



THE INFLUENCE OF WORK DISCIPLINE, MOTIVATION AND WORK ENVIRONMENT ON THE PERFORMANCE OF MINING SUPERVISORS AT PT. CRISTIAN EKA PRATAMA, EAST KALIMANTAN

Aditya¹, Fathurrahman², Murtianingsih³

^{1, 2, 3} Institut Teknologi dan Bisnis Asia Malang

¹ adityavembriarto@gmail.com, ² faturrahman@asia.ac.id, ³ murtianingsih@asia.ac.id

Abstract

This research examines the influence of work discipline, motivation, and work environment on the performance of mining supervisors at PT. Cristian Eka Pratama, East Kalimantan. The mining industry in Indonesia has experienced rapid growth, especially in Kalimantan, which is rich in coal reserves. Given the important role of mining supervisors, this study aims to analyze how work discipline, motivation, and work environment affect supervisor performance. This research is crucial as mining supervisors face high-risk work environments and must adhere to safety standards while managing daily operations. The study uses quantitative methods with multiple linear regression analysis to explore how these factors—work discipline, motivation, and work environment—contribute to performance. Data were collected through surveys and analyzed to determine the impact of these factors on performance. The results of the study show that work discipline, work motivation, and work environment have a significant impact on supervisor performance. It is expected that these results will provide valuable insights into improving human resource management in the mining sector, particularly in enhancing supervisor performance.

Keywords: Work Discipline, Motivation, Work Environment, Performance, Mining Supervisor.

Abstrak

Penelitian ini mengkaji pengaruh disiplin kerja, motivasi, dan lingkungan kerja terhadap kinerja pengawas pertambangan pada PT. Cristian Eka Pratama, Kalimantan Timur. Industri pertambangan di Indonesia telah mengalami pertumbuhan pesat, terutama di Kalimantan yang kaya akan cadangan batubara. Mengingat peran penting pengawas pertambangan, penelitian ini bertujuan untuk menganalisis bagaimana disiplin kerja, motivasi, dan lingkungan kerja mempengaruhi kinerja pengawas. Penelitian ini sangat penting karena pengawas pertambangan menghadapi lingkungan kerja berisiko tinggi dan harus mematuhi standar keselamatan sambil mengelola operasi harian. Penelitian ini menggunakan metode kuantitatif dengan analisis regresi linier berganda untuk mengeksplorasi bagaimana faktor-faktor tersebut—disiplin kerja, motivasi, dan lingkungan kerja—berkontribusi terhadap kinerja pengawas. Data dikumpulkan melalui survei dan dianalisis untuk menentukan pengaruh faktor-faktor tersebut terhadap kinerja. Hasil penelitian menunjukkan bahwa disiplin kerja, motivasi kerja dan lingkungan kerja memiliki pengaruh yang signifikan terhadap kinerja pengawas, diharapkan hasil ini dapat memberikan wawasan berharga dalam meningkatkan manajemen sumber daya manusia di sektor pertambangan, khususnya dalam meningkatkan kinerja pengawas.

Kata Kunci: Disiplin Kerja, Motivasi, Lingkungan Kerja, Kinerja, Pengawas Pertambangan.



© Author(s) 2025

This work is licensed under a [Creative Commons Attribution 4.0 International License](https://creativecommons.org/licenses/by/4.0/).

INTRODUCTION

Industry Mining has grown since the discovery of fossil fuels such as coal, a key ingredient for steam engines and the manufacturing industry. Over time, coal has become widely used in power plants, the steel industry, cement, and various other sectors. Coal mining in Indonesia began to develop rapidly since the late 20th century, particularly in Kalimantan and Sumatra, regions rich in coal resources. Therefore, coal mining companies play a vital role in supporting the economy and energy security at the national and international levels.

The mining industry makes a significant contribution to economic growth in Indonesia. This is evidenced by the high state revenues generated from the export of mining commodities such as coal, oil, and tin, which are the mainstay of infrastructure development and sustainable social programs implemented by the government of the Unitary State of the Republic of Indonesia. The numerous job creations are also a positive impact of the growth of the mining industry. However, behind all this, water pollution, deforestation, and social conflict are often linked to mining activities, thus attracting special attention from the Indonesian government, ensuring that the physical and financial health of communities surrounding mining areas is better addressed.

One of the companies in Indonesia engaged in mining operations is PT. CEP or PT. Cristian Eka Pratama. PT. CEP, which operates in West Kutai Regency, East Kalimantan, was established in 2019. PT. CEP has coal reserves with identified resources of 164.1 million tons with an area of 4,776 hectares. In 2023, the coal production volume at PT. CEP reached 250.85 thousand tons with a sales volume of 199.73 thousand tons since June 2023, so this can be interpreted that PT. CEP contributed revenue of US \$ 7.68 million or 1.33% of the company's total income (<https://petro-sea.com>).

To run a company's operations, human resources, better known as labor, are essential. The mining industry also requires workers, both those working indoors and outdoors. Mining, a labor-intensive industry with high occupational risks, requires an expert responsible for all mining-related activities, commonly referred to as a mining supervisor. A mining supervisor is a functional position tasked with supervising and mentoring workers in mining activities. Due to the demanding nature of the duties, the position of mining supervisor requires human resources with the appropriate competencies.

The duties of a mining supervisor are stipulated in the Decree of the Minister of Energy and Mineral Resources No. 1827 K/30/MEM/2018, namely: 1) Responsible to the KTT/PTL for the safety and health of all workers. 2) Carrying out inspections, examinations and tests. 3) Responsible to the KTT/PTL for the safety, health and welfare of all persons assigned to him. 4) Making and signing inspection, inspection and test reports (<https://agincourtresources.com>) Due to the heavy duties and responsibilities of a mining supervisor, it requires human resources who are not only

capable according to their competence but most importantly, a mining supervisor must have high motivation and work discipline so that mining activities can be carried out properly and correctly.

Discipline is a key factor in the workplace. Wherever an individual works, they are expected to be disciplined. Without discipline, they will not achieve their goals. This is also the case at PT. Cristian Eka Pratama, where all employees, including mining supervisors, must consistently maintain discipline. Undisciplined supervisors can be detrimental to the company. Numerous risks arise from lack of discipline in their work. For example, non-compliance with regulations can occur. In this case, supervisors fail to reprimand mining employees who work without proper personal protective equipment (PPE), leading to workplace accidents. Employees work without clear standards, slowing down production. Undisciplined supervisors lead to employees not following standard operating procedures (SOPs), leading to errors that hinder production.

Management also frequently enforces work procedures due to a lack of discipline among mining supervisors. This can lead to potential violations of environmental, safety, and labor regulations. Consequently, the company faces fines, operational permit revocation, and, in the worst case, forced mine closure by the government and surrounding communities.

Another factor related to mining supervisor discipline could be an uncomfortable work environment. Differences in decision-making between leaders and management often lead supervisors to act in an authoritarian manner toward subordinate employees. Pressure from management, which consistently demands high production without considering the mining environment, exacerbates conflicts between supervisors and employees, as well as between supervisors and management.

The hard work of PT. CEP's mining supervisors in managing the field often goes unappreciated, resulting in a decline in work motivation for the supervisors. The lack of opportunities for promotion or bonuses from management causes supervisors to lose enthusiasm for their work. As a result, supervisors become less productive, less disciplined, and feel unappreciated. Furthermore, a lack of management support prevents supervisors from optimally carrying out their operational responsibilities. For example, when PT. CEP supervisors report hazardous conditions in the field, management appears to ignore them and prioritize production without taking corrective action, instead pressuring supervisors to increase production.

Based on this phenomenon, researchers are interested in examining the influence of work discipline, motivation, and the work environment on improving the performance of mining supervisors at PT. Cristian Eka Pratama, West Kutai Regency, East Kalimantan. One of the main pillars of the success of the mining industry is the work performance of mining supervisors. Work performance, or what can also be called Work Performance in terms of language, can be interpreted as work achievement. Hasibuan, in his book, explains that work achievement is the result of work

carried out by an individual and is achieved based on skill, experience, honesty, and time.¹ Meanwhile, Mangkunegara in his book also explains the meaning of performance as the results of work, both quantitatively and qualitatively, achieved by employees when carrying out the tasks assigned according to their responsibilities.² From the statements of these experts, it can be concluded that the meaning of performance or work achievement is the result of an employee's efforts or work achieved from skills, experience, honesty in work and high responsibility for a certain period of time.

There are many factors that influence employee performance in a company.³ In his journal, he explains that there are two factors that can influence employee performance: internal and external factors. Internal factors include individual competence. This individual competence refers to the benefits that an individual can create for the company where he or she works, in which the employee will receive remuneration or other benefits as an equivalent exchange from the company. Meanwhile, external factors that influence employee performance include: a) Basic compensation and benefits, b) Organizational management, c) Organizational commitment, and d) Work design. The balance in implementing factors that trigger the emergence of work performance or performance from an employee is a full concern of company owners in order to achieve the main goal of establishing a company. In the mining industry, mining supervisors are also expected to be able to demonstrate good performance so that they can be an example for the employees under them. Of course, the performance produced by mining supervisors cannot be separated from the role of the company.

A company's goal achievement is influenced by several factors, one of which is employee discipline in carrying out all assigned tasks. Employees are expected to consciously implement discipline at work as a form of employee responsibility to the company that provides them with work. Hasibuan, in his book, states that discipline is the most important operational function of human resource management because the better an employee's discipline, the higher their performance will be. Without high discipline, employees will struggle to achieve the desired performance.⁴ As a min-

¹ Ecclesia Elnisi Rorimpandey et al., *Pengaruh Mutasi Dan Motivasi Kerja Terhadap Prestasi Kerja Pada PT. Pegadaian Kantor Area Manado 1 Jurusan Ilmu Administrasi*, Program Studi Ilmu Administrasi Bisnis Fakultas Ilmu Sosial Dan Politik, Universitas Sam Ratulangi, 4, no. 2 (2023): 145–54.

² Rorimpandey et al., *Pengaruh Mutasi Dan Motivasi Kerja Terhadap Prestasi Kerja Pada PT. Pegadaian Kantor Area Manado 1 Jurusan Ilmu Administrasi*, Program Studi Ilmu Administrasi Bisnis Fakultas Ilmu Sosial Dan Politik, Universitas Sam Ratulangi.

³ Xinyue Chen, "Exploring the Factors That Affect Employee Performance," *SHS Web of Conferences* 181 (2024): 01038, <https://doi.org/10.1051/shsconf/202418101038>.

⁴ Andini Dwi Fitriani, "Pengaruh Disiplin Kerja Terhadap Prestasi Kerja Guru Sma Negeri 4 Bandung," *Jurnal Tata Kelola Pendidikan* 3, no. 1 (2021): 9–14, <https://doi.org/10.17509/jtkp.v3i1.40388>.

ing supervisor overseeing several workers, it is essential to maintain a high level of discipline. Enforcing discipline in daily work will positively impact the supervisor, the individual workers, and the mining company.

This is in line with the opinion Fitriani⁵ and Wardani et al.,⁶ which states that employee discipline has a significant positive effect on employee performance. However, a different opinion was expressed by Nur Annisa et al.,⁷ which states that an employee's work discipline does not significantly influence the employee's own performance.

An employee's work performance or accomplishments are influenced by several factors, one of which is work motivation. The motivation a company provides to its employees should be able to influence them to further improve the quality and quantity of their work within the company. According to Heidjrachman, motivation is a process of influencing and striving to achieve desired results. Motivated employees tend to be more enthusiastic in performing their work to the best of their ability.⁸ Mangkunegara further defines motivation as a condition that influences the emergence, direction, and maintenance of behavior related to the work environment. Work motivation can also be defined as a strong drive or desire within a person to achieve their goals and desires.⁹

Motivation from mining companies to their supervisors, especially supervisors who are always on site, can encourage mining supervisors to work optimally and regularly. Therefore, PT. CEP's role in motivating its supervisors is crucial. This motivation can take the form of rewards, training, or appropriate attention to the supervisors. Furthermore, PT. CEP's management is expected to be more sensitive to the safety of its workers. Management that provides flexibility by not overly pressuring production increases when damage occurs in the mining area will motivate supervisors to be more aware of their subordinate employees and establish good communication with management and the company owner.

⁵ Fitriani, "Pengaruh Disiplin Kerja Terhadap Prestasi Kerja Guru Sma Negeri 4 Bandung."

⁶ Sulisty Wardani et al., "Pengaruh Pengembangan Karier Dan Disiplin Kerja Terhadap Prestasi Kerja Pegawai Negeri Sipil (Pns) Staf Umum Bagian Pergudangan Penerbangan Angkatan Darat (Penerbad) Di Tangerang," *Jurnal Ilmiah M-Progress* 12, no. 1 (2022): 13–25, <https://doi.org/10.35968/m-pu.v12i1.862>.

⁷ Nur Annisa et al., "Pengaruh Etos Kerja, Disiplin Kerja Dan Pengembangan Karir Terhadap Prestasi Kerja Pegawai Di Badan Perencanaan Pembangunan Daerah," *Journal of Trends Economics and Accounting Research* 4, no. 1 (2023): 283–303, <https://doi.org/10.47065/jtear.v4i1.815>.

⁸ Rorimpandey et al., *Pengaruh Mutasi Dan Motivasi Kerja Terhadap Prestasi Kerja Pada PT . Pegadaian Kantor Area Manado I Jurusan Ilmu Administrasi , Program Studi Ilmu Administrasi Bisnis Fakultas Ilmu Sosial Dan Politik , Universitas Sam Ratulangi*.

⁹ Feti Fatimah Maulyan and Dwi Sandini, "Pengaruh Kerjasama Tim, Motivasi Kerja, Dan Disiplin Kerja Terhadap Prestasi Kerja Karyawan," *Jurnal Sains Manajemen* 6, no. 1 (2024): 2685–6972.

The explanation above is in line with the opinion, Rorimpandey et al.,¹⁰ Baharuddin et al.,¹¹ and Maulyan and Sandini¹² which states that high motivation from the company can have a positive influence on employee work performance. However, a different opinion was expressed by Hidayat¹³ which states that motivation does not influence an employee's performance or achievement.

The environment always has a significant impact on everyone, including the environment surrounding or within a company. A conducive, safe, and comfortable work environment will keep employees engaged in their work. Conversely, an uncomfortable and demanding work environment without adequate facilities from the company will cause employees to become stressed, rush through work, or even be late in completing assigned tasks. According to Safitri et al.,¹⁴ the work environment is an environment that influences the social, psychological and physical aspects of employees in completing their tasks in the company.

The above is supported by the opinion Octavia & Anggarani¹⁵, Safitri et al.,¹⁶ and Manuain¹⁷ stated that the work environment has a significant influence on employee work performance. However, different results were shown by Nabilla et al.,¹⁸ stated that the work environment has no influence on employee work performance.

Based on the phenomenon and several previous empirical and theoretical research results, there are still differences in results (Research gap) so that there is still an opportunity to test the "Influence of Work Discipline, Motivation and Work Environment on the Performance of Mining Supervisors at PT. Cristian Eka Pratama East Kalimantan.

¹⁰ Rorimpandey et al., *Pengaruh Mutasi Dan Motivasi Kerja Terhadap Prestasi Kerja Pada PT. Pegadaian Kantor Area Manado 1 Jurusan Ilmu Administrasi, Program Studi Ilmu Administrasi Bisnis Fakultas Ilmu Sosial Dan Politik, Universitas Sam Ratulangi.*

¹¹ Ayu Amaliah Baharuddin et al., "Pengaruh Motivasi Dan Kompetensi Kerja Terhadap Prestasi Kerja Karyawan Sales," *Jurnal Akuntansi, Manajemen Dan Ekonomi* 1, no. 1 (2022): 55–62, <https://doi.org/10.56248/jamane.v1i1.13>.

¹² Maulyan and Sandini, "Pengaruh Kerjasama Tim, Motivasi Kerja, Dan Disiplin Kerja Terhadap Prestasi Kerja Karyawan."

¹³ Rahmat Hidayat, "Pengaruh Motivasi, Kompetensi Dan Disiplin Kerja Terhadap Kinerja," *Widya Cipta: Jurnal Sekretari Dan Manajemen* 5, no. 1 (2021): 16–23, <https://doi.org/10.31294/widyacipta.v5i1.8838>.

¹⁴ Eki Ayu Safitri et al., "Pengaruh Motivasi Kerja, Pengalaman Kerja, Dan Lingkungan Kerja Terhadap Prestasi Kerja Pada PT Asabri (Persero) Palembang," *Eksis: Jurnal Ilmiah Ekonomi Dan Bisnis* 14, no. 1 (2023): 107, <https://doi.org/10.33087/eksis.v14i1.342>.

¹⁵ Desy Octavia and Dr. Ari Anggarani, "Pengaruh Lingkungan Kerja Terhadap Prestasi Kerja Dimediasi Oleh Motivasi," *SIBATIK JOURNAL: Jurnal Ilmiah Bidang Sosial, Ekonomi, Budaya, Teknologi, Dan Pendidikan* 1, no. 12 (2022): 2849–62, <https://doi.org/10.54443/sibatik.v1i12.460>.

¹⁶ Safitri et al., "Pengaruh Motivasi Kerja, Pengalaman Kerja, Dan Lingkungan Kerja Terhadap Prestasi Kerja Pada PT Asabri (Persero) Palembang."

¹⁷ Erna Angreani Manuain, "Pengaruh Perilaku Pemimpin, Motivasi Dan Lingkungan Kerja Terhadap Prestasi Kerja Pegawai (Literature Review Manajemen Sumberdaya Manusia)," *Inisiatif: Jurnal Ekonomi, Akuntansi Dan Manajemen* 1, no. 4 (2022): 10–20, <https://doi.org/10.30640/inisiatif.v1i4.346>.

¹⁸ Habibah Yuhrotun Nabilla et al., "Pengaruh Disiplin Kerja Dan Lingkungan Kerja Melalui Motivasi Kerja Sebagai Variabel Mediasi Terhadap Prestasi Kerja Pegawai Pada Pt Apl Semarang," *Bisnis-Net Jurnal Ekonomi Dan Bisnis* 7, no. 1 (2024): 48–60, <https://doi.org/10.46576/bn.v7i1.4381>.

Conceptual Framework and Research Hypothesis

This research uses a conceptual framework as shown in the following figure:

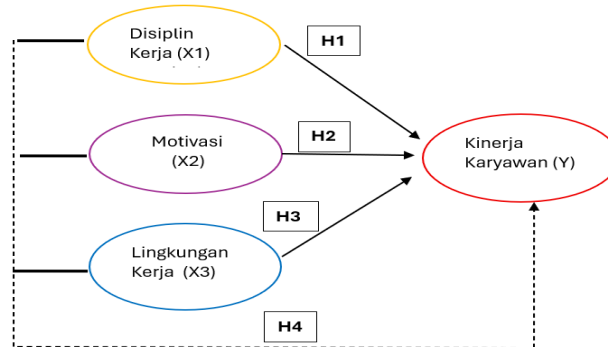


Figure 1. Conceptual Framework of the Research

Work discipline is a tool that can be used to communicate between company leaders and employees based on full awareness, without coercion and carried out happily by an employee to comply with all regulations in accordance with social norms and ethics so that the main goals of a company or organization are achieved. Motivation is an individual's attitude towards his work that tends to be oriented towards certain goals based on feelings of pleasure, comfort and enthusiasm for work so as to produce satisfaction in work. The work environment is a condition of the workplace, both physical and non-physical, that can affect the psychological condition of an employee. Employee performance is a result or achievement of employees in completing tasks given by the company within a certain period of time in accordance with the standards, targets and work criteria of the company that support the achievement of company goals.

A hypothesis is a tentative answer to a research problem statement. Therefore, it is usually formulated in the form of a question. A research hypothesis is based on a conceptual framework and a framework for thinking. A research hypothesis is an assumption, statement, or tentative answer to the question formulated in the research problem statement that will be tested with empirical data collected during the study. Based on the conceptual framework above, the hypothesis in this study can be described as follows:

H1:It is suspected that work discipline has a partial influence on improving the performance of mining supervisors.

H2:It is suspected that motivation has a partial influence on improving the performance of mining supervisors.

H3:It is suspected that the work environment has a partial influence on improving the performance of mining supervisors.

H4:It is suspected that work discipline, motivation and work environment have a simultaneous influence on improving the performance of mining supervisors.

RESEARCH METHODS

This study uses a descriptive quantitative research method to test hypotheses regarding the relationship and influence between variables. The population was the mining operational supervisors at PT. Cristian Eka Pratama (PT. CEP) East Kalimantan. The number of respondents was 50 people and the sampling technique used in this study is saturated sampling. Data collection was carried out by filling out an online questionnaire using Google Forms with a 5-point Likert scale. According to Sugiyono, a questionnaire is a data collection technique carried out by giving respondents a number of written questions or statements to answer. Data analysis using Multiple Linear Regression Analysis with IBM SPSS Statistics version 26. Data analysis in this study includes validity tests, reliability, classical assumptions, multiple linear regression analysis and hypothesis testing.

Validity Test

Ghozali¹⁹ states in his book that validity is a procedure used to evaluate the truth of an instrument or questionnaire. The following are the results of the validity test in this study:

Table 1. Results of the Validity Test of the Variable Instruments

Item	Calculate r value	Item	Calculate r value	Table r Value	Information
X1.1	0.439	X2.10	0.693	0.2787	Valid
X1.2	0.440	X2.11	0.791	0.2787	Valid
X1.3	0.643	X2.12	0.781	0.2787	Valid
X1.4	0.797	X3.1	0.701	0.2787	Valid
X1.5	0.729	X3.2	0.804	0.2787	Valid
X1.6	0.634	X3.3	0.771	0.2787	Valid
X1.7	0.797	X3.4	0.701	0.2787	Valid
X1.8	0.523	X3.5	0.811	0.2787	Valid
X2.1	0.455	X3.6	0.594	0.2787	Valid
X2.2	0.521	Y1	0.800	0.2787	Valid
X2.3	0.693	Y2	0.800	0.2787	Valid
X2.4	0.839	Y3	0.597	0.2787	Valid
X2.5	0.783	Y4	0.597	0.2787	Valid
X2.6	0.668	Y5	0.743	0.2787	Valid
X2.7	0.791	Y6	0.743	0.2787	Valid
X2.8	0.781	Y7	0.628	0.2787	Valid
X2.9	0.521	Y8	0.647	0.2787	Valid

¹⁹ Imam Ghozali, *Aplikasi Analisis Multivariete Dengan Program IBM SPSS 23*, 8th ed. (Badan Penerbit Universitas Diponegoro, 2016).

Based on Table 1. above, it can be seen that all statement items show a calculated r correlation value greater than the table r so that the proposed statement is declared valid for measuring the variables of Work Discipline, Motivation, Work Environment and Mining Supervisor Performance and is suitable for use in this study.

Reliability Test

According to Ghozali²⁰ A reliability test is a questionnaire measurement containing variable or construct indicators. It is usually interpreted as meaning that a questionnaire is reliable if respondents' answers are consistent over time. The following are the results of the reliability test in this study:

Table 2. Results of the Instrument Reliability Test of Variables

Item	Reliability Coefficient (Cronbach's Alpha)	Information
Work Discipline (X1)	0.788	Reliable
Work Motivation (X2)	0.902	Reliable
Work Environment (X3)	0.815	Reliable
Performance (Y)	0.821	Reliable

Based on Table 2 above, it can be seen that all variables examined in this study had a Cronbach's Alpha value greater than 0.6, indicating that each statement used in this study was reliable. This indicates that if statements are submitted repeatedly, the results will be consistent.

Classical Assumption Test

The statistical requirement for multiple linear regression analysis is the use of classical assumption tests. Some of the classical assumptions used in this study are normality, heteroscedasticity, and multicollinearity. However, autocorrelation tests were not used because they must be tested to determine model validity.

²⁰ Ghozali, *Aplikasi Analisis Multivariate Dengan Program IBM SPSS 23*.

Normality Test

Table 3. Normality Test		
One-Sample Kolmogorov-Smirnov Test		
		Unstandardized Residual
N		50
Normal Parameters ^{a,b}	Mean	.0000000
	Standard Deviation	3.32006524
Most Extreme Differences	Absolute	.079
	Positive	.079
	Negative	-.059
Test Statistics		.079
Asymp. Sig. (2-tailed)		.200 ^{c,d}

Based on Table 3. above, the Asymp. Sig. (2-tailed) value is $0.200 > 0.05$, which means that the residual data is normally distributed and suitable for further testing.

Test Multicollinearity

Table 4. TestMulticollinearity			
Coefficients ^a			
Model		Collinearity Statistics	
		Tolerance	VIF
1	(Constant)		
	Work Discipline	.755	1,324
	Motivation	.750	1,334
	Work environment	.962	1,040
a. Dependent Variable: Supervisor Performance			

Based on the analysis results of Table 4. above, it can be concluded that the Tolerance value for the work discipline variable is $0.755 > 0.1$ while the work motivation variable is $0.750 > 0.1$ and the work environment variable is $0.962 > 0.1$. This can be interpreted that the work discipline, work motivation and work environment variables do not experience multicollinearity. In the VIF table for the work discipline variable is $1.324 < 10.00$ while the work motivation variable is $1.334 < 10.00$ and the work environment variable is $1.040 < 10.00$. This can be interpreted that these variables do not experience symptoms of multicollinearity.

Test Heteroscedasticity

Table 5. TestHeteroscedasticity

Coefficients ^a			
Model		T	Sig.
1	(Constant)	-.647	.521
	Work Discipline	1,121	.268
	Motivation	1,176	.245
	Work environment	.576	.567
a. Dependent Variable: ABS_RES			

Based on Table 5 above, using the Glejser test, the significance value for the work discipline variable is $0.268 > 0.05$. The work motivation variable is $0.245 > 0.05$, and the work environment variable is $0.567 > 0.05$. This indicates that each variable is free from heteroscedasticity symptoms.

Multiple Linear Regression Analysis

Multiple linear regression analysis is performed with at least two independent variables. Researchers chose a multiple linear regression equation because there are many independent variables to be discussed in the study. The multiple linear regression equation can then be written as follows:

$$Y = \alpha + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \varepsilon$$

Information :

Y : Mining Supervisor Performance

α : Constant (*Intercept*)

b : Regression Coefficient of Independent Variable

X1 : Work Discipline

X2 : Motivation

X3 : Work Environment

e : *Standard Error*

The following are the results multiple linear regression analysis in this study:

Table 6. Multiple Linear Regression Analysis

Coefficients ^a						
Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	9,885	.550		17,965	.000
	Work Discipline (X1)	.102	.012	.530	8,353	.000
	Motivation (X2)	.058	.007	.501	7,893	.000
	Work Environment (X3)	.104	.020	.298	5,338	.000

a. Dependent Variable: Supervisor Performance (Y)

The multiple linear regression equation from Table 6 above can be explained as follows:

$$Y = 9.885 + 0.102X1 + 0.058X2 + 0.104X3 + e$$

From the regression equation above, the conclusion can be explained as follows:

1. The constant value (α) of 9.885 with a positive sign indicates that if work discipline, work motivation and work environment are considered constant, then the supervisor's performance value is 9.885.
2. The regression coefficient of the work discipline variable (X1) of 0.102 has a positive sign indicating that if work discipline increases by one unit and other variables do not change, then supervisor performance will increase positively.
3. The regression coefficient of the work motivation variable (X2) is 0.058 with a positive sign indicating that if work motivation increases by one unit and other variables do not change, then supervisor performance will increase positively.
4. The regression coefficient of the work environment variable (X3) is 0.104 with a positive sign indicating that if the work environment increases by one unit assuming that the other independent variables do not change, then the supervisor's performance will increase positively.

Hypothesis Testing

In this study, there are three stages of hypothesis testing that will be conducted: partial test (t), simultaneous test (F), and coefficient of determination test (R² test). The following is an explanation of each test:

Discussion and Results of Hypothesis Testing

This test is carried out using the method Multiple Linear Regression Analysis with IBM SPSS Statistics version 26. to process data and accommodate the influence of independent variables partially and simultaneously on the independent variables.

Partial Test (t)

1. Hypothesis Testing 1: Work Discipline has a partial effect on improving the performance of mining supervisors at PT. Cristian Eka Pratama (PT. CEP) East Kalimantan.

Based on the test, it was found that the influence work discipline variable to mining supervisor performance. The calculated t value is $8.353 > t \text{ table } 1.67591$ with a significance level of $0.000 < 0.05$. This can be interpreted as meaning that the work discipline variable has a significant effect on the performance of mining supervisors. This result is in line with Fitriani's research which states that there is a significant influence between work discipline and employee performance. However, it is not in line with other research Nur Annisa et al.,²¹ which states that there is no significant influence between work discipline and employee performance.

2. Hypothesis Testing 2: Motivation has a partial effect on improving the performance of mining supervisors at PT. Cristian Eka Pratama (PT. CEP) East Kalimantan.

Based on the test results, it is known that the influence work motivation to mining supervisor performance. The calculated t value is $7.893 > t \text{ table } 1.67591$ with a significance level of $0.000 < 0.05$. This means that the work motivation variable has a significant effect on the performance of mining supervisors. This finding is in line with previous research, such as that conducted by Rorimpandey et al (2023) stated that work motivation has a significant influence on employee performance. However, this differs from research conducted by Hidayat²² which explains that motivation does not influence employee performance.

3. Hypothesis Testing 3: The work environment has a partial influence on improving the performance of mining supervisors at PT. Cristian Eka Pratama (PT. CEP) East Kalimantan.

In the test results, it was found that the influence work environment (X3) to mining supervisor performance. The calculated t value is $5.338 > t \text{ table } 1.67591$ with a significance level of $0.000 < 0.05$. This means that the work environment variable has a significant effect on the performance of mining supervisors. This finding is in line with previous research Octavia & Anggarani²³ and Safitri et al.,²⁴ which states that the work environment has a positive and significant influence on employee performance. However, different results were shown by Nabilla et al.,²⁵ stated that the work environment has no influence on employee performance.

²¹ Nur Annisa et al., "Pengaruh Etos Kerja, Disiplin Kerja Dan Pengembangan Karir Terhadap Prestasi Kerja Pegawai Di Badan Perencanaan Pembangunan Daerah."

²² Hidayat, "Pengaruh Motivasi, Kompetensi Dan Disiplin Kerja Terhadap Kinerja."

²³ Octavia and Anggarani, "Pengaruh Lingkungan Kerja Terhadap Prestasi Kerja Dimediasi Oleh Motivasi."

²⁴ Safitri et al., "Pengaruh Motivasi Kerja, Pengalaman Kerja, Dan Lingkungan Kerja Terhadap Prestasi Kerja Pada PT Asabri (Persero) Palembang."

²⁵ Nabilla et al., "Pengaruh Disiplin Kerja Dan Lingkungan Kerja Melalui Motivasi Kerja Sebagai Variabel Mediasi Terhadap Prestasi Kerja Pegawai Pada Pt Apl Semarang."

Therefore, it can be concluded that a good work environment is not merely a complement, but a key component that contributes to improved employee performance.

Simultaneous Test (F)

Table 7. Simultaneous Test (F)

ANOVA						
Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	45,221	3	15,074	91,720	.000b
	Residual	7,560	46	.164		
	Total	52,781	49			
a. Dependent Variable: Supervisor Performance (Y)						
b. Predictors: (Constant), Work Environment (X3), Work Discipline (X1), Motivation (X2)						

4. Hypothesis Testing 4: Work Discipline, Motivation, and Work Environment Have a Simultaneous Influence on the Performance Improvement of Mining Supervisors at PT. Cristian Eka Pratama (PT. CEP) East Kalimantan

In testing hypothesis 4, the results of the test of the influence of work discipline, work motivation and work environment on mining supervisor performance show value Sig. of $0.000 < 0.05$, which means that simultaneously (together) the variables of work discipline, work motivation, and work environment have a significant influence on the performance of mining supervisors. This study is in accordance with the theory of human resource management which states that employee performance will increase if the behavioral (discipline), psychological (motivation), and physical (environment) aspects are very important to ensure that the work system built by the company is able to encourage balanced and sustainable improvements in employee performance and also the mining supervisory team.

Coefficient of Determination Test (R²)

Table 8. Test of the Coefficient of Determination (R²)

Model Summary				
Model	R	R Square	Adjusted R Square	Standard Error of the Estimate
1	.926a	.857	.847	.40539
a. Predictors: (Constant), Work Environment (X3), Work Discipline (X1), Motivation (X2)				

Based on Table 8. SPSS Model Summary above, the coefficient of determination or R Square is 0.847 or equal to 84.7%. This figure implies that the variables of Work Discipline, Work Motivation, and Work Environment simultaneously (together) influence the Mining Supervisor

Performance variable by 84.7%. Meanwhile, the remaining ($100\% - 84.7\% = 15.3\%$) is influenced by other variables outside this regression equation or variables not studied.

RESULTS AND DISCUSSION

The Influence of Work Discipline on Improving the Performance of Mining Supervisors at PT. Cristian Eka Pratama (PT. CEP) East Kalimantan

Based on the results of the analysis that has been carried out on the hypothesis testing regarding the influence of Work Discipline has a positive and significant effect on the Performance of Mining Supervisors, it was found that Work Discipline has a calculated t value of $8.353 > t_{table} 1.67591$ with a significance level of $0.000 < 0.05$, so it can be concluded that H1 is accepted. This can be interpreted that the Work Discipline variable has a positive and significant effect on the Performance of Mining Supervisors at PT. Cristian Eka Pratama (PT. CEP) East Kalimantan. Work discipline promotes consistency and order, which are very important in supervisory work. Disciplined supervisors will comply with standard procedures and applicable guidelines, ensuring that supervisory tasks are carried out systematically and reducing the potential for errors. This also allows them to follow set schedules and meet deadlines, a crucial aspect for responsive decision making and timely completion of tasks.

Influence Motivation for Improving the Performance of Mining Supervisors at PT. Cristian Eka Pratama (PT. CEP) East Kalimantan

Based on the results of the analysis that has been carried out on the hypothesis testing regarding the influence of Work Motivation has a positive and significant effect on the Performance of Mining Supervisors, it was found that Work Motivation has a calculated t value of $7.893 > t_{table} 1.67591$ with a significance level of $0.000 < 0.05$ H2 is accepted. This can be interpreted that the work motivation variable has a positive and significant effect on the Performance of Mining Supervisors at PT. Cristian Eka Pratama (PT. CEP) East Kalimantan. Work motivation has a significant and positive impact on supervisor performance because it fundamentally affects the level of energy, initiative, and individual commitment to their work. Motivated supervisors have a strong internal drive to give their best effort, which translates into resilience and persistence in facing obstacles, as well as the ability to find solutions rather than giving up. In addition, motivation increases focus and quality of work; motivated supervisors tend to be more thorough, accurate, and often take the initiative to develop innovative solutions.

Influence of the Work Environment on Improving the Performance of Mining Supervisors at PT. Christian Eka Pratama (PT. CEP) East Kalimantan

Based on the results of the analysis that has been carried out on the hypothesis testing regarding the influence of the Work Environment has a positive and significant effect on the Performance of Mining Supervisors, it was found that the Work Environment has a calculated t value of $5.338 > t \text{ table } 1.67591$ with a significance level of $0.000 < 0.05$ H3 is accepted. This can be interpreted that the work environment variable has a positive and significant effect on the performance of supervisors. Good working environment conditions are one of the main factors in encouraging increased performance of mining supervisors. In industrial sectors that have a high level of risk, the work environment is the main focus point in the company. Mining supervisors have a strategic role in ensuring that all operational processes run in accordance with production standards and safety. Therefore, it is expected that the company will continue to strive to create a comfortable, conducive and safe working environment for its workers.

Influence Work Discipline, Motivation, and Work Environment Have a Simultaneous Influence on the Performance Improvement of Mining Supervisors at PT. Cristian Eka Pratama (PT. CEP) East Kalimantan

Based on the results of the analysis that has been carried out in testing the hypothesis regarding the influence of Work Discipline, Work Motivation and Work Environment which have a positive and significant influence on the Performance of Mining Supervisors, it was found that work discipline, work motivation and work environment have a positive and significant influence on the Performance of Mining Supervisors. $\text{markSig. of } 0.000 < 0.05$, which means that simultaneously (together) the variables of work discipline, work motivation, and work environment have a significant influence on the performance of mining supervisors. Improving employee performance, in this case mining supervisors, is not only determined by one factor, but several interrelated and mutually supporting factors that trigger increased performance of mining supervisors. The performance of mining supervisors, who are the spearhead in operational supervision and the implementation of safety standards, is greatly influenced by internal and external factors of the company where they work. The combination of discipline in work, work motivation, and a supportive work environment will be able to foster synergy that will encourage supervisors to work responsibly and optimally.

CONCLUSION

This study aims to examine the influence of work discipline, work motivation, and work environment on the performance of mining supervisors at PT. Cristian Eka Pratama East Kalimantan. The results of the study show that work discipline, work motivation, and work environment has a significant influence on the performance of mining supervisors at PT. Cristian Eka Pratama East Kalimantan. Individually, each factor has been shown to contribute positively. Well-implemented work discipline improves supervisor performance. The company's work motivation is optimal and has successfully improved performance. Similarly, a positive, safe, and conducive work environment also improves supervisor performance. Furthermore, When these three factors are considered together, their influence becomes stronger. This suggests that the combination of high work discipline, strong company motivation, and a comfortable work environment is highly effective in improving mining supervisor performance. This study has several limitations. First, only three main variables (discipline, motivation, and work environment) were examined, ignoring other factors that may influence supervisor performance. Second, a simple linear regression analysis may not fully capture the complex relationships between variables. Third, the sample was limited to supervisors in a single location, thus limiting the generalizability of the results. Finally, the questionnaire data is potentially biased due to its self-assessment nature.

Suggestions and Recommendations

Based on the research findings and limitations, it is recommended that PT. Cristian Eka Pratama proactively improve work discipline and strengthen supervisors' work motivation. This can be achieved through more intensive training programs, adequate rewards and incentives, and clear career development opportunities. It is also important for the company to involve supervisors in the process of formulating human resource management policies, particularly those related to discipline and motivation, to ensure the relevance and effectiveness of these policies. For future research, it is recommended to examine other variables that could potentially influence supervisor performance, such as competency training, leadership style, and job satisfaction levels. Furthermore, the scope of the study should be expanded by using more diverse sampling techniques, a larger sample size, and involving other types of employees beyond supervisors to gain a more comprehensive understanding.

BIBLIOGRAPHY

- Baharuddin, Ayu Amaliah, Muh. Ikhwan Musa, and Burhanuddin. "Pengaruh Motivasi Dan Kompetensi Kerja Terhadap Prestasi Kerja Karyawan Sales." *Jurnal Akuntansi, Manajemen Dan Ekonomi* 1, no. 1 (2022): 55–62. <https://doi.org/10.56248/jamane.v1i1.13>.
- Chen, Xinyue. "Exploring the Factors That Affect Employee Performance." *SHS Web of Conferences* 181 (2024): 01038. <https://doi.org/10.1051/shsconf/202418101038>.
- Fitriani, Andini Dwi. "Pengaruh Disiplin Kerja Terhadap Prestasi Kerja Guru Sma Negeri 4 Bandung." *Jurnal Tata Kelola Pendidikan* 3, no. 1 (2021): 9–14. <https://doi.org/10.17509/jtkp.v3i1.40388>.
- Ghozali, Imam. *Aplikasi Analisis Multivariete Dengan Program IBM SPSS 23*. 8th ed. Badan Penerbit Universitas Diponegoro, 2016.
- Hidayat, Rahmat. "Pengaruh Motivasi, Kompetensi Dan Disiplin Kerja Terhadap Kinerja." *Widya Cipta: Jurnal Sekretari Dan Manajemen* 5, no. 1 (2021): 16–23. <https://doi.org/10.31294/widyacipta.v5i1.8838>.
- Manuain, Erna Angreani. "Pengaruh Perilaku Pemimpin, Motivasi Dan Lingkungan Kerja Terhadap Prestasi Kerja Pegawai (Literature Review Manajemen Sumberdaya Manusia)." *Inisiatif: Jurnal Ekonomi, Akuntansi Dan Manajemen* 1, no. 4 (2022): 10–20. <https://doi.org/10.30640/inisiatif.v1i4.346>.
- Maulyan, Feti Fatimah, and Dwi Sandini. "Pengaruh Kerjasama Tim, Motivasi Kerja, Dan Disiplin Kerja Terhadap Prestasi Kerja Karyawan." *Jurnal Sains Manajemen* 6, no. 1 (2024): 2685–6972.
- Nabilla, Habibah Yuhrotun, Dian Prawitasari, Vicky Oktavia, and Awanis Linati Haziroh. "Pengaruh Disiplin Kerja Dan Lingkungan Kerja Melalui Motivasi Kerja Sebagai Variabel Mediasi Terhadap Prestasi Kerja Pegawai Pada Pt Apl Semarang." *Bisnis-Net Jurnal Ekonomi Dan Bisnis* 7, no. 1 (2024): 48–60. <https://doi.org/10.46576/bn.v7i1.4381>.
- Nur Annisa, Bobby Fahreza, Juli Gusnawita Sitepu, et al. "Pengaruh Etos Kerja, Disiplin Kerja Dan Pengembangan Karir Terhadap Prestasi Kerja Pegawai Di Badan Perencanaan Pembangunan Daerah." *Journal of Trends Economics and Accounting Research* 4, no. 1 (2023): 283–303. <https://doi.org/10.47065/jtear.v4i1.815>.
- Octavia, Desy, and Dr. Ari Anggarani. "Pengaruh Lingkungan Kerja Terhadap Prestasi Kerja Dimediasi Oleh Motivasi." *SIBATIK JOURNAL: Jurnal Ilmiah Bidang Sosial, Ekonomi, Budaya, Teknologi, Dan Pendidikan* 1, no. 12 (2022): 2849–62. <https://doi.org/10.54443/sibatik.v1i12.460>.
- Rorimpandey, Ecclesia Elnisi, Riane Johnly Pio, and Ventje Tatimu. *Pengaruh Mutasi Dan Motivasi Kerja Terhadap Prestasi Kerja Pada PT . Pegadaian Kantor Area Manado 1 Jurusan Ilmu Administrasi , Program Studi Ilmu Administrasi Bisnis Fakultas Ilmu Sosial Dan Politik , Universitas Sam Ratulangi*. 4, no. 2 (2023): 145–54.
- Safitri, Eki Ayu, Fauziah Afriyani, and Shafiera Lazuardi. "Pengaruh Motivasi Kerja, Pengalaman Kerja, Dan Lingkungan Kerja Terhadap Prestasi Kerja Pada PT Asabri (Persero) Palembang." *Eksis: Jurnal Ilmiah Ekonomi Dan Bisnis* 14, no. 1 (2023): 107. <https://doi.org/10.33087/eksis.v14i1.342>.
- Wardani, Sulistyo, P Rita, and Intan Permatasari. "Pengaruh Pengembangan Karier Dan Disiplin Kerja Terhadap Prestasi Kerja Pegawai Negeri Sipil (Pns) Staf Umum Bagian Pergudangan Penerbangan Angkatan Darat (Penerbad) Di Tangerang." *Jurnal Ilmiah M-Progress* 12, no. 1 (2022): 13–25. <https://doi.org/10.35968/m-pu.v12i1.862>.