

Article History: Received: 19 December 2024, Revision: 9 January 2025, Accepted: 15 January 2025, Available Online: 10 April 2025.

DOI: <https://doi.org/10.35870/emt.9i2.3661>.

Improving Employee Performance through Compensation at the Central Java Education and Culture Office with Motivation as an Intervening Variable

Ardiptha Dharma Djati ^{1*}, Raden Ayu Aminah Rizkia Puspitasari ²,
Amron ³, Tito Aditya Perdana ⁴

^{1*,2,3,4} Universitas Dian Nuswantoro, Semarang City, Central Java Province, Indonesia.

Corresponding Email: 211202106873@mhs.dinus.ac.id ^{1*}

Abstrak. Kompensasi merupakan salah satu unsur penting dalam suatu organisasi yang mempengaruhi kinerja dan keberlangsungan sumber daya manusia. Penelitian ini bertujuan untuk menganalisis hubungan antara kompensasi, motivasi, dan kinerja pegawai dengan motivasi sebagai variabel mediasi di Dinas Pendidikan dan Kebudayaan Jawa Tengah. Penelitian ini menggunakan pendekatan kuantitatif dengan sampel sebanyak 100 responden yang dianalisis menggunakan SPSS Statistics 25. Hasil penelitian menjelaskan bahwa kompensasi tidak secara langsung mempengaruhi kinerja pegawai, tetapi berpengaruh signifikan terhadap motivasi. Motivasi terbukti berpengaruh signifikan terhadap kinerja dan berperan sebagai mediator antara kompensasi dengan kinerja pegawai. Implikasi teoritis dari penelitian ini adalah untuk memperkaya literatur tentang peran motivasi sebagai variabel mediasi dalam hubungan antara kompensasi dengan kinerja pegawai, khususnya dalam konteks instansi pemerintah. Secara praktis, hasil ini memberikan wawasan bagi pengelola sumber daya manusia untuk lebih memfokuskan pada strategi penyaluran kompensasi yang dapat meningkatkan kinerja, sehingga berpengaruh signifikan terhadap kinerja pegawai. Penerapan yang tepat akan membantu meningkatkan kinerja dan mencapai tujuan lembaga.

Kata kunci: Kompensasi; Kinerja Karyawan; Mediasi; Motivasi.

Abstract. Compensation is an important element in an organization that affects the performance and sustainability of human resources. This study aims to analyze the relationship between compensation, motivation, and employee performance with motivation as a mediating variable in the Central Java Education and Culture Office. The study used a quantitative approach with a sample of 100 respondents analyzed using SPSS Statistics 25. The results of the study explain that compensation does not directly affect employee performance but has a significant effect on motivation. Motivation has been shown to have a significant effect on performance and acts as a mediator between compensation and employee performance. The theoretical implication of this study is to enrich the literature on the role of motivation as a mediating variable in the relationship between compensation and employee performance, especially in the context of government agencies. Practically, these results provide insight for human resource managers to focus more on compensation distribution strategies that can improve performance, so that they have a significant effect on employee performance. Proper implementation will help improve performance and achieve institutional goals.

Keywords: Compensation; Employee Performance; Mediation; Motivation.

Introduction

Getting compensation is a real need of an employee who works. This compensation is very crucial for the company because it helps maintain the sustainability of human resources. This includes providing compensation such as salary, wages, incentives, benefits, and non-monetary compensation to motivate employees in achieving achievements. and maintain employee productivity and quality. If compensation is managed properly and arranged effectively, compensation will support the company in achieving its goals and achieving, maintaining and caring for employees as much as possible. Nurzaman (2014).

To strengthen the background of the problems that occurred in the company, the researcher conducted a pre-survey stage conducted on 30 employees of the Central Java Provincial Education and Culture Office, Manpower Section and obtained the following results. Based on the findings of the pre-survey, there were indications of problems with performance, employees felt they had initiative in working. As many as 37% of employees agreed that having initiative without having to wait for instructions in daily tasks, but 47% of other employees still felt doubtful. In terms of Compensation, "The benefits provided by the company are enough to help my needs". As many as 17% of employees stated that they strongly agree, but 40% of employees still felt doubtful. In terms of Motivation "I feel appreciated by the company for the contribution I make". As many as 20% of employees stated that they strongly agree, but 33% of employees still felt doubtful. This situation provides an opportunity for the company to improve performance management by providing clearer instructions and better support so that employees can work more optimally.

Apart from the phenomena that have been identified above, there are several research results that are not the same (research gap) from the research results by Sugeng Mianto Fane (2023), which show that compensation provides... a significant influence on employee

performance CV Millenia Total Solution Palembang, another study that contradicts these results, a study by Yohanes Susanto (2021) The study resulted in no significant and relevant influence of compensation on employee performance at the Central Statistics Agency of Lubuklinggau City. In a study conducted by Selfianus (2023) it was explained that the motivation variable mediates the effect of compensation on employee performance in Sikka Regency Agriculture. However, the findings of this study are not the same as the previous study conducted by Sugeng Suprapto (2024), the findings show that motivation cannot mediate the impact between compensation on employee performance at PT Metindo Erasakti.

The differences in the results of existing studies indicate the need for additional research to determine whether motivation can mediate the effect of compensation on performance. Therefore, the researcher decided to conduct this study with a focus on a different subject, namely the Provincial Education and Culture Office. Based on the explanation in the background and the phenomena that have been described, the researcher wants to further explore the phenomena found in the Central Java Provincial Education and Culture Office. The chosen research title is "The Effect of Compensation on Employee Performance with Motivation as an Intervening Variable at the Central Java Provincial Education and Culture Office."

Literature Review

Compensation and Performance

Compensation plays an important role in business organizations because employees with adequate competence and qualifications tend to expect commensurate rewards. Dessler (2005) stated that compensation includes all types of payments received by employees as a result of their work, both in the form of direct and indirect monetary compensation. In line with that, Hasibuan (2012) defines compensation as all forms of reciprocity, either money or goods, obtained by employees in return for their participation in the company. In this study, compensation indicators refer to the aspects

and indicators of Hasibuan (2012). Direct compensation has five main indicators: incentives, salary, allowances, bonuses and severance pay. Meanwhile, indirect compensation is divided into job promotions, health insurance, job security, learning opportunities, and awards and praise. These two types of compensation show different ways in which companies appreciate their employees' contributions, both through financial rewards and opportunities for self-development. In human resource management, there is a strong correlation between compensation and performance. Compensation is a powerful tool to improve employee performance in addition to serving as a reward for their work. Previous research by Sugeng Mianto Fane (2023) stated that compensation provides a good and significant influence on employee performance. Referring to the explanation, the initial hypothesis formulated in the study is

H1: It is suspected that Compensation provides significantly influence employee performance.

Compensation and Motivation

Compensation plays an important role in business organizations because employees with adequate competence and qualifications tend to expect commensurate rewards. Dessler (2005) stated that compensation includes all types of payments received by employees as a result of their work, both in the form of direct and indirect monetary compensation. In line with that, Hasibuan (2012) explained that compensation is all forms of reciprocity, either money or goods, which are distributed to employees in return for their participation in the company. In this study, compensation indicators refer to the aspects and indicators of Hasibuan (2012). Direct compensation has five main indicators: incentives, salary, allowances, bonuses and severance pay. Meanwhile, indirect compensation is divided into job promotions, health insurance, job security, learning opportunities, and awards and praise. These two types of compensation show different ways that companies use to appreciate their employees' contributions, both through financial rewards and opportunities for self-development. Compensation and motivation are two factors that interact with each other in

influencing employee performance. Motivation, on the other hand, is an internal and external force that drives employees to achieve organizational goals optimally. Previous research by Dian Octavia Handayni (2021), which has stated that compensation provides significant and relevant impact on Motivation. Based on this explanation, the second hypothesis was obtained in this study, namely H2: It is suspected that Compensation provides significant influence on Motivation

Motivation and Performance

According to Sastrohadiwiryo (2013), motivation can be defined as psychological conditions and mental attitudes that convey encouragement, drive action, and guide activities to meet needs that form pleasure or minimize gaps. In measuring an employee's work motivation, there are several parameters that can be used, namely: Opportunities, Involvement, Development, Challenge, Responsibility, Recognition, and Achievement. Motivation and performance are closely related in building a productive work environment and providing support for employee development. Motivation can be considered as a psychological drive and mental attitude that provides energy for employees to engage more deeply and contribute optimally in the workplace. So, when the level of motivation is at a high level, employees will be more motivated to carry out their duties and carry out their responsibilities as well as possible, so that this will improve the quality of their work results. Previous research by Amin Sadiqin (2023) stated that motivation has a good and significant influence on performance. Based on this explanation, the third hypothesis in this study is

H3: It is suspected that the motivation to give significantly influence employee performance

Mediation of Motivation on the Effect of Compensation on Employee Performance

Employee performance is described as work performance or achievement in both quality and quantity achieved by workers during a certain period in completing work orders as with the obligations that have been divided to them. Anwar Prabu Mangkunegara (2013) Sedarmayanti (2018) added that performance is part of the management process that must be

shown clearly and measurably. The benchmark for employee performance according to Anwar Prabu Mangkunegara (2013) includes several main dimensions. Work quality, Work quantity, Responsibility, collaboration and initiative. When the compensation received by employees is in line with their expectations and efforts, motivation increases, encouraging them to commit more, take initiative, and be more responsible in their work. Motivated employees are also more likely to actively seek development opportunities and face challenges with enthusiasm. Previous research by Rahmini Andini Syamsudin (2021) stated that Motivation mediates the influence of Compensation on Performance. Based on this explanation, the fourth hypothesis in this study is

H4: It is suspected that motivation mediates the effect of compensation on employee performance.

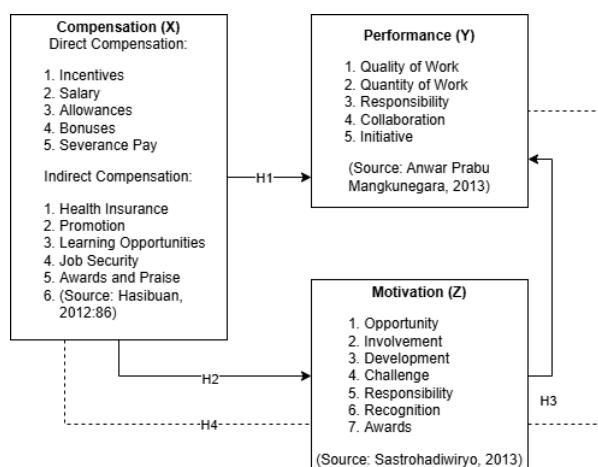


Figure 1. Framework of Thought

Research Methodology

This research is included in the type of causal research, intending to identify the influence of a variable on another variable and analyzed using the explanatory research method. In this case, with a quantitative approach, this research will focus on a comprehensive understanding of the correlation between several variables, while analyzing how one variable affects another variable using hypotheses (Sugiyono,

2014). The focus of the research is on the problems or events that occur during the research, presenting the actual reality, and providing the right logical interpretation. The data collected is analyzed in numerical form to obtain conclusions, with the help of the SPSS 25 program. The population of this study was 297, with a sample size of 100 Civil Servant criteria generated through the *Purposive* sampling technique. The data collection process included observation, literature study, and questionnaires, where the questionnaire used a Likert scale with 5 answer options. Data analysis involved validity and reliability tests to ensure that the instrument actually measured the relevant aspects and provided consistent results. In addition, path analysis was conducted to evaluate the influence of independent factors on dependent factors with the function of mediating factors.

Results and Discussion

Results

Based on the results of the research that has been conducted, it can be concluded that the respondent profile consists of 100 government employees with a relatively even age distribution, namely 33% aged 20-30 years, 35% aged 31-40 years, and 32% aged over 40 years. Many respondents have more than 5 years of work experience (49%), while the rest are distributed in a shorter work experience range. All research instruments have met the validity and reliability criteria, with Pearson correlation values above 0.196 and Cronbach's Alpha more than 0.60, indicating that the measuring instrument used is reliable. Path analysis is used to measure the effect of compensation on employee motivation and performance, as well as the role of motivation as a mediating variable. The results of the Sobel test show that motivation significantly mediates the relationship between compensation and employee performance (p -value <0.05). The following are the detailed research results:

Table 1. Respondent Profile

Code	Age	Frequency	Percentage
1	20 - 30 Years	33	33%
2	31 - 40 Years	35	35%
3	> 40 Years	32	32%
Total			100
Code	Years of service	Frequency	Percentage
1	< 1 Year	5	5%
2	1-3 years old	22	22%
3	3 - 5 Years	24	24%
4	> 5 Years	49	49%
Total			100
Code	Employee Status	Frequency	Percentage
1	Government employees	100	100%
	Total	100	100%

Looking at Table 1, there are 100 respondents aged between 20-30 years total 33 (33%), aged 31-40 years total 35 (35%), aged over 40 years total 32 (32%), characteristics of respondents from work period in duration of less than 1

year total 5 (5%), 1-3 years total 22 (22%), 3-5 years (24%), more than 5 years total 49 (49%) with the percentage of Civil Servant employment status (100%).

Table 2. Results of Validity and Reliability Tests

Variables	Rcount	Rtable	Information	Cronbach's Alpha	Information
X1	0.655	0.196	Valid	0.73	Reliable
X2	0.725	0.196	Valid	0.73	Reliable
X3	0.786	0.196	Valid	0.73	Reliable
X4	0.633	0.196	Valid	0.73	Reliable
X5	0.689	0.196	Valid	0.73	Reliable
Z1	0.775	0.196	Valid	0.75	Reliable
Z2	0.749	0.196	Valid	0.75	Reliable
Z3	0.728	0.196	Valid	0.75	Reliable
Z4	0.778	0.196	Valid	0.75	Reliable
Y1	0.748	0.196	Valid	0.76	Reliable
Y2	0.780	0.196	Valid	0.76	Reliable
Y3	0.787	0.196	Valid	0.76	Reliable
Y4	0.763	0.196	Valid	0.76	Reliable

Source: Processed Data, 2024.

Looking at Table 2 all variable instruments in the observation have covered the validity test criteria. With the achievement of the entire Pearson Correlation figure above 0.196 and having a significance value below 5% (0.05) and also the reliability test that has been carried out in each variable is more than 0.60 which is shown by the Cronbach's Alpha calculation, so it can be concluded that all instruments are in accordance with the reliability provisions. Path

analysis uses the path analysis method related to examining the influence of causal correlation of each independent variable divided into compensation, on dependent variables including motivation and performance. In addition, analyzing the task of variables, namely motivation, in mediating the correlation between compensation variables on employee performance.

Table 3. Results of Substructure Coefficient Test 1
Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.311 ^a	.097	.088	1.93592

a. Predictors: (Constant), Compensation
b. Dependent: motivation.

Coefficients					
Model	Unstandardized Coefficients		Standardized Coefficients	T	Sig.
	B	Std. Error	Beta		
1	(Constant)	12,260	1,610	7,613	.000
	Compensation	.247	.076		

Dependent Variable: Motivation

Source: processed data, 2024.

Looking at the table above, we can create the following equation:

$$\begin{aligned}\epsilon_1 &= \sqrt{1 - R^2} = \sqrt{1 - 0.097} \\ &= 0.950 \\ Y_1 &= 0.311 X + 0.950\end{aligned}$$

Then the values of P1, and ϵ_1 can be explained below:

- 1) The regression coefficient for X is 0.311, meaning that each Likert scale unit given to the compensation variable (X) can increase the motivation variable by 0.311.
- 2) Error (ϵ_1) of 0.950 shows that the motivation variable cannot be explained by the compensation variable.

Table 4. Results of Substructure Coefficient Test 2
Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.657 ^a	.432	.420	1.60351

a. Predictors: (Constant), Motivation, Compensation
b. Dependent Variable: Performance

Coefficients					
Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
1	(Constant)	4.976	1,683	2,957	.004
	Compensation	.035	.066		
	Motivation	.668	.084		

Dependent Variable: Performance

Source: processed data, 2024.

Based on table 4, the following equation can be created:

$$\begin{aligned}\epsilon_2 &= \sqrt{1 - R^2} = \sqrt{1 - 0.432} \\ &= 0.753 \\ Y_2 &= 0.043 X + 0.643 Z + 0.753\end{aligned}$$

Then the values of P1, P2, and ϵ_2 can be described below:

- 1) The regression coefficient for X is 0.043, meaning that each level of the Likert scale

unit on the compensation variable (X) can increase the performance variable by 0.043.

- 2) The regression coefficient for Z is 0.643, meaning that each level of Likert units on the motivation variable (Z) can increase the performance variable by 0.643.
- 3) Error (ϵ_2) of 0.753 shows that the performance variable cannot be described by the compensation and motivation variables.

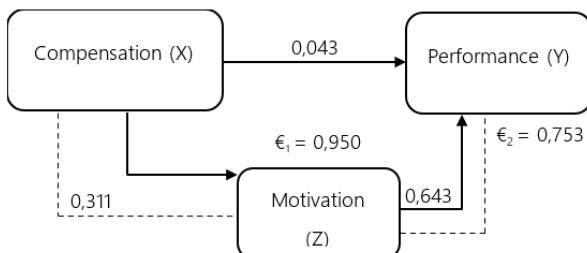


Figure 2. Path Diagram

The path diagram illustrates the relationship between compensation (X), motivation (Z), and performance (Y) variables. The diagram highlights the direct effects of compensation on performance (H1) and motivation (H2), as well as the effect of motivation on performance (H3). In addition, the diagram positions motivation as a mediating factor between compensation and performance (H4), providing a visual representation of the proposed model. The results of the Sobel test for Substructure 1 and Substructure 2 assess

the significance of the mediating role of motivation in the relationship between compensation and performance. The test evaluates whether the indirect effect of compensation on performance, through motivation, is statistically significant, further validating the mediation hypothesis.

Input:	Test statistic:	Std. Error:	p-value:
a 0.247	Sobel test: 3.00845786	0.05484405	0.00262577
b 0.668	Aroian test: 2.98828096	0.05521435	0.00280552
s _a 0.076	Goodman test: 3.02904907	0.05447122	0.00245325
s _b 0.084	Reset all		Calculate

Figure 3. Sobel Test for Substructures 1 and 2

According to the results of the Sobel test of Substructure 1 & 2, it can be observed that the p-value shows a value of $0.00262577 < 0.05$. This shows that motivation variables can mediate compensation on employee performance.

Table 5. Hypothesis Testing Results

Influence of Variables	t-Value	t-Table	p-Value	Conclusion
H1: Compensation → Employee Performance	0.529	1,984	0.598	H1 rejected
H2: Compensation → Motivation	3.241	1,984	0.002	H2 accepted
H3: Motivation → Performance	7,981	1,984	0.000	H3 accepted
H4: Compensation → Motivation → Performance	3.008	1,984	0.002	H4 accepted

Discussion

The Influence of Compensation on Employee Performance

Compensation does not provide an influence on employee performance. In this case, compensation has a t-count score of $0.529 < t\text{-table}$ of 1.984. While the value of Sig. is $0.598 > 0.05$, so it can be said that H1 is rejected. When viewed from the allowance indicator, it shows that the allowances received by employees do not fully meet their needs. This can be seen from the level of respondents' doubts about the statement regarding the adequacy of allowances in supporting daily needs. The following output produced in this study is in line with the results of Yohanes Susanto's research (2021) which has stated that there was no significant influence of compensation on performance.

The Effect of Compensation on Motivation

Compensation provides a significant influence on motivation, compensation has a t-count of

$3,241 > t\text{-table}$ of 1.984. While the score from Sig. is $0.002 < 0.05$, so it can be said that H2 is accepted. This means that the higher the compensation, the greater the employee motivation. The results obtained from the study are in line with the results of the study by Dian Octavia Handayni (2021), which has shown that Compensation has a significant and relevant influence on Motivation.

The Influence of Motivation on Employee Performance

Motivation to give a significant influence on employee performance, motivation has a t-count of $7.981 > t\text{-table}$ of 1.984. Meanwhile, the value of Sig. is $0.000 < 0.05$, then it can be stated that H3 is accepted. This means that the higher the compensation, the higher the employee motivation. When viewed from the responsibility indicator, it shows that employees with a high level of motivation will be more responsible when carrying out their duties. The results obtained from the study are in line with

the results of the study by Amin Sadiqin (2023) who has stated that Motivation provides good and significant influence on performance.

The Influence of Compensation on Employee Performance through Motivation

Motivation mediates the effect of compensation on employee performance. Based on the Sobel Test, it shows that, t-count $3.008 > t\text{-table } 1.984$. Meanwhile, the value of the p-value $0.002 < 0.05$, it can be said that H4 is accepted, so it can be said that motivation can mediate compensation on employee performance. This shows that the motivation variable fully mediates the effect of compensation on employee performance, because compensation does not have a significant direct effect on employee performance. The output obtained from the research is in line with the results of the research by Rahmini Andini Syamsudin (2021) which has stated that Motivation mediates the effect of Compensation on Performance.

Conclusion

From the observations and analysis that have been carried out on the influence of compensation on employee performance through motivation as an intervening variable at the Department of Education and Culture of Central Java Province, the following conclusions were drawn:

- 1) The data results show that the compensation variable does not provide significantly influence employee performance. This indicates that compensation does not directly contribute to improving performance.
- 2) The data results show that the compensation variable provides significant influence on motivation, so that if employees receive compensation, it can increase the motivation of employees of the Central Java Provincial Education and Culture Office.
- 3) The data results show that the motivation variable provides significant influence on employee performance. So it means that if employees have motivation, it can encourage increased employee

performance at the Central Java Provincial Education and Culture Office.

- 4) The data results show that motivation variables mediate the effect of compensation on performance. This shows that when compensation is given, it has the potential to encourage increased employee motivation, which in turn contributes to increased performance.

References

Diansyah, D., & Saepul, T. (2017). Pengaruh pelatihan dan kompensasi terhadap kinerja karyawan dengan motivasi sebagai variabel intervening pada mikro laju cluster Jakarta 2 PT. Bank CIMB Niaga Tbk. *Media Studi Ekonomi*, 20(1), 1-15. <https://www.jurnal.uta45jakarta.ac.id>.

Fane, S. M., & Munawaruh, F. (2023). The Effect of Compensation on Employee Performance with Motivation As An Intervening Variable CV. Millenia Total Solution Palembang. *Jurnal Manajemen*, 11(4), 342-354.

Fendik, Z. U., & Hakim, L. (2023). The Effect of Compensation on Employee Performance with Work Motivation as Intervening Variable. *Proceeding ISETH (International Summit on Science, Technology, and Humanity)*, 351-358.

Fiolita, A., & Safaria, S. (2024). The Influence of Organizational Culture and Compensation on Employee Performance with Employee Motivation as an Intervening Variable at PT. Arai Rubber Seal Indonesia (ARSI). *Formosa Journal of Sustainable Research*, 3(3), 457-476. <https://doi.org/10.55927/fjsr.v3i3.8374>

Handayni, D. O., & Aima, M. H. (2021). The Effect of Work Environment And Compensation on Employee Performance with Motivation as Intervening Variable at PT Sukses Artha Mulia. *Dinasti International Journal of Education Management and Social Science*, 3(2), 204-220. <https://doi.org/10.31933/dijemss.v3i2>

Mulyadi, H., Masharyono, M., & Irpan, A. (2024, June). The Effect of Compensation on Employee Performance with Motivation as An Intervening Variable. In *8th Global Conference on Business, Management, and Entrepreneurship (GCBME 2023)* (pp. 864-870). Atlantis Press. https://doi.org/10.2991/978-94-6463-443-3_115

Sadiqin, A. (2023). The Influence of Leadership Style, Compensation, and Organizational Culture on Employee Performance with Work Motivation as an Intervening Variable (Empirical in Semarang Islamic Financial Institutions). *International Journal of Social Science, Education, Communication and Economics (SINOMICS JOURNAL)*, 2(1), 73-86. <https://doi.org/10.54443/sj.v2i1.114>

Saleh, A. R., & Utomo, H. (2018). *The Effect of Work Discipline, Work Motivation, Work Ethics and Work Environment on Work Productivity of Production Department Employees at Pt. Inko JavaSemarang. Among Makarti*, 11 (1), 28-50.

Selfianus, Lestariningsih, M., & Satrio, B. (2023). The influence of competency, compensation, and work environment on performance with work motivation as an intervening variable (Case study of agricultural extension instructors in Sikka Regency). *Journal of Economics, Finance and Management Studies*, 6(10), 4724-4741. <https://doi.org/10.47191/jefms/v6-i10-07>

Sugeng Suprapto, & Safaria, S. (2024). The Influence of Transformational Leadership Style, Work Environment and Compensation on Employee Performance with Motivation as an Intervening Variable in PT Metindo Erasakti. *Formosa Journal of Sustainable Research*, 3(4), 771-788. <https://doi.org/10.55927/fjsr.v3i4.8814>

Susanto, Y., Oktovianus, F., Habaora, F., & Riwukore, J. R. (2021). The Effect of Compensation and Competence on Performance with Motivation as a Variable Intervening an Employee in Partners of the Central Statistic Agency, Lubuklinggau City, South Sumatra, Indonesia. *Review of Management and Entrepreneurship*, 5(2), 113-136. <https://doi.org/10.37715/rme.v5i2.1778>

Syamsuddin, R. A., Pratama, A., Sunarsi, D., & Affandi, A. (2021). The Effect of Compensation and Work Discipline on Employee Performance with Work Motivation as an Intervening Variable. *Kontigensi: Jurnal Ilmiah Manajemen*, 9(1), 89-94. <https://doi.org/10.56457/jimk.v9i1.99>

Yuniyanto, M., Budiarto, W., & Winarko, R. (2023). Pengaruh Kompensasi Dan Kompetensi SDM Terhadap Kinerja Pegawai Sumenep Dengan Motivasi Kerja Sebagai Variabel Intervening (Studi Pada Dinas Pekerjaan Umum Dan Penataan Ruang Kabupaten). *Journal of Management and Creative Business*, 1(4), 55-74. <https://doi.org/10.30640/jmcbus.v1i4.1394>.