

THE INFLUENCE OF WORK ENVIRONMENT AND WORK STRESS ON EMPLOYEES' INTENTION TO LEAVE AT THE REGIONAL DISASTER MANAGEMENT AGENCY OF BOGOR CITY

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Informasi

Abstract

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This study aims to analyze the influence of work environment and work stress on employees' intention to leave at the Regional Disaster Management Agency (BPBD) of Bogor City, and to examine the role of work stress as an intervening variable in the relationship between work environment and intention to leave. The study is motivated by increasing labor mobility in the public sector and the high proportion of contract-based employees (PPPK) at BPBD Bogor City, which has the potential to affect organizational stability. This research employs a quantitative approach using the Partial Least Square-Structural Equation Modeling (PLS-SEM) method through SmartPLS version 4.2.9. Data were collected through a saturated sampling (census) technique by distributing questionnaires using a Likert scale to all 72 employees of BPBD Bogor City. The results of hypothesis testing reveal that work environment has a positive and significant effect on employees' intention to leave, with a path coefficient of 0.429, a t-statistics value of 4.349, and a p-value of 0.000. Work stress also has a positive and significant effect on intention to leave, with a path coefficient of 0.351, a t-statistics value of 4.254, and a p-value of 0.000. Furthermore, work environment has a positive and significant effect on work stress, with a path coefficient of 0.293, a t-statistics value of 2.938, and a p-value of 0.003. Work stress is also proven to significantly mediate the effect of work environment on intention to leave, with an indirect path coefficient of 0.103, a t-statistics value of 2.266, and a p-value of 0.023. These findings indicate a relationship pattern that runs contrary to common theoretical expectations, which can be explained through the Job Demands-Resources (JD-R) Model and the contextual characteristics of BPBD employees. The findings suggest that improving the quality of the work environment at BPBD Bogor City must be accompanied by systematic work stress management strategies in order to effectively reduce employees' intention to leave.

Keyword: Work Environment, Work Stress, Intention to Leave, PLS-SEM, Public Sector.

A. INTRODUCTION

The work environment represents the entirety of physical, psychological, social, and organizational conditions experienced by employees while carrying out their daily work activities. These conditions encompass work facilities, relationships among colleagues, leadership support, organizational culture, and the workload borne by individuals. All of these aspects are closely linked to various organizational outcomes, such as work productivity, employee satisfaction, and employee loyalty. Previous research indicates that an unsupportive work environment tends to be associated with increased work pressure and a decline in employees' attachment to the organization (Bachtiar et al., 2024)

The public sector, including disaster management agencies, faces increasing challenges related to workforce mobility and retention. The Regional Disaster Management Agency (BPBD) of Bogor City is a government institution whose operational effectiveness depends heavily on the stability and commitment of its personnel. Based on preliminary observations, several concerns related to the working conditions at BPBD Bogor City were identified, including a high intensity of work, demands for constant readiness in emergency situations, employee fatigue, and a repetitive task burden that has the potential to affect employees' work attitudes.

Furthermore, a substantial proportion of BPBD Bogor City employees hold contractual (PPPK) status rather than permanent civil servant (PNS) status, which contractually entails greater job-tenure uncertainty. This condition has the potential to influence how employees perceive their working conditions and, in turn, their intention to remain with or leave the organization.

Work stress is not merely a consequence of a poor work environment; it is also a variable that independently contributes to employees' intention to leave the organization. Work stress is defined as an individual's physical and psychological response to job demands that exceed their adaptive capacity (Robbins & Judge, 2019). In the context of BPBD, work stress can arise from unpredictable operational pressures, such as sudden mobilization during disasters, role conflict between administrative and field duties, and uncertainty in working conditions.

Several studies have examined the relationships among work environment, work stress, and intention to leave, generally finding that a conducive work environment reduces both work stress and the intention to leave, while higher work stress increases the intention to leave (Setiawan, 2022; Hartono et al., 2025; Nursalimah & Oktafien, 2023). However, most of these studies have focused on the private sector, with relatively limited attention given to public

sector organizations with high-risk and high-pressure job characteristics, such as disaster management agencies. This research gap, combined with preliminary observations indicating less-than-optimal working conditions at BPBD Bogor City, underlies the importance of conducting a systematic quantitative study on the influence of work environment and work stress on the intention to leave among BPBD Bogor City employees, with work stress positioned as an intervening variable.

Based on the explanation above, this study aims to analyze the influence of work environment and work stress on the intention to leave among employees of BPBD Bogor City, and to examine the intervening role of work stress in the relationship between work environment and intention to leave.

B. RESEACRH METHOD

This study employs a quantitative approach with a survey method. The research object is the entire population of employees at the Regional Disaster Management Agency (BPBD) of Bogor City, totaling 72 people, consisting of both civil servants (PNS) and contract-based employees (Non-PNS/PPPK). This study applies a saturated sampling (census) technique, in which all members of the population are used as respondents, given that the population size is relatively small (under 100 people). Accordingly, all 72 employees of BPBD Bogor City were used as the research sample.

Primary data were obtained by distributing questionnaires utilizing a five-point Likert scale, ranging from "strongly disagree" (1) to "strongly agree" (5), to all respondents. The independent variables in this study are work environment (X1) and work stress (X2), while the dependent variable is intention to leave (Y), with work stress also functioning as an intervening variable in the relationship between work environment and intention to leave.

Data analysis was conducted using the Partial Least Square-Structural Equation Modeling (PLS-SEM) method through SmartPLS software version 4.2.9. This method was selected because it is capable of analyzing complex cause-and-effect relationships among variables while simultaneously evaluating the measurement model and the structural model, without requiring a large sample size or normally distributed data (Ghozali, 2021; Hair et al., 2019). The model evaluation includes testing of the outer model (convergent validity, discriminant validity, and composite reliability) and the inner model (R-Square, path coefficients, effect size (f^2), predictive relevance (Q^2), and hypothesis testing through the bootstrapping procedure with a significance threshold of t-statistics > 1.96 and p-value < 0.05).

C. RESULTS AND DISCUSSION

1. Descriptive Analysis

Descriptive analysis is a statistical technique used to describe and summarize the main characteristics of data obtained from the research sample. This study collected a total of 72 questionnaires from the entire population of BPBD Bogor City employees, who simultaneously served as the research sample.

a. Respondent Characteristics

Respondent characteristics were compiled to provide a detailed overview of employee profiles based on gender, age, employment status, length of service, and education level, as presented in Table 1.

Table 1. Recapitulation of Respondent Characteristics

No	Characteristic	Majority Category	Frequency	Percentage (%)
1	Gender	Male	56	77.8%
2	Age	>40 years	25	34.7%
3	Employment Status	Full/Part-time PPPK (Contract)	53	73.6%
4	Length of Service	>10 years	31	43.1%
5	Last Education	Senior High School (SMA/SMK)	31	43.1%

Source: processed primary data, 2026

Based on Table 1, the majority of BPBD Bogor City employees are male (77.8%), aged over 40 years (34.7%), employed under full/part-time contract status (PPPK) (73.6%), with more than 10 years of service (43.1%), and holding a senior high school education (SMA/SMK) (43.1%). The high proportion of male employees is likely related to the field-based and disaster-response nature of BPBD's duties. Meanwhile, the dominance of PPPK status reflects the government's policy of expanding long-term contractual employment in public institutions, including BPBD Bogor City.

b. Descriptive Statistics of Research Variables

The descriptive results show that the average score for the work environment variable (X1) ranges from 3.04 to 3.22, which falls into the moderate category, indicating that the working conditions at BPBD Bogor City are not yet fully perceived as conducive by employees. The work stress variable (X2) shows an average score ranging from 3.44 to 3.65, falling into the moderately high to high category, indicating that employees experience a fairly significant level of work pressure, consistent with the demanding and often unpredictable nature of disaster management work. The intention to leave variable (Y) shows an average score ranging from 2.51 to 2.88, falling into the low category, indicating that, in general, BPBD Bogor City

employees do not currently hold a strong intention to leave the organization, although the significant influence of work environment and work stress identified through inferential analysis remains an important risk factor to monitor.

2. Testing of Research Instruments

Instrument testing was conducted through the evaluation of the measurement model (outer model) and the structural model (inner model) using the PLS Algorithm and bootstrapping procedures in SmartPLS 4.2.9.

a. Convergent Validity

An indicator is considered valid if its loading factor value is positive and exceeds 0.70. The results show that all indicators across the three variables produced loading factor values above 0.70 (ranging from 0.717 to 0.896), indicating that all indicators are valid in measuring their respective latent variables. Furthermore, the Average Variance Extracted (AVE) values for all constructs exceeded the 0.50 threshold, as presented in Table 2.

Table 2. Reliability and Convergent Validity Test Results

Variable	Cronbach's Alpha	Composite Reliability (rho_c)	AVE	Description
Intention to Leave	0.954	0.961	0.710	Valid & Reliable
Work Environment	0.939	0.948	0.646	Valid & Reliable
Work Stress	0.930	0.940	0.613	Valid & Reliable

Source: SmartPLS Output (v.4.2.9), 2026

Based on Table 2, all constructs show Cronbach's alpha and composite reliability values above 0.70, and AVE values above 0.50, confirming that all variables possess strong convergent validity and a high level of reliability.

b. Discriminant Validity

Discriminant validity was assessed using the Fornell-Larcker criterion and the cross-loading matrix. The results show that the square root of the AVE for each construct is greater than its correlation with other constructs (Intention to Leave = 0.843; Work Environment = 0.804; Work Stress = 0.783), and every indicator loads highest on its intended construct. Additionally, the Heterotrait-Monotrait Ratio (HTMT) values for all variable pairs were below the 0.90 threshold (0.536 for Intention to Leave–Work Environment and 0.485 for Intention to Leave–Work Stress), confirming that the research model has met the discriminant validity criteria. The Variance Inflation Factor (VIF) values for all indicators were also below 5, indicating the absence of problematic multicollinearity in the model.

c. R-Square (R²)

R-Square is used to measure the ability of the independent variables to explain the variability of the dependent variables in the PLS-SEM model. The R-Square results of this study are presented in Table 3.

Table 3. Coefficient of Determination (R-Square)

Dependent Variable	R-Square	R-Square Adjusted
Intention to Leave	0.395	0.378
Work Stress	0.086	0.073

Source: SmartPLS Output (v.4.2.9), 2026

Based on Table 3, the R-Square value for the intention to leave variable is 0.395, indicating that 39.5% of its variance can be explained by work environment and work stress, while the remaining 60.5% is influenced by other factors outside the research model. Meanwhile, the R-Square value for the work stress variable is 0.086, indicating that only 8.6% of its variance is explained by work environment, while 91.4% is influenced by other factors not examined in this study.

d. Hypothesis Testing (Path Coefficient)

Hypothesis testing was conducted using the bootstrapping procedure, with a relationship considered significant if the p-value is below 0.05 and the t-statistics value exceeds 1.96. The results of the direct and indirect effect testing are presented in Table 4.

Table 4. Path Coefficients and Hypothesis Testing Results

Path	(O)	(M)	(STDEV)	T-Stat.	P-Val.	Info
Work Environment -> Intention to Leave	0.429	0.435	0.099	4.349	0.000	Accepted
Work Stress -> Intention to Leave	0.351	0.353	0.082	4.254	0.000	Accepted
Work Environment -> Work Stress	0.293	0.323	0.100	2.938	0.003	Accepted
Work Environment -> Work Stress -> Intention to Leave	0.103	0.114	0.045	2.266	0.023	Accepted

Note: (O) = Original Sample, (M) = Sample Mean, (STDEV) = Standard Deviation, T-Stat. = T-Statistics ($|O/STDEV|$), P-Val. = P-Values.

Source: SmartPLS Output (v.4.2.9), 2026

Based on the statistical parameters in Table 4, the evaluation of direct effects shows that H1 is accepted (O = 0.429; p = 0.000), indicating that work environment has a positive and significant effect on intention to leave. H2 is also accepted (O = 0.351; p = 0.000), confirming that work stress has a positive and significant effect on intention to leave. H3 is accepted (O = 0.293; p = 0.003), indicating that work environment has a positive and significant effect on

work stress. Furthermore, the indirect effect test confirms that H4 is accepted ($O = 0.103$; $p = 0.023$), demonstrating that work stress significantly mediates the effect of work environment on intention to leave.

e. Effect Size (f^2) and Predictive Relevance (Q^2)

Based on the f-square analysis, the effect of work environment on intention to leave ($f^2 = 0.278$) and the effect of work stress on intention to leave ($f^2 = 0.186$) are both categorized as moderate, while the effect of work environment on work stress ($f^2 = 0.094$) is categorized as weak. Furthermore, the Q-square (predictive relevance) values for work stress (0.041) and intention to leave (0.238) are both greater than zero, indicating that the research model possesses good predictive capability for both dependent variables.

Discussion

1. The Effect of Work Environment on Intention to Leave Among BPBD Bogor City Employees

The structural model testing results show that H1 is accepted ($O = 0.429$; t -statistics = $4.349 > 1.96$; $p = 0.000$), indicating that work environment has a positive and significant effect on intention to leave. This finding implies that the more positively employees perceive their work environment, the higher their tendency to intend to leave the organization.

This finding runs contrary to common theoretical expectations in the human resource management literature, which generally suggest that a good work environment should strengthen employee attachment to the organization and reduce intention to leave (Sedarmayanti, 2017; Setiawan, 2022). This phenomenon can be explained through several contextual perspectives relevant to the characteristics of BPBD Bogor City employees. First, the majority of employees hold PPPK (contract-based) status (73.6%), which contractually entails more limited job-tenure certainty compared to civil servants. When employees perceive a good work environment, they may gain greater confidence and competence, which in turn encourages them to seek more promising career opportunities outside the organization with more permanent employment status.

Second, this finding can also be understood through the push-pull theory perspective, in which internal push factors interact with external pull factors. A good work environment at BPBD may not be sufficiently strong to offset the appeal of other institutions offering more stable employment status, more competitive remuneration, or clearer career development prospects. This is consistent with Mobley (1977) view that the decision to leave an

organization is a multidimensional process not solely determined by work environment conditions.

2. The Effect of Work Stress on Intention to Leave Among BPBD Bogor City Employees

The testing results confirm that work stress has a positive and significant effect on intention to leave ($O = 0.351$; t -statistics = $4.254 > 1.96$; $p = 0.000$), meaning that the higher the work stress experienced by employees, the greater their intention to leave the organization.

This finding is consistent with Robbins & Judge (2017), who define work stress as a dynamic condition in which individuals are confronted with demands, constraints, or uncertainties related to matters important to them. In the emergency and high-risk operational context of BPBD, the continuous demand for readiness combined with unpredictable workloads is highly likely to trigger an accumulation of stress. This finding aligns with Muviana (2022), who found that work stress consistently contributes to increased employee intention to leave, as well as Hartono et al. (2025), who emphasized that prolonged and unmanaged work pressure encourages employees to seek a way out of stressful situations, including through the intention to leave their jobs.

3. The Effect of Work Environment on Work Stress Among BPBD Bogor City Employees

The results show that work environment has a positive and significant effect on work stress ($O = 0.293$; t -statistics = $2.938 > 1.96$; $p = 0.003$), indicating that the better employees perceive their work environment, the higher the level of work stress they experience.

This finding diverges from conventional theoretical expectations. Robbins & Judge (2019) propose the concept of stressors, in which unsupportive work environment conditions—such as poor interpersonal relationships, inadequate facilities, role ambiguity, or an unhealthy work climate—are typically the primary sources of stress, implying a negative relationship between work environment quality and work stress. However, this study found the opposite pattern. This phenomenon can be interpreted through the lens of a high-demand work environment: employees who perceive their work environment positively may simultaneously face higher performance expectations and responsibilities. In the context of BPBD Bogor City, a well-organized work environment with adequate facilities is often accompanied by stringent operational standards and high demands for professionalism. This is consistent with the Job Demands-Resources (JD-R) Model developed by Bakker and Demerouti (2007), which states that high job resources do not always reduce stress when job demands increase proportionally alongside them. Additionally, for PPPK employees who dominate the workforce composition

(73.6%), a good work environment may create psychological pressure in the form of demands to demonstrate strong performance to secure contract renewal.

4. The Effect of Work Environment on Intention to Leave through Work Stress as an Intervening Variable

The indirect effect testing shows that work environment has a significant effect on intention to leave through the intervening variable of work stress ($O = 0.103$; t -statistics = 2.266 > 1.96; $p = 0.023$), confirming that work stress significantly mediates the positive relationship between work environment and intention to leave among BPBD Bogor City employees.

This mediation mechanism can be understood based on the preceding findings: a positively perceived work environment indirectly increases intention to leave through elevated work stress, likely driven by rising performance expectations or heightened awareness of better career opportunities outside the organization. This condition becomes increasingly complex within BPBD Bogor City given the high proportion of PPPK employees, who tend to exhibit greater sensitivity to work pressure and career dynamics. These findings underscore that efforts to improve the work environment at BPBD Bogor City must be accompanied by systematic and proactive work stress management strategies in order to effectively curb employees' intention to leave.

D. CONCLUSION

Based on the research conducted on the employees of the Regional Disaster Management Agency (BPBD) of Bogor City, several conclusions can be drawn. First, work environment has a positive and significant effect on intention to leave (path coefficient = 0.429), indicating that more positive perceptions of the work environment are associated with a higher tendency toward intention to leave, a pattern explained by the dominance of contract-based (PPPK) employment status and career-related push-pull dynamics. Second, work stress has a positive and significant effect on intention to leave (path coefficient = 0.351), meaning that higher levels of work stress experienced by employees correspond to a greater intention to leave the organization. Third, work environment has a positive and significant effect on work stress (path coefficient = 0.293), suggesting that a positively perceived work environment tends to increase employees' psychological pressure, largely due to elevated performance expectations within a high-standard operational setting. Fourth, work stress is proven to significantly mediate the effect of work environment on intention to leave (indirect path coefficient = 0.103), confirming

that work stress functions as an intervening mechanism, albeit with a relatively small yet statistically significant magnitude.

These findings confirm that enhancing the quality of the work environment at BPBD Bogor City must be accompanied by systematic management of work stress, alongside the strengthening of employment status certainty, clear career pathways, and competitive compensation, in order to effectively reduce employees' intention to leave and maintain organizational stability in public disaster management services.

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