

The influence of job motivation, work environment and work discipline on the performance of technical staff

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ABSTRACT

This study examined the influence of work motivation, work environment, and work discipline on the performance of technical employees at PT Optima Mandiri Globalindo Bekasi, a company specializing in medical equipment calibration services. Although these factors have been widely studied in human resource management research, limited empirical evidence exists regarding their combined effects on technical personnel working in highly regulated calibration industries. This research addresses that gap by providing evidence from a sector that demands high levels of accuracy, compliance, and professional responsibility. A quantitative approach was employed using a saturated sampling technique involving all 68 technical employees. Data were collected through structured questionnaires and analyzed using multiple linear regression, supported by validity, reliability, and classical assumption tests. The findings revealed that work motivation, work environment, and work discipline positively and significantly affect employee performance. The regression results showed that work motivation ($\beta = 0.420$), work environment ($\beta = 0.603$), and work discipline ($\beta = 0.422$) significantly contributed to performance improvement, with the work environment emerging as the most influential factor. Simultaneously, the variables significantly affected employee performance ($F = 100.531$; $p < 0.001$). The Adjusted R^2 value of 0.818 indicates that 81.8% of employee performance variation is explained by the model. The study contributes to human resource management literature and provides practical guidance for improving organizational performance through motivation, workplace conditions, and discipline enhancement.

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1. Introduction

Employee performance is a critical determinant of organizational success, particularly in service-based industries such as medical device calibration laboratories (Mulyani & Pratama, 2023). In private calibration laboratories, technical staff are responsible for ensuring the accuracy, safety, and compliance of medical equipment such as sphygmomanometers, ventilators, incubators, and other electromedical devices. Their role requires high technical competence, precision, and strict adherence to Standard Operating Procedures (SOP) and quality management systems to ensure reliable calibration results that support patient safety and healthcare service quality.

At PT. Optima Mandiri Globalindo, a private company specializing in medical device calibration services in Bekasi, Indonesia, the performance of technical laboratory personnel plays a crucial role in ensuring service quality, customer satisfaction, and organizational credibility. However, several operational challenges have been identified that may hinder employee performance and overall organizational effectiveness. These challenges include low employee motivation, weak work discipline, insufficient training

opportunities, limited technical competencies, procedural errors during calibration activities, non-compliance with applicable standards and regulations, inadequate documentation practices, limited availability of resources and calibration equipment, ineffective quality management systems, and unfavorable working environmental conditions. If not properly addressed, these issues can result in inaccurate calibration outcomes, decreased service reliability, reduced customer trust, and potential risks to organizational sustainability and competitiveness.

Previous studies have produced inconsistent findings regarding the effects of work motivation, work environment, and work discipline on employee performance. While many researchers have reported positive and significant relationships among these variables (Maulidiyah et al., 2024; Mufidah & Juwita, 2024), others have found weak, insignificant, or even negative effects (Nurrachma et al., 2024; Sihombing et al., 2024; Herminingsih et al., 2025). These discrepancies may be attributed to differences in organizational contexts, industrial characteristics, employee competencies, leadership practices, and measurement approaches. In highly regulated technical service industries, employee performance is often influenced not only by behavioral factors but also by compliance requirements, technical precision, quality assurance systems, and operational risks. Consequently, relationships that appear significant in general service or manufacturing sectors may not necessarily be replicated in technical laboratory environments.

The existence of these inconsistencies highlights an important research gap within the current literature. Additional empirical studies are needed to better understand the extent to which motivation, workplace conditions, and disciplinary practices influence employee performance across different organizational contexts. This issue is particularly relevant in companies operating in the medical equipment calibration industry, where employee performance has a direct impact on service precision, operational reliability, regulatory compliance, and customer confidence. High-quality calibration services depend heavily on the competence and effectiveness of technical personnel. Therefore, by investigating these relationships at PT Optima Mandiri Globalindo Bekasi, this study aims to contribute to the development of human resource management literature while providing valuable managerial insights and practical recommendations for enhancing organizational performance and service excellence.

This study was conducted to investigate the influence of work motivation, work environment, and work discipline on the performance of technical laboratory employees at PT Optima Mandiri Globalindo, both individually and collectively. Examining these factors is important because employee performance in the medical device calibration industry plays a crucial role in ensuring the precision, consistency, and quality of calibration services. High employee performance not only supports compliance with applicable industry regulations and standards but also contributes to customer satisfaction and organizational credibility.

The uniqueness of this research lies in its focus on the medical device calibration service sector, an area that has received relatively little attention in previous human resource management studies. In addition, this study seeks to provide contemporary empirical evidence to address the inconsistent findings reported in earlier research regarding the effects of work motivation, work environment, and work discipline on employee performance. By exploring these relationships within a specialized organizational setting, the study is expected to broaden the understanding of performance-related factors in technical service organizations. Furthermore, the findings are anticipated to enrich the existing literature on human resource management while offering practical insights for improving employee productivity, optimizing laboratory operations, enhancing service quality, and strengthening the organization's competitive advantage in the industry. The novelty of this study lies in its investigation of employee performance determinants within the medical device calibration service industry, a highly specialized and underexplored context in human resource management research.

Unlike previous studies that predominantly focused on manufacturing, educational, public, or general service organizations, this research examines technical laboratory personnel whose work performance directly affects calibration accuracy, regulatory compliance, patient safety, and service reliability. Furthermore, this study contributes to the literature by testing the simultaneous effects of work motivation, work environment, and work discipline within a technical service setting characterized by stringent quality standards and operational precision requirements. By doing so, the study provides contextual evidence that extends the applicability of existing human resource management theories and offers a deeper understanding of employee performance determinants in specialized laboratory-based organizations.

2. Research Method

This research adopted a quantitative approach grounded in deductive reasoning to investigate the effects of work motivation, work environment, and work discipline on employee performance at PT Optima Mandiri Globalindo, Bekasi. The quantitative method was selected because it enables the measurement and statistical analysis of relationships among variables, allowing the study to objectively evaluate empirical evidence and draw conclusions based on observable data. Through this approach, the research aimed to provide a systematic explanation of factors affecting employee performance within the organization (CASP, 2025).

The study population comprised 68 technical laboratory employees working at PT Optima Mandiri Globalindo. Considering that the number of employees was relatively limited, a saturated sampling method was employed, whereby all members of the population participated as respondents. This sampling strategy ensured that the study captured the perspectives of the entire population and reduced the possibility of sampling bias. Although the study employed a census approach by including all 68 technical laboratory employees at PT Optima Mandiri Globalindo, the findings should be interpreted within the context of the organization under investigation. Since the respondents were drawn from a single company, the generalizability of the results to other industries or organizational settings may be limited. Nevertheless, the census method enhances the internal validity of the study by representing the entire target population and providing an accurate reflection of employee perceptions within the company. Future studies are encouraged to involve larger and more diverse samples from multiple organizations to improve external validity and broader applicability of the findings.

Data were gathered from both primary and secondary sources. Primary data were collected through structured questionnaires distributed directly to employees. The questionnaire items were measured using a five-point Likert scale, ranging from 1 (very poor) to 5 (very good), to capture respondents' perceptions of the studied variables. Meanwhile, secondary data were obtained through document analysis and a review of relevant literature, including company reports, organizational records, scholarly journals, books, and other academic sources that supported the research objectives and theoretical foundation (Saunders et al., 2023; Sekaran & Bougie, 2020).

The research variables included motivation, work environment, and work discipline as independent variables, and employee performance as the dependent variable. Each variable was operationalized into measurable indicators based on established theories from previous studies. Motivation was measured through achievement, affiliation, and power needs; work environment through physical and social workplace conditions; work discipline through compliance, responsibility, and organizational rules; and employee performance through quality, quantity, cooperation, responsibility, and initiative (Robbins & Judge, 2022).

Data analysis involved several stages. First, instrument testing was conducted using validity tests (Pearson Product Moment correlation) and reliability tests (Cronbach's Alpha) to ensure the quality of the questionnaire. To minimize the risk of common method bias (CMB), procedural remedies were applied during questionnaire administration, including assuring respondent anonymity, maintaining confidentiality, and arranging questionnaire items systematically to reduce evaluation apprehension. Furthermore, Harman's single-factor test was conducted by loading all measurement items into an exploratory factor analysis. The results indicated that the first factor accounted for less than 50% of the total variance, suggesting that common method bias was not a significant concern in this study (Podsakoff et al., 2023). Second, classical assumption tests were performed, including normality, multicollinearity, and heteroscedasticity tests to ensure the suitability of regression analysis. Third, inferential statistical analysis was conducted using correlation analysis, coefficient of determination (R^2). The data were analyzed using multiple linear regression analysis to evaluate the direction and magnitude of the relationships among the research variables. This statistical technique enabled the study to determine the extent to which work motivation, work environment, and work discipline influenced employee performance. Prior to regression analysis, several prerequisite tests were conducted to ensure the validity of the results. Furthermore, hypothesis testing was performed using t-tests to examine the individual effect of each independent variable and F-tests to assess their collective influence on employee performance. All statistical decisions were made at a 5% significance level, providing a reliable basis for drawing research conclusions.

The selection of achievement, affiliation, and power needs as indicators of work motivation was based on McClelland's Theory of Needs, which explains that individual motivation is primarily driven by the need for achievement (the desire to accomplish challenging goals and attain excellence), the need for

affiliation (the desire to establish positive interpersonal relationships), and the need for power (the desire to influence and direct others). These dimensions have been widely applied in organizational behavior and human resource management research because they effectively capture employees' intrinsic motivational drivers that influence workplace behavior and performance (McClelland, 1987; Robbins & Judge, 2022)

The research procedure followed a structured sequence starting from problem identification, literature review, development of research instruments, data collection, data screening, statistical testing, regression analysis, hypothesis testing, and concluding the findings based on empirical results. This systematic procedure ensured that the research was conducted scientifically and produced valid and reliable conclusions.

3. Result and Discussion

Overview of Research Object

PT Optima Mandiri Globalindo Bekasi is a company engaged in medical equipment calibration services, officially established in 2022 and supported by complete legal documentation from relevant Indonesian authorities. Since its establishment, the company has been committed to providing accurate, efficient, and high-quality calibration services that meet industry standards while maintaining customer satisfaction. The company upholds the "OPTIMA" values, which emphasize Opportunity, Professionalism, Trust, Maintenance, Independence, and Accountability as guiding principles in its operations. These values reflect its commitment to professionalism, service quality, and continuous improvement. PT Optima Mandiri Globalindo also has a clear vision to become a leading provider of medical calibration services supported by a structured organizational system that ensures effective coordination, responsibility, and service performance within the company.

Respondent Characteristics

This study involved 68 employees of PT Optima Mandiri Globalindo Bekasi. The demographic profile of respondents was analyzed based on gender, age, education level, and length of employment to provide an overview of the workforce composition in the laboratory calibration division. The demographic profile of the respondents reveals several notable characteristics of the workforce at PT Optima Mandiri Globalindo. Based on gender, male employees constituted the majority of participants, accounting for 70.6% of the total sample, while female employees represented 29.4%. This distribution suggests that technical laboratory positions within the organization are predominantly occupied by male personnel.

From an age perspective, the largest proportion of respondents belonged to the 25–35-year age category, representing 54.4% of the sample. Employees younger than 25 years accounted for 22.1%, followed by those aged 36–45 years at 16.2%. Meanwhile, respondents over the age of 45 comprised only 7.4% of the workforce. These figures indicate that the organization is primarily supported by employees who are in their productive working years.

Table 1. Summary of respondent characteristics

Category	Group	Frequency	Percentage (%)
Gender	Male	48	70.6
	Female	20	29.4
Age	< 25 years	15	22.1
	25–35 years	37	54.4
	36–45 years	11	16.2
	> 45 years	5	7.4
Education	Senior High School	18	26.5
	Diploma III	18	26.5
	Bachelor's Degree	28	41.2
	Master's Degree	4	5.9
Length of Employment	< 1 year	15	22.1
	1–2 years	51	75.0
	> 2 years	2	2.9
Total Respondents		68	100

Table 1 presents the demographic characteristics of the respondents based on gender, age, education level, and length of employment. The majority of respondents were male (70.6%), aged between 25–35 years (54.4%), held a Bachelor's degree (41.2%), and had worked for 1–2 years (75.0%). These characteristics

indicate that the respondents were predominantly young and productive employees working in technical laboratory functions.

Validity and Reliability Test Result

The instrument testing in this study consisted of validity and reliability tests conducted using SPSS version 26 with 68 respondents. The validity test was carried out by comparing the calculated correlation value (r count) with the critical value (r table = 0.239). The results show that all questionnaire items across the four variables motivation, work environment, work discipline, and technician performance that have r count values greater than r table. This indicates that all indicators are valid and able to measure the intended constructs. Since this study employed a multiple linear regression approach using SPSS and treated the variables as composite observed constructs, construct validity was assessed through item validity and reliability testing using Pearson Correlation and Cronbach's Alpha. Therefore, CFA, AVE, Composite Reliability, and HTMT analyses, which are commonly associated with SEM-based approaches, were not applied

Table 2. Summary of validity and reliability results

Variable	Number of Items	Validity Result	Cronbach's Alpha	Reliability Decision
Motivation	10	All items valid (r count > 0.239)	0.751	Reliable
Work Environment	14	All items valid (r count > 0.239)	0.814	Reliable
Work Discipline	16	All items valid (r count > 0.239)	0.821	Reliable
Technician Performance	10	All items valid (r count > 0.239)	0.690	Reliable

The reliability assessment demonstrated that all research variables met the required standards for internal consistency. Based on the Cronbach's Alpha results, each construct achieved a value exceeding the commonly accepted minimum criterion of 0.60, indicating that the measurement items consistently captured the intended concepts. Specifically, the work motivation variable recorded a Cronbach's Alpha coefficient of 0.751, while the work environment and work discipline variables achieved values of 0.814 and 0.821, respectively. Meanwhile, the technician performance variable obtained a reliability coefficient of 0.690, which also surpassed the acceptable threshold.

These findings indicate that the questionnaire items used in the study produced stable and dependable responses across respondents. The satisfactory reliability values suggest that the instruments were capable of measuring each construct with an adequate level of consistency, thereby reducing the likelihood of measurement error. Consequently, the reliability test results provide strong evidence that the research instruments are appropriate for use in subsequent statistical procedures. Taken together with the validity test outcomes, the findings confirm that the questionnaire possesses acceptable psychometric properties and can be confidently utilized for further data analysis, hypothesis testing, and interpretation of the relationships among the variables examined in this study.

Classical Assumption Test

This section discusses the results of the classical assumption tests and inferential statistical analyses conducted to evaluate the appropriateness of the regression model and ensure the accuracy of subsequent hypothesis testing. These preliminary tests are essential for verifying that the data satisfy the assumptions required for multiple linear regression analysis. The normality assessment was performed using the Kolmogorov-Smirnov test. The results revealed an Asymp. Sig. (2-tailed) value of 0.200, which exceeds the significance criterion of 0.05. This outcome indicates that the residuals are normally distributed, suggesting that the normality assumption has been successfully met.

To examine potential multicollinearity among the independent variables, tolerance and Variance Inflation Factor (VIF) values were analyzed. The findings showed that the variables of work motivation, work environment, and work discipline all possessed tolerance values greater than 0.10 and VIF values lower than 10. These results confirm the absence of multicollinearity, indicating that the independent variables do not exhibit excessive correlations that could distort the regression estimates.

In addition, the heteroskedasticity test was conducted using the Glejser method. The significance values obtained for all independent variables were above 0.05, demonstrating that heteroskedasticity is not present in the model. Therefore, the residuals exhibit constant variance, confirming that the regression model satisfies the homoscedasticity assumption and is appropriate for further statistical analysis.

Table 3. Summary of classical assumption test

Test Type	Method	Result	Conclusion
Normality Test	Kolmogorov–Smirnov	Sig. = 0.200 (> 0.05)	Data are normally distributed
Multicollinearity	Tolerance & VIF	Tolerance > 0.10; VIF < 10	No multicollinearity
Heteroskedasticity	Glejser Test	Sig. > 0.05	No heteroskedasticity

As presented in Table 3, all tolerance values exceeded 0.10 and all VIF values were below 10, indicating the absence of multicollinearity. Furthermore, Glejser significance values were above 0.05 for all variables, confirming that heteroscedasticity was not detected.

Multiple Regression Analysis

To evaluate the influence of work motivation, work environment, and work discipline on technician performance at PT Optima Mandiri Globalindo Bekasi, this study applied multiple linear regression analysis. Based on the statistical results, the following regression model was obtained:

$$\hat{Y} = 9.991 + 0.420X_1 + 0.603X_2 + 0.422X_3$$

The regression equation provides an overview of how changes in the independent variables contribute to variations in employee performance. The constant value of 9.991 represents the estimated level of technician performance when the values of work motivation, work environment, and work discipline are assumed to be zero. This value serves as the baseline performance score in the model.

Furthermore, all regression coefficients are positive, indicating a direct relationship between the independent variables and technician performance. The coefficient of 0.420 for work motivation suggests that higher levels of employee motivation are associated with improved performance outcomes. Similarly, the work environment variable has a coefficient of 0.603, implying that improvements in workplace conditions contribute substantially to enhanced technician performance. Meanwhile, the coefficient of 0.422 for work discipline indicates that employees who demonstrate stronger adherence to organizational rules and responsibilities tend to achieve better performance levels. Assuming other variables remain unchanged (*ceteris paribus*), increases in any of these factors will positively affect technician performance, with the work environment showing the strongest contribution among the three independent variable.

Coefficient of Determination Results

The coefficient of determination results demonstrate that the regression model possesses a high level of explanatory capability. This is reflected in the Adjusted R Square value of 0.818, which indicates that work motivation, work environment, and work discipline collectively account for 81.8% of the variation in employee performance at PT Optima Mandiri Globalindo Bekasi. In other words, the three independent variables included in the model make a substantial contribution to explaining differences in employee performance levels. The remaining 18.2% of the variation is attributable to other factors that were not incorporated into the present study. These may include variables such as leadership style, compensation, job satisfaction, organizational commitment, training, or other organizational and individual characteristics that could also influence employee performance. The relatively high Adjusted R Square value suggests that the proposed model effectively captures the key determinants of employee performance within the organization. Therefore, the findings indicate that the regression model is statistically robust and provides strong predictive power, making it suitable for explaining employee performance and supporting managerial decision-making related to human resource management practices. Although the Adjusted R² value reached 0.818, additional diagnostic assessments indicate that the model is statistically acceptable. The multicollinearity test revealed VIF values below 10 and tolerance values above 0.10, while heteroscedasticity and normality assumptions were also satisfied. These findings suggest that the high explanatory power of the model is unlikely to be caused by multicollinearity or estimation bias. Nevertheless, future studies should employ cross-validation techniques and larger samples to further assess model stability and reduce the possibility of overfitting.

Hypothesis Testing

Hypothesis testing was carried out through both partial and simultaneous analyses using a significance level of 5% ($\alpha = 0.05$). The purpose of this procedure was to determine whether work motivation, work environment, and work discipline significantly influence technician performance at PT Optima Mandiri Globalindo Bekasi. A hypothesis was considered statistically supported when the significance value (p-value) was less than or equal to 0.05 and/or the calculated t-value exceeded the critical t-table value of 1.997.

The results of the partial (t-test) analysis revealed that all independent variables exert a positive and statistically significant effect on technician performance. The work motivation variable produced a t-statistic of 3.606, which is substantially higher than the critical value, indicating that increased motivation contributes to improved employee performance. Similarly, the work environment variable generated a t-value of 4.304, demonstrating that favorable workplace conditions significantly enhance technician performance. Among the variables examined, work discipline exhibited the strongest effect, with a t-statistic of 8.287, suggesting that adherence to organizational rules, procedures, and responsibilities plays a critical role in determining performance outcomes.

Furthermore, all variables recorded significance values of 0.000, which are well below the 0.05 threshold. These findings provide strong empirical evidence that each independent variable individually influences technician performance. Consequently, all null hypotheses (H_0) are rejected, while the alternative hypotheses are accepted, confirming the significant contribution of work motivation, work environment, and work discipline to employee performance.

Meanwhile, the simultaneous test (F-test) shows that motivation, work environment, and work discipline together significantly affect technician performance, with an F-value of 101.141 which is greater than F-table (2.507) and a significance value of 0.000 (< 0.05). This confirms that the three variables collectively contribute to improving employee performance at PT Optima Mandiri Globalindo Bekasi.

Table 4. Summary of hypothesis test results

Hypothesis	Relationship Tested	Test Type	Statistical Result	Decision	Conclusion
H1	Motivation → Performance	t-test	$t = 3.606 > 1.997$, Sig. = 0.000	H_0 rejected	Significant positive effect
H2	Work Environment → Performance	t-test	$t = 4.304 > 1.997$, Sig. = 0.000	H_0 rejected	Significant positive effect
H3	Work Discipline → Performance	t-test	$t = 8.287 > 1.997$, Sig. = 0.000	H_0 rejected	Significant positive effect
H4	Motivation, Environment, Discipline → Performance	F-test	$F = 101.141 > 2.507$, Sig. = 0.000	H_0 rejected	Significant simultaneous effect

Discussion

The findings of this research provide empirical evidence that work motivation, work environment, and work discipline significantly and positively influence employee performance at PT Optima Mandiri Globalindo Bekasi. The results indicate that each variable independently contributes to enhancing employee performance, demonstrating the importance of motivational factors, supportive workplace conditions, and disciplined work behavior in achieving better job outcomes. Furthermore, when analyzed collectively, these three variables exert a substantial combined effect on employee performance. This suggests that optimal performance is achieved when employees are highly motivated, work in a conducive environment, and consistently adhere to organizational rules and standards. Therefore, these factors serve as key determinants of employee effectiveness and organizational success. The findings have important implications for human resource management in the medical device calibration industry. Since calibration activities require high levels of precision, compliance, and technical accuracy, organizations should prioritize the development of supportive work environments, employee discipline, and motivational systems. Investments in laboratory facilities, safety standards, communication systems, employee recognition programs, and discipline management mechanisms can significantly improve technician performance and service quality. Consequently, these improvements may enhance calibration accuracy, customer satisfaction, and organizational competitiveness.

Effect of Work Motivation on Employee Performance

Work motivation has a positive and significant effect on employee performance ($\beta = 0.420$, $t = 3.606$, $p < 0.001$). This indicates that higher levels of motivation lead to improved performance among technical staff. Motivation in this study is reflected through salary, supervision, work relationships, recognition, and achievement. Employees who are more motivated tend to demonstrate higher productivity, responsibility, and commitment in completing their tasks. This finding is consistent with Mulyani & Pratama (2023), Lawren & Ekawati (2023), and Santoni & Suana (2018) who emphasize that achievement needs, affiliation needs, and power needs are key drivers of employee behavior and performance. Thus, enhancing employee motivation is essential for improving organizational outcomes. From a theoretical perspective, the findings support McClelland's Need Theory, which posits that achievement, affiliation, and power needs

encourage individuals to exert greater effort in achieving work objectives. In calibration laboratories, technicians frequently encounter tasks requiring precision and problem-solving skills. Consequently, employees with stronger achievement motivation tend to demonstrate greater persistence and higher performance levels.

Effect of Work Environment on Employee Performance

The work environment has a positive and significant effect on employee performance ($\beta = 0.603$, $t = 4.304$, $p < 0.001$). This suggests that both physical and non-physical workplace conditions strongly influence employee productivity. Aspects such as lighting, temperature, noise level, workspace arrangement, and interpersonal relationships contribute to employee comfort and effectiveness in work execution. A supportive work environment improves focus, reduces stress, and enhances overall efficiency. This finding aligns with Febianti et al. (2025), Mudiansyah et al. (2025), Sari (2020), and Pereira & Said (2019) who states that a well-managed work environment is a key determinant of employee performance improvement. The strong effect of the work environment supports organizational behavior theory, which emphasizes that workplace conditions shape employee attitudes and productivity. In medical equipment calibration laboratories, technicians operate sophisticated instruments that require concentration, accuracy, and compliance with technical procedures. Therefore, a supportive physical and psychosocial environment becomes a critical prerequisite for maintaining performance quality

Effect of Work Discipline on Employee Performance

Work discipline has a positive and significant effect on employee performance ($\beta = 0.422$, $t = 8.287$, $p < 0.001$). Employees with high discipline demonstrate better punctuality, compliance with rules, and consistency in task completion. Discipline in this study is reflected through leadership example, fairness, supervision, sanctions, and human relations. Strong work discipline creates a structured and orderly working environment, which directly improves productivity and performance quality. This supports Hasibuan (2022), and aligns with Maharani et al. (2023), Prasetyo & Marlina (2019), and Setyawati & Arifin (2024) who states that discipline is a fundamental factor in improving employee effectiveness and organizational performance. The findings reinforce control theory and human resource management perspectives that regard discipline as a mechanism for aligning employee behavior with organizational objectives. Given the strict standards governing calibration procedures, disciplined work behavior minimizes operational errors and ensures service reliability.

Simultaneous Effect of Work Motivation, Work Environment, and Work Discipline on Employee Performance

Work motivation, work environment, and work discipline simultaneously have a strong and significant effect on employee performance ($F = 101.141$, $p < 0.001$), with an Adjusted R^2 of 0.818, indicating that 81.8% of employee performance is explained by these three variables. The regression model ($Y = 9.991 + 0.420X_1 + 0.603X_2 + 0.422X_3$) shows that all variables positively contribute to performance improvement. Among them, the work environment emerges as the most dominant factor, followed by work discipline and work motivation. These results indicate that employee performance is shaped by a combination of psychological, organizational, and environmental factors. This finding aligns with Pereira & Said (2019), I Wayan Ruspindi Junaedi et al. (2022), Wulandari et al. (2025), Hustia (2020), and Pratama & Magdalena (2022) who states same. Therefore, integrating motivation enhancement, a supportive work environment, and strong discipline is essential to achieve optimal performance and organizational effectiveness.

4. Conclusion

This study aimed to examine the effect of motivation, work environment, and work discipline on employee performance at PT Optima Mandiri Globalindo, Bekasi. The findings confirm the expectations proposed in the Introduction section that these internal organizational factors significantly contribute to improving employee performance. The results demonstrate that motivation, work environment, and work discipline have significant positive effects on employee performance, both individually and simultaneously.

Furthermore, the results indicate that the work environment plays a critical role in enhancing overall employee performance by creating conditions that support both employee motivation and work discipline. A positive and conducive work environment enables employees to perform their duties more comfortably, efficiently, and effectively, while also encouraging greater engagement and commitment to organizational goals. When employees are motivated and work within a supportive environment that promotes discipline

and adherence to organizational standards, their productivity, work quality, and job performance tend to improve significantly. These findings suggest that the interaction among motivation, work environment, and work discipline creates a synergistic effect that contributes to higher levels of organizational effectiveness. Consequently, the results presented in the Results and Discussion section are aligned with the research objectives and support the theoretical framework underlying this study. The findings further reinforce the view that organizations seeking to improve employee performance should adopt an integrated human resource management approach that simultaneously enhances motivation, provides a supportive work environment, and fosters strong work discipline. Such efforts are particularly important in technical and quality-sensitive industries, such as medical device calibration services, where employee performance directly influences service accuracy, reliability, and customer trust.

The practical implication of this study suggests that PT Optima Mandiri Globalindo should integrate motivation enhancement, work environment improvement, and work discipline enforcement into its human resource management policies to achieve sustainable performance improvement. Moreover, future studies may expand this research model by incorporating additional variables such as leadership, compensation, job satisfaction, or organizational commitment, as well as examining different industrial sectors to improve the generalizability and application of the research findings.

This study contributes to Human Resource Management (HRM) theory by confirming that work motivation, work environment, and work discipline are important determinants of employee performance in the medical device calibration industry. The findings also highlight the work environment as the most dominant factor, emphasizing the importance of workplace conditions in highly technical and quality-sensitive industries.

From a managerial perspective, organizations should focus on improving workplace conditions, strengthening employee motivation, and enforcing work discipline simultaneously. An integrated HRM strategy can enhance employee productivity, service quality, operational accuracy, and organizational performance. The novelty of this study lies in its focus on the medical device calibration industry, which has received limited attention in previous HRM research. The findings provide evidence that work environment, motivation, and discipline collectively play a significant role in improving technician performance and can serve as a reference for HRM practices in similar technical service organizations.

References

- Febianti, V., Sudiantini, D., & Narpati, B. (2025). PENGARUH LINGKUNGAN KERJA, PENGEMBANGAN KARIR DAN KOMPENSASI TERHADAP KEPUASAN KERJA KARYAWAN PADA PT. PUJI SARANA JAYA. *SINERGI: Jurnal Riset Ilmiah*, 2(3). <https://doi.org/10.62335/sinerji.v2i3.1008>
- Hasibuan. (2022). Manajemen Sumber Daya Manusia In Manajemen Sumber Daya Manusia. *Edisi Revisi Jakarta: Bumi Aksara*.
- Herminingsih, A., Sari, N. P., & Hidayat, R. (2025). The effects of work environment, work discipline, and work motivation on employee performance. *Eduvest: Journal of Universal Studies*, 5(1), 45–58.
- Hustia, A. (2020). Pengaruh Motivasi Kerja, Lingkungan Kerja Dan Disiplin Kerja Terhadap Kinerja Karyawan Pada Perusahaan WFO Masa Pandemi. *Jurnal Ilmu Manajemen*, 10(1). <https://doi.org/10.32502/jimn.v10i1.2929>
- I Wayan Ruspindi Junaedi, I Komang Andika, & Gusti Ngurah Joko Adinegara. (2022). PENGARUH MOTIVASI KERJA, LINGKUNGAN KERJA, DAN DISIPLIN KERJA TERHADAP KINERJA KARYAWAN DI VILLA STAR EAST KARANGASEM. *Jurnal Ilmiah Manajemen, Bisnis Dan Kewirausahaan*, 2(1). <https://doi.org/10.55606/jurimbik.v2i1.192>
- Lawren, C., & Ekawati, S. (2023). Pengaruh Motivasi Kerja, Kompensasi dan Lingkungan Kerja terhadap Kepuasan Kerja Karyawan PT TSA di Bogor. *Jurnal Manajerial Dan Kewirausahaan*, 5(1). <https://doi.org/10.24912/jmk.v5i1.22561>
- Maharani, A., Alpina Damayanti, S., & Karolina Sitepu, S. (2023). PENGARUH DISIPLIN KERJA TERHADAP KINERJA KARYAWAN PRODUKSI OFFSET. *Journal of Islamic Business Management Studies (JIBMS)*, 4(1). <https://doi.org/10.51875/jibms.v4i1.227>
- Maulidiyah, L., Syahrudin, & Rahman, A. (2024). The influence of work motivation, work discipline, and work environment on employee performance: Case study at CV. ATH Group Balikpapan. *Jurnal Apresiasi Ekonomi*, 12(3), 421–433.
- Mudiansyah, P., Raully Sijabat, & Bayu Kurniawan. (2025). Pengaruh Kedisiplinan Kerja, Keterampilan Kerja, Kompensasi, Motivasi Dan Lingkungan Kerja Terhadap Produktivitas Kerja Karyawan PT. Misaja Mitra. *Jurnal Ilmiah Manajemen Bisnis Dan Ekonomi Kreatif*, 4(1). <https://doi.org/10.26877/jibeka.v4i1.1256>
- Mufidah, A., & Juwita, R. (2024). The influence of work environment and work discipline on employee performance at PT Pos Indonesia (Persero). *Research Journal of Management and Social Sciences*, 2(1), 15–25.

- Mulyani, T., & Pratama, R. A. (2023). Pengaruh Motivasi Kerja, Loyalitas Kerja, dan Lingkungan Kerja terhadap Produktivitas Kerja Karyawan. *Revenue: Lentera Bisnis Manajemen*, 1(03). <https://doi.org/10.59422/lbm.v1i03.136>
- Nurrachma, F. N., Krisnandi, H., & Digidowiseiso, K. (2024). The influence of motivation, work environment and work discipline on employee performance at PT Tamim Zada Rajawali. *International Journal of Social Science Research*, 4(2), 231–242. <https://doi.org/10.46799/ijssr.v4i02.715>
- Pereira, S., & Said, S. (2019). Pengaruh Disiplin Kerja, Lingkungan Kerja, dan Motivasi Kerja Terhadap Kinerja Pegawai. *PARADOKS: Jurnal Ilmu Ekonomi*, 2(2). <https://doi.org/10.33096/paradoks.v2i2.167>
- Prasetyo, E. T., & Marlina, P. (2019). Pengaruh Disiplin Kerja dan Kepuasan Kerja Terhadap Kinerja Karyawan. *Jurnal Inspirasi Bisnis Dan Manajemen*, 3(1). <https://doi.org/10.33603/jibm.v3i1.2080>
- Pratama, R. A., & Magdalena. (2022). Pengaruh Kompensasi, Pelatihan Kerja, dan Lingkungan Kerja Terhadap Kinerja Karyawan PT Sinergy Utama Raya Priode. *Journal of Current Research in Business and Economics*, 01(01).
- Robbins, S. P., & Judge, T. A. (2022). *Organizational Behavior* (19th ed.). Harlow: Pearson Education.
- Santoni, N. P. C. C., & Suana, I. W. (2018). PENGARUH KOMPENSASI, MOTIVASI, DISIPLIN KERJA TERHADAP PRODUKTIVITAS KERJA KARYAWAN DIVISI SALES DI HONDA DENPASAR AGUNG. *E-Jurnal Manajemen Universitas Udayana*, 7(10). <https://doi.org/10.24843/ejmunud.2018.v07.i10.p07>
- Sari, N. (2020). Pengaruh Disiplin Kerja, Budaya Organisasi, Dan Lingkungan Kerja Terhadap Kinerja Karyawan Dengan Etos Kerja Sebagai Variabel Moderasi. *Manajemen*.
- Saunders, M., Lewis, P., & Thornhill, A. (2023). *Research Methods for Business Students* (10th ed.). Harlow: Pearson Education.
- Saunders, M., Lewis, P., & Thornhill, A. (2023). *Research Methods for Business Students* (10th ed.). Harlow: Pearson Education.
- Sekaran, U., & Bougie, R. (2020). *Research Methods for Business: A Skill-Building Approach* (8th ed.). Hoboken, NJ: John Wiley & Sons
- Setyawati, A., & Arifin, K. (2024). Pengaruh Disiplin Kerja Terhadap Kinerja Karyawan (PERSERODA) Di Kabupaten Tabalong. *JAPB*, 7(1).
- Sihombing, P., Simanjuntak, D., & Manurung, E. (2024). The influence of work environment, work discipline, and work motivation on employee performance at PT Opal Coffee Indonesia. *MEGA: Hope Economic Journal*, 2(2), 51–62
- Wulandari, Sabandar, S. Y., & Patiung, N. (2025). Pengaruh Motivasi Kerja, Lingkungan Kerja dan Disiplin Kerja Terhadap Kinerja Karyawan PT. Asri Tritunggal Property. *Journal of Marketing Management and Innovative Business Review*, 2(2). <https://doi.org/10.63416/mrb.v2i2.311>