

# APPLICATION OF E-PERFORMANCE AND COMPENSATION SYSTEMS TO EMPLOYEE PERFORMANCE THROUGH MOTIVATION AS AN INTERVENING VARIABLE

Achmad Irfan Rifqiansyah<sup>1</sup>

Tine Yuliantini<sup>2</sup>

<sup>1,2</sup> Mercubuana University, Jakarta, Indonesia

\*e-mail: [achmadirfanr@gmail.com](mailto:achmadirfanr@gmail.com), [tineyuliantini@mercubuana.ac.id](mailto:tineyuliantini@mercubuana.ac.id)

\*Correspondence: [achmadirfanr@gmail.com](mailto:achmadirfanr@gmail.com)

*Submitted:* 7<sup>th</sup> March 2023

*Revised:* 15<sup>th</sup> March 2023

*Accepted:* 20<sup>th</sup> March 2023

**Abstract:** Advanced human resources (HR) are required for an organization to achieve its goals and objectives. There is a need for human resource management so that the implementation of activities runs optimally by evaluating employee performance. The research method used was causal quantitative, which aims to analyze the effect of implementing e-performance systems and compensation on employee performance through motivation as an intervening variable. The research population consists of employees serving in the Indonesian Navy. The Naval Personnel Staff totals 113 employees. The Slovin method was used to calculate the sample, which yielded a sample of 89 employees. Data collection methods in the form of primary data come from questionnaires, and secondary data is derived from agencies. Methods of data analysis using descriptive analysis as well as structural equation model partial least squares (SEM-PLS) analysis. The results of the analysis show that the implementation of the e-performance system affects motivation, compensation affects motivation, the implementation of the e-performance system has affected employee performance, compensation has affected employee performance, motivation has affected employee performance, the implementation of the e-performance system has affected employee performance through motivation as an intervening variable, and compensation does not affect employee performance through motivation as an intervening variable.

**Keywords:** Performance; E-Performance System; Compensation; and Motivation.

---

## INTRODUCTION

Advanced human resources (HR) are required for an organization to achieve its goals and objectives. Advanced Human Resources will carry out activities following organizational policies. An organization's success is determined by the performance of its human resources; therefore, it needs a system to develop human resources and organizational needs, known as human resource management (HRM). According to Daly, HRM has four operational functions, one of which is assessing employee performance (Nurhayati, 2017). For managers and employees with low performance, the existence of performance appraisals has become a concerning issue. For example, in the Indonesian Navy, the performance appraisal has not changed significantly until 2021. There are no employees with performance values in the 'very good' category, and there are performance values lower than 'good'.

According to (Istifadah, 2019) and (Isvandiari, 2017), a possible factor that could influence employee performance is compensation. They found that compensation has a positive and significant effect on employee performance, which is different from what was stated by (Sari, 2020) and (Deni, 2020). They argued that compensation has no significant effect on employee performance. There is a research gap, and future research will include motivation as an intervening variable. The Indonesian Navy makes a web-based application used to ease the monitoring and assessment of employee performance, called the e-performance system. Because of it, the researcher adds an e-performance

system as a variable to analyze the influence of employee performance on the Naval Personnel Staff.

Based on the explanation above, there is a need for research related to the influence of employee performance by implementing an integrated e-performance system, as well as the compensation received by employees where motivation is given as a connecting variable. Therefore, the researcher will discuss the effect of implementing e-performance systems and compensation on employee performance through motivation as an intervening variable.

## LITERATURE REVIEW

### Employee Performance

According to Gibson (Warizin, 2017), employees in an organization are required to make a positive contribution through good performance, considering that organizational performance depends on the performance of its employees. According to Sagala (Lestari et al., 2020), performance is a real behavior that is displayed and produced by every employee according to their role in the company. According to Mahsun (Tangkawarouw, 2029), "performance" is the achievement of implementing activities, programs, or policies to get the goals, objectives, mission, and vision of an organization contained in the strategic planning of an organization. Meanwhile, according to (Mangkunegara, 2017), "employee performance" is the result of the quality and quantity of work achieved by an employee in carrying out his duties following the responsibilities given to them.

---

Dimensions and indicators that can be used to measure employee performance, according to (Hasibuan, 2017), include quality of work with the indicators of organizational work and goals, promptness with the indicators of the work plan and time precision, an initiative with the indicator of an idea for organization and problem resolution, capability with the indicator abilities and skills, and communication with the indicators internal communication, external communication, relations, and coworkers.

### **E-Performance**

According to Putri (Nurhayati, 2017), E-Performance is a web-based application for analyzing job requirements, job performance, and organizational unit or work unit performance as a basis for calculating work performance and providing work incentives. Meanwhile, according to (Mukti, 2019), E-performance is an application made specifically to monitor and assess employee performance directly by entering daily work data into the software to obtain approval from superiors. Based on PP No. 46 of 2011, the dimensions and indicators of the E-Kinerja system target work employees with the indicators duty position and work target, as well as work behavior with the indicators orientation, service, integrity, commitment, discipline, cooperation, and leadership.

### **Compensation**

According to (Rivai, 2017), compensation is something employees receive as a substitute for their contributions to the company. Meanwhile, according to (Sinambela, 2018), compensation is compensation for services or remuneration provided by the

organization to employees who have contributed energy and thoughts to the progress and achievement of predetermined organizational goals. Compensation is also interpreted as all income, whether in the form of money or direct or indirect goods, received by employees as compensation for services provided to the company (Hasibuan, 2021).

According to (Hasibuan, 2021), the dimensions and indicators of compensation are linked directly (direct compensation) with the indicator salary and incentives or bonuses; and indirectly (indirect compensation) with the indicator allowances and facilities in the company.

### **Motivation**

According to (Liana, 2020), motivation is a process of need that encourages a person to carry out various kinds of activities that lead to the achievement of certain goals. Meanwhile, according to Manullang (Harahap, 2019), motivation is a power that comes from within or outside the human being to encourage enthusiasm to pursue certain desires and goals. Motivation can also be interpreted as providing a driving force that creates enthusiasm for someone's work so that they want to work together, work effectively, and integrate all their efforts to achieve satisfaction (Hasibuan, 2017).

According to (Liana, 2020), motivation is a process of need that encourages a person to carry out various kinds of activities that lead to the achievement of certain goals. Meanwhile, according to Manullang (Harahap, 2019), motivation is a power that comes from within or outside the human being to encourage enthusiasm to pursue certain desires and goals.

---

Motivation can also be interpreted as providing a driving force that creates enthusiasm for someone's work so that they want to work together, work effectively, and integrate all their efforts to achieve satisfaction (Hasibuan, 2017).

## MATERIALS AND METHODS

This study aims to test the hypothesis with a causal quantitative research design to determine the effect of implementing the e-performance system and compensation on employee performance, using motivation as an intervening variable. Data are obtained through distributed questionnaires with a Likert scale, which are processed using statistical analysis. The

research population is made up of employees who serve in the Indonesian Navy in units. The Naval Personnel Staff totals 113 employees. The Slovin method was used to calculate the sample, which yielded a sample of 89 employees.

The data sources that were used were primary and secondary. Primary data was obtained by distributing questionnaires to respondents through the Google Forms application. Meanwhile, secondary data serves as supporting data obtained from agencies. The statistical analysis method used is descriptive of respondents, descriptive variables, and structural equation model partial least square (SEM-PLS) analysis.

## RESULTS AND DISCUSSION

### Respondent Descriptive

This study uses respondents as a sample with characteristics that are focused

on gender, age, education, and years of service, which can be seen as follows:

**Table 1. Characteristics of Respondents by Gender**

No	Gender	Total (Employee)	Percentage (%)
1.	Man	61	68.54%
2.	Woman	28	31.46%
	Amount	89	100.00%

Source: Primary data via questionnaire (2022)

Based on Table 1, there are 61 male employees with a percentage of 68.54% and 28 female employees with a

percentage of 31.46%. According to the table, the majority of Naval Personnel Staff employees are men.

**Table 2. Characteristics of Respondents by Age**

No	Age	Total (Employee)	Percentage (%)
1.	18-29 yrs	14	15.73%
2.	30-54 yrs	67	75.28%

3.	>55 yrs	8	8.99%
Amount		89	100.00%

Source: Primary data via questionnaire (2022)

Based on Table 2, there are 14 employees aged 18-29 years with a percentage of 15.73%, there are 67 employees aged 30-54 years with a percentage of 75.28%, and there are 8

employees aged > 55 years with a percentage of 8.99%. Based on the table, the majority of employees in Naval Personnel Staff aged 30-54 years.

**Table 3. Characteristics of Respondents Based on Education**

No	Gender	Total (Employee)	Percentage (%)
1.	Strata 2 (S2)	10	11.24%
2.	Strata 1 (S1/D4)	23	25.84%
3.	Diploma (D3)	4	4.49%
4.	SMA/SMK	42	47.19%
5.	JUNIOR HIGH SCHOOL	10	11.24%
Amount		89	100.00%

Source: Primary data via questionnaire (2022)

Based on Table 3, there are 10 employees with last education S2 with a percentage of 11.24%, there are 23 employees with last education S1 with a percentage of 25.84%, there are 4 employees with last education D3 with a percentage of 4.49%, there are 42

employees with last education SMA/SMK with a percentage of 47.19%, and there are 10 employees last education junior high school with a percentage of 11.24%. Based on the table, the majority of employees on the Naval Personnel Staff with high school education.

**Table 4. Characteristics of Respondents Based on Years of Service**

No	Years of service	Total (Employee)	Percentage (%)
1.	1-10 yrs	11	12.36%
2.	11-20 yrs	33	37.08%
3.	>21 yrs	45	50.56%
Amount		89	100.00%

Source: Primary data via questionnaire (2022)

Based on Table 4, there are 11 employees have a working period of 1-10 years with a percentage of 12.36%, there are 33 employees have a working period of 11-20 years with a percentage of 37.08% and there are 45 employees have a working period of >21 years with a percentage of 50.56%. From the table, the majority of employees working in the Naval Personnel Staff have longer tenure

of 21 years.

**Variable Description**

Primary data obtained in this research got from the deployment questionnaire through the google forms application. Generated quantitative data from every statement submitted to a sample of 89 employees, as follows:

**Table 5. Description of Statistics per Variable**

No	Variable	Average per Variable
1.	E-Performance System (X1)	4.100
2.	Compensation (X2)	3.806
3.	Motivation (M)	4.001
4.	Employee Performance (Y)	3.781

Source: Results of analysis using SmartPLS 3.0 (2022)

Based on Table 5, it can be concluded as follows:

- a. E-performance system variable has an average value of 4.100, showing that the e-performance system has value with good category based on the scope of the sample.
- b. The compensation variable has an average value of 3.806, showing that compensation has value with good category based on the scope of the sample.
- c. Motivational variable has an average value of 4.001, showing

that motivation has value with good category based on the scope of the sample.

- d. The performance variable has an average value of 3.781, showing that performance has value with good category based on the scope of the sample.

**Partial Least Square Structural Equation Model (SEM-PLS) Analysis**

Determination Coefficient Test / R Square (R<sup>2</sup>)

**Table 6. R Square Test Results (R<sup>2</sup>)**

No	Variable	R Square	R Square Adjusted
1.	Motivation (M)	0.512	0.501
2.	Performance (Y)	0.561	0.546

Source: Results of analysis using SmartPLS 3.0 (2022)

Based on Table 6, the R-Square value of the motivational variable (M) is 0.512 (moderate), meaning that the variable can be influenced by the system variables e-performance (X1) and compensation (X2) of 51.2%, while the rest is influenced by other variables that are not become the object of research by 48.8%. In addition,

the R-Square value of the performance variable (Y) is 0.561 (moderate), meaning that the variable can be influenced by the system variables e-performance (X1) and compensation (X2) of 56.1%, while the rest is influenced by other variables that are not the object of research by 43.9%.

### Predictive Relevance (Q<sup>2</sup>)

Table 7. Predictive Relevance Test Results (Q<sup>2</sup>)

No	Variable	SSO	SSE	Q <sup>2</sup> (=1-SSE/SSO)
1.	Performance (Y)	979.000	733.178	0.251
2.	Compensation (X2)	356.000	356.000	
3.	Motivation (M)	445.000	317.776	0.286
4.	E-Performance System (X1)	445.000	445.000	

Source: Results of analysis using SmartPLS 3.0 (2022)

Based on Table 7, the predictive relevance value (Q<sup>2</sup>) of the performance variable (Y) is 0.251, which means that the value observation of the performance variable (Y) is good. While the predictive relevance value (Q<sup>2</sup>) of the motivational variable (M) is 0.286, it means that the value observation of the motivation variable (M) is good. It can be concluded that the value of predictive relevance (Q<sup>2</sup>)

for performance and motivation variables has a good predictive relevance of structural models.

Furthermore, the GoF PLS (Goodness of Fit PLS) test was carried out to test the overall fit of the model based on the observed value with the expected value in the model. The GoF value is obtained through the following calculations:

$$\text{GoF} = \sqrt{(\text{Rata} - \text{rata AVE}) \times (\text{Rata} - \text{rata R}^2)}$$

$$\text{GoF} = \sqrt{((0.503 + 0.668 + 0.605 + 0.542)/4) \times ((0.561 + 0.512)/2)}$$

$$\text{GoF} = \sqrt{(0.5795 \times 0.5365)} = \sqrt{0.3109} = 0.5576$$

Based on the calculation results obtained, the GoF PLS (Goodness of Fit PLS) value is 0.5576, which means that the GoF PLS value in this study is high. Shows

that the model is adequate in describing the observed value with the expected value, based on both the outer and inner models.

## Hypothesis testing

Table 8. Results of the Direct Effects Hypothesis Test

No	Variable	Original Sample (O)	T Stat	P Values
1.	E-Performance System (X1) -> Motivation (M)	0.590	7.409	0.000
2.	Compensation (X2) -> Motivation (M)	0.183	2.007	0.045
3.	E-Performance System (X1) -> Performance (Y)	0.423	4.670	0.000
4.	Compensation (X2) -> Performance (Y)	0.194	2.489	0.013
5.	Motivation (M) -> Performance (Y)	0.236	2.638	0.009

Source: Results of analysis using SmartPLS 3.0 (2022)

The direct effects hypothesis test can be explained as follows:

- a. The effect of the e-performance system (X1) on motivation (M) has a 7.409 t-stat score and 0.000 p-value so reject  $H_0$  and accept  $H_1$ . In conclusion, the e-performance system has a positive and significant effect on motivation.
- b. The effect of compensation (X2) on motivation (M) has a 2.007 t-stat score and 0.045 p-value so reject  $H_0$  and accept  $H_2$ . In conclusion, compensation has a positive and significant effect on motivation.
- c. The effect of the e-performance system (X1) on employee performance (Y) has a 4.670 t-stat score and 0.000 p-value, so reject  $H_0$  and accept  $H_3$ . In conclusion, the e-performance system has a positive and significant effect on employee performance.
- d. The effect of compensation (X2) on employee performance (Y) has a 2.489 t-stat score and 0.013 p-values so reject  $H_0$  and accept  $H_4$ . In conclusion, compensation has a positive and significant effect on employee performance.
- e. The effect of motivation (M) on employee performance (Y) has a 2.638 t-stat score and 0.015 p-value so reject  $H_0$  and accept  $H_5$ . In conclusion, motivation has a positive and significant effect on employee performance.

The hypothesis test of the indirect effect:



**Table 9. Indirect Effects Hypothesis Test Results**

No	Variable	Original Sample (O)	T Stat	P Values
1.	E-Performance System (X1) -> Motivation (M) -> Performance (Y)	0.139	2.594	0.010
2.	Compensation (X2) -> Motivation (M) -> Performance (Y)	0.043	1.323	0.187

Source: Results of analysis using SmartPLS 3.0 (2022)

The indirect effects hypothesis test can be explained as follows:

a. The effect of the e-performance system (X1) on employee performance (Y) through motivation (M) has a 2.594 t-stat value and 0.010 p-values so reject  $H_0$  and accept  $H_6$ . In conclusion, the e-performance system has a positive and significant effect on employee performance through

motivation as an intervening variable.

b. The effect of compensation (X2) on employee performance (Y) through motivation (M) has a 1.323 t-stat value and 0.187 p-values so accept  $H_0$  and reject  $H_7$ . In conclusion, compensation has no significant effect on employee performance through motivation as an intervening variable.

**Test (Path Coefficients)**

**Table 10. Path Coefficient Test Results**

No	Variable	Performance (Y)	Compensation (X2)	Motivation (M)	E-Performance System (X1)
1.	Performance (Y)				
2.	Compensation (X2)	0.194		0.183	
3.	Motivation (M)	0.236			
4.	E-Performance System (X1)	0.423		0.590	

Source: Results of analysis using SmartPLS 3.0 (2022)

Based on Table 10, the value from coefficient test results track from variable can be interpreted as follows:

a. The path coefficient value of X1 to M is 0.590. That is, the magnitude of the influence of the e-performance system on

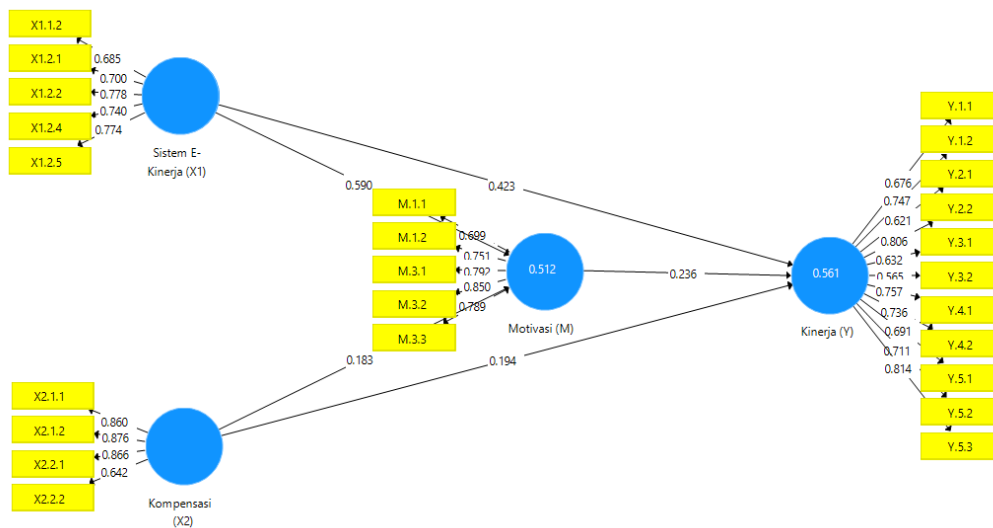
motivation is 59.0% in a positive direction.

b. The path coefficient value of X2 to M is 0.183. That is, the magnitude of the effect of compensation on motivation is 18.3% in a positive direction.

- c. The path coefficient value of X1 to Y is 0.423. That is, the magnitude of the influence of the e-performance system on employee performance is 42.3% in a positive direction.
- d. The path coefficient value of X2 to Y is 0.194. That is, the magnitude of the effect of compensation on employee performance is 19.4% in a positive direction.

- e. The path coefficient value of M to Y is 0.236. That is, the magnitude of the influence of motivation on employee performance is 23.6% in a positive direction.

Testing the path coefficient can be displayed in the form of an image through the results of the smart PLS 3.0 test as follows:



Source: Results of analysis using SmartPLS 3.0 (2022)

Figure 1. Path Coefficient Model

**Discussion**

1. The e-performance system has a positive and significant effect on employee motivation. With a magnitude of 0.590, it means that every one-unit increase in the e-performance system can increase motivation by 59.0%. With the existence of an e-performance system, all employee tasks are monitored regularly by superiors, which motivates employees to work because it will affect their careers. It could be concluded that the research hypothesis (H1) in the form of "e-

performance systems affect employee motivation" is accepted.

2. Compensation has a positive and significant effect on employee motivation. With a magnitude of 0.183, it means that each increase in one-unit compensation can increase motivation by 18.3%. The amount of compensation is determined based on the rank and position occupied so that employees are motivated to improve work performance. Could it be concluded that the research hypothesis (H2) in the form of "compensation affects employee motivation" was accepted?

3. The e-performance system has a positive and significant effect on employee performance. With a magnitude of 0.423, it means that every one-unit increase in the e-performance system can increase changes in employee performance by 42.3%. The e-performance system makes it easier for employees to set work goals, resulting in regular work that will improve employee performance in terms of work planning, timeliness, and maximum work results. Could it be concluded that the research hypothesis (H3) in the form of "e-performance systems affect employee performance" was accepted?
4. Compensation has a positive and significant effect on employee performance. With a magnitude of 0.194, it means that each increase in one-unit compensation can increase employee performance by 19.4%. The compensation provided is not only in the form of salary, incentives, and benefits but also work facilities, which certainly affect employee performance to support the ability, skills, and health of employees. Could it be concluded that the research hypothesis (H4) in the form of "compensation affects employee performance" was accepted?
5. Motivation has a positive and significant effect on employee performance. With a magnitude of influence of 0.236, it means that each increase in one-unit motivation can increase employee performance by 23.6%. Motivation in the form of appreciation for achievement and work power will improve employee

performance by working together, training their abilities and skills, and being ready and alert in carrying out the tasks assigned. Could it be concluded that the research hypothesis (H5) in the form of "motivation influences employee performance" is accepted?

6. The e-performance system has a positive and significant effect on employee performance through motivation as an intervening variable. With a magnitude of 0.139, it means that every one-unit increase in the e-performance system can increase employee performance through motivation by 13.9%. The implementation of the e-performance system makes it easier for superiors to monitor employee performance improvements by motivating in the form of authority and work performance to achieve better work results. Could it be concluded that the research hypothesis (H6) in the form of "e-performance systems influence employee performance through motivation as an intervening variable" is accepted?

Compensation has no significant effect on employee performance through motivation, an intervening variable. This happened because the t-stat value (1.323) or p-value (0.187) did not meet the statistical test criteria, so hypothesis H0 was accepted. That is, compensation does not affect employee performance by providing employee motivation. Because of the existence of compensation that has been regulated in fixed regulations that cannot be changed individually, the compensation

---

---

variable does not affect employee performance given motivation. Could it be concluded that the research hypothesis (H7) in the form of "compensation affects employee performance through motivation as an intervening variable" was rejected?

## CONCLUSIONS

Based on the explanation above, proven through statistical data processing, the researcher concluded that the implementation of the e-performance system affects employee motivation, compensation affects employee motivation, the application of the e-performance system affects employee performance, compensation affects employee performance, motivation influences employee performance, the application of the e-performance system affects employee performance through motivation as an intervening variable, and compensation has no effect on employee performance through motivation as an intervening variable.

There are limitations to the study. This is expected by researchers, who will then replace the compensation variable with other variables because compensation in government agencies, especially in the Indonesian Navy, is already stipulated in the regulations. Therefore, it can add other factors that can affect employee performance so that more factors are known to dominate performance improvement, then broaden the scope of research by increasing the number of samples to provide a more representative sample. Another necessary thing is adding variables to testing and doing studies in the

government, industrial, or other business sectors.

## REFERENCES

- Deni, R., and H. (2020). The Effect of Compensation and Work Environment on Employee Performance with Discipline as a Mediating Variable. *Scientific Journal of Business Administration and Innovation*, 4(2).
- Harahap, D. and K. H. (2019). The Effect of Leadership and Compensation on Job Satisfaction through Work Motivation. *Scientific Journal of Master of Management*, 2(1).
- Hasibuan, M. (2017). *HR Management. Revised Edition*. Earth Script.
- Hasibuan, M. (2021). *Human Resource Management*. Bumi Aksara.
- Istifadah, A. , and S. B. (2019). Effects of Compensation, Motivation and Work Discipline on Employee Performance at PT Livin Mandiri Sejati Banyuwangi. *International Journal of Social Science and Business*, 3(3).
- Isvandiar, A. , and F. L. (2017). Effect of Compensation and Work Discipline on Employee Performance in the PG Production Department. *Merit Jan Kediri. JIBEK Journal*, 2(1).
- Lestari, W. M., Liana, L., & Aquinia, A. (2020). Pengaruh Stres Kerja, Konflik Kerja dan Beban Kerja terhadap Kinerja Karyawan. *Jurnal Bisnis Dan Ekonomi*, 27(2), 100–110.
- Liana, W. (2020). Pengaruh Motivasi terhadap Produktivitas Karyawan PT Telkom Indonesia, Tbk Cabang Palembang. *Jurnal Nasional Manajemen Pemasaran & SDM*, 1(1),
-

- 65–72.
- Mangkunegara, A. (2017). *Human Resource Management Company*. Rosda.
- Mukti, D. S. W. and L. F. (2019). Application of an E-Performance Based Performance Assessment System on Employee Work Performance through Job Satisfaction as an Intervening Variable in the Population and Civil Registration Office of Banyuwangi Regency. *E-Journal of Business Economics and Accounting*, 6(2).
- Nurhayati, E. (2017). The Effect of Implementing E-Performance and Competency Assessment Systems on Employee Performance in East Semarang District through Motivation as an Intervening Variable. *Journal of Economics and Business Research*, 2(2), 79–91.
- Rivai, V. (2017). *Human Resource Management*. Raja Grafindo Persada.
- Sari, A., Z. F., and S. H. (2020). The effect of leadership, compensation, and motivation on employee performance. *National Journal of Marketing & HR Management*, 1(2).
- Sinambela, L. (2018). *Human Resource Management*. Earth Script.
- Tangkawarouw, K. L. V. and L. G. (2029). The effect of the work environment and work ability on the performance of employees of PT Surya Wenang Indah. *EMBA Journal*, 7(1), 371–380.
- Warizin, H. (2017). Influence of individual characteristics and work environment on employee's motivation and performance. *Journal of Administrative and Business Studies JABS*, 3(5), 212–220.



© 2023 by the authors. Submitted for possible open-access publication under the terms and conditions of the Creative Commons Attribution (CC BY SA) license (<https://creativecommons.org/licenses/by-sa/4.0/>).

---