

## THE EFFECT OF LEADER-MEMBER EXCHANGE, EDUCATION AND TRAINING ON EMPLOYEE PERFORMANCE WITH WORK ENGAGEMENT AS A MEDIATOR AT THE INSTITUT SENI INDONESIA BALI

Ketut Bambang Ayu Widyani<sup>1</sup>, Ida Bagus Udayana Putra<sup>2</sup>, A.A. Media Martadiani<sup>3</sup>

<sup>1,2,3</sup>Master of Management Postgraduate Program Warmadewa University, Indonesia

Corresponding author: Ketut Bambang Ayu Widyani

E-mail: [ayuwidyani2105@gmail.com](mailto:ayuwidyani2105@gmail.com)

Volume: 7  
Number: 1  
Page: 228 - 245

### Article History:

Received: 2025-12-17

Revised: 2026-01-09

Accepted: 2026-01-25

### Abstract:

The Industrial Revolution 4.0 requires organizations to adapt rapidly by improving human resource quality, particularly in enhancing employee performance. Employee performance is influenced not only by individual competencies but also by the quality of leader-subordinate relationships and the effectiveness of education and training programs. In addition, work engagement serves as an important psychological factor that may mediate these relationships. This study aims to examine the effects of Leader-Member Exchange (LMX), education, and training on employee performance, with work engagement as a mediating variable. This study employs a quantitative survey approach. The population consists of 103 employees of the Indonesian Institute of the Arts (ISI) Bali. A sample of 59 employees who participated in education and training programs in 2024 was selected using purposive sampling. Data were analyzed using the Partial Least Squares (PLS) method. The results indicate that LMX has a positive and significant effect on work engagement and employee performance. Education and training positively and significantly affect work engagement, but do not have a significant direct effect on employee performance. Furthermore, work engagement has a positive and significant effect on employee performance. Mediation analysis reveals that work engagement partially mediates the relationship between LMX and employee performance and fully mediates the relationship between education and training and employee performance. These findings highlight the critical role of leadership in fostering high-quality work relationships and the importance of designing education and training programs that enhance work engagement to achieve sustainable improvements in employee performance.

**Keywords:** Employee Performance, Leader-Member Exchange, Education and Training, Work Engagement.

## INTRODUCTION

The Industrial Revolution 4.0 has brought about rapid, extensive changes across sectors. As a result, individuals must continuously adapt to these transformations. One affected area is business competition in the field of educational services, specifically private higher education institutions (Martadiani et al., 2019). An aspect that demands collective attention is human resources, as high-quality employees are a key determinant of organizational success (Lestari et al., 2022). It is because employees play a primary role in achieving competitive advantage and in long-term effectiveness. Employees represent the core strength of an organization (Purnamayanti & Indiani, 2020). One of the most important indicators of human resource quality is employee performance. Performance refers to how organizations evaluate the work outcomes of individual employees (Parna et al., 2024). Employee performance reflects work results completed by employees, with consistent quality and



quantity over time. It applies in both profit-oriented and non-profit organizations (Jufrizen et al., 2023). In practice, optimal employee performance cannot be achieved automatically. Kasmir (2020) emphasizes that one factor determining employee performance is how leaders direct subordinates in carrying out assigned tasks and responsibilities. Furthermore, according to Mathis & Jackson (2017), organizational support through training programs tailored to employee needs also significantly affects performance.

In the education sector, performance-related issues remain a persistent concern. Indonesia, as a country characterized by rich cultural diversity, has witnessed growing interest in higher education institutions with specialized faculties or study programs in the arts. One such institution is Institut Seni Indonesia (ISI) Bali, which has been recognized as one of the leading arts institutes in Indonesia (Kompas, 2023). This distinction places substantial demands on ISI Bali's educational support staff to consistently deliver high levels of performance. However, in practice, several performance assessment components reported in the ISI Bali Performance Accountability Report have shown a decline, which has negatively affected the optimization of employee performance.

The performance report identifies several gaps that indicate the need for improvements in coordination, inter-unit integration, and employee involvement to maximize achievement of planned activity outputs, thereby enhancing both the quality and quantity of individual and institutional performance overall. Another important issue highlighted is the limited development of employee potential through education and training programs that are not implemented equitably or comprehensively, and that do not consider individual needs. Such conditions hinder the improvement of relevant competencies and the achievement of accountable institutional performance, defined as the alignment of all organizational activities with predetermined plans, clearly measurable outcomes, and compliance with applicable regulations (LAKIN, 2024).

This study argues that, according to the Two-Factor Theory, motivating factors—such as recognition, responsibility, achievement, and opportunities for development—depend on the quality of the leader-subordinate relationship, embodied here as Leader-Member Exchange (LMX). LMX is an exclusive or transactional exchange, in which training and development are distributed unequally: employees in the group receive more opportunities, while those outside the group receive less attention (Adhi, 2022). Ideally, leaders are expected to develop high-quality LMX relationships with all followers; however, this expectation not only contradicts the fundamental premise of LMX theory but has also been debated as being nearly impossible to achieve in practice (Park et al., 2022). Leadership plays a crucial role in fostering employees' work motivation and enhancing their self-confidence in carrying out assigned tasks (Nurkautsar et al., 2025). Several studies emphasize the importance of positive leader-employee relationship quality in improving employee performance. This is supported by findings from Sa'adah & Rijanti (2022), Park et al. (2022), Dewi & Setyowati (2022), Jufrizen et al. (2023), Adriani et al. (2023), Kappo et al. (2025), and Silva & Rodrigues (2025), which report a positive and significant effect of LMX on employee performance. In contrast, studies by Nafisa & Priyono (2023), Fajri (2022), and Intana (2023) find no significant effect of LMX on employee performance.

High-quality LMX also promotes employees' emotional, cognitive, and physical involvement in their work, commonly referred to as work engagement. According to Hardianto and Sari (2021), positive relationships between supervisors and subordinates in educational institutions can enhance work enthusiasm, a sense of belonging, and employee engagement. Employees who maintain positive relationships with their supervisors tend to be more engaged in their work, as they feel heard, understood, and provided with opportunities for growth. This is supported by studies conducted by Hardianto & Sari (2021), Wagner & Koob (2022), Jufrizen et al. (2023), Setyati & Utari



(2023), Sabekti & Setiawan (2023), Botha (2025), and Wang et al. (2025), which demonstrate that education and training have a positive and significant effect on work engagement.

Furthermore, one of the primary ways to enhance the quality of human resources (HR) is through education and training programs that develop employees' skills, knowledge, and work attitudes in alignment with organizational needs. From the hygiene factors perspective in Two-Factor Theory, training can reduce potential sources of dissatisfaction and enable employees to focus more effectively on their assigned tasks. Improving the quality of human resources is therefore a priority issue, as it requires creativity, integrity, and commitment to maximize individual potential in achieving organizational objectives. Consequently, human resources serve as a central pillar in realizing the institution's vision and mission (Putra et al., 2023).

Training plays an important role in enhancing employees' capabilities by developing their skills, motivating them, and fostering self-confidence, which, in turn, leads to improved job performance (Hidayat & Aziz, 2022). One advantage of workplace-based training is its high transfer of training, as participants acquire job-related skills in a real work environment, enabling them to apply these skills more easily in their daily tasks (Agufana, 2022). It is supported by studies conducted by Setyabudi et al. (2021), Hidayat & Aziz (2022), Agufana (2022), Boyas & Rachmad (2022), Capatiana et al. (2024), Genç (2024), and Çevik (2025), which demonstrate a positive and significant effect of training on employee performance. In contrast, studies by Syahputra & Jufrizen (2019), Andayani & Hirawati (2021), and Pratama et al. (2022) conclude that education and job training do not have a significant effect on improving employee performance.

In general, effective training expands knowledge, enhances both technical and non-technical skills, and improves work attitudes that support task execution. It directly contributes to improved employee performance in terms of work quality, efficiency, and effectiveness. In a global context, Agufana (2022), through a study conducted in Kenya, revealed that on-the-job training methods make a significant contribution to increasing the productivity of higher education employees. It is further supported by studies conducted by Bakker & Van Wingerden (2021), Utami & Arif (2021), Hasset (2022), Kurniawan et al. (2022), Widia & Setyaningrum (2023), Liu et al. (2023), Günaydin & Otluoğlu (2023), and Jonck & Manamela (2025), which demonstrate that training and education have a positive and significant effect on work engagement.

Based on the preceding discussion, the existing literature indicates inconsistencies in research findings, suggesting a research gap that could be addressed by including additional variables to understand better the relationships among the quality of leader-member relationships, training and education, and employee performance. One key variable that may serve this role is work engagement, which refers to the extent to which employees feel emotionally attached to, identify with, and assume responsibility for the organization in which they work. Organizations are therefore required to create conditions that encourage higher levels of employee engagement in their work. Such conditions can optimally enhance employees' skills and capabilities in order to achieve organizational objectives (Wijayanti & Budiani, 2021). Fully engaged employees are believed to be more productive, creative, and innovative, and to demonstrate stronger commitment to the organization. Several studies, including those by Bouckenoghe et al. (2022), Kholifah & Fadli (2022), Yao et al. (2022), Corbeanu & Iliescu (2023), Naqshbandi et al. (2024), and Rasool et al. (2025), conclude that work engagement has a positive and significant effect on employee performance.

The issues documented in the LAKIN report should be supported by equitable and fair leader-subordinate relationships, free from the formation of exclusive groups, as such relationships are expected to enhance employee motivation and performance. Given theoretical perspectives, previous empirical findings, and observable organizational phenomena that yield inconsistent



results, this study is deemed necessary. Accordingly, this research is entitled “The Effect of Leader-Member Exchange and Education and Training on Employee Performance with Work Engagement as a Mediating Variable at the Institut Seni Indonesia Bali.”

**Employee Performance.** According to Mangkunegara (2017:67), performance refers to the qualitative and quantitative work outcomes achieved by an employee in carrying out assigned tasks in accordance with the responsibilities given. Meanwhile, Fahmi (2017:188) defines performance as the result of a process, measured over a specific period of time, based on predetermined provisions or agreements. Employee performance is often measured by task accomplishment, requiring employees to perform their duties in alignment with the organization’s work programs to reflect the level of organizational performance in achieving its vision, mission, and objectives. Performance appraisal generally encompasses both qualitative and quantitative aspects of job execution. The employee performance indicators used in this study refer to the opinions of Jufrizen et al. (2023) and Yao et al. (2022), and include:

1. The employee is able to generate new ideas that provide added value.
2. The employee is able to maintain harmonious interpersonal relationships and teamwork.
3. The employee is able to implement continuous improvements based on experience or available information.
4. The employee is able to carry out core responsibilities effectively.
5. The employee is able to complete tasks accurately in accordance with established standards.
6. The employee demonstrates a good level of attendance.
7. The employee is able to report work in a timely manner.

**Leader Member Exchange.** Leader-Member Exchange (LMX) is an approach to understanding leadership based on the quality of individual relationships between leaders and their followers. According to Jaenudin (2021:20), leader-member exchange represents a relational construct that reflects the nature of the relationship between leaders and subordinates, in which the interaction process between the two becomes a central concern, as both are valuable human resources within an organization. Similarly, Wirawan (2013:125) states that leader-member exchange emphasizes the critical role of leader-follower interactions in organizational contexts. LMX theory posits that interactions between leaders and followers play an important role in organizational effectiveness, as these relationships are unique and vary in quality. High-quality LMX relationships are characterized by trust, mutual respect, and support, which ultimately influence individual, team, and organizational attitudes and outcomes. The indicators used to measure Leader-Member Exchange (LMX) in this study were adopted from Hardianto & Sari (2021) and Du et al. (2022) and are described as follows:

1. The leader fosters a friendly attitude among all employees.
2. The leader can provide full support to all employees without comparing specific outcomes.
3. Recognition of the leader’s professionalism strengthens the quality of the relationship.
4. Employees demonstrate willingness to build commitment to the working relationship with their leader.
5. High trust in the leader reinforces the strength of the relationship.
6. The leader provides opportunities for employees to participate actively in the work relationship.

Jufrizen et al. (2023) emphasize that leader-member exchange is a strong predictor of employee performance. High-quality LMX relationships foster mutual trust and reciprocal obligations, thereby enhancing individual performance. This finding is consistent with Adriani et al. (2023), who conclude that leader-member exchange has a direct effect on employee performance, as positive interpersonal relationships encourage greater responsibility and employee participation in



achieving organizational targets. Furthermore, a conducive LMX environment allows members to gain influence from close relationships with leaders, thereby increasing work engagement and inspiration (Prilatama et al., 2025). In line with this, Hardianto & Sari (2021) argue that positive relationships between supervisors and subordinates in educational institutions can enhance work enthusiasm, a sense of belonging, and employee engagement. Wagne & Koob (2022), in a mediation analysis among social workers, also find that LMX significantly contributes to work engagement, particularly when supported by job resources such as coworker support and job autonomy. In this context, LMX functions as a source of intrinsic motivation that enables employees to feel valued and empowered. Based on the above explanation, the hypotheses proposed in this study are as follows:  
H1: Leader-member exchange has a positive and significant effect on employee performance.  
H2: Leader-member exchange has a positive and significant effect on work engagement.

**Education and Training.** In the context of civil servants (Aparatur Sipil Negara/ASN), provisions on education and training are regulated under Law Number 20 of 2023 on the State Civil Apparatus, which stipulates that every civil servant has the right to develop competency through education and training. In this study, ASN education and training refer to the concept of education as defined by Ibnu (2015:1), who describes education as a dynamic manifestation of human culture and a fundamental element of development, as well as the concept of training as defined by Robbins (2013:113), which refers to programs designed to stimulate and encourage individuals to enhance employees' skills in performing specific job-related tasks. Education and training are government programs intended to improve the technical, theoretical, and conceptual knowledge of civil servants, as well as their work attitudes and moral values, in accordance with job and occupational requirements. These programs are implemented through systematic educational and training activities designed to modify employees' behavior to achieve organizational objectives. The indicators for Education and Training in this study were adopted from Syahputra & Jufrizen (2019) and Hidayat & Aziz (2022), and are described as follows:

1. Employees strongly desire continuous personal and professional development.
2. Employees perceive effective communication between participants and instructors.
3. Employees perceive the training materials as relevant and aligned with their needs.
4. Employees show a high interest in the training methods used.
5. Employees perceive that the training objectives are effectively measurable and achieved
6. Employees feel that the training helps to improve productivity after completion.

Setyabudi et al. (2021) find that job training directly improves employee performance, particularly when it is tailored to individuals' status and specific needs. Hidayat & Aziz (2022) also argue that training plays an important role in shaping job-related skills that contribute to achieving organizational targets. Furthermore, Utami & Arif (2021) demonstrate that training contributes significantly to the development of work engagement, which ultimately has a positive impact on overall employee performance. In the context of public-sector employees in the United States, Hassett (2022) finds that equitable and continuous access to training and development enhances overall employee engagement. Based on these empirical findings, the following hypotheses are proposed:

- H3: Education and training have a positive and significant effect on employee performance.  
H4: Education and training have a positive and significant effect on work engagement.

**Work Engagement.** According to Rezeki (2023:4), work engagement is conceptualized as involvement, commitment, enthusiasm, intimacy, focus on effort, and energy investment, making it a critical component that should be carefully considered by employees. Another perspective offered by Febriansyah and Ginting (2020:19) defines work engagement as the relationship between

employees and their work, with the focus on the individual and closely related to employees' energy levels. Employees with high levels of work engagement tend to identify strongly with their jobs, perceive their work as meaningful to their self-esteem and lives, and demonstrate high levels of vigor, dedication, and absorption in performing their tasks. This attachment is also characterized by feelings of pride, inspiration, and active participation within the organization, which ultimately have a positive impact on employee attitudes. The indicators used to measure work engagement in this study were adopted from Lartey (2022), Yao et al. (2022), and Nguyen & Ha (2023), as follows:

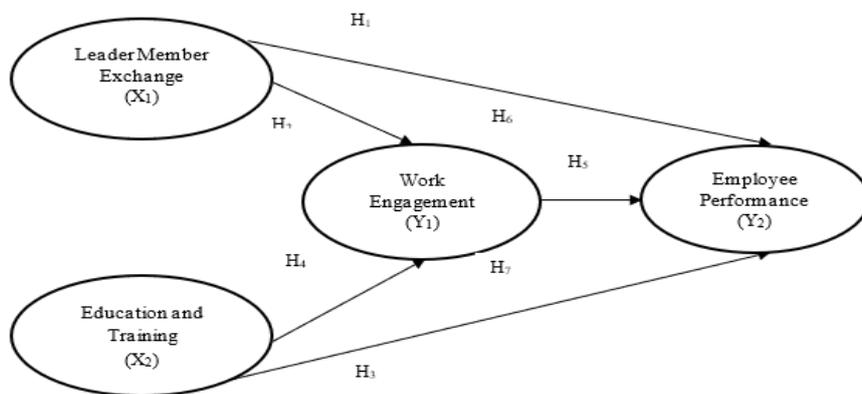
1. Employees demonstrate high levels of enthusiasm in performing work activities.
2. Employees are willing to express their true thoughts and opinions.
3. Employees are fully dedicated to their work.
4. Employees have control over the quality of their work and take responsibility for it.
5. Employees maintain an open attitude toward workplace changes.

Corbeanu & Iliescu (2023) explain that work engagement is a strong predictor of individual performance, as employees who are emotionally and cognitively engaged tend to be more motivated to achieve optimal work outcomes. In line with this, Naqshbandi et al. (2024) show that work engagement remains a key determinant of employee performance even as work systems change. Yao et al. (2022) further reinforce this argument by concluding that work engagement has a positive and significant relationship with employee performance, and that this effect can be strengthened by psychological factors such as psychological capital. Based on these findings, the following hypotheses are proposed:

H5: Work engagement has a positive and significant effect on employee performance.

H6: Work engagement mediates the effect of leader-member exchange on employee performance.

H7: Work engagement mediates the effect of education and training on employee performance.



**Figure 1.** Framework

**METHODS**

This study adopts a quantitative research approach and was conducted at the Indonesian Institute of the Arts Bali (Institut Seni Indonesia Bali/ISI Bali), a public higher education institution located in Denpasar. Initially established as ISI Denpasar, the institution officially changed its name to ISI Bali on February 12, 2025, in accordance with Presidential Decree No. 14 of 2025, under the authority of the Ministry of Higher Education, Science, and Technology. ISI Bali is located at Jalan Nusa Indah, Sumerta, East Denpasar District, Denpasar City, Bali 80235. The scope of this study includes leader-member exchange, education and training, work engagement, and employee performance. The study population comprises all employees of ISI Bali, totaling 103 individuals. The



sampling technique employed is purposive sampling, in which respondents are selected based on specific criteria. In this study, the respondents were limited to employees who had participated in education and training programs in 2024, resulting in a final sample of 59 employees. Data were collected using a questionnaire measured on a five-point Likert scale and subsequently analyzed using inferential statistical analysis with Partial Least Squares (PLS).

**RESULT AND DISCUSSION**

**Validity and Reliability Test.** The results of the validity test are presented in Table 1, indicating that the item values generated by the research constructs meet the criteria for convergent validity, as evidenced by factor loadings greater than 0,5. Therefore, the 24 construct indicators used in this study are considered valid.

**Table 1.** Validity Test Results

Indicator	Employee Performance (Y2)	Leader Member Exchange (X1)	Education and Training (X2)	Work engagement (Y1)
X1.1	The leader is able to foster a friendly attitude with all employees	0.781		
X1.2	The leader is able to provide full support to all employees without comparing specific outcomes.	0.837		
X1.3	Recognition of the leader's professionalism strengthens the quality of the relationship.	0.853		
X1.4	Employees demonstrate willingness to build commitment to the working relationship with their leader.	0.823		
X1.5	High trust in the leader reinforces the strength of the relationship.	0.845		
X1.6	The leader provides opportunities for employees to participate actively in the work relationship.	0.849		
X2.1	Employees feel a strong desire for continuous personal and professional development.		0.779	
X2.2	Employees perceive effective communication between participants and instructors.		0.874	
X2.3	Employees perceive the training materials as relevant and aligned with their needs.		0.905	
X2.4	Employees show a high interest in the training methods used		0.861	
X2.5	Employees perceive that the training objectives are effectively measurable and achieved		0.861	
X2.6	Employees feel that the training helps to improve productivity after completion.		0.843	



Y1.1	Employees demonstrate high levels of enthusiasm in performing work activities.	0.848
Y1.2	Employees are willing to express their true thoughts and opinions.	0.793
Y1.3	Employees are committed to their work with full dedication.	0.830
Y1.4	Employees have control over the quality of their work and take responsibility for it.	0.865
Y1.5	Employees maintain an open attitude toward changes occurring in the workplace.	0.791
Y2.1	The employee is able to generate new ideas that provide added value.	0.688
Y2.2	The employee is able to maintain harmonious interpersonal relationships and teamwork.	0.876
Y2.3	The employee is able to implement continuous improvements based on experience or available information.	0.865
Y2.4	The employee is able to carry out core responsibilities effectively.	0.816
Y2.5	The employee is able to complete tasks accurately in accordance with established standards.	0.790
Y2.6	The employee demonstrates a good level of attendance.	0.772
Y2.7	The employee is able to report work in a timely manner.	0.722

The reliability test results in Table 2 present the Cronbach's alpha values. The results indicate that the Composite Reliability (CR) for each construct is 0.7 or higher. It indicates that all indicators consistently represent their respective latent constructs.

**Table 2.** Reliability Test Results

	Cronbach's alpha	Composite reliability (rho_a)	Composite reliability (rho_c)
Employee Performance (Y2)	0.900	0.907	0.922
Leader Member Exchange (X1)	0.912	0.922	0.931
Education and Training (X2)	0.926	0.930	0.942
Work Engagement (Y1)	0.883	0.884	0.915

AVE indicates the degree of convergence of all indicators against the measured latent construct. AVE values above 0,5 indicate adequate convergence. Table 2 showed that every construct had an AVE value of more than 0,5, indicating sufficient convergence for all constructs.

**Table 3.** AVE Test Results

AVE
-----



Employee Performance (Y2)	<b>0.628</b>
Leader Member Exchange (X1)	<b>0.691</b>
Education and Training (X2)	<b>0.730</b>
Work Engagement (Y1)	<b>0.683</b>

**Hypothesis Testing.** The results of the path analysis and significance testing are presented in Table 4. The findings indicate that leader-member exchange (X1) has a positive and significant effect on employee performance (Y2), with a path coefficient of 0.223 and a p-value of 0.049 (<0.05). These results indicate that high-quality exchange relationships between leaders and members are associated with higher employee performance; therefore, the hypothesis is accepted. Leader-member exchange (X1) also has a positive and significant effect on job engagement (Y1), with a coefficient of 0.568 and a p-value of 0.000 (<0.05). These findings indicate that stronger interpersonal relationships between superiors and subordinates increase employee job engagement; thus, the hypothesis is accepted. Education and training (X2) shows a positive but insignificant effect on employee performance (Y2), with a coefficient of 0.057 and a p-value of 0.691 (>0.05). Although implementing better education and training programs tends to improve employee performance, the effect is not statistically significant in this study. Therefore, the hypothesis is rejected. Meanwhile, education and training (X2) have a positive and significant influence on job engagement (Y1), with a coefficient of 0.401 and a p-value of 0.000 (<0.05). These results indicate that a well-designed training program can increase employee engagement with their work; therefore, the hypothesis is accepted. Furthermore, job engagement (Y1) positively and significantly influences employee performance (Y2), with a coefficient of 0.662 and a p-value of 0.001 (<0.05). These findings indicate that higher job engagement is associated with greater employee performance; therefore, the hypothesis is accepted. Regarding the mediation analysis, the indirect influence of leader-member exchange (X1) on employee performance (Y2) through job engagement (Y1) is positive and significant, with a coefficient of 0.376 and a p-value of 0.003 (<0.05). Given the significant direct influence of leader-member exchange on employee performance, job engagement acts as a partial mediator in the relationship between leader-member exchange and employee performance. It implies that high-quality exchange relationships between leaders and subordinates strengthen employee work engagement, thereby improving their performance. In addition, the second mediation analysis shows that the indirect effect of education and training (X2) on employee performance (Y2) through work engagement (Y1) is positive and significant, with a coefficient of 0.266 and a p-value of 0.016 (<0.05). Considering that the direct effect of education and training on employee performance is not significant, it can be concluded that work engagement acts as a full mediator in the relationship between education and training on employee performance.

Based on the coefficient of determination (R-square) results, the R-square for employee performance is 0.822, indicating that leader-member exchange, education and training, and work engagement collectively explain 82.2% of the variance in employee performance, with the remaining variance explained by variables outside the research model. For work engagement, the obtained R-square value is 0.807, suggesting that leader-member exchange and education and training explain 80.7% of the variance in work engagement, with the remaining variance influenced by constructs not included in the estimated model. Furthermore, the Q-square value of 0.966 indicates that the model falls into the strong model category. This result implies that the model developed in this study has high predictive relevance and strong predictive accuracy.

**Table 4.** Hypothesis Test Results





Effect	Path Coefficient	P values	Information
Leader Member Exchange (X1) -> Employee Performance (Y2)	0.223	0.049	Significant
Leader member exchange (X1) -> Work engagement (Y1)	0.568	0.000	Significant
Education and Training (X2) -> Employee Performance (Y2)	0.057	0.691	Non-Significant
Education and Training (X2) -> Work engagement (Y1)	0.401	0.000	Significant
Work engagement (Y1) -> Employee Performance (Y2)	0.662	0.001	Significant
Leader member exchange (X1) -> Work engagement (Y1) -> Employee Performance (Y2)	0.376	0.003	Significant
Education and Training (X2) -> Work engagement (Y1) -> Employee Performance (Y2)	0.266	0.016	Significant
R <sup>2</sup> Employee Performance:	0.822		
R <sup>2</sup> Work Engagement:	0.807		
Q <sup>2</sup> :	0.822		

**The Effect of Leader-Member Exchange on Employee Performance.** Leader-member exchange (LMX) has a positive and significant effect on the performance of educational support staff at the Indonesian Institute of the Arts Bali. This finding indicates that higher-quality reciprocal relationships between supervisors and subordinates lead to improved employee performance. LMX represents a leadership approach that emphasizes the quality of dyadic relationships formed between leaders and individual followers. Because these relationships are dyadic, the quality of interaction between leaders and each subordinate may vary, thereby directly influencing employees' work attitudes and behaviors. Leaders who are able to establish relationships that align with organizational characteristics and interests tend to create a comfortable working environment for subordinates, which ultimately enhances employee performance (Jufrizen et al., 2023).

From the perspective of Two-Factor Theory, high-quality leader-member exchange not only fulfills employees' basic needs (hygiene factors), such as fairness and psychological safety, but also fosters motivational factors, including recognition, responsibility, and achievement. The integration of these two aspects significantly improves employee performance in terms of effectiveness, efficiency, and work quality. Descriptive analysis shows that the leader-member exchange variable falls into the "good" category, with an average score of 4.10. This score indicates that leader-subordinate relationships are relatively harmonious, characterized by trust, commitment, and opportunities for participation in work-related interactions. The highest-scoring indicator is "willingness to build commitment in the working relationship with supervisors" (4.20), reflecting a high level of employee loyalty toward leadership.

Employee performance itself averages 4.27, categorized as very high, with the highest indicator being employees' ability to carry out their core responsibilities. This finding highlights the critical role of the leader-subordinate relationship quality in enhancing employee performance. Furthermore, the respondent characteristics reveal that the majority are aged 40-49 (49.2%) and have a tenure of 11-20 years (52.5%), indicating emotional maturity and strong institutional loyalty. Such characteristics reinforce motivational factors, as mature and experienced employees tend to value positive interpersonal relationships and are more motivated when entrusted with responsibility and authority.

In addition, the dominance of bachelor's degree holders (67.8%) suggests adequate intellectual capacity to understand leadership expectations and adapt to job demands. Employees with higher educational attainment are more likely to perceive supervisory support as recognition, thereby strengthening intrinsic motivation. These findings are consistent with previous studies by Sa'adah



& Rijanti (2022), Dewi & Setyowati (2022), Park et al. (2022), Jufrizen et al. (2023), and Adriani et al. (2023), all of which report a positive and significant effect of leader-member exchange on employee performance.

**The Effect of Leader-Member Exchange on Work Engagement.** Leader-member exchange (LMX) has a positive and significant effect on work engagement. This finding indicates that the higher the quality of the relationship between leaders and employees, the greater the level of employee engagement in performing their work. LMX represents the quality of interpersonal relationships between leaders and team members within an organization, as reflected in trust, support, communication, and perceived fairness experienced by employees. High-quality LMX relationships shape positive employee perceptions of the organization and encourage emotional, cognitive, and physical involvement in work, commonly referred to as work engagement.

Based on the Two-Factor Theory, work engagement is influenced by two main groups of factors: motivator factors (intrinsic factors) and hygiene factors (extrinsic factors). Motivator factors, such as recognition, responsibility, and opportunities for personal development, play a role in enhancing job satisfaction and work enthusiasm. Meanwhile, hygiene factors, including interpersonal relationships, conducive working conditions, and effective supervision, function to prevent job dissatisfaction. Leaders who establish high-quality LMX relationships create a fair, open, and appreciative work environment, enabling employees to feel valued and supported in carrying out their duties. This condition ultimately increases employees' emotional and cognitive attachment to their work, reflected in higher levels of commitment, dedication, and enthusiasm among educational staff, thereby supporting overall institutional performance.

Furthermore, high-quality LMX contributes to the creation of healthy hygiene factors, such as open communication, emotional support, and a sense of fairness, which form the foundation for psychological safety. This sense of psychological safety encourages employees to express ideas more confidently, participate actively, and fully engage in their work. When leader-subordinate relationships are not merely formal but also provide recognition and appreciation for employee contributions, motivator factors become stronger, thereby increasing work engagement. This is supported by descriptive analysis results showing that work engagement falls within the very high category, characterized by strong work enthusiasm, the ability to maintain work quality, and openness to changes in the work environment.

From the perspective of respondent characteristics, the dominance of employees aged 40-49 years (49.2%) and those with 11-20 years of tenure (52.5%) reflects a high level of emotional maturity and loyalty to the institution. Employees with extensive work experience tend to have greater psychological stability, are better able to establish harmonious working relationships, and are more responsive to support and trust provided by leaders. Thus, these demographic characteristics provide an important foundation for strengthening the influence on the formation of high work engagement. These findings are consistent with previous studies by Kholifah & Fadli (2022), Hardianto & Sari (2021), Wagner & Koob (2022), Jufrizen et al. (2023), and Setyati & Utari (2023), which confirm that leader-member exchange has a positive and significant effect on employee engagement.

**The Effect of Education and Training on Employee Performance.** Education and training have a positive but not significant effect on the performance of administrative staff at the Institut Seni Indonesia Bali. This finding indicates that improvements in training programs have not yet fully produced a tangible impact on employee performance. Training represents an organizational investment aimed at improving employee competence and productivity. In general, effective training is expected to expand knowledge, enhance both technical and non-technical skills, and

improve work attitudes that support task execution. These improvements directly contribute to higher employee performance in terms of quality, efficiency, and work effectiveness.

Based on Two-Factor Theory, education and training are classified as hygiene factors, meaning that their presence can prevent job dissatisfaction but does not necessarily drive performance improvement unless accompanied by motivational factors such as recognition, rewards, and opportunities for self-actualization. In other words, training programs that are not followed by concrete implementation of acquired competencies, leadership support, or recognition for improved skills are unlikely to enhance employee performance significantly.

According to respondents' perceptions, education and training were generally rated as good; however, three indicators scored below the average: alignment of training materials with employee needs, interest in training methods, and the effectiveness of training objectives. The training programs implemented have not been fully relevant to actual workplace needs and have not yet provided engaging learning experiences with measurable outcomes. When linked to respondent characteristics, the majority of employees are aged 40–49 years (49.2%) and have a tenure of 11–20 years (52.5%). This condition reflects that most administrative staff already possess substantial work experience and relatively well-established skills. Consequently, general or basic training programs may no longer have a significant effect on improving performance, as many of the required competencies have already been mastered. Employees with long tenure tend to require more advanced, specialized, and innovative training aligned with technological developments and the evolving administrative demands of higher education institutions.

Furthermore, most respondents hold undergraduate (67.8%) and postgraduate degrees (28.8%), indicating a strong academic foundation. At this level of education, routine or formal training may no longer be sufficient to stimulate performance improvement unless it is specifically designed to develop soft skills, creativity, and innovation. Therefore, although the relationship between education and training and employee performance is positive, its effect is not statistically significant because the substance of the training provided has not yet been able to stimulate motivator factors such as recognition, greater responsibility, or career development opportunities. This finding is also consistent with the very high level of employee performance observed, suggesting that ISI Bali employees have already demonstrated optimal performance even without significant contributions from training programs. Thus, high performance is more strongly influenced by other factors, such as leader-member exchange, work engagement, and long-term work experience and loyalty. These results are not consistent with the findings of Setyabudi et al. (2021), Hidayat & Aziz (2022), Agufana (2022), Boyas & Rachmad (2022), and Capatina et al. (2024), which reported a positive and significant effect of education and training on employee performance.

**The Effect of Education and Training on Work Engagement.** Education and training have a positive and significant effect on work engagement. It indicates that the better the implementation of education and training programs, the higher the level of employee engagement at work. Work engagement refers to a positive psychological state characterized by vigor, dedication, and full involvement in one's work activities. Employees with high levels of engagement tend to demonstrate strong intrinsic motivation, greater performance orientation, and high organizational loyalty. One key factor in enhancing work engagement is effective, relevant training.

From a theoretical perspective, these findings can be explained by the Two-Factor Theory, which classifies education and training as motivator factors that foster a sense of achievement, recognition, responsibility, and opportunities for personal growth. Employees who are given opportunities to improve their competencies through job-relevant training tend to feel more valued and empowered, which, in turn, enhances their enthusiasm and engagement at work. Descriptive

results indicate that the education and training variable falls into the good category, reflecting employees' positive perceptions of the implementation of training programs at ISI Bali. The highest-scoring indicator concerns the desire for continuous development, suggesting that training activities have successfully fostered learning motivation and self-improvement. This finding is consistent with the results for the work engagement variable, which falls into the very high category, particularly in the dedication dimension, indicating that employees possess high energy levels and strong commitment to their work.

These results are consistent with previous studies by Bakker & Van Wingerden (2021), Utami & Arif (2021), Hassett (2022), Kurniawan et al. (2022), and Widia & Setyaningrum (2023), which conclude that education and training have a significant effect on work engagement.

**The Effect of Work Engagement on Employee Performance.** Work engagement has a positive and significant effect on the performance of administrative staff at the Indonesian Institute of the Arts Bali (ISI Bali). It indicates that the higher the level of employee engagement in their work, the better the performance outcomes achieved. Work engagement is a positive psychological state characterized by high levels of vigor, dedication, and absorption in work activities. A high level of work engagement is believed to strengthen employee performance and contribute positively to organizational effectiveness. Employees with high work engagement demonstrate sustained work energy, strong focus, and enthusiasm in completing their tasks.

This finding is consistent with the Two-Factor Theory, which posits that work engagement is an outcome of motivator factors such as achievement, recognition, and responsibility. Employees who are intrinsically motivated because their work is meaningful and challenging are more likely to exhibit high work enthusiasm and strong commitment to achieving optimal performance. As a result, work engagement serves as a critical link between intrinsic motivation and optimal performance outcomes.

These results are in line with previous studies by Bouckennooghe et al. (2022), Kholifah & Fadli (2022), Yao et al. (2022), Corbeanu & Iliescu (2023), Naqshbandi et al. (2024), and Rasool et al. (2025), which consistently report that work engagement has a positive and significant effect on employee performance.

**The Mediating Role of Work Engagement on the Effect of Leader-Member Exchange on Employee Performance.** Work engagement partially mediates the effect of leader-member exchange (LMX) on employee performance. It indicates that a positive working relationship between leaders and subordinates can enhance employees' engagement in their work, thereby contributing to improved performance outcomes. Leader-Member Exchange represents the quality of the relationship between supervisors and subordinates. The quality of this relationship influences not only employees' direct work behavior but also their psychological state, such as work engagement, which ultimately impacts organizational performance.

These results are consistent with the findings of Jufrizen et al. (2023), Hardianto & Sari (2021), Bouckennooghe et al. (2022), Adriani et al. (2023), and Lee & Kim (2024), which demonstrate that leader-member exchange has an indirect effect on performance through work engagement as a mediating variable.

**The Mediating Role of Work Engagement on the Effect of Education and Training on Employee Performance.** Work engagement also partially mediates the effect of education and training on employee performance. It implies that effective training not only enhances employees' competencies but also fosters a sense of attachment to their work, thereby contributing to improved performance. Effective training programs are not merely designed to enhance employees' technical

skills but also to cultivate vigor, dedication, and emotional involvement in their tasks – conceptually referred to as work engagement.

These findings are consistent with the studies of Utami & Arif (2021), Ruhayat et al. (2022), Capatina et al. (2024), Widia & Setyaningrum (2023), and Naqshbandi et al. (2024), which highlight the importance of affective factors, such as work engagement, as mediators that strengthen the relationship between education and training and employee performance.

## CONCLUSION

The Industrial Revolution 4.0 has accelerated change across all sectors, requiring individuals and organizations to adapt to maintain competitiveness and achieve their goals. One of the most critical factors for organizational success is human resources, particularly employee performance, which depends on consistent work quality and quantity as well as effective leadership that guides and motivates subordinates.

Based on the analysis and discussion, it can be concluded that leader-member exchange (LMX) has a positive and significant effect on both employee performance and work engagement among academic staff at the Indonesian Institute of the Arts Bali. Education and training positively influence work engagement, although their effect on employee performance is not significant. Work engagement plays a crucial role in enhancing employee performance and partially mediates the effect of both LMX and education and training on performance.

Based on these findings, it is recommended that the management of the Indonesian Institute of the Arts Bali strengthen leadership practices oriented toward high-quality working relationships by fostering fairness, professionalism, and open communication to build trust and encourage optimal employee contributions. Additionally, education and training programs should be optimized by aligning content with employees' actual needs, applying participatory methods, and conducting post-training evaluations to ensure tangible improvements in competence. The work environment should also support work engagement by providing opportunities for creativity and employee participation, while human resource policies should aim for sustainable performance improvement through innovation, harmonious collaboration, and a culture of continuous improvement.

## REFERENCES

- Adhi, P. (2022). Integrasi Kepemimpinan, Influence Tactics dan Kekuasaan Dalam Menentukan Organisasional. *SEWAGATI: Jurnal Pengabdian Masyarakat Indonesia*, 1(2), 14-25. <https://doi.org/10.56910/sewagati.v1i2.53>
- Agufana, P. B. (2022). Effect of on-the-Job Training Technique on Job Performance at Murang'a University of Technology in Kenya. *IIARD International Journal of Economics and Business Management* E-ISSN 2489-0065 P-ISSN 2695-186X Vol 8. No. 3 2022 <https://doi.org/10.56201/ijebm.v8.no3.2022.pg41.50>
- Andayani, T. B. N., & Hirawati, H. (2021). Pengaruh Pelatihan dan Pengembangan Sdm Terhadap Kinerja Pegawai Pt Pos Indonesia Cabang Kota Magelang. *Jurnal Ilmiah Manajemen Ubhara*, 3(2), 11. <https://doi.org/10.31599/jmu.v3i2.982>
- Bakker, A. B. (2011). An evidence-based model of work engagement. *Current Directions in Psychological Science*, 20(4), 265-269. <https://doi.org/10.1177/0963721411414534>



- Botha, D. (2025). Employee engagement during and post the Covid-19 pandemic in a South African debt collection organisation. *Journal of Economic Development, Environment and People*, 14(2), 65-87.
- Bouckenooghe, D., De Clercq, D., Naseer, S., & Syed, F. (2022). A Curvilinear Relationship Between Work Engagement and Job Performance: The Roles of Feedback-Seeking Behavior and Personal Resources. *Journal of Business and Psychology*, 37(2), 353-368. <https://doi.org/10.1007/s10869-021-09750-7>
- Boyas, J. R., & Rachmad, Y. E. (2022, March). Analysis of The Effect of Leadership Style, Organizational Culture, and Training Through Job Satisfaction on Employee Performance. *In International Conference of Business and Social Sciences* (pp. 311-319).
- Capatina, A., Juarez-Varon, D., Micu, A., & Micu, A. E. (2024). Leveling Up in Corporate Training: Unveiling the Power of Gamification to Enhance Knowledge Retention, Knowledge Sharing, and Job Performance. *Journal of Innovation & Knowledge*, 9(3), 100530. <https://doi.org/10.1016/j.jik.2024.100530>
- Çevik, M. S. (2025). Are the Notions of Leader–Member Exchange and Organisational Citizenship Effective in Enhancing Teachers’ Job Performance in Türkiye? A Moderated Mediation Model. *Behavioral Sciences*, 15(1), 38. <https://doi.org/10.3390/bs15010038>
- Corbeanu, A., & Iliescu, D. (2023). The Link Between Work Engagement and Job Performance. *Journal of Personnel Psychology*. <https://doi.org/10.1027/1866-5888/a000316>
- Dewi, R., & Setyowati, W. (2022). Pengaruh Leader member exchange Dan Employee Engagement Terhadap Kinerja Pegawai Dengan Pemoderasi Budaya Organisasi (Studi pada Sekretariat Dewan Perwakilan Rakyat Daerah Kota Semarang). *Magisma: Jurnal Ilmiah Ekonomi dan Bisnis*, 10(2), 232-243. <https://doi.org/10.35829/magisma.v10i2.231>
- Fahmi, I. (2017). *Manajemen Sumber Daya Manusia*. Bandung: Alfabeta.
- Fajri, A. (2022). Pengaruh LMX Terhadap Stres dan Kinerja Individu Pada Mahasiswa Perguruan Tinggi. *Improvement: Jurnal Manajemen dan Bisnis*, 2(1), 10-15. <https://doi.org/10.30651/imp.v2i1.11831>
- Febriansyah, H., & Ginting, H. (2020). *Tujuh Dimensi Employee Engagement*. Jawa Timur: Prenada Media
- Genç, E. (2024). The effect of leader-member exchange on individual performance of logistics employees and the mediating role of career satisfaction. *Management*, 28(2), 1-32. <https://doi.org/10.58691/man/192787>
- Günaydin, C., & Otluoğlu, K. Ö. Ç. (2023). Lider-Üye Etkileşimi Algısı ve İşe Adanmışlık İlişkisi ile İlgili Bir Araştırma 1. Cankiri Karatekin Üniversitesi İktisadi ve İdari Bilimler Fakültesi Dergisi= Cankırı Karatekin University Journal of the Faculty of Economics et Administrative Sciences, 13(1), 185-208. <https://doi.org/10.18074/ckuiibfd.1062564>
- Hardianto, H., & Sari, V. P. (2021). Leader-Member Exchange in Educational Institutions. *AL-ISHLAH: Jurnal Pendidikan*, 13(2), 1088-1096. <https://doi.org/10.35445/alishlah.v13i2.541>
- Hassett, M. P. (2022). The Effect of Access to Training and Development Opportunities on Rates of Work Engagement Within the US Federal Workforce. *Public Personnel Management*, 51(3), 380-404. <https://doi.org/10.1177/00910260221098189>
- Hidayat, A., & Aziz, M. A. (2022). The Role of Job Training in Improving Employee Performance. *Adpebi International Journal of Multidisciplinary Sciences*, 1(1), 21-30. <https://doi.org/10.54099/aijms.v1i1.186>

- Ibnu, B., & Al-Tabany, T. (2015). *Mendesain Model Pembelajaran Inovatif, Progresif, dan Kontekstual*. Jakarta: Kencana Prenadamedia Group.
- Intana, A. H. (2023). Pengaruh Leader Member Exchange dan Budaya Organisasi Terhadap Kinerja Guru Melalui Komitmen. *Jurnal Ilmiah Pendidikan Kebudayaan Dan Agama*, 1(2), 9-19. <https://doi.org/10.59024/jipa.v1i2.107>
- Institut Seni Indonesia Bali. (2024). *Laporan kinerja tahunan*. Institut Seni Indonesia Bali.
- Jaenudin, J. (2021). *Leader-Member Exchange: Meningkatkan Kepuasan Kerja*. Sumatera Barat: CV. Azka Pustaka.
- Jonck, P., & Manamela, T. H. (2025). The influence of leadership on work engagement mediated by job crafting. *SA Journal of Human Resource Management*, 23, 2957. <https://doi.org/10.4102/sajhrm.v23i0.2957>
- Jufrizen, J., Harahap, D. S., & Khair, H. (2023). Leader-Member Exchange and Employee Performance: Mediating Roles of Work Engagement and Job Satisfaction. *Journal of Economics, Business, and Accountancy Ventura*, 26(3), 306-322. <https://doi.org/10.14414/jebav.v26i3.3591>
- Kappo-Abidemi, C., Venacio, R., & Okharedia, A. (2025). Public Service Employee Attitude Towards Training and Development Programmes: The Mediating Role of Gender and Job Title. *Prizren Social Science Journal*, 9(1), 1-10. <https://doi.org/10.32936/pssj.v9i1.582>
- Kasmir. (2020). *Pengantar Manajemen Keuangan*. Jakarta: Prenadamedia Group.
- Kholifah, A. N., & Fadli, J. A. (2022). Pengaruh Kepemimpinan Transformasional dan Work Life Balance Terhadap Keterikatan Kerja dan Kinerja Pegawai. *SIBATIK JOURNAL: Jurnal Ilmiah Bidang Sosial, Ekonomi, Budaya, Teknologi, Dan Pendidikan*, 1(10), 2301-2318. <https://doi.org/10.54443/sibatik.v1i10.340>
- Kompas. (2023). *Institut Seni Terbaik di Indonesia dan Daftar Prodinya*. Tersedia di: <https://www.kompas.com/edu/read/2023/11/14/171500671/cek-6-institut-seni-terbaik-di-indonesia-dan-daftar-prodinya>
- Lee, S. J., & Kim, M. H. (2024). The Structural Relationship among Leader-Member Exchange (LMX), Employee Engagement, and Job Performance of Organizational Members: Conditional Indirect Effect of Psychological Empowerment. *Journal of Practical Engineering Education*, 16(5\_spc), 757-772.
- Lestari, M. A. A., Putra, I. B. U., & Sugiati, G. A. (2022). Effect of Job Satisfaction in Leadership Mediation and Work Environment on Employee Performance PT. BPR Bank Daerah Bangli (Perseroda) (Local Bank in Bangli Regency). *Jurnal Ekonomi dan Bisnis Jagaditha*, 9(1), 82-89. <https://doi.org/10.22225/jj.9.1.2022.82-89>
- Liu, H., Song, Z., Xu, Y., Xu, X. A., & Li, J. (2023). Exploring explanatory mechanisms of adjustment-specific resources underlying the relationship between leader-member exchange and work engagement: A lens of conservation of resources theory. *Sustainability*, 15(2), 1561. <https://doi.org/10.3390/su15021561>
- Mangkunegara, A. A. A. P. (2017). *Manajemen Sumber Daya Manusia Perusahaan*. Bandung: Remaja Rosdakarya.
- Martadiani, A. A. M., Surasmi, I. A., Azita Azis, I. S., & Artawan, I. M. (2019). Effect of individual characteristics, work characteristics, and organizational characteristics on the permanent lecturer performance at Warmadewa University. *International Journal of Contemporary Research and Review*, 10(12), 21693-21699. <https://doi.org/10.15520/ijcrr.v10i12.771>

- Mathis, R.L. & J.H. Jackson. (2017). *Human Resource Management: Manajemen. Sumber Daya Manusia. Terjemahan Dian Angelia*. Jakarta: Salemba. Empat.
- Nafisa, A. H., & Priyono, S. (2023). Pengaruh Leader Member Exchange, Karakteristik Pekerjaan, dan Komitmen Organisasional Terhadap Kinerja Pegawai. *Jurnal Ilmiah Wahana Pendidikan*, 9(9), 30-39.
- Naqshbandi, M. M., Kabir, I., Ishak, N. A., & Islam, M. Z. (2024). The Future of Work: Work Engagement and Job Performance in the Hybrid Workplace. *The Learning Organization*, 31(1), 5-26. <https://doi.org/10.1108/TLO-08-2022-0097>
- Nurkautsar, D. P., Sitiari, N. W., Amerta, I. M. S., Indiani, N. L. P., Surasmi, I. A., & Ningsih, N. L. A. P. (2025). The Role of Job Satisfaction in Mediating the Influence of Leadership and Work-Life Balance on the Performance of Beauty Salon Employees in Denpasar City.
- Park, H., Park, H., & Liden, R. C. (2022). Leader-Member Exchange Differentiation and Employee Performance: A Political Perspective. *Journal of Organizational Behavior*, 43(6), 1121-1135. <https://doi.org/10.1002/job.2611>
- Parna, P. A., Puspaningsih, N. L. A., Surasmi, I. A., & Andjani, N. M. V. (2024, December). The Role of Organizational Citizenship Behavior in Mediating the Influence of Job Satisfaction and Organizational Culture on Employee Performance. In *Bengkulu International Conference on Economics, Management, Business and Accounting (BICEMBA) (Vol. 2, pp. 1517-1532)*. <https://doi.org/10.33369/bicemba.2.2024.55>
- Pratama, F. H., Rochman, T., & Edy, S. (2022). Pengaruh Pendidikan dan Pelatihan serta Kompetensi Terhadap Loyalitas dan Dampaknya pada Kinerja Guru. *JURNAL EMAS: Ekonomi Manajemen Akuntansi Kewirausahaan*, 2(1), 26-32. <https://doi.org/10.56248/jamane.v1i1.24>
- Prilatama, A., Murwani, F. D., & Winarno, A. (2025). The Influence of Leader-Member Exchange on Employee Performance with Work Engagement and Innovative Behaviour as Mediating Variables in OPD (Regional Device Organizations) Within the Pasuruan District Government. *Journal of Applied Business, Taxation and Economics Research*, 4(3), 395-415. <https://doi.org/10.54408/jabter.v4i3.364>
- Purnamayanti, N. L. P. Y., & Indiani, N. L. P. (2020). The Effect of Employee Professionalism and Work Motivation on Employee Performance. *South East Asia Journal of Contemporary Business, Economics and Law*, 23(1), 367-372.
- Putra, I. K. J. P., Sitiari, N. W., & Indiani, N. L. P. (2023). The role of organizational commitment mediation on the effect of job satisfaction and work-life balance on employee performance in the Badung District Government. *International Journal of Social Science and Education Research Studies*, 3(03). <https://doi.org/10.55677/ijssers/V03I3Y2023-03>
- Rachman, A., Arbi, R., Giola, Y., Zubeidi, S., & Araujo, A. L. (2024). *Perencanaan Sumber Daya Manusia*. Tohar Media.
- Rasool, S. F., Mohelska, H., Rehman, F. U., Raza, H., & Asghar, M. Z. (2025). Exploring the Nexus Between a Supportive Workplace Environment, Employee Engagement, and Employee Performance in the Kingdom of Saudi Arabia. *Administrative Sciences*, 15(6), 230. <https://doi.org/10.3390/admsci15060230>
- Rezeki. (2023). *Work engagement: Teori, Faktor, dan Implementasinya*. Bekasi: PT Kimhsafi Alung Cipta.
- Ruhyat, I., Meria, L., & Julianingsih, D. (2022). Peran pelatihan dan keterikatan kerja untuk meningkatkan kinerja pegawai pada industri telekomunikasi. *Technomedia Journal*, 7(1), 90-110. <https://doi.org/10.33050/tmj.v7i1.1855>

- Sabekti, T. S., & Setiawan, A. I. (2023). How to improve employee performance through the role of work engagement mediation: empirical studies on public sector organizations. *Asian Journal of Engineering, Social and Health*, 2(3), 205-218. <https://doi.org/10.46799/ajesh.v2i3.45>
- Setyabudi, A., Gunarto, M., & Marjukah, A. (2021). The Effect of Job Training on Employee Performance with Employee Status as a Moderating Variable. In Proceedings of the 11th Annual International Conference on Industrial Engineering and Operations Management, Singapore. <https://doi.org/10.46254/AN11.20211226>
- Setyati, R., & Utari, W. (2023). Pengaruh Leader Member Exchange Terhadap Organizational Citizenship Behavior Dengan Employee Engagement Sebagai Variabel Intervening. *Journal of Applied Management and Accounting Science*, 4(2), 121-134. <https://doi.org/10.51713/jamas.v4i2.88>
- Silva, M., & Rodrigues, R. I. (2025). Training and Job Satisfaction in Portugal's Public Sector: A Sequential Mediation Model Based on Competency Acquisition, Performance Appraisal, and Career Progression. *Administrative Sciences*, 15(5), 189. <https://doi.org/10.3390/admsci15050189>
- Syahputra, I., & Jufrizen, J. (2019). Pengaruh diklat, promosi, dan kepuasan kerja terhadap kinerja pegawai. *Maneggio: Jurnal Ilmiah Magister Manajemen*, 2(1), 104-116. <https://doi.org/10.30596/maneggio.v2i1.3364>
- Utami, D. L. A., & Arif, M. E. (2021). Pengaruh Pelatihan dan Pengembangan Terhadap Kinerja Pegawai Dengan Keterikatan Pegawai Sebagai Variabel Mediasi (Studi Pada Pegawai Bank XYZ Ngawi). *Jurnal Ilmiah Fakultas Ekonomi Dan Bisnis Universitas Brawijaya*, 9(2).
- Van, H. K., Linh, P. M., Nhung, N. T. T., & Cuong, V. M. (2023). Linking Ethical Leadership to Employee Creative Performance: The Role of Leader-Member Exchange and Work Engagement. *International Journal of Professional Business Review: Int. J. Prof. Bus. Rev.*, 8(8), 46. <https://doi.org/10.26668/businessreview/2023.v8i8.3046>
- Wagner, B., & Koob, C. (2022). The Relationship Between Leader-Member Exchange and Work Engagement in Social Work: A Mediation Analysis of Job Resources. *Heliyon*, 8(1). <https://doi.org/10.1016/j.heliyon.2022.e08793>
- Wang, R., Ji, R., Zhao, J., Qin, L., Zhang, S., Liu, X., & Song, H. (2025). Exploring the link between Training Transfer Climate and Work engagement among Clinical Nurse Specialists in China: the mediating role of Craftsmanship Spirit. *BMC nursing*, 24(1), 1056. <https://doi.org/10.1186/s12912-025-03720-7>
- Widia, I. S., & Setyaningrum, R. P. (2023). Pengaruh Job Training Dan Career Development Terhadap Work engagement Dimediasi Innovative Work Behavior Pada Dinas Komunikasi, Informatika Dan Statistik Provinsi DKI Jakarta. *JAMBURA: Jurnal Ilmiah Manajemen dan Bisnis*, 6(1), 355-363.
- Wijayanti, W., & Budiani, M. S. (2021). Hubungan Antara Iklim Organisasi dan Sistem Penghargaan dengan Work engagement Pada Pegawai PT X. *Character Jurnal Penelitian Psikologi*, 8(4), 168-179.
- Wirawan. (2013). *Kepemimpinan: Teori, Penelitian, dan Praktik*. Jakarta: Rajawali Pers.
- Yao, J., Qiu, X., Yang, L., Han, X., & Li, Y. (2022). The relationship Between Work engagement and Job Performance: Psychological Capital as a Moderating Factor. *Frontiers in psychology*, 13, 729131. <https://doi.org/10.3389/fpsyg.2022.729131>