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# An Empirical Analysis of Competence, Personality, and Work Facilities as Determinants of Employee Performance at the Faculty of Engineering, University of Lampung

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**ABSTRACT**

This study investigates the influence of competence, personality, and work facilities on employee performance within the Faculty of Engineering, University of Lampung. A quantitative descriptive design with an explanatory approach was employed, utilizing questionnaires administered to 88 respondents. The data were analyzed through multiple linear regression. The empirical findings reveal that competence, personality, and work facilities each exert a positive and statistically significant effect on employee performance. Among the examined variables, competence emerges as the most dominant predictor, accounting for 45.4% of the variance, followed by work facilities (26.2%) and personality (19.2%). Collectively, these factors demonstrate a strong explanatory power, with an adjusted coefficient of determination (Adjusted $R^2$) of 0.892. The results highlight that enhancing employee competence, fostering personality attributes, and ensuring the availability of adequate work facilities constitute critical determinants for optimizing employee performance in the academic context of the Faculty of Engineering, University of Lampung.



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## 1. INTRODUCTION

Higher education institutions hold a strategic role in producing qualified human resources capable of competing in the digital era [1]. The effectiveness of such institutions in achieving their objectives is strongly determined by employee performance, which in turn is shaped by several key factors, including competence, personality, and the availability of sufficient work facilities [2].

Competence is a fundamental determinant of an individual's ability to complete tasks effectively [3]. In the current digital era, competence extends beyond technical skills to encompass critical thinking, adaptability to technological change, and collaborative capabilities. Personality characteristics also play a vital role, as they influence both individual performance and interpersonal dynamics within the workplace [3].

Equally important are work facilities, which serve as enabling factors for employee productivity. A supportive work environment, adequate resources, and accessible infrastructure contribute

significantly to improving efficiency and effectiveness [4]. With rapid technological development, workplace facilities are increasingly shifting toward digital platforms [5], and organizations with high levels of digital readiness have been shown to increase employee productivity by up to30% [6].

Preliminary observations at the Faculty of Engineering, University of Lampung, indicate persistent issues related to competence, personality, and work facilities. Approximately 71% of employees were found not to meet the expected competency standards. Between 2023 and 2025, cases of disciplinary violations increased, suggesting deficiencies in personality-related aspects, particularly work discipline.

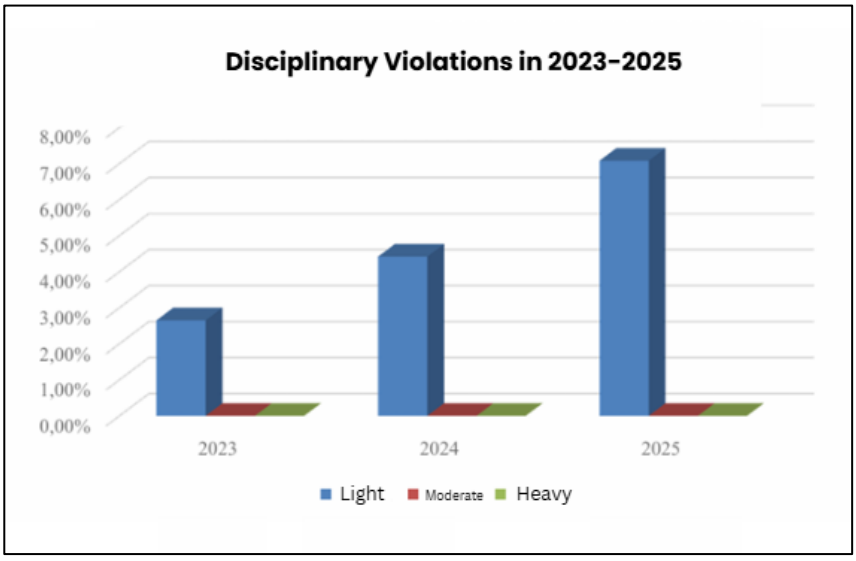


Figure 1. Disciplinary violations by employees of the Faculty of Engineering, University of Lampung, 2023-2025

Furthermore, limited work facilities have hindered the implementation of digitalization programs, with inventory data showing a 60% shortfall compared to the ideal requirements.

Against this background, the present study seeks to analyze the influence of competence, personality, and work facilities on employee performance at the Faculty of Engineering, University of Lampung. The results are expected to provide an empirical basis for developing strategies to enhance employee performance and to serve as a reference for institutional policy-making and staff development.

## 2. LITERATURE REVIEW

### *2.1 Performance*

Performance is a fundamental dimension that determines the effectiveness and success of an organization or institution. It can be understood as the measurable outcome of tasks completed by individuals in accordance with their assigned responsibilities [3]. High levels of employee performance enable organizations to attain their strategic objectives and operational goals more effectively [7].

### *2.2 Competence*

Competence represents a measurable construct that integrates knowledge, technical skills, and abilities required to carry out a particular role successfully [3]. Scholars commonly distinguish between two forms of competence: technical and behavioral. Technical competence pertains to task-specific knowledge and practical skills directly linked to job execution [8]. In contrast, behavioral competence refers to the patterns of conduct, attitudes, and interpersonal interactions that influence how individuals approach and accomplish their work [9].

### *2.3 Personality*

Personality is defined as a set of enduring characteristics and dispositions that account for both similarities and differences in human behavior [10]. Within the workplace, personality manifests in employees' approaches to problem-solving, their interpersonal relations, and the manner in which they fulfill their duties [11]. Personality can broadly be divided into two dimensions: internal and external. Internal personality encompasses underlying attributes such as cognitive processes, values, and genetic predispositions, whereas external personality relates to observable behaviors that emerge in daily interactions [12].

### *2.4 Work Facilities*

Work facilities encompass the physical resources, infrastructure, and services made available to employees to facilitate task completion [13]. The scope and quality of these facilities vary across organizations, depending on organizational size, industry type, and operational context. Adequate and well-structured facilities are essential for fostering efficiency, enhancing productivity, and sustaining optimal employee performance.

## 3. METHODS

The study adopted a quantitative descriptive methodology with an explanatory orientation, employing a cross-sectional design. As an ex-post facto study, no experimental intervention was introduced; instead, the analysis focused on identifying and interpreting relationships among variables based on existing conditions and available data [14].

The research utilized both primary and secondary data sources. Primary data were obtained through structured questionnaires administered to employees of the Faculty of Engineering, University of Lampung. Secondary data were derived from institutional records, including employee competency summaries, attendance documentation, and annual performance evaluation reports.

The study population comprised 113 employees representing diverse positions, organizational units, and lengths of service within the Faculty of Engineering. Sampling was undertaken using a probability-based approach, specifically proportionate stratified random sampling, to ensure adequate representation across employee subgroups. Research variables were measured using interval and Likert-type scales. The data obtained from the questionnaires were subsequently analyzed using the Mean Score Index (MSI) technique to quantify and interpret the responses [15].

## 4. RESULTS AND DISCUSSION

The Faculty of Engineering, University of Lampung (Unila), is one of the academic units that offers education in engineering and technology. It comprises several departments and study programs that form the foundation of its academic activities.

The faculty employs a total of 113 administrative staff, consisting of 75 men and 38 women. These personnel occupy diverse roles, including administrative officers, laboratory staff, technicians, custodial workers, and security guards, with varying ages and lengths of service. The overall distribution of staff within the Faculty of Engineering is presented in Table 1.

Table 1. Distribution of Educational Staff Population in the Faculty of Engineering

| No | Position | Total |
|---|---|---|
| 1 | Administration | 37 |
| 2 | Laboratory Technician | 27 |
| 3 | Technician | 17 |
| 4 | Cleaning Staff | 28 |
| 5 | Security Guard | 4 |

| No | Position | Total |
|---|---|---|
| Total | | 113 |

Source: Faculty of Engineering Rank List

This study examines three independent variables: Competence ($X_1$), Personality ($X_2$), and Work Facilities ($X_3$), and one dependent variable, Employee Performance (Y).

### *4.1 Characteristics of Respondents*

Based on the survey results, data were obtained from 88 respondents. The findings indicate that 61% of respondents were male and 39% were female, as presented in Figure 2.

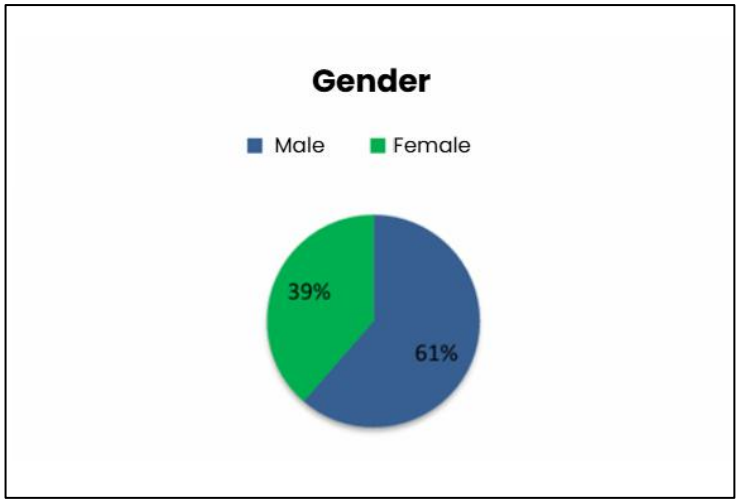


Figure 2. Characteristics of respondents based on gender

Respondents' ages were categorized into four groups: 20–30 years, 31–40 years, 41–50 years, and 51–60 years. The majority of respondents fell within the 31–40 years age group, which accounted for 38% of the sample.

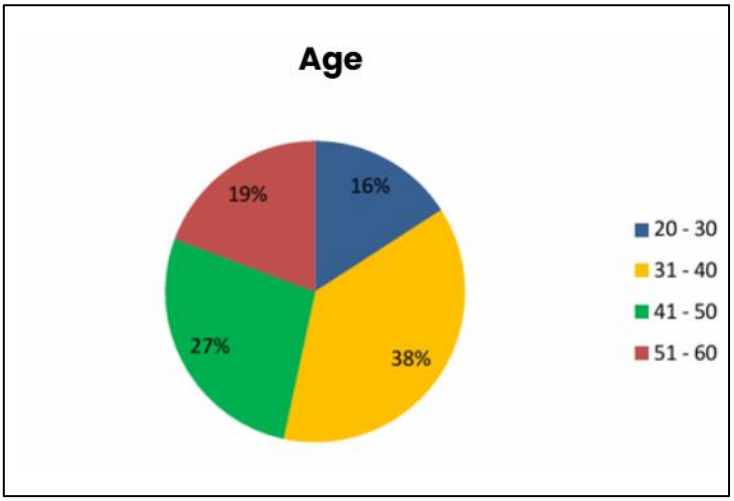


Figure 3. Characteristics of respondents based on age

With respect to occupational positions, respondents were distributed across five categories of educational personnel at the Faculty of Engineering. The percentage distribution of these positions is shown in Figure 4.

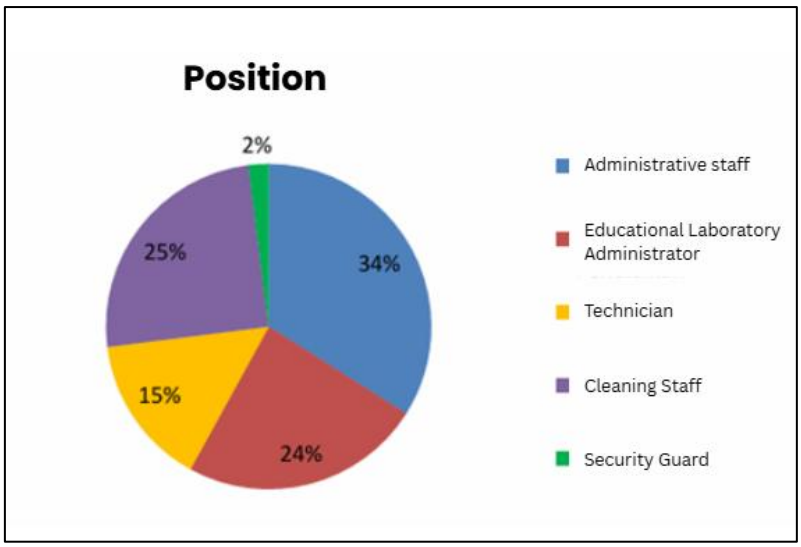


Figure 4. Characteristics of respondents based on job title

Furthermore, the length of service among respondents was classified into five tenure categories, reflecting the employment duration of educational staff at the faculty. The corresponding distribution is presented in Figure 5.

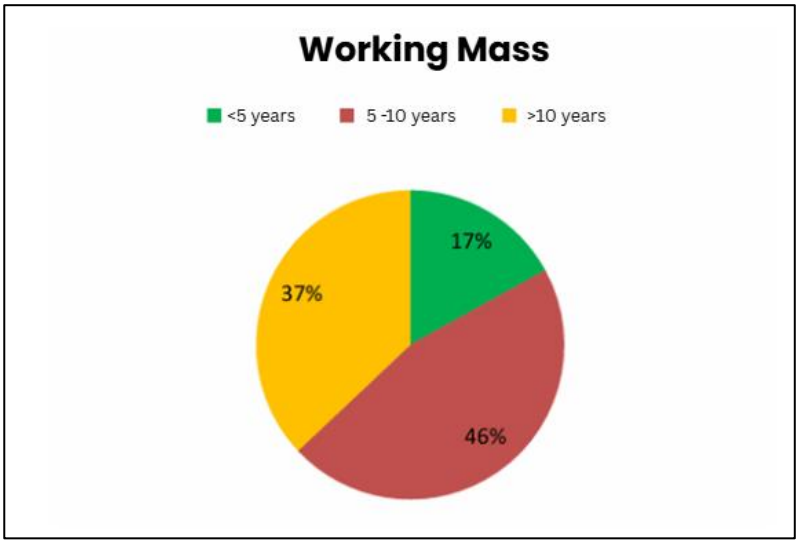


Figure 5. Characteristics of respondents based on length of service

### *4.2 Variable Description*

This study employed a four-point Likert scale as the measurement instrument, with response options ranging from a score of 1 (lowest) to 4 (highest).

1. **Competency Variable**

   The competence variable was assessed using four indicators. Respondents selected one of four available options for each item. The findings indicate that the majority of respondents provided favorable evaluations, with 203 responses (57.7%) classified as positive and 149 responses (42.3%) as negative. The mean score for this variable was 2.68, which, based on the interpretation criteria, is categorized as *"Good."*

Table 2. Descriptive Statistics of the Competency Variable

| Mean | Median | Mode | Std Dev | Var | Max | Min | Sum |
|---|---|---|---|---|---|---|---|
| 2,68 | 3 | 4 | 0,72 | 0,84 | 4 | 1 | 236 |

**2. Personality Variable**

The personality variable was measured using six indicators. The results demonstrate a predominance of positive responses, with 315 responses (59.7%) categorized as positive and 213 responses (40.3%) as negative. The overall mean score was 2.68, placing the personality variable within the *"Good"* category.

Table 3. Descriptive Statistics of Personality Variables

| Mean | Median | Mode | Std Dev | Var | Max | Min | Sum |
|---|---|---|---|---|---|---|---|
| 2,68 | 3 | 3 | 0,89 | 0,80 | 4 | 1 | 236 |

**3. Work Facility Variable**

The work facilities variable was examined through five indicators. Respondents generally expressed positive evaluations, with 263 responses (59.8%) categorized as positive and 177 responses (40.2%) as negative. The average score obtained was 2.71, which is interpreted as *"Good."*

Table 4. Descriptive Statistics of Work Facilities Variables

| Mean | Median | Mode | Std Dev | Var | Max | Min | Sum |
|---|---|---|---|---|---|---|---|
| 2,71 | 3 | 3 | 0.87 | 0.75 | 4 | 1 | 238 |

**4. Performance Variable**

The employee performance variable was measured using five indicators. A total of 269 responses (61.1%) were categorized as positive, while 171 responses (38.9%) were negative. The mean score of 2.71 indicates that employee performance also falls within the *"Good"* category.

Table 5. Descriptive Statistics of Performance Variables

| Mean | Median | Mode | Std Dev | Var | Max | Min | Sum |
|---|---|---|---|---|---|---|---|
| 2.71 | 3 | 3 | 0.87 | 0.76xc | 4 | 1 | 239 |

### *4.3 Research Instrument Test Results*

The validity test was conducted using SPSS version 23.0 with a sample size of 30 respondents. The degree of freedom was calculated as df = 30 − 2 = 28, yielding an r-table value of 0.361. The analysis confirmed that all questionnaire items were valid, as the calculated r values exceeded the r-table threshold and the significance values were less than 0.005.

Instrument reliability was assessed using Cronbach's Alpha with the same sample of 30 respondents. The results showed that all variables achieved Cronbach's Alpha coefficients above 0.60, indicating that the research instrument possessed an acceptable level of reliability and was suitable for further analysis. The detailed reliability test results are presented in Table 6.

Table 6. Reliability Test Table

| Variable | Cronbach Alpha | Notes |
|---|---|---|
| Competence | 0.900 | Reliable |
| Personality | 0.985 | Reliable |
| Work Facilities | 0.926 | Reliable |
| Performance | 0.957 | Reliable |

### *4.4 Inferential Statistical Analysis*

To evaluate the influence of the independent variables on the dependent variable, multiple linear regression analysis was applied. The results are presented in Table 7, and the regression model can be expressed as follows:

Table 7. Multiple Linear Regression Analysis

| Coefficients | | | |
|---|---|---|---|
| Model | Unstandardized Coefficients | | Sig |
| | B | Std. Error | |
| (Constanta) | 0.917 | 0.498 | 0.055 |
| X1 | 0.497 | 0.112 | 0.000 |
| X2 | 0.210 | 0.089 | 0.020 |
| X3 | 0.287 | 0.098 | 0.004 |

Based on the analysis conducted, the following linear regression equation was obtained.

$$\boldsymbol{Y = \alpha + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + e}$$
$$\boldsymbol{Y = 0,971 + 0,497 X_1 + 0,210 X_2 + 0,287 X_{3\_} e}$$

The constant value of 0.971 implies that, in the absence of variation in the independent variables, the predicted value of Employee Performance (Y) remains at 0.971 units.

The regression coefficients indicate that all independent variables exert a positive influence on Employee Performance. Specifically, Competence ($X_1$) has the highest standardized effect ($\beta = 0.497$), signifying that improvements in competence substantially enhance performance outcomes. Work Facilities ($X_3$) also contribute positively ($\beta = 0.287$), followed by Personality ($X_2$) ($\beta = 0.210$). Collectively, these findings suggest that strengthening competence, personality traits, and the availability of work facilities leads to improved employee performance, with competence exerting the most pronounced impact

### *4.5 Hypothesis Test Results*

The hypotheses were tested through three procedures: the t-test (partial effect), the F-test (simultaneous effect), and the coefficient of determination ($R^2$).

**1. T-test (Partial)**

The partial significance of each independent variable was assessed using the t-test, with the calculated t-value compared against the critical value from the t-distribution table. At a 5% significance level ($\alpha = 0.05$) with $df = 84$, the critical t-value was 1.989. As shown in Table 8, all independent variables recorded calculated t-values greater than the critical threshold, with significance levels below 0.05. This indicates that Competence, Personality, and Work Facilities each have a significant partial effect on Employee Performance.

Table 8. t-Test Table

| Coefficients | | | | | | |
|---|---|---|---|---|---|---|
| Model | | Unstandardized Coefficients | | Standardized Coefficients | t | Sig |
| | | B | Std. Error | Beta | | |
| 1 | (Constanta) | 0,917 | 0,498 | | 1,948 | 0,055 |
| | X1 | 0,497 | 0,112 | 0,428 | 4,452 | 0,000 |
| | X2 | 0,210 | 0,089 | 0,260 | 2,367 | 0,020 |
| | X3 | 0,287 | 0,098 | 0,286 | 2,921 | 0,004 |

**2. F Test (simultaneous)**

The joint significance of the independent variables was examined using the F-test within an ANOVA framework. The results (Table 9) show that the calculated F-value of 241.216 far exceeds the critical F-value of 2.72. Moreover, the significance value was less than 0.05, leading to the rejection of $H_0$ and acceptance of $H_1$. This confirms that Competence, Personality, and Work Facilities simultaneously exert a statistically significant effect on Employee Performance.

Table 9. F Test Table

| ANOVA | | | | | | |
|---|---|---|---|---|---|---|
| Model | | Sum of Squares | df | Mean Square | F | Sig. |
| 1 | Regression | 1097,990 | 3 | 365.997 | 241.216 | 0,00[b] |
| | Residual | 127,453 | 84 | 1.517 | | |
| | Total | 1225,443 | 87 | | | |
| a. Dependent Variable: Y | | | | | | |
| b. Predictors: (Constant), X3, X1, X2 | | | | | | |

**3. Coefficient of Determination ($R^2$)**

The coefficient of determination ($R^2$) is a key indicator in multiple linear regression analysis. Table 10 presents the coefficient of determination results for this study. Based on the Model Summary, the Adjusted $R^2$ value is 0.892. According to the interpretation of the determination test, this value falls within the range of 0.80–1.00, indicating a very strong relationship.

Proportionally, the influence of each variable is as follows: competence contributes 45.4% to the variation in employee performance, personality accounts for 19.2%, and work facilities contribute 26.2%. Specifically, competence explains approximately 45.4% of the variation in performance improvement, personality explains 19.2%, while work facilities explain 26.2%, encompassing aspects such as comfort, safety, and the availability of resources that facilitate daily activities. These findings suggest that adequate work facilities can enhance employee performance by fostering a conducive work environment and enabling employees to focus on achieving organizational targets.

Table 10. Coefficient of Determination

| Model Summary | | | | |
|---|---|---|---|---|
| **Model** | **R** | **R Square** | **Adjusted R Square** | **Std. Error of the Estimate** |
| 1 | 0,947[a] | 0,896 | 0,892 | 1,232 |
| a. Predictors: (Constant), X3, X1, X2 | | | | |

## 5. CONCLUSION

Competence, personality, and work facilities significantly influence employee performance. The t-test results indicate that competence contributes 45.4%, personality 19.2%, and work facilities 26.2% to performance outcomes. Collectively, these factors exert a significant impact on employee performance. Furthermore, the coefficient of determination value of 89.2% demonstrates a strong combined influence of competence, personality, and work facilities on employee performance at the Faculty of Engineering, University of Lampung.

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## REFERENCES

[1] A. Billah, N. M. Suci, and I. N. Suarmanayasa, "Harmony Leadership and Personality on Employee Performance at Ganesha University of Education," *International Journal of Social Science and Business*, vol. 6, no. 3, pp. 326–324, 2022.

[2] J. R. Hanaysha, F. B. Shriedeh, and M. In'airat, "Impact of Classroom Environment, Teacher Competency, Information and Communication Technology Resources, and University Facilities on Student Engagement and Academic Performance.," *International Journal of Information Management Data Insights*, vol. 3, no. 2, 2023.

[3] Gibson. James L, J. M. Ivancevich, J. H. Donnelly Jr, and R. Konopaske, *Organizations: Behavior, Structure, Processes*. New York: McGraw-Hill, 2011.

[4] A. Sobirin, "Konsep Dasar Kinerja Dan Manajemen Kinerja," *Konsep Dasar Kinerja Dan Manajemen Kinerja*, pp. 1–67, 2014.

[5] R. D. Parashakti, M. Fahlevi, M. Ekhsan, and A. Hadinata, "The Influence of Work Environment and Competence on Motivation and Its Impact on The Influence of Work Environment and Competence on Motivation and Its Impact on The Influence of Work Environment and Competence on Motivation and Its Impact on Employee Permorfance in Health Sector," *Aicmbs* , pp. 259–267, 2019.

[6] D. R. Rahadi, *Manajemen Kinerja Sumber Daya Manusia*. Malang: Tunggal Mandiri Publishing, 2010.

[7] L. Hakim, D. Yustiana, S. N. Soleha, S. Handayani, and A. Zainuddin, "Analisis Kepribadian , Kompetensi , Dan Semangat Kerja Terhadap," vol. 4, no. 2, pp. 432–435, 2025.

[8] Hamdiah, A. Firman, and M. S. Sultan, "Pengaruh Kompetensi, Penempatan Dan Kepuasan Kerja Terhadap Kinerja Pegawai Di Pemerintahan Kecamatan Lembang Kabupaten Pinrang," *Jurnal Aplikasi Manajemen & Kewirausahaan MASSARO* , vol. 5, no. 1, pp. 1–13, 2023.

[9] R. A. Laksmi, *Budaya Organisasi*. Jakarta: Graha Baru, 2011.

[10] I. Sulantara, I. P. K. Mareni, K. S. Sapta, and N. K. Suryani, "The Effect of Leadership Style and Competence on Employee Performance," *European Journal of Business and Management Research* , vol. 5, no. 5, 2020.

[11] L. Agusria, Fitantina, Kholilah, and P. Arraditya, "The Influence of Work Discipline, Organizational Culture and Competence on Employee Performance," *International Journal of Business, Management and Economics*, vol. 3, no. 4, pp. 371–381, 2022.

[12] R. Chairunnisah, *Kinerja Karyawan Teori Sumber Daya Manusia*. Mataram: Politeknik Medica Farma Husada Mataram, 2021.

[13] A. E. Rangkuti, T. Benadette, and Y. April, "Pengaruh Fasilitas Kerja Dan Lingkungan Kerja Terhadap Kinerja Pegawai Pada Kantor Wilayah DJBC Sumatera Utara," *Konferensi Nasional Sosial dan Engineering Politeknik Negeri Medan*, pp. 553–564, 2021.

[14] B. Prasteyo and L. M. Jannah, *Metode Penelitian Kuantitatif*. 2014.

[15] S. Sugiyono, *Metode Penelitian Administrasi*. Alfabeta, 2009.