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Workload, Recognition, and Environment: Key Drivers of Employee Stress – A Case Study at PT PLN Unit X

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Abstract

Work-related stress is a crucial factor in business, primarily due to its connection with employee performance. A company must perform well to generate profit, and high performance is the ideal. Conversely, declining performance can harm the business. Undoubtedly, every employee will experience some level of job-related stress. This study collected quantitative data through questionnaires and interviews. Validity tests, the coefficient of determination test, partial hypothesis testing, and classical assumption tests were employed to evaluate the variables. The research was conducted at PT PLN Unit X with a sample of 83 respondents. Data were analyzed using multiple linear regression with SPSS 20 for Windows. The main objective of this study is to identify the key factors contributing to employee stress and provide a foundation for the company to take appropriate action in managing stress and improving employee well-being. The findings reveal that workload, lack of appreciation, and work environment have a positive and significant impact on job stress, categorized as very strong. PT PLN Unit X aims to reduce employee stress levels to an ideal point that enables maximum performance by improving both financial and non-financial aspects of employee well-being.

INTRODUCTION

To achieve work effectiveness and efficiency in achieving goals for individuals, society, and those facing a lack of appreciation, strategic management is a science and art involving the planning, management, and development of all available human resource potential and interpersonal relationships within a context of underappreciation, into a systematic and specific plan.

In everyday life, we often encounter people experiencing stress due to the position and function of individuals (workers) in determining the achievement of company goals. They experience stress in the workplace in addition to socioeconomic issues. Workplace stress can also be caused by overly challenging tasks and a tiring work environment. According to Anwar in Indah & Purnama (2021), "work stress is a feeling of pressure or distress experienced by employees in dealing with their work."

Stress is a state of tension that impacts a person's feelings, thoughts, and circumstances. An employee's capacity to manage their work environment and the tasks they undertake will be affected by excessive stress (Handoko in Indah & Purnama, 2021). As a result of any external action (work environment), scenario, or event that creates excessive psychological and/or physical demands on an individual, work stress is also an adjustment reaction mediated by individual differences and/or psychological processes. Undoubtedly, every employee experiences work-related stress. Workplace stress is influenced by a number of circumstances; it does not develop spontaneously. According to Robbins (in Tampombebu & Wijono (2022), the onset of stress is influenced by several factors, including workload, lack of recognition, and the work environment. The work environment has a significant influence on employee performance (Afrianda, R & Yosepha, S.Y., 2025). Task demands, role expectations, interpersonal demands, and lack of recognition are some of the characteristics that impact employee stress levels (Robbins, 2008 in Tampombebu and Wijono, 2022).

According to Robbins (in Lina (2019), social elements, such as friendships with coworkers or superiors, can mitigate the effects of stress. Each personality type has a different ability to manage stress, depending on the individual elements associated with different personality types (Handoko and Rambe 2018).

One of Indonesia's state-owned enterprises is PT PLN (Persero). This company must maintain its competitiveness by improving management standards. This government-owned company, whose primary goal is to provide reliable, high-quality electricity to all Indonesians, including micro, small, and medium enterprises (MSMEs), in order to support economic growth, has failed to improve the quality of life (Afrianda et al., 2025).

Amidst the energy transition era, PT PLN (Persero) continues to strive to improve employee performance to enhance customer satisfaction. This paper discusses how efforts to provide high-quality service, manifested in existing service performance, such as by offering attractive and profitable incentives, can contribute to the company's success in the electricity sector (Al Idrus, 2019). Employees at PT PLN are undoubtedly faced with a challenging situation because they are human beings. On the one hand, they

must strive to concentrate on the company's goal of delivering customer satisfaction, but on the other, they have needs and desires that require the company's attention.

Along with job demands, job expectations, family issues, financial hardships, and even innate personality traits, increasing technical advancements can also create dilemmas for employees. Work stress undoubtedly arises from these situations (Mulyanadan Defrizal, 2022). The researchers chose one of PT PLN's units in the DKI Jakarta region as the research location. This unit is one of the largest offices in the city.

HYPOTHESES DEVELOPMENT

In this study, the authors propose several hypotheses, including:

H1: The work environment has a significant and positive influence on employee job stress.

H2: Job stress among PT PLN Unit X employees is influenced by a lack of appreciation.

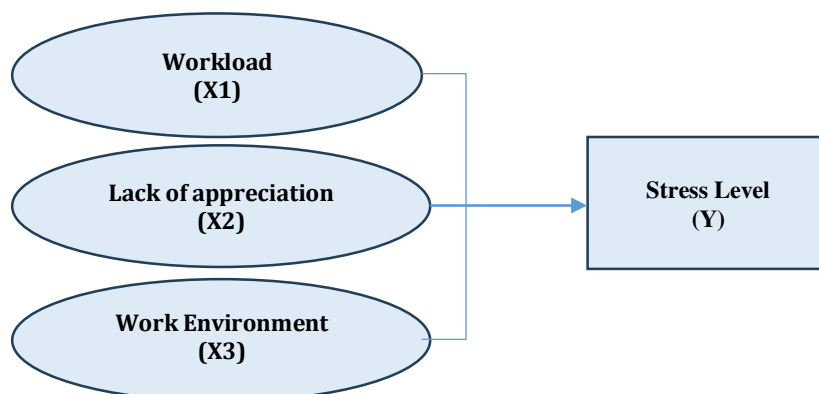
H3: Job stress among PT PLN Unit X employees is influenced by certain elements.

METHODS

This research falls into the quantitative research category and is an example of causal associative research, which states that one or more other variables influence, determine, and cause the condition of a variable (Stuti, Khoiron, and Achmad 2020). Quantitative methods are defined as research procedures based on positivism, used to study a specific population or sample, data collection using research tools, and quantitative or statistical data analysis (Sugiyono, in Sohibun and Ade 2017). These techniques are used to evaluate the established hypotheses. The researchers conducted research at PT PLN Unit X to collect the data needed for this study. The population of this study was all 83 employees of PT PLN Unit X. The sample size, which equates to a small population of 83 participants, was chosen to reflect this.

In this study, data processing was carried out using the SPSS statistical analysis tool and collected data from questionnaires and direct surveys of research subjects, as well as secondary sources obtained incidentally from materials related to the research. Multiple linear regression analysis and classical assumption tests were used in the data analysis of this study to ensure that the regression line equation was linear and could be used (valid).

Figure 1. Research Model Framework



RESULT AND DISCUSSION

Validity Test Results

Validity testing evaluates how well a measuring instrument captures the essence of the phenomenon or event being measured. A question, statement, or indicator is considered valid if the calculated r value exceeds the table r value and is positive (Ghozali, 2013 in Afni, 2021). At a 5% significance level, a statement is considered valid if the calculated r value is greater than the table r value. Table 1 below shows the overall results of the validity test:

Table 1. Validity Test Results

No	Variable	R Calculate	R table	Results
Workload (X1)				
1		0.276	0.224	Valid
2		0.808	0.224	Valid
3		0.189	0.224	Valid
Lack of appreciation (X2)				
1		0.291	0.224	Valid
2		0.257	0.224	Valid
3		0.275	0.224	Valid
4		0.273	0.224	Valid
5		0.551	0.224	Valid
6		0.334	0.224	Valid
7		0.316	0.224	Valid
Work Environment (X3)				
1		0.276	0.224	Valid
2		0.808	0.224	Valid
3		0.189	0.224	Valid
4		0.284	0.224	Valid
Stress Level (Y)				
1		0.226	0.224	Valid
2		0.289	0.224	Valid
3		0.291	0.224	Valid
4		0.224	0.224	Valid
5		0.222	0.224	Valid

Source: Processed primary data, 2025

The results of each item can be seen > 0.216 , indicating that all items of the research variables are valid to be used as instruments in research or the statements given can be used to measure the variables studied. This is because all research variable items have r count $>$ r table at a significance level of 5% ($= 0.05$) and $n = 81$ ($n = 83-2$) obtained r table $= 0.216$.

Regression Test Results

When the value of the independent variable, the stress factor, is changed, increased, or decreased, regression analysis is used to predict how much the value of the dependent

variable, namely job stress, will change. The results of the multiple regression are shown in Table 2 below:

Table 2. Regression Test Results

Model	Unstandardized Coefficients		Standardized Coefficients	t
	B	Std. Error	Beta	
(Constant)	.961	.260		3.693
Workload (X1)	.236	.024	.139	9.124
Lack of appreciation (X2)	.648	.052	.571	12.393
Work Environment (X3)	.375	.055	.337	6.798

Source: Processed primary data, 2025

From the table above, the results of the calculation of the Workload factor, Lack of Appreciation factor and Work Environment factor on work stress can be arranged in a model as follows:

$$Y = 0.961 + 0.236 X1 + 0.648 X2 + 0.375 X3$$

The results of this analysis can be interpreted as follows:

- The constant value of the given equation is 0.960. This graph shows that job stress is equal to 0.961 if X1 (Workload), X2 (Lack of Appreciation Factor), and X3 (Work Environment Factor) are constant, or $X = 0$.
- The coefficient value of 0.236 indicates that assuming the other independent variables are held constant, this indicates that if the company's workload increases by 1%, job stress will also increase by a multiplier of 0.236.
- The coefficient value is shown as (0.648). Assuming the other independent variables are held constant, this means that if the company's lack of appreciation characteristic increases by 1%, job stress will also increase by a multiplier of 0.648.
- The coefficient value of 0.375 means that, if the other independent variables are held constant, job stress will increase by a multiplier of 0.375 if the level of the work environment factor increases by 1%

Table 3. Results of the t-test calculation (partial)

Independent Variable	t count	Sig. T
Workload (X1)	3.693	0.000
Lack of appreciation (X2)	9.124	0.000
Work Environment (X3)	12.393	0.000

Source: Processed primary data, 2025

Based on Table 3, the test results for all independent variables show a calculated t-value greater than the t-table, meaning that all variable factors influence work stress. This study indicates that the work environment has a high level of complexity in terms of factors that influence employee work stress.

Autocorrelation Test Results

The Durbin-Watson test (DW test) is a technique that can be used to determine the presence or absence of autocorrelation in a regression model. It can be concluded that there is no autocorrelation if the DW value is greater than the upper limit (du) and less than the number of independent variables (Mintzberg, H., 1994). The following are the results of the autocorrelation test:

Table 4. Autocorrelation test results

Model Summary ^b						
Model	R	R Square	Adjust Square	R	Std. Error the Estimate	Durbin-Watson
1	.995 ^a	.991	.990		.250	1.981

a. Predictors: (Constant), Workload (X1), Lack of appreciation (X2), Work Environment (X3),
 b. Dependent Stress Level (Y)

Source: Processed primary data, 2025

Based on the results of the analysis of the variables that influence work stress, the coefficient of determination (R^2) value was obtained at 0.991. This means that the dependent variable (Y), namely work stress, is explained by all independent variables, namely factor (X1), factor (X2), and factor (X3), with the remaining 0.9% explained by components not included in this study. autocorrelation.

DISCUSSION

The findings from the statistical tests indicate that all variables, taken separately, have a partial and substantial positive impact on the dependent variable. The three independent variables have a positive and substantial interaction effect, meaning that the greater the influence of the people, lack of appreciation, and work environment variables, the greater their impact on employee job stress. This conclusion is consistent with the proposed hypothesis. The findings of this study are consistent with previous research. The following is an explanation of the influence of each variable.

The Effect of Workload on Employee Job Stress

Statistical test results indicate that each variable, when viewed individually, has a positive and partially significant effect on the dependent variable. The interaction between the three independent factors is positive and significant, meaning that the greater the influence of the variables of people, lack of appreciation, and work environment, the greater the impact on employee job stress.

These results align with the proposed theory. An explanation of the influence of each variable can be seen below. Social support is needed to minimize job stress, especially from those closest to the employee, such as family, coworkers, superiors, or other

individuals. As stated by (Ridwan et al., 2020), effective communication with all stakeholders is essential to obtaining social support.

The Influence of Lack of Appreciation on Employee Work Stress

Based on the results of the t-test, the characteristic of lack of appreciation partially had a positive effect on employee work stress. Therefore, it can be said that the second hypothesis was proven correct. This is due to the stress experienced by PT PLN Unit X employees when they are not given appropriate appreciation, where tasks and responsibilities exceed their available time. Employees can experience stress as a result of a lack of motivation from the company in the form of appreciation.

Lack of appreciation is one of the characteristics that significantly influences stress in the workplace. According to research (Parashakti and Ekhsan 2022), appreciation is the element that most influences employee work stress levels. The results of this study revealed that lack of appreciation has a positive and significant effect on employee work stress. Excessive workloads, as well as excessive demands from various parties, contribute to work stress.

The Influence of Work Environment Factors on Employee Job Stress

Findings from the partial test indicate that "work environment factors have a positive and significant effect on employee job stress." This is because employees of PT PLN Unit X believe that increasingly rapid technological advances force employees to strive to adapt to these changes, and the addition of additional work that must be completed on time leads to increased employee job stress levels. This aligns with research (Handayani and Daulay 2021) on the impact of the work environment and job stress on employee performance. The study's findings indicate that work environment elements have a positive and significant impact on job stress, and employee stress levels are influenced by work environment factors.

This study was conducted with the aim of better understanding the factors that influence employee job stress in the company's workplace. In an increasingly competitive and dynamic business context, a deeper understanding of these factors can provide valuable insights for companies in managing employee well-being and the overall effectiveness of under-appreciation.

However, like any research, this study also has limitations that must be considered when interpreting the results. Awareness of these limitations will help avoid overly broad conclusions and understand the limitations in generalizing the findings. Thus, the results of this study provide a valuable contribution to our understanding of work stress and its associated factors in corporate workplaces, while still taking into account the broader context and limitations of the study.

CONCLUSIONS

By identifying variables related to work stress, this study aims to contribute to the development of strategies and policies focused on employee well-being. It is hoped that

the results of this study will provide a foundation for companies to implement appropriate measures to reduce work stress, improve the quality of the work environment, and increase employee productivity and satisfaction. Based on the data analysis and discussion of the research results, the following conclusions can be drawn:

- 1) Based on the results of the regression test conducted on the first hypothesis, the work environment has a significant and positive effect on employee job stress. This is because the research findings show a significance value of less than 0.05, indicating that PT PLN Unit X has a significant and positive influence on employee job stress. (2) At PT PLN Unit X, employee job stress is influenced by the characteristic of lack of appreciation, according to the results of the regression test conducted on the second hypothesis. (3) At PT PLN Unit X, employee job stress is influenced by certain elements, according to the findings of the regression test on the third hypothesis.

By investigating specific aspects related to work stress, this study can also provide a broader perspective on how a lack of appreciation from companies for employees can affect employee stress levels at work. The implications of these findings can extend beyond the corporate workplace and are relevant to a variety of industries, given the importance of managing work stress as an integral part of human resource management.

Improving the quality of the work environment is essential, as it has been shown to significantly influence employee stress levels. Therefore, management should evaluate and enhance both the physical and psychological aspects of the workplace, including the provision of ergonomic facilities, proper lighting, and a collaborative, comfortable atmosphere. Additionally, the lack of appreciation has proven to be a contributing factor to work-related stress, highlighting the need for fair and transparent reward systems, along with a work culture that recognizes employee contributions both formally and informally. Acknowledging employees' efforts can help reduce stress while boosting motivation and loyalty. Although not explicitly stated, the findings related to the third hypothesis suggest that certain elements—potentially including workload—also contribute to stress. This calls for regular evaluation of task distribution to ensure it is proportional and manageable, alongside adequate resource support. Companies should also adopt data-driven approaches in designing employee well-being policies. The results of this study provide a foundation for developing effective stress management programs, empathetic managerial training, and systems for reporting and addressing psychological issues in the workplace. Furthermore, the implications of this research extend beyond PT PLN Unit X and are relevant to other industries facing similar challenges, emphasizing that managing workplace stress is a critical component of long-term organizational sustainability and performance improvement.

RECOMMENDATIONS

We recommend maximizing efforts to reduce stress in the workplace so that it remains at an ideal level that maximizes employee performance. To this end, we recommend improving employee well-being, both financial and non-financial, enhancing effective communication both formally and informally, reviewing and addressing

employee expectations regarding performance appraisal techniques, increasing oversight of their implementation, and conducting simultaneous training.

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