

The Effect of the Reward System on Human Resources Performance through Improving Competence of KLC Users in the Tanjung Emas Customs and Excise Environment

Luqman Setiawan

Faculty of Economic, Universitas Islam Sultan Agung (UNISSULA) Semarang, Indonesia, E-mail: room.of.luque@gmail.com

Abstract. *This study aims to analyze the role of the Reward System in improving Human Resources (HR) Performance at the Medium Customs and Excise Supervision and Service Office Type C of Tanjung Emas through Competence Improvement as a mediating variable. This research uses a quantitative explanatory approach to test the relationships between variables and the formulated hypotheses. The study population includes all 225 active employees in the office, with a sample of 144 respondents taken using a non-probability sampling technique through convenience sampling. Primary data was obtained through the distribution of questionnaires using a 1–5 Likert scale, ranging from "Strongly Disagree" to "Strongly Agree". This instrument is used to measure respondents' perceptions of the variables studied. Data analysis was conducted using the Partial Least Square (PLS) method via Smart PLS 4 software to test the relationships between variables in the structural model. The results showed that the Reward System does not have a direct and significant effect on HR Performance. However, the Reward System has a positive and significant effect on Competence Improvement. In addition, Competence Improvement also has a positive and significant effect on HR Performance. These findings indicate that Competence Improvement fully mediates the relationship, meaning the reward system will only be effective in improving customs HR performance if it can first successfully encourage the enhancement of employee competence.*

Keywords: *Competency Improvement; E-learning; HR Performance; Reward System.*

1. Introduction

In the era of bureaucratic reform and digital transformation, human resource (HR) competency is the most vital asset for government agencies, particularly the Ministry of Finance, which demands high performance standards. To address this challenge, the Ministry of Finance launched the Kemenkeu Learning Center (KLC), a digital learning (e-learning) platform expected to massively, flexibly, and independently improve employee competency. Theoretically, the existence of a sophisticated digital learning infrastructure like the KLC should be linearly correlated with improvements in HR competency and performance.

However, the reality on the ground shows a gap between organizational expectations and employee behavior. Based on initial observations within the Tanjung Emas Port Office (KPPBC) environment, the implementation of the transactional learning phenomenon on the Ministry of Finance Learning Center (KLC) platform has implications for low levels of employee competency improvement. This condition has the potential to cause serious operational impacts on customs services, including increased dwell time at the port, misapplication of import duties and PDRI tariffs resulting in state losses, and increased incidents of damage or loss of goods belonging to service users. These impacts reinforce the urgency of this research because it shows that simply meeting administrative training targets does not automatically result in improved operational performance; therefore, it is necessary to analyze the role of reward systems in encouraging competency improvements that have a real impact on the efficiency and security of customs services.

The most worrying indication is the emergence of a culture of "shortcuts." Many employees take post-tests by relying on internally circulated answer keys without thoroughly studying the modules. As a result, although administrative data indicates high e-learning pass rates, this does not reflect actual competency improvement (Sinaga et al., 2023). This situation creates an irony: training statistics are increasing, but the impact on daily work efficiency and quality (performance) is stagnant or insignificant. The root of this phenomenon is thought to lie not in the quality of the application system (UI/UX or materials), but rather in a weak Reward System. Employees tend to be rational; if both hard work and "just getting by" efforts are treated equally by the organization, then the motivation to study seriously will fade. Expectancy Theory (Vroom, 1964), strengthened by recent research by Li Chunling (2023), confirms that the group of employees who are most satisfied with the rewards they receive has been shown to have the best task and social (contextual) performance results among other groups.

Currently, the integration of learning outcomes in KLC with the career system (promotion/transfer) or financial incentives is perceived as suboptimal. The absence of incentives that differentiate learners from those simply fulfilling their obligations makes KLC lose its function as a performance lever. Previous studies, such as those by Pradana et al. (2021) and Sabila (2025), have extensively discussed the influence of digital competency on performance, but few have examined the crucial role of reward systems as an antecedent of this serious learning in the public sector. Therefore, this research is urgently needed to empirically demonstrate whether improving the reward system can mitigate this "shortcut" behavior, thereby realizing competency improvements and impacting human resource performance.

2. Research Methods

This research is classified as explanatory research with a quantitative approach. Explanatory research focuses on hypothesis testing to explain the direction and magnitude of causal relationships between variables. This study aims to investigate the extent to which the Reward System influences HR Performance, both directly and indirectly through Competency Improvement.

3. Results and Discussion

3.1. Convergent Validity

Convergent validity assessment of a measurement model using reflexive indicators is based on the correlation between item scores and component scores estimated through PLS calculations. An individual reflexive measure is classified as high if its loading factor exceeds 0.7 for the construct being measured, particularly for confirmatory research. However, loading factor values in the range of 0.6 to 0.7 are still acceptable for exploratory research, with the additional requirement that the Average Variance Extracted (AVE) value exceed 0.5.

The convergent validity review for each latent variable can be observed through the magnitude of the outer loading, which reflects how strongly an indicator describes the related latent variable. The details of the convergent validity test results are outlined below:

1. Evaluation of Convergent Validity of Reward System Variable (X)

The measurement of the Reward System variable in this study reflects four indicators. The loading factor value of each Reward System variable indicator indicates the evaluation of the outer model measurement model. The following shows the outer loading value for the Reward System construct.

The data presentation above shows that all indicators of the Reward System (X) variable have loading factor values in the range of 0.747 – 0.907. Because the loading value is above 0.700, it can be stated that the Reward System (X) variable can be explained well or can be said to be convergently valid by indicators X1, X2, X3, and X4.

2. Evaluation of Convergent Validity of Competency Improvement Variable (M)

The measurement of the Competency Improvement variable in this study reflects four indicators. The loading factor value of each Competency Improvement variable indicator indicates the evaluation of the outer model measurement model. The following shows the outer loading value for the Competency Improvement construct.

Table Estimation Results of Loading Values of Indicator Factors for Competency Improvement Variables (M)

Code	Indicator	Outer loadings	Information
M1	Capability to transfer knowledge to colleagues (Knowledge Sharing);	0.838	Valid
M2	Frequency becomes a technical reference in the work unit;	0.874	Valid
M3	Ability overcome problemoperational (Problem Solving);	0.868	Valid
M4	Retention power and independence of knowledge without relying on modules.	0.765	Valid

The data presented above shows that all indicators of the Competency Improvement (M) variable have loading factor values in the range of 0.765 – 0.874. Because the loading value is above 0.700, it can be stated that the Competency Improvement (M) variable can be explained well or can be called convergently valid by indicators M1, M2, M3, and M4.

3. Evaluation of Convergent Validity of Employee Performance Variable (Y)

The Employee Performance variable in this study is measured based on the reflection of four indicators. The evaluation of the measurement model (outer model) is identified from the loading factor values of each Employee Performance variable indicator. The following shows the loading values for the Employee Performance variable.

Table Estimation Results of Loading Values of Employee Performance Variable Indicator Factors (Y)

Code	Indicator	Outer loadings	Information
Y1	Independence (Autonomy);	0.807	Valid
Y2	Quality of work results and minimal revisions (Quality);	0.753	Valid
Y3	Accuracy time settlement task (Timeliness);	0.821	Valid
Y4	Behavior Work performance). The same team (Contextual	0.744	Valid

The table above shows the magnitude of the loading factor for each indicator for the Employee Performance variable (Y) obtained in the range of 0.744 – 0.821. Because the loading value is above 0.700, it can be stated that the Employee Performance variable (Y) can be explained well or can be said to be convergently valid by indicators Y1, Y2, Y3, and Y4.

Based on the results of convergent validity testing on each variable, it can be said that all indicators used in this research model are declared valid, so they can be used as a measure for the variables used in this research.

a. Discriminant Validity

Discriminant validity testing is carried out in three ways, namely: 1) looking at the Fornell Lacker Criterion criteria which is known from the square root of average variance extracted (AVE) or the root of AVE, 2) looking at the Heterotrait-Monotrait Ratio (HTMT) value, and 3) checking the cross-loading. The test results on each variable can be explained as follows:

1. Fornell Lacker Criterion

The Fornell Lacker Criterion test is to test the validity of the indicator by comparing the root value of the Average Variance Extract (AVE) with the correlation between constructs with other constructs.

Table Fornell Lacker Criterion Values

	Employee Performance	Competency Improvement	Reward System
Employee Performance	0.782		
Competency Improvement	0.729	0.837	
Reward System	0.538	0.716	0.844
Note: The values in bold are the AVE root values.			

A research instrument is said to pass this test if its AVE square root value is greater than the correlation value between its variables. As seen in Table 4.9, this requirement has been met. This means that the variables in this study are not confounded or overlapping (good discriminant validity). Therefore, we can conclude that the measuring instrument used is very appropriate and valid for measuring the research variables.

2. Heterotrait-Monotrait Ratio (HTMT) Test Results

Validity testing using the Heterotrait-monotrait ratio (HTMT) criterion was conducted by examining the HTMT matrix. The accepted HTMT criterion was below 0.9, indicating that the discriminant validity evaluation was acceptable.

Table Discriminant Validity Test Value with Heterotrait-monotrait ratio (HTMT) criteria

	Heterotrait-monotraitratio (HTMT)
Competency Improvement <-> Employee Performance	0.850
Reward System <-> Employee Performance	0.613
System Award <-> Competency Improvement	0.837
Source: Processed primary data (2026)	

The discriminant validity test results in Table 4.10 show satisfactory results, with none of the Heterotrait-Monotrait Ratio (HTMT) matrix values exceeding 0.9. Meeting these test criteria demonstrates that each construct in the model meets good discriminant validity standards. Therefore, the estimated model is valid, and the data analysis results are acceptable.

3. Cross Loading

Cross-loading analysis is conducted to determine the correlation between indicators and latent constructs. The following cross-loading table displays the results of the correlation analysis of a construct with its own indicators and with other indicators.

Table Correlation Value of Constructs with Indicators (Cross Loading)

	Employee Performance	Competency Improvement	Reward System
X1	0.413	0.571	0.747
X2	0.586	0.566	0.834
X3	0.463	0.609	0.907
X4	0.339	0.669	0.879
M1	0.584	0.838	0.560
M2	0.698	0.874	0.583
M3	0.69'0	0.868	0.624
M4	0.442	0.765	0.637
Y1	0.807	0.677	0.640
Y2	0.753	0.467	0.208
Y3	0.821	0.633	0.432

Y4	0.744	0.440	0.302
----	-------	-------	-------

A model is declared to have passed the discriminant validity test if the correlation value of an indicator with its own construct is positive and greater than its correlation with other constructs. Based on the data processing results in the cross-loading table, all constructs estimated in this model have been proven to meet these criteria. Thus, it can be concluded that the research data has good discriminant validity and the feasibility of the data analysis is acceptable.

b. Reliability Test

Reliability testing is conducted to demonstrate the accuracy, consistency, and precision of an instrument in measuring a construct. Reliability indicates that the research indicators used align with the actual conditions of the research object. Measuring the reliability of a construct using reflective indicators can be done using three methods:

- Composite Reliability*: A construct is considered to have a good level of reliability if its constituent indicators are able to produce a composite reliability value of more than 0.70.
- Average Variance Extracted (AVE)*: A research variable is said to be reliable and suitable for further analysis if the AVE value is above the minimum limit, namely 0.5.
- Cronbach's Alpha*: Referring to Ghazali's (2014) guidelines, the reliability of the construct being studied is classified as good if the Cronbach's alpha score shows a figure of more than 0.70.

The composite reliability, Cronbach's alpha, and AVE values for each construct of this study are presented in full in the table below:

Table Reliability Test Results

	Cronbach's alpha	Composite reliability (rho_c)	Average variance extracted (AVE)
Employee Performance	0.791	0.863	0.612

Competency Improvement	0.857	0.903	0.701
Reward System	0.863	0.908	0.712

Source: Smart PLS data processing (2026)

c. Reliability Test Results

Based on the table above, the reliability test results indicate that all constructs have met the feasibility standards, namely having Cronbach's alpha and composite reliability values above 0.7, and an Average Variance Extracted (AVE) value exceeding 0.5. The fulfillment of these three criteria confirms that

This research instrument has a high level of reliability. Overall, based on the results of convergent validity and discriminant validity evaluations, along with reliability tests, it can be concluded that all indicators used to measure the latent variables have been proven valid and reliable.

d. Multicollinearity Test

Before proceeding to hypothesis testing, a prerequisite step that must be met is the multicollinearity test. This test aims to detect the presence or absence of a strong or perfect correlation between independent variables in a regression model. The presence of multicollinearity must be avoided because it can trigger bias and inaccuracy in estimating the effect of each independent variable on the dependent variable. This symptom is detected by evaluating the Collinearity Statistics (VIF) values in the inner VIF values section. A regression model is considered safe and free from multicollinearity problems if the inner VIF value is <5.

Table Multicollinearity Test Results

Relationship between constructs	VIF
Competency Improvement -> Employee Performance	2,049
Reward System -> Employee Performance	2,049

Reward System -> Competency Improvement	1,000
Source: Smart PLS data processing (2026)	

Referring to the test results above, the Variance Inflation Factor (VIF) values for all variables are below 5. This proves that the model is free from multicollinearity. Therefore, the data analysis stage can proceed to hypothesis testing.

3.2. Analysis of the Indirect Effect of the Reward System on HR Performance through the Mediation of Competency Improvement

Table Results of Indirect Effect Test

The indirect influence of the Reward System on HR Performance through the mediation of Competency Improvement is depicted in the following path diagram:

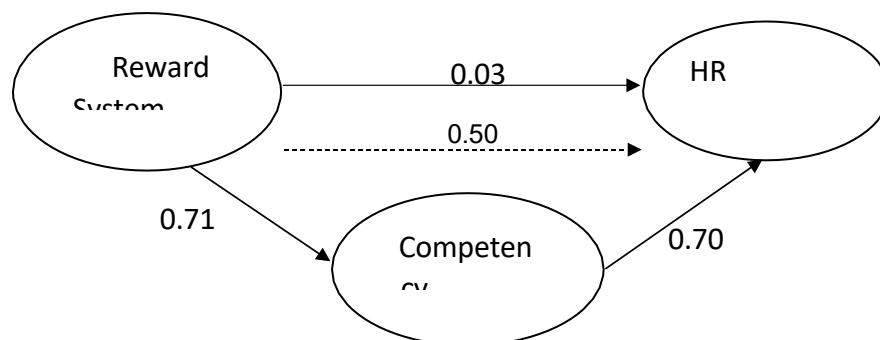


Figure Path Coefficient of the Influence of the Reward System on HR Performance through Competency Improvement

Information :

—————→ : Influencedirect

Influence indirect

The indirect effect test was conducted to determine the extent to which the exogenous variable, the Reward System, influences the endogenous variable, HR Performance, through

the intervening variable, Competency Improvement. In other words, this analysis aims to determine whether the Reward System can indirectly improve HR Performance through competency improvement.

The calculation results using SmartPLS show the value of the indirect influence, which is then presented in the following table as a basis for further interpretation.

Table Indirect Effect Test Results

	Original sample (O)	Sample mean (M)	Standard deviation (STDEV)	T statistics (O/STDEV)	P values
System Awards -> Improvement Competence -> HR Performance	0.504	0.506	0.065	7,753	0.000

Source: Results of data processing with Smart PLS 4 (2026)

The mediating effect of Competency Improvement in relation to the Reward System variable on HR Performance is known to be 0.504. The results of the indirect effect test produced a t-count of [7.753] ($t > 1.96$) with $p = [0.000] < 0.05$. The conclusion of the test is that Competency Improvement mediates the influence of the Reward System on HR Performance.

This means that a clear and appreciative reward system provided to employees will motivate them to enhance their competencies through learning at KLC. Employees who are increasingly competent and have mastered technical knowledge in the customs field will be more independent and able to carry out their duties more easily, resulting in more accurate, effective, and efficient work completion. This has been proven to contribute significantly to improving overall HR performance.

3.3. The Influence of Reward & Career Systems on Competence Improvement

This study demonstrates that the Reward & Career System has a positive and significant impact on Competency Improvement. These results provide evidence that the better the reward system implemented, the greater the employee's desire to improve their competency through KLC e-learning (Kyndt et al., 2011).

The results of this study can also be explained through the characteristics of the Ministry of Finance Learning Center (KLC) as a digital learning platform within the framework of the Ministry of Finance Corporate University. KLC provides various learning programs that can be flexibly accessed by employees to improve their competencies according to job requirements. When organizations link participation and learning outcomes in KLC with appreciation and career prospects, employees will view learning activities as investments that provide tangible benefits for their professional development. This condition causes the reward system to function not only as a form of recognition but also as a trigger for employee engagement in the continuous learning process through KLC, which ultimately improves individual competency.

This study shows that the Reward & Career System has a strong influence on Competency Improvement at the Tanjung Pabean Middle Type Customs and Excise Supervision and Service Office.

Gold. This means that when an organization provides tangible rewards—whether in the form of performance points or career development opportunities—it motivates employees to proactively access the materials on KLC e-learning. With the assurance that improved competencies will impact their careers and individual evaluations, employees perceive self-development as a valuable investment in their future within the organization. This strengthens the bond between organizational policies and employee self-development efforts (Maurer et al., 2003).

The Rewards & Career System in this study is measured by reflecting on four indicators: graduation certificates for promotion consideration, special appreciation for active employees, a positive impact on performance appraisals, and motivation due to feeling appreciated. These four aspects can improve Competency Improvement, which in this study is measured by four indicators: the ability to explain concepts, frequently used as a technical reference, the ability to solve problems, and self-confidence in work.

The Reward System variable shows that the indicator with the highest outer loading value is special appreciation for active employees (X2), while in the Competency Improvement variable, the indicator with the highest outer loading value is the ability to re-explain concepts to colleagues (M1). This indicates that when organizations provide special appreciation for those who are actively learning, employees will be increasingly motivated to master the material to a level where. They are able to share knowledge with their colleagues. This means

that the appreciation given by the organization has an impact on creating a culture of knowledge sharing in the workplace (Cabrera & Cabrera, 2005; Lin, 2007).

3.4. The Impact of Competency Improvement on Employee Performance

This study demonstrates that Competency Improvement has a positive and significant impact on Employee Performance. These results provide evidence that the higher an employee's competency level (after participating in KLC e-learning), the higher their customs performance will tend to be (Spencer & Spencer, 1993).

This study shows that Competency Improvement has a significant impact on human resource (HR) performance at the Tanjung Emas Middle Customs and Excise Supervision and Service Office. This means that the higher the technical mastery and problem-solving skills of employees, the better their work results will be. The competencies gained from KLC make employees more adept at conducting customs analysis, resulting in more accurate work results, fewer revisions, and timely completion. These results are consistent with previous findings that stated that mastery of relevant skills and knowledge is a key determinant in achieving individual productivity (Kaur & Mittal, 2020; Kuhal et al., 2020).

Competency improvement in this study was measured by four indicators, namely the ability to re-explain concepts, which is often used as technical references, problem-solving skills, and work confidence. These aspects contribute to improved employee performance, as measured by the quality of work output, accuracy, completion of work volume, and proactive assistance to teammates.

The Competency Improvement variable showed the highest outer loading value on the indicator of being able to re-explain concepts (M1), while the Employee Performance variable had the highest outer loading value on the indicators of accuracy and infrequent revisions (Y2). These findings indicate that when employees have mastered the material in depth to the point of being able to teach it to others, the quality of the work they produce will directly become more accurate and avoid major revisions. In other words, mature competency mastery is positively correlated with the quality of work output (Boyatzis, 2008).

On the other hand, the Competency Improvement variable had the lowest outer loading value for the self-confidence indicator without having to open a guide (M4), while the Employee Performance variable recorded the lowest value for the proactiveness indicator of helping teammates (Y4). This implies that if employees feel more confident in working without relying on modules, the level of dependence on superiors will decrease, which will indirectly increase work efficiency. This means that independent competency mastery can improve employee confidence in completing complex tasks effectively (Bandura, 1997).

4. Conclusion

Based on the background of the research problem and the research gap between the role of the Reward System on HR performance, the answer to the research question that arises is:

1. The reward system did not have a direct and significant impact on HR performance. These results demonstrate that a direct reward system is not a primary driver of HR performance in the customs sector unless accompanied by individual capacity development.
2. The reward system has a positive and significant impact on competency improvement. These results demonstrate that the better the reward system an organization provides, the higher the level of employee competency improvement through KLC e-learning.
3. Competency Improvement has a positive and significant impact on HR performance. These results demonstrate that the better employees' competency, the more likely they are to improve HR performance in the customs sector.
4. Competency Improvement fully mediates the influence of the Reward System on HR Performance. This means that the Reward System. Awards will be effective in improving performance only if the awards are able to encourage improvements in employee competence first.

5. References

Journals:

- Adityarini, A. (2022). Pengaruh Sistem Reward dan Motivasi Kerja Terhadap Kinerja SDM pada Sektor Publik. *Jurnal Manajemen Sumber Daya Manusia*, 10(2), 45-58.
- Anwar, M., & Dunija, S. (2016). Evaluasi Kebijakan Insentif dan Kinerja Pegawai. *Jurnal Administrasi Publik*, 4(1), 12-25.
- Bandura, A. (1997). Self-efficacy: The exercise of control. W.H. Freeman. Boyatzis, R. E. (2008). Competencies in the 21st Century. *Journal of Management Development*, 27(1), 5-12.
- Kaur, S., & Mittal, R. (2020). The Role of Technical Skills and Competence on Employee Productivity. *International Journal of Human Resource Studies*, 10(3), 112-125.
- Kuhail, A., et al. (2020). Determinan Kinerja Pegawai: Studi pada Kompetensi dan Pengembangan Kapasitas. *Jurnal Manajemen Publik*, 8(2), 88-102.
- Laguerre, R. A., & Barnes-Farrell, J. L. (2024). Modern Performance Models for Civil Service in the Digital Era: Autonomy, Quality, and Timeliness. *Public Personnel Management*, 53(1), 22-45.
- Li Chunling. (2023). Reward System, Organizational Justice, and Employee Performance in the Digital Era. *Journal of Asian Business Strategy*, 13(1), 34-49.

- Lubis, R., & Hanum, S. (2024). Kejelasan Sistem Reward Sebagai Prediktor Motivasi Pembelajaran E-Learning Pegawai. *Jurnal Psikologi Industri dan Organisasi*, 12(1), 60-75.
- Maurer, T. J., Weiss, E. M., & Barbeite, F. G. (2003). A model of involvement in work-related learning and development activity: The effects of individual, situational, motivational, and age variables. *Journal of Applied Psychology*, 88(4), 707–724.
- Nurlindah, N., & Rahim, A. (2018). Faktor Motivasi Intrinsik dan Lingkungan Kerja terhadap Peningkatan Kinerja Pegawai. *Jurnal Ilmu Manajemen*, 6(3), 210-225.
- Pham, N. T., & Phan, Q. P. (2021). E-Learning in the Public Sector: Transfer of Training and Competency Enhancement. *International Journal of Training and Development*, 25(2), 150-168.
- Pradana, A., et al. (2021). Pengaruh Kompetensi Digital Terhadap Kinerja Aparatur Sipil Negara. *Jurnal Kebijakan dan Manajemen Publik*, 9(1), 30-45.

Books:

- Armstrong, M. (2021). *Armstrong's Handbook of Human Resource Management Practice (15th ed.)*. Kogan Page.
- Cabrera, A., & Cabrera, E. F. (2005). *Knowledge-sharing dilemmas*. *Organization Studies*, 26(5), 720-739.
- Chin, W. W. (1998). *The partial least squares approach to structural equation modeling*. In G. A. Marcoulides (Ed.), *Modern Methods for Business Research* (pp. 295–336). Lawrence Erlbaum Associates.
- Deci, E. L., & Ryan, R. M. (2000). *The "what" and "why" of goal pursuits: Human needs and the self-determination of behavior*. *Psychological Inquiry*, 11(4), 227-268.
- Gagné, M., & Deci, E. L. (2005). Self-determination theory and work motivation. *Journal of Organizational Behavior*, 26(4), 331-362.
- Ghozali, I. (2011). *Aplikasi Analisis Multivariate dengan Program IBM SPSS 19*. Badan Penerbit Universitas Diponegoro.
- Ghozali, I. (2014). *Structural Equation Modeling, Metode Alternatif dengan Partial Least Square (PLS) (Edisi 4)*. Badan Penerbit Universitas Diponegoro.
- Ghozali, I. (2018). *Aplikasi Analisis Multivariate dengan Program IBM SPSS 25*. Badan Penerbit Universitas Diponegoro.
- Ghozali, I., & Latan, H. (2015). *Partial Least Squares: Konsep, Teknik dan Aplikasi menggunakan program SmartPLS 3.0*. Badan Penerbit Universitas Diponegoro.

- Hair, J. F., Hult, G. T. M., Ringle, C. M., & Sarstedt, M. (2020). *A Primer on Partial Least Squares Structural Equation Modeling (PLS-SEM) (3rd ed.)*. Sage Publications.
- Hair, J. F., Page, M., & Brunsveld, N. (2021). *Essentials of Business Research Methods*. Routledge.
- Kyndt, E., Dochy, F., Michielsens, M., & Moeyaert, B. (2011). *Employee Retention: Organisational and Personal Perspectives*. *Vocations and Learning*, 4(3), 195-215.
- Lin, C. P. (2007). *To share or not to share: Modeling knowledge sharing using theory of reasoned action*. *Personnel Review*, 36(3), 411-428.
- Mangkunegara, A. P. (2017). *Manajemen Sumber Daya Manusia Perusahaan*. PT Remaja Rosdakarya.
- Noe, R. A., Hollenbeck, J. R., Gerhart, B., & Wright, P. M. (2017). *Human Resource Management: Gaining a Competitive Advantage*. McGraw-Hill Education.