

The Influence of Competencies, Perceived Organizational Support, Work Environment, And Employee Motivation on Employee Performance in the Installation Department of PT. XYZ

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ABSTRAK

Kinerja karyawan merupakan salah satu komponen penting dalam efektivitas organisasi, khususnya pada departemen operasional yang karyawannya terlibat secara langsung dalam penyelesaian proyek. Penelitian ini bertujuan untuk menguji pengaruh kompetensi, persepsi dukungan organisasi, lingkungan kerja, dan motivasi karyawan terhadap kinerja karyawan pada Departemen Instalasi PT. XYZ. Penelitian ini menggunakan pendekatan kuantitatif dengan desain penelitian korelasional. Populasi dalam penelitian ini terdiri dari 73 karyawan pada Departemen Instalasi, dengan teknik pengambilan sampel sensus sehingga seluruh 73 karyawan menjadi responden. Data primer dikumpulkan melalui kuesioner secara luring menggunakan skala Likert, sedangkan data sekunder diperoleh dari buku, jurnal, dan penelitian terdahulu. Data dianalisis menggunakan SPSS versi 29 melalui analisis deskriptif, uji validitas Pearson, uji reliabilitas Cronbach's Alpha, uji normalitas, uji multikolinearitas, uji heteroskedastisitas, regresi linear berganda, uji t, uji F, dan koefisien determinasi. Hasil penelitian menunjukkan bahwa kompetensi, persepsi dukungan organisasi, lingkungan kerja, dan motivasi karyawan masing-masing berpengaruh positif dan signifikan terhadap kinerja karyawan. Kompetensi menunjukkan pengaruh terstandarisasi paling kuat ($\beta = 0,756$), diikuti oleh lingkungan kerja ($\beta = 0,466$), motivasi karyawan ($\beta = 0,229$), dan persepsi dukungan organisasi ($\beta = 0,069$). Secara simultan, keempat variabel independen berpengaruh signifikan terhadap kinerja karyawan ($F = 363,849$; $p < 0,001$), dengan nilai $R^2 = 0,955$. Penelitian ini memberikan bukti empiris dari konteks Departemen Instalasi dan menunjukkan bahwa peningkatan kompetensi karyawan perlu menjadi salah satu perhatian utama manajemen.

ABSTRACT

Employee performance is an important component of organizational effectiveness, particularly in operational departments where employees are directly involved in completing projects. This study aims to examine the influence of competencies, perceived organizational support, work environment, and employee motivation on employee performance in the installation department of PT. XYZ. A quantitative, correlational research design was employed. The population consisted of 73 employees in the installation department, and a census sampling technique was used so that all 73 employees became respondents. Primary data were collected through an offline questionnaire using a Likert scale, while secondary data were obtained from books, journals, and previous studies. Data were analyzed using SPSS version 29 through descriptive analysis, Pearson validity testing, Cronbach's alpha reliability testing, normality testing, multicollinearity testing,

heteroscedasticity testing, multiple linear regression, t-testing, F-testing, and the coefficient of determination. The findings indicate that competencies, perceived organizational support, work environment, and employee motivation each have a positive and significant effect on employee performance. Competencies show the strongest standardized effect ($\beta = 0.756$), followed by work environment ($\beta = 0.466$), employee motivation ($\beta = 0.229$), and perceived organizational support ($\beta = 0.069$). Simultaneously, the four independent variables significantly influence employee performance ($F = 363.849$; $p < .001$), with $R^2 = .955$. The study contributes empirical evidence from an installation department and suggests that strengthening employee competencies should receive particular managerial attention.

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1. INTRODUCTION

Human resources are a major determinant of organizational effectiveness because employees are directly involved in executing business activities and achieving organizational objectives. The quality and capabilities of human resources play an important role in determining how effectively organizations achieve their goals, particularly as organizations are required to adapt to changes in their external environment (Nur et al., 2021). In the context of Industry 4.0, organizations require human resources who are competent, adaptive, creative, and capable of responding to changing work demands. Employees are therefore not only operational resources but also an important source of organizational value and organizational performance. Organizations consequently need to continuously develop and adapt their human resources to dynamic working conditions in order to achieve their vision and mission (Nur et al., 2021).

Telecommunication and networking companies are among the industries that play an important role in supporting technological development and digital transformation. In this context, PT. XYZ, the anonymized company examined in this study, provides communication products, electronic engineering consulting, value-added services, cellular network products, and wired and wireless broadband access products. The company has 113 employees distributed across eight departments. The installation department consists of 73 employees, representing 64.6% of the company's employees, and is therefore the focus of this research. The department includes project control, field coordinators, team leaders, and installers, with installers forming the largest group. The importance of employee competencies in the telecommunications sector is also supported by Soetrisno and Gilang (2018), who found a significant relationship between employee competency and employee performance in PT. Telekomunikasi Indonesia Tbk.

The installation department requires employees to possess communication skills, physical capability, planning and organizing abilities, adaptability, work ethics and integrity, and expertise in network installation. These competencies are important because employees' knowledge, skills, abilities, and attitudes can influence their capacity to perform assigned tasks effectively (Soetrisno & Gilang, 2018; Zulkifli et al., 2023). However, the thesis identifies performance challenges in the department. Project achievement declined from 94.6% in 2019 to 87.8% in 2023, representing a 6.8 percentage-point decrease. The pre-survey also indicated delays caused by unpredictable field conditions, limited equipment, difficulties in data input, different damage conditions, insufficient

training, and manpower limitations. These conditions indicate that employee performance may be associated with competencies, organizational support, the work environment, and employee motivation.

Competencies represent the knowledge, skills, abilities, and attitudes required by employees to perform their work effectively. Previous research has demonstrated that employee competency is positively associated with employee performance (Krisnawati & Bagia, 2021; Soetrisno & Gilang, 2018). Perceived organizational support reflects employees' perceptions that the organization values their contributions and cares about their well-being (Kurtessis et al., 2017). The meta-analysis conducted by Kurtessis et al. (2017) demonstrated that perceived organizational support is associated with various employee outcomes, including employee performance. Similarly, the work environment encompasses the physical and non-physical conditions surrounding employees, which can influence how employees perform their work. Research by Zhenjing et al. (2022) found that a positive workplace environment can significantly improve employee performance. Meanwhile, employee motivation represents the internal and external drives that encourage employees to achieve work objectives. Previous studies have also demonstrated a positive relationship between work motivation and employee performance (Al Banin et al., 2020; Nugroho et al., 2021).

Previous studies have generally reported positive relationships between competencies, perceived organizational support, work environment, motivation, and employee performance. For example, Soetrisno and Gilang (2018) found that competency significantly influences employee performance, while Kurtessis et al. (2017) demonstrated through a meta-analysis that perceived organizational support is related to employee performance. Furthermore, Zhenjing et al. (2022) found that workplace environment has a positive influence on employee performance, while Nugroho et al. (2021) reported that motivation, work environment, and competency influence employee performance. These findings provide empirical support for examining the four variables in relation to employee performance. Nevertheless, differences in research findings remain, particularly regarding the role of perceived organizational support and its relationship with employee outcomes.

The research gap identified in the thesis is primarily contextual. Although competencies, perceived organizational support, work environment, and motivation have been examined in different organizations and industries, the thesis reports that no previous study had examined these four factors together in the installation department of the company studied. This study therefore examines whether competencies, perceived organizational support, work environment, and employee motivation significantly influence employee performance, both individually and simultaneously.

Based on the research objectives and the theoretical discussion, five hypotheses were proposed: H1, competencies positively and significantly influence employee performance; H2, perceived organizational support positively and significantly influences employee performance; H3, work environment positively and significantly influences employee performance; H4, employee motivation positively and significantly influences employee performance; and H5, competencies, perceived organizational support, work environment, and employee motivation simultaneously influence employee performance.

2. LITERATURE REVIEW

2.1 Competencies

Competencies refer to the ability, proficiency, skills, knowledge, and work attitudes required to perform a particular job (Krisnawati & Bagia, 2021). The thesis adopts the competency perspective associated with Wibowo and identifies three dimensions: knowledge, skills, and attitude. Knowledge concerns employees' awareness and understanding of their work, skills concern their capacity to perform tasks effectively, and attitude concerns their responses and behavior toward work situations. In an installation department, competencies are especially important because employees must understand

procedures, operate installation equipment, recognize problems, and respond appropriately to clients and field conditions. Previous research has shown that employee competencies have a significant influence on employee performance (Soetrisno & Gilang, 2018; Zulkifli et al., 2023).

H1: Competencies have a positive and significant influence on employee performance.

2.2 Perceived Organizational Support

Perceived organizational support refers to employees' beliefs about the extent to which an organization values their contributions and cares about their well-being (Kurtessis et al., 2017). The thesis identifies four indicators: awards, development, comfortable working conditions, and employee well-being. Organizational support can include appreciation, training, career opportunities, adequate facilities, guidance from superiors, and assistance when employees face difficulties. When employees perceive that the organization supports them, they are expected to feel valued and become more willing to contribute to organizational goals. Previous studies have found that perceived organizational support is associated with employee performance (Diana & Frianto, 2021; Gemilang & Riana, 2021).

H2: Perceived organizational support has a positive and significant influence on employee performance.

2.3 Work Environment

The work environment includes the physical and non-physical conditions surrounding employees while they perform their duties. The thesis discusses physical aspects such as lighting, air circulation, noise, unpleasant odors, and safety, as well as non-physical aspects such as relationships between leaders and subordinates and relationships among coworkers. A conducive environment can support employee comfort, reduce disturbances, and facilitate effective work performance (Lestary & Harmon, 2017; Zhenjing et al., 2022). Previous studies have also demonstrated that the work environment can influence employee performance (Rivalita & Ferdian, 2020; Wulandany et al., 2023).

H3: Work environment has a positive and significant influence on employee performance.

2.4 Employee Motivation

Employee motivation is described as a drive that encourages individuals to perform activities in order to achieve work goals. The thesis distinguishes internal and external motivational factors. Internal factors include the desire to survive, receive rewards, gain recognition, and obtain a position, while external factors include a good work environment, health insurance, responsibility, and adequate compensation. Higher motivation is expected to encourage enthusiasm, effort, persistence, and ultimately better performance. Previous research has found that work motivation has a significant relationship with employee performance (Al Banin et al., 2020; Rachman, 2022).

H4: Employee motivation has a positive and significant influence on employee performance.

2.5 Employee Performance

Employee performance is the result achieved by employees when completing their duties. The thesis measures performance through work quality, work quantity, punctuality, effectiveness, and independence. These dimensions reflect employees' ability to complete work according to procedures, achieve project targets, meet deadlines, use available resources effectively, respond to information, and independently address installation and repair problems. Employee performance has been examined in relation to competencies, organizational support, work environment, and motivation in previous studies (Hajiali et al., 2022; Nugroho et al., 2021).

H5: Competencies, perceived organizational support, work environment, and employee motivation simultaneously have a significant influence on employee performance.

3. RESEARCH METHOD

This study employed a quantitative correlational design. The research was conducted in the installation department of PT. XYZ. The population consisted of all 73 employees in the department. Because the population was below 100 employees, the thesis used a census or saturated sampling technique in which 100% of the population became respondents. Thus, the final sample consisted of 73 employees.

Primary data were collected using an offline closed-ended questionnaire distributed directly to the employees. Responses were measured using a five-point Likert scale, ranging from strongly disagree to strongly agree. The questionnaire contained 42 statements covering competencies (6 items), perceived organizational support (8 items), work environment (8 items), employee motivation (10 items), and employee performance (10 items). Pre-survey information was also obtained through interviews with the field coordinator, team leader, and employees. Secondary data were obtained from books, journals, and previous research.

The data were processed using SPSS version 29. The analysis consisted of respondent profiling and descriptive statistics, followed by instrument testing and regression analysis. Validity was assessed using Pearson product-moment correlation with an *r*-table value of 0.361. Reliability was evaluated using Cronbach's alpha, with values above 0.60 considered acceptable in the thesis (Sürücü & Maslakçı, 2020). Classical assumption testing included normality, multicollinearity, and heteroscedasticity tests. Multiple linear regression was then used to estimate the influence of the four independent variables on employee performance. Partial effects were assessed using *t*-tests at a 5% significance level, simultaneous effects were assessed using the *F*-test, and explanatory power was evaluated using *R*².

The regression model was specified as $Y = \alpha + b_1X_1 + b_2X_2 + b_3X_3 + b_4X_4 + e$, where *Y* represents employee performance, *X*₁ competencies, *X*₂ perceived organizational support, *X*₃ work environment, and *X*₄ employee motivation.

4. RESULT AND DISCUSSION

4.1 Result

a. Respondent Characteristics

Table 1. Respondent Characteristics

Characteristic	Category	n	Percentage
Gender	Male	73	100%
Age	18–26 years	32	43.84%
	27–35 years	23	31.51%
	36–44 years	12	16.44%
	45–55 years	6	8.21%
Working period	< 1 year	19	26%
	1–<2 years	19	26%
	2–<3 years	9	12%
	3–5 years	16	22%
	>5 years	10	14%
Education	SMA/SMK, non-TKJ	35	47.94%
	SMK, computer network engineering	23	31.50%
	D3	5	6.84%
	S1	9	12.32%
	S2	1	1.40%

Source: Primary data (2024)

All respondents were male. The largest age group was 18–26 years (43.84%). In terms of tenure, 47 respondents (64%) had worked for less than two years. Regarding education, the largest group consisted of employees with SMA/SMK education outside

computer network engineering (47.94%), followed by employees with a computer network engineering background (31.50%).

b. Descriptive Analysis

Table 2. Descriptive Statistics

Variable	N	Minimum	Maximum	Mean	Std. Deviation
Competencies (X1)	73	18	30	4.128	0.710
Perceived Organizational Support (X2)	73	17	40	3.082	0.976
Work Environment (X3)	73	16	40	3.568	0.893
Employee Motivation (X4)	73	20	50	3.041	1.091
Employee Performance (Y)	73	20	50	3.689	1.031

Source: Processed data (2024)

The descriptive results show that the competency variable had a mean of 4.128, perceived organizational support 3.082, work environment 3.568, employee motivation 3.041, and employee performance 3.689. The thesis reports these values as the descriptive representation of the five study variables.

c. Instrument and Classical Assumption Tests

All questionnaire items were declared valid because their r-count values exceeded the r-table value of 0.361. The reported Cronbach's alpha values were 0.732 for competencies, 0.859 for perceived organizational support, 0.790 for work environment, 0.881 for employee motivation, and 0.847 for employee performance. All variables were therefore classified as reliable according to the criteria used in the thesis.

Table 3. Reliability Result

Variable	Items	Cronbach's Alpha	Status
Competencies	6	0.732	Reliable
Perceived Organizational Support	8	0.859	Reliable
Work Environment	8	0.790	Reliable
Employee Motivation	10	0.881	Reliable
Employee Performance	10	0.847	Reliable

Source: Researcher, using SPSS (2024)

The Kolmogorov-Smirnov test produced an Asymp. Sig. (2-tailed) value of 0.200, greater than 0.05, indicating that the data met the normality criterion used in the study. The multicollinearity test also indicated no multicollinearity: tolerance values ranged from 0.669 to 0.998 and VIF values ranged from 1.002 to 1.495. The heteroscedasticity test produced significance values above 0.05 for all independent variables (0.831, 0.080, 0.298, and 0.520), indicating no heteroscedasticity according to the thesis criteria.

d. Multiple Linear Regression and Hypothesis Testing

Table 4. Multicollinearity Test

Predictor	B	Beta	t	Sig.
Constant	5.578	—	5.227	0.000
Competencies	0.796	0.756	24.139	0.000
Perceived Organizational Support	0.046	0.069	2.209	0.031
Work Environment	0.387	0.466	18.137	0.000
Employee Motivation	0.095	0.229	8.947	0.000

Source: Researcher, using SPSS (2024)

The estimated regression equation is $Y = 5.578 + 0.796X_1 + 0.046X_2 + 0.387X_3 + 0.095X_4$. All four predictors have positive coefficients and significance values below 0.05. Competencies have the strongest standardized coefficient ($\beta = 0.756$), followed by work environment ($\beta = 0.466$), employee motivation ($\beta = 0.229$), and perceived organizational support ($\beta = 0.069$).

H1 is supported. Competencies significantly and positively influence employee performance ($\beta = 0.756$, $t = 24.139$, $p < .001$). This result indicates that employees' knowledge, skills, and attitudes are strongly associated with their ability to perform installation and repair tasks. The thesis suggests that differences in employee backgrounds and reliance on learning directly in the field may contribute to performance differences. Accordingly, recruitment based on relevant educational backgrounds and regular internal or external training are recommended.

H2 is supported. Perceived organizational support significantly and positively influences employee performance ($\beta = 0.069$, $t = 2.209$, $p = .031$). Although its standardized effect is the smallest among the four predictors, the result indicates that employees' perceptions of appreciation, development, working conditions, and organizational care are associated with performance. The thesis therefore recommends stronger recognition, adequate work tools, training, career opportunities, and support when employees encounter work-related difficulties.

H3 is supported. Work environment has a significant positive influence on employee performance ($\beta = 0.466$, $t = 18.137$, $p < .001$). This finding is consistent with the thesis discussion that physical and non-physical field conditions can influence employee comfort and productivity. Noise, unpleasant odors, unpredictable field conditions, safety issues, and interpersonal problems may hinder installation activities. The thesis recommends checking work areas before projects, maintaining cleanliness and safety, ensuring adequate drinking water, and strengthening teamwork.

H4 is supported. Employee motivation significantly and positively influences employee performance ($\beta = 0.229$, $t = 8.947$, $p < .001$). The thesis associates higher motivation with stronger enthusiasm and effort in achieving work targets. It recommends recognition and rewards for project achievements, initiatives such as employee-of-the-month activities, and positive relationships among employees and supervisors.

H5 is supported. The ANOVA results show that the four independent variables simultaneously influence employee performance ($F = 363.849$, $p < .001$). The model reports $R = .977$, $R^2 = .955$, adjusted $R^2 = .953$, and a standard error of 0.49280. Thus, 95.5% of the variance in employee performance is reported as explained by competencies, perceived organizational support, work environment, and employee motivation, while 4.5% is attributed to factors outside the model.

4.2 Discussion

The overall findings indicate that competencies are the most influential predictor of employee performance in the studied installation department. This result is reasonable within the context described in the thesis because installation and repair work requires technical knowledge, practical skills, problem-solving ability, responsiveness, and adherence to procedures. The finding is also consistent with the previous studies cited in the thesis that reported positive relationships between competence and employee performance (Krisnawati & Bagia, 2021; Soetrisno & Gilang, 2018; Zulkifli et al., 2023).

The work environment is the second strongest predictor. The installation department operates in changing field conditions, including tower areas and locations that may present noise, odors, weather-related challenges, safety risks, and interactions with surrounding communities. The positive coefficient indicates that improving these conditions is associated with better performance. This result is in line with the previous

studies cited in the thesis, including research by Firnanda and Wijayati (2021) and Zhenjing et al. (2022). Similar findings have also been reported by Lestary and Harmon (2017), who found that the work environment has an influence on employee performance.

Employee motivation also has a significant positive relationship with performance. The thesis explains that motivation may arise from career opportunities, recognition, responsibility, compensation, leadership behavior, and a comfortable work environment. The finding supports the argument that employees who are more motivated are more likely to demonstrate enthusiasm and effort in achieving work objectives (Al Banin et al., 2020; Rachman, 2022). This finding is also consistent with research showing that motivation is associated with employee performance (Alya et al., 2022; Nugroho et al., 2021).

Finally, perceived organizational support has a positive and significant effect, although its standardized coefficient is relatively small compared with the other predictors. The finding contributes to the discussion of previous research because the thesis notes that earlier studies did not always produce consistent results concerning perceived organizational support. In this study, employees who perceive greater organizational appreciation and support tend to demonstrate better performance. This finding is supported by previous research indicating that perceived organizational support can contribute positively to employee performance (Diana & Frianto, 2021; Gemilang & Riana, 2021; Kurtessis et al., 2017).

5. CONCLUSION

This study concludes that competencies, perceived organizational support, work environment, and employee motivation each have a positive and significant influence on employee performance in the installation department of PT. XYZ. Among the four predictors, competencies have the strongest standardized influence ($\beta = 0.756$), followed by work environment ($\beta = 0.466$), employee motivation ($\beta = 0.229$), and perceived organizational support ($\beta = 0.069$). The four variables also have a significant simultaneous influence on employee performance ($F = 363.849$, $p < .001$), with $R^2 = .955$.

The findings imply that management should prioritize competency development through appropriate recruitment and training, strengthen organizational support through recognition and employee assistance, improve physical and non-physical working conditions in installation areas, and strengthen motivation through appreciation, leadership, and career-related opportunities. The study is limited by its focus on one installation department and its use of a census sample of 73 employees. Future researchers may extend the model by examining other departments, organizations, or additional variables, including conditional or moderating variables, as suggested in the thesis.

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