., Juanamasta, I. G., & Montayre, J. (2024). Updating Factors Influencing Nurse Work Engagement in the Hospital Settings: A Systematic Review. In *Journal of Healthcare Leadership* (Vol. 16, pp. 157–176). Dove Medical Press Ltd. <https://doi.org/10.2147/JHL.S451056>
- Bagis, F., & Adawiyah, W. R. (2025). *MIX: Jurnal Ilmiah Manajemen Divine Guidance in The Face of Toxicity: How Islamic Leadership Navigates Workplace Stress and Mental Wellbeing in Higher Education Institutions*. https://doi.org/10.22441/jurnal_mix.2025.v15i2.004
- Bagis, F., Adawiyah, W. R., Purnomo, R., & Sudjadi, A. (2024). Exploring Islamic Spiritual Well-Being: Conceptualization and Validation of a Measurement Scale. *Islamic Guidance and Counseling Journal*, 7(2). <https://doi.org/10.25217/0020247473500>
- Bagis, F., Adawiyah, W. R., Tubastuvi, N., . D., & Umairoh, J. P. M. (2025). Beyond Religion: Applying Islamic Spiritual Well-Being to Improve Ethical Behavior in Modern Organizations. *Journal of Cultural Analysis and Social Change*, 2030–2039. <https://doi.org/10.64753/jcasc.v10i2.1901>
- Bagis, F., Darmawan, A., Ikhsani, M. M., & Purnadi, P. (2021). The effect Of Employee Engagement and Emotional Intelligent on Organizational Commitment by Job Satisfaction as Mediate Variable Case in Employee Of Islamic Education Institution. *Jurnal Ilmiah Ekonomi Islam*, 7(1), 460. <https://doi.org/10.29040/jiei.v7i1.2132>
- Bakker, A. B., & Demerouti, E. (2007). The Job Demands-Resources model: state of the art. *Journal of Managerial Psychology*, 22(3), 309–328. <https://doi.org/10.1108/02683940710733115>
- Biswas, D. D., Mikkilineni, S., & Gahlawat, N. (2025). The synergistic resilience framework: Unravelling the interplay of personal, social, and organisational factors of employee resilience in the Indian workplace. *IIMB Management Review*. <https://doi.org/10.1016/j.iimb.2025.100593>
- Bula, H. &, & Wanyoike, R. (2021). *Mediation Effect of Work Engagement on The Relationship Between Organizational Learning and Employees' Performance in Kenyan Context*. www.strategicjournals.com
- Çömlek, O. (2025). The Effects of Organizational Learning Capacity on Innovative Performance of Healthcare Organizations. *Hamidiye Medical Journal*, 6(1), 7–15. <https://doi.org/10.4274/hamidiyemedj.galenos.2025.17363>

- Darwish, T. K., Zeng, J., Rezaei Zadeh, M., & Haak-Saheem, W. (2020). Organizational Learning of Absorptive Capacity and Innovation: Does Leadership Matter? *European Management Review*, 17(1), 83–100. <https://doi.org/10.1111/emre.12320>
- Do, N., Nguyen, M., Nguyen, T., Huynh, B., Ho, T., & Nguyen, K. (2023, September 12). The impact of employees perceptions of a learning organization on innovativeness in a healthcare organization. *Proceedings of the International Conference on Industrial Engineering and Operations Management*. <https://doi.org/10.46254/AP04.20230251>
- Du, J., Zhang, C., & Wu, Q. (2022). The influence of organizational learning and external cooperation configuration on enterprise technological innovation: A study based on fsQCA approach. *PLoS ONE*, 17(8 August). <https://doi.org/10.1371/journal.pone.0271960>
- Elamin, A. M., Aldabbas, H., Ahmed, A. Z. E., & Abdullah, A. N. (2024). Employee Engagement and Innovative Work Behavior: The Mediating Role of Knowledge-Sharing Behavior in the United Arab Emirates (UAE) Service Context. *Administrative Sciences*, 14(9), 232. <https://doi.org/10.3390/admsci14090232>
- Ernes, A., & Wanasida, A. S. (2023). The Influence of Occupational Stress, Anxiety, Work Engagement and Perceived Organizational Support on Innovation Outputs at XYZ Hospital During COVID-19 Pandemic. *Jurnal Manajemen Kesehatan Indonesia*, 11(1), 34–51. <https://doi.org/10.14710/jmki.11.1.2023.34-51>
- Gachanja, I. M., Nga'nga', S. I., & Kiganane, L. M. (2020). Influence of organization learning on innovation output in manufacturing firms in Kenya. *International Journal of Innovation Studies*, 4(1), 16–26. <https://doi.org/10.1016/j.ijis.2020.02.001>
- Garvin, D. A., Edmondson, A. C., & Gino, F. (2008). *Is Yours a Learning Organization?* www.hbr.org
- Hair, J. F., Black, W. C., Babin, B. J., & Anderson, R. E. (2019). *Multivariate Data Analysis Eighth Edition*. www.cengage.com/highered
- Hair, J. F., Black, W. C., Babin, B. J., & Anderson, R. E. (2021). *Classroom Companion: Business Partial Least Squares Structural Equation Modeling (PLS-SEM) Using R AAWorkbook*. <http://www.>
- Hakim, A. N., Bagis, B., Astuti, H. J., & Kharismasyah, A. Y. (2025). Supportive Work Environment and Employee Retention: Examining the Mediating Role of Organizational Commitment and Person-Organization Fit. *International Journal of Asian Business and Management*, 4(2), 383–406. <https://doi.org/10.55927/ijabm.v4i2.209>
- Herrmann, A., Gassmann, O., & Eisert, U. (2007). An empirical study of the antecedents for radical product innovations and capabilities for transformation. *Journal of Engineering and Technology Management*, 24(1–2), 92–120. <https://doi.org/10.1016/j.jengtecman.2007.01.006>
- Ibrahim, B. A., & Hussein, S. M. (2024). Relationship between resilience at work, work engagement and job satisfaction among engineers: a cross-sectional study. *BMC Public Health*, 24(1). <https://doi.org/10.1186/s12889-024-18507-9>
- Kim, D., Kumar, V., & Kumar, U. (2012). Relationship between quality management practices and innovation. *Journal of Operations Management*, 30(4), 295–315. <https://doi.org/10.1016/j.jom.2012.02.003>
- Kinerja, B., & Kesehatan, K. (2023). *Transformasi Kesehatan Mewujudkan Masyarakat Indonesia sehat dan Unggul*.
- Kiptulon, E. K., Elmadani, M., Limungi, G. M., Simon, K., Tóth, L., Horvath, E., Szöllősi, A., Galgalo, D. A., Maté, O., & Siket, A. U. (2024). Transforming nursing work environments: the impact of organizational culture on work-related stress among nurses: a systematic review. In *BMC Health Services Research* (Vol. 24, Issue 1). BioMed Central Ltd. <https://doi.org/10.1186/s12913-024-12003-x>

- Kumalasari, H., Lubis, D. S., & Kurniati, D. P. Y. (2024). The resilience of nurses in the emergency department of Sanglah Hospital during the pandemic of COVID-19 in Bali, Indonesia. *Public Health and Preventive Medicine Archive*, 12(1), 52–65. <https://doi.org/10.53638/phpma.2023.v12.i1.p05>
- Kusumo, H., Dian Marlina, & Achmad Solechan. (2025). Sustainable Digital Transformation in Healthcare: Challenges and Directions in the Society 5.0 Era. *Advance Sustainable Science Engineering and Technology*, 7(1), 0250113. <https://doi.org/10.26877/asset.v6i4.876>
- Lakshmi, B., & Jeevashree, T. (2024). *The Impact of Learning Organization on Employee Resilience*. www.ijcrt.org
- Lau, A. K. W., Tang, E., & Yam, R. C. M. (2010). Effects of Supplier and Customer Integration on Product Innovation and Performance: Empirical Evidence in Hong Kong Manufacturers. *Journal of Product Innovation Management*, 27(5), 761–777. <https://doi.org/10.1111/j.1540-5885.2010.00749.x>
- Li, Q., Mohamed, R., Mahomed, A., & Khan, H. (2022). The Effect of Perceived Organizational Support and Employee Care on Turnover Intention and Work Engagement: A Mediated Moderation Model Using Age in the Post Pandemic Period. *Sustainability*, 14(15), 9125. <https://doi.org/10.3390/su14159125>
- Lisbet, Z. T., Arafah, W., & Aseanty, D. (2023). The Influence of Employee Wellbeing and Employee Resilience on Innovation Work Behavior Mediated By Work Climate in the Insurance Industry in DKI Jakarta. *International Journal of Environmental, Sustainability, and Social Science*, 4(3), 865–877. <https://doi.org/10.38142/ijesss.v4i3.414>
- Lyman, B., Horton, M. K., & Oman, A. (2022). Organizational learning during COVID-19: A qualitative study of nurses' experiences. *Journal of Nursing Management*, 30(1), 4–14. <https://doi.org/10.1111/jonm.13452>
- Mabrouk, M., Han, H., Mahran, M. G. N., Abdrabo, K. I., & Yousry, A. (2024). Revisiting Urban Resilience: A Systematic Review of Multiple-Scale Urban Form Indicators in Flood Resilience Assessment. *Sustainability*, 16(12), 5076. <https://doi.org/10.3390/su16125076>
- Mohammad, S., Sağsan, M., & Şeşen, H. (2024). The Impact of “Learning Organizations” on Innovation: The Mediating Role of “Employee Resilience” and Work Engagement. *SAGE Open*, 14(4). <https://doi.org/10.1177/21582440241289185>
- Moreno Cunha, A., Marques, C. S., & Santos, G. (2022). Organizational and Personal Factors That Boost Innovation: The Case of Nurses during COVID-19 Pandemic Based on Job Demands-Resources Model. *Sustainability*, 14(1), 458. <https://doi.org/10.3390/su14010458>
- Muhsin, M., Rahmaningtyas, W., & Saeroji, A. (2021, May 24). *The Effect of Learning Organization and Organizational Tenure on Innovative Behaviour through Work Engagement as a Mediating Variable*. <https://doi.org/10.4108/eai.22-7-2020.2307879>
- Mustikawati, E. I., & Ernawaty. (2023). Work Engagement of Healthcare Workers during the COVID-19 Pandemic. *Unnes Journal of Public Health*, 12(2), 14–25. <https://doi.org/10.15294/ujph.v12i2.67079>
- Palapessy, V. E. D. (2025). Digital Transformation in Hospital Services: Evaluating Effectiveness, Challenges, and Implications for Healthcare Service Quality in Indonesia. *Journal of Hospital Administration and Management*, 6(1), 38–49. <https://doi.org/10.54973/jham.v6i1.615>
- Rahayuningsih, S., Chandra Kirana, K., & Hadi, S. (2025). The Impact of Learning Organization on Organizational Innovation with Self-Efficacy and Knowledge Management as Mediators. *Riset Ekonomi Manajemen*, 8(1), 522–540. <https://doi.org/10.31002/rekomen.v8i1.2572>

- Rajak, A., & Soleman, R. (2022). The Effect of Learning Organization, Work Engagement, Work Motivation, and Work Stress on Innovative Work Behavior: Work Motivation and Work Stress as Mediation and Moderation. *MIX: JURNAL ILMIAH MANAJEMEN*, 12(2), 210. https://doi.org/10.22441/jurnal_mix.2022.v12i2.003
- Ramadhan, D. K. P., & Widiarini, R. (2022). Persepsi Leadership terhadap Learning Organization di UPTD Puskesmas Tawangrejo. *Media Kesehatan Masyarakat Indonesia*, 21(6), 399–404. <https://doi.org/10.14710/mkmi.21.6.399-404>
- Ramadhan, S. T., Bagis, F., Tubastuvi, N., & Arofah, R. U. (2025). Improving Innovative Work Behavior in the Hospitality Sector: The Mediation Role of Knowledge Sharing between Transformational Leadership and Psychological Capital. *Asian Journal of Management Analytics*, 4(2), 703–722. <https://doi.org/10.55927/ajma.v4i2.14311>
- Sandhe, D. S. K., Krisnana, I., & Pradanie, R. (2025). Innovations for Successful Electronic Medical Records (EMR) Implementation in Hospitals. *Indonesian Journal of Innovation Studies*, 26(2). <https://doi.org/10.21070/ijins.v26i2.1360>
- Sari, N., Omar, M., Pasinringi, S. A., Zulkifli, A., & Sidin, A. I. (2023). Developing hospital resilience domains in facing disruption era in Indonesia: a qualitative study. *BMC Health Services Research*, 23(1), 1395. <https://doi.org/10.1186/s12913-023-10416-8>
- Schaufeli, W. B., Bakker, A. B., & Salanova, M. (2006). The measurement of work engagement with a short questionnaire: A cross-national study. *Educational and Psychological Measurement*, 66(4), 701–716. <https://doi.org/10.1177/0013164405282471>
- Seng, W. Q., & Hee, O. C. (2021). What matters most to work engagement in the R&D context Leadership styles or organisational learning. *International Journal of Work Organisation and Emotion*, 12(2), 170. <https://doi.org/10.1504/IJWOE.2021.117679>
- Senge, P. (1990). *The Fifth Discipline: The art and practice of the learning organization*.
- Sholikhah, S., Nathasya Marbun, R., & Parimita, W. (2021). The Influence of Learning Organization and Employee Resilience on Work Engagement at Bumh Bank Branch Office in Bogor. *IJHCM (International Journal of Human Capital Management)*, 5(2), 11–25. <https://doi.org/10.21009/ijhcm.05.02.2>
- Slåtten, T., Mutonyi, B. R., & Lien, G. (2020). The impact of individual creativity, psychological capital, and leadership autonomy support on hospital employees' innovative behaviour. *BMC Health Services Research*, 20(1). <https://doi.org/10.1186/s12913-020-05954-4>
- Stephens, J. P., Heaphy, E. D., Carmeli, A., Spreitzer, G. M., & Dutton, J. E. (2013). Relationship Quality and Virtuousness: Emotional Carrying Capacity as a Source of Individual and Team Resilience. *Journal of Applied Behavioral Science*, 49(1), 13–41. <https://doi.org/10.1177/0021886312471193>
- Sutarno, M., Anam, K., Ilmi, M. B., Widia Sary, E. W. S., Anugrah, F. T., Azidin, Y., Ruslinawati, R., Basit, M., Harun, L., & Solikin, S. (2022). A Causal Model of Workplace Engagement Among Indonesian Nursing Staff. *Pacific Rim International Journal of Nursing Research*, 27(1), 50–64. <https://doi.org/10.60099/prijnr.2023.260332>
- Valle, S., & Vázquez-Bustelo, D. (2009). Concurrent engineering performance: Incremental versus radical innovation. *International Journal of Production Economics*, 119(1), 136–148. <https://doi.org/10.1016/j.ijpe.2009.02.002>
- Xu, L., Lin, L., Guan, A., Wang, Q., Lin, F., Lin, W., & Li, J. (2024). Factors associated with work engagement among specialist nurses in china: a cross-sectional study. *BMC Nursing*, 23(1). <https://doi.org/10.1186/s12912-024-02012-w>
- Yang, B., Watkins, K. E., & Marsick, V. J. (2004). *The Construct of the Learning Organization: Dimensions, Measurement, and Validation*.
- You, Y., Hu, Z., Li, J., Wang, Y., & Xu, M. (2022). The Effect of Organizational Innovation Climate on Employee Innovative Behavior: The Role of Psychological Ownership and

- Task Interdependence. *Frontiers in Psychology*, 13.
<https://doi.org/10.3389/fpsyg.2022.856407>
- Zhou, F., Long, K., Shen, H., Yang, Z., Yang, T., Deng, L., & Zhang, J. (2023). Resilience, organizational support, and innovative behavior on nurses' work engagement: a moderated mediation analysis. *Frontiers in Public Health*, 11.
<https://doi.org/10.3389/fpubh.2023.1309667>