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Literature Review on the Implementation of Government Accounting Standards (SAP) in Indonesia

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Abstract

This study aims to examine the effect of the physical work environment and job stress on employee productivity at PT Persada Sokka Tama. The research adopts a quantitative approach using descriptive and verification methods. Data were collected through questionnaires distributed to 171 respondents, who were employees of PT Persada Sokka Tama. Data analysis was conducted using Partial Least Squares Structural Equation Modeling (PLS-SEM). The results indicate that both the physical work environment and job stress significantly influence employee productivity. The physical work environment has a positive and significant effect, suggesting that better workplace conditions enhance employee output. Conversely, job stress negatively affects productivity, implying that high levels of stress reduce performance. The coefficient of determination (R^2) demonstrates substantial explanatory power for the proposed model. These findings emphasize the importance of creating a supportive work environment and managing stress levels to improve overall productivity.

Keywords: physical work environment, job stress, employee productivity, PLS-SEM.

INTRODUCTION

Human resources (HR) are a key determinant of a company's productivity and effectiveness (Zhenjing et al., 2022). Productive employees are both an asset and a source of competitive advantage in achieving organizational goals (Dumitriu et al., 2025). Therefore, every company must strive to improve employee performance and productivity by ensuring that all supporting factors—especially the physical work environment and stress levels—are well managed (Oyedeji et al., 2025; Srivastava et al., 2024; Ari et al., 2025).

A comfortable and conducive physical work environment plays a significant role in enhancing employee productivity (Sutanto & Putri, 2022). Factors such as lighting, temperature, noise levels, and workspace layout influence not only comfort but also employee morale and work efficiency (Nahar et al., 2023; Srivastava et al., 2024). Poor physical conditions can result in fatigue, lack of motivation, and decreased output (Oyedeji et al., 2025). Consequently, companies must ensure that employees are provided with adequate and supportive working conditions to foster optimal performance (Dumitriu et al., 2025; Sapiah Abdul Hamed et al., 2023).

In addition to physical factors, psychological stress is also a major challenge in the workplace (Kowal & Pihkala, 2022). Work-related stress, if not properly managed, can lead to burnout, absenteeism, and reduced quality of work (Salvagioni et al., 2017). Sources of stress may include workload, role conflict, job insecurity, interpersonal relationships, and unclear expectations (Darvishmotevali & Ali, 2020). Managing stress through proper workload distribution, effective communication, and organizational support systems is critical to sustaining productivity (Lee et al., 2023; Zaman et al., 2022).

According to James (2023), stress at work can affect individuals both psychologically and physiologically. Uncontrolled stress undermines mental focus, decision-making, and emotional regulation, ultimately lowering productivity (Amadi, 2024). Conversely, a controlled and moderate level of stress can function as a motivator (Fahmi et al., 2022). Therefore, identifying stress triggers and developing organizational strategies for stress management is essential (Schwarzer & Reuter, 2023).

In the context of this study, employee productivity is defined as the ability of workers to achieve targets and complete tasks effectively and efficiently. Productivity is reflected in work quality, punctuality, initiative, and contribution to team objectives. The study focuses on employees of PT Persada Sokka Tama, a company that prioritizes performance improvement yet faces challenges in maintaining optimal employee productivity levels.

A preliminary survey conducted among 30 employees of PT Persada Sokka Tama indicated that 53% of respondents felt their work environment was not conducive, while 60% stated that their jobs were often stressful and emotionally draining. These findings highlight the importance of examining the impact of both the physical work environment and stress levels on employee productivity in this organization.

Previous studies have demonstrated that the physical work environment and job stress significantly influence employee productivity. For example, Khalid found that ergonomic workspace design and optimal lighting improved efficiency and reduced fatigue in manufacturing settings, while Lee and Ashforth showed that unmanaged work stress negatively affected performance and increased absenteeism in service organizations. However, these studies were conducted primarily in manufacturing or Western contexts, leaving a gap in understanding the combined effects of workplace conditions and job stress on productivity in Indonesian companies, particularly medium-sized enterprises such as PT Persada Sokka Tama. This research seeks to address that gap by empirically analyzing how workplace conditions and stress levels simultaneously affect employee productivity in the local context.

Based on the background described above, this research aims to examine the influence of the physical work environment and job stress on employee productivity. The study is expected to contribute both practically and theoretically by offering recommendations for the development of better workplace conditions and stress management systems, thereby improving employee productivity at PT Persada Sokka Tama.

RESEARCH METHOD

This study employed a quantitative approach with both descriptive and verification methods to examine the influence of physical work environment and job stress on employee productivity at PT Persada Sokka Tama. The descriptive method provided an explanation of the variables under investigation, while the verification method was used to test hypotheses and analyze relationships between the variables. Data were collected using a structured questionnaire distributed to employees in the Operational, Marketing, and Finance divisions, yielding 171 valid responses. The questionnaire employed a five-point Likert scale ranging from 1 ("strongly disagree") to 5 ("strongly agree"), capturing respondents' perceptions of the physical work environment, levels of job stress, and their own productivity.

Data analysis was conducted using Structural Equation Modeling with Partial Least Squares (SEM-PLS) via SmartPLS 4 software. The analysis was divided into two stages: the outer model evaluation assessed indicator validity and reliability through convergent and discriminant validity, as well as Cronbach's Alpha and Composite Reliability; the inner model evaluation examined the structural model, including R-square values, path coefficients, and hypothesis testing to determine the significance and strength of relationships between variables. Based on the theoretical framework, two hypotheses were tested: H1, predicting a significant positive effect of the physical work environment on employee productivity, and H2, predicting a significant negative effect of job stress on employee productivity, allowing the study to quantify both the supportive and constraining factors affecting employee performance.

RESULT AND DISCUSSION

Outer Model

Convergent Validity

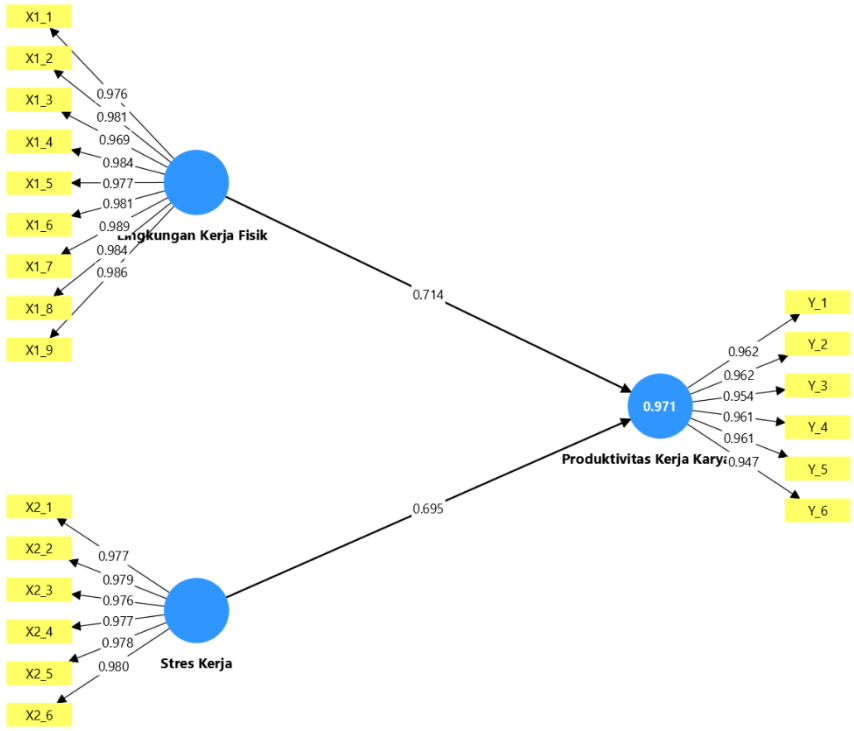

Figure 1. Full Structural Model (PLS Algoritma)

As illustrated in Figure 1, the evaluation of convergent validity is carried out using the outer loading values of each indicator for the latent constructs: Physical Work Environment, Job Stress, and Employee Productivity. According to the recommended threshold, an outer loading value above 0.7 indicates that an indicator has a strong correlation with its latent construct. These results confirm that all indicators used in the model are valid measures of their respective latent variables and meet the criteria for convergent validity.

Average Variance Exctracted (AVE)

Table 1. Average Variance Exctracted (AVE)

Variable	Dimension	Indicator	Outer Loading	Average Variance Exctracted (AVE)	Results
Physical Work Environment	Ergonomics & Safety	Adequate lighting that is not glaring	0.976	0.962	Valid
		Good air circulation supporting comfort	0.981		Valid
		Noise does not disturb concentration	0.969		Valid
		Comfortable room temperature	0.984		Valid
		Office layout facilitates movement & interaction	0.977		Valid
		Facilities (table, chair, PC) support daily tasks	0.981		Valid
		Workplace is safe from physical threats/fire	0.989		Valid
		Desk and chair meet ergonomic standards	0.984		Valid
		Workspace is spacious for interaction	0.986		Valid
Job Stress	Workload & Role Clarity	Excessive workload for available time	0.977	0.917	Valid
		Pressure from tight deadlines causes stress	0.979		Valid
		Unclear role/tasks cause confusion	0.976		Valid
		Lack of support from superiors/peers	0.977		Valid
		Poor physical work environment increases stress	0.978		Valid
		Frequently working overtime due to high demands.	0.980		Valid
Employee Productivity	Output, Quality & Motivation	Produces output meeting targets	0.962	0.956	Valid
		Work quality meets company standards	0.962		Valid
		Completes tasks on time	0.954		Valid

Variable	Dimension	Indicator	Outer Loading	Average Variance Exctracted (AVE)	Results
		Motivated by work targets	0.961		Valid
		Continuously improves work quality	0.947		Valid

Table 1 shows that the AVE values for Physical Work Environment (0.971), Job Stress (0.978), and Employee Productivity (0.958) all exceed the threshold of 0.5. These results confirm strong convergent validity, indicating that each construct explains more than half of the variance in its observed indicators.

Reliability Test

Table 2. Composite Reliability

Variable	Composite reliability (rho_a)	Composite reliability (rho_c)	Cronbach's alpha	Results
Physical Work Environment	0.995	0.996	0.995	Reliable
Job Stress	0.991	0.985	0.982	Reliable
Employee Productivity	0.982	0.985	0.982	Reliable

Based on Table 2, both the Digital Transformation and Employee Performance constructs demonstrate high internal consistency reliability. The values of Composite Reliability and Cronbach's Alpha for both constructs exceed the threshold of 0.70, confirming that all indicators are consistently reliable. Therefore, both constructs are classified as reliable in this study.

Inner Model

Coefficient of Determination - R^2

Table 3. Coefficient of Determination - R^2

Variable	R-square	R-square adjusted
Employee Productivity	0.971	0.970

As shown in Table 3, the R^2 value of 0.971 and the adjusted R^2 of 0.970 indicate that 77.3% of the variance in Employee Productivity can be explained by the two independent variables, namely Physical Work Environment and Job Stress. This value exceeds the threshold of 0.50, which is considered strong and demonstrates that the model has a high explanatory power in predicting Employee Productivity.

Predictive Relevance - Q^2

Table 4. Predictive Relevance - Q^2

Variable	Q^2 predict	Results
Employee Productivity	0.970	Predictive relevance

As shown in Table 4, the Q^2 value of 0.970 for Employee Productivity is greater than the threshold of 0.35. This indicates that the structural model has strong predictive relevance and demonstrates the model's ability to accurately predict the endogenous variable

Hypothesis

Table 5. Path Coeffcients dan T-statistics

	Original sample (O)	Sample mean (M)	Standard deviation (STDEV)	T statistics (|O/STDEV|)	Path coefficients	P values
Physical Work Environment -> Employee Productivity	0.714	0.716	0.032	22.150	0.714	0.000
Job Stress -> Employee Productivity	0.695	0.696	0.033	21.0714	0.695	0.000

As shown in Table 5, the SmartPLS analysis reveals that the path coefficient linking Physical Work Environment to Employee Productivity is 0.714, supported by a t-statistic of 22.150 and a p-value of 0.000. Meanwhile, the path coefficient linking Job Stress to Employee Productivity is 0.695, with a t-statistic of 21.074 and a p-value of 0.000. Since both t-values exceed the threshold of 1.980 and the p-values are below 0.05, the results are statistically significant.

Therefore, Ha is accepted and H0 is rejected for both hypotheses. This confirms that a supportive physical work environment positively and significantly enhances employee productivity. Job stress also significantly influences productivity, suggesting that managing stress levels is crucial to sustaining optimal work outcomes.

Table 6. Research Results Comparison Table

No	Author	Research Title	Method	Key Findings	Recommendations
1	Ratna Marsela & Lativa Hartiningtyas (2022)	*Analysis of Work Environment and Spatial Layout in Improving Employee Performance at Meubel Permata Wood*	Qualitative (Case Study)	A supportive physical environment and open-plan layout positively impact employee performance)	Improve workspace facilities and apply an open-office layout to enhance comfort and communication
2	Firda Noor Oktavianti (2018)	*Analysis of Office Layout and Work Comfort at DPRD Secretariat of Surakarta*	Qualitative Descriptive	Lighting, ventilation, and color schemes affect employee comfort and performance	Optimize physical layout and interior design to enhance productivity
3	Ahsan et al. (2024)	*Impact of Work Environment on Occupational Health and Productivity*	Quantitative (PLS-SEM)	Both physical and psychosocial environments significantly influence productivity	Create a balanced physical and psychosocial environment for employees
4	Liu et al. (2024)	*Telecom Industry Staff Stress Perception on Job Burnout*	Quantitative (SPSS)	Work stress contributes to burnout and reduces performance; social support mediates stress effects	Minimize job stress and implement social support systems in the workplace
5	Chandrasekar (2022)	*Physical Work Environment and*	Literature Review	Physical factors such as space, lighting, and	Regularly evaluate and improve the physical

No	Author	Research Title	Method	Key Findings	Recommendations
		Employee Productivity		cleanliness improve concentration and productivity	work environment to maintain high performance

The results of this study are strongly supported by prior research, reinforcing the conclusion that both physical work environment and job stress significantly affect employee productivity. The path coefficient of 0.714 from Physical Work Environment to Employee Productivity and 0.695 from Job Stress to Employee Productivity, both statistically significant, aligns with findings from Ratna Marsela & Hartiningtyas (2022), who emphasized that a supportive workspace and open-plan layout enhance employee performance, and Firda Noor Oktavianti (2018), who found that lighting, ventilation, and color schemes directly influence work comfort and efficiency. Similarly, Ahsan et al. (2024) demonstrated through PLS-SEM that both physical and psychosocial environments are critical determinants of productivity, while Liu et al. (2024) highlighted that job stress reduces performance and burnout can be mitigated with adequate social support. Chandrasekar (2022) further confirmed that physical factors such as space, lighting, and cleanliness directly improve focus and output. Collectively, these studies corroborate the present findings and indicate that optimizing physical workspace and managing stress are essential strategies for enhancing productivity.

The insights gained from these studies emphasize that both physical workspace optimization and stress reduction are strategic priorities for improving employee productivity. Companies should invest in ergonomic infrastructure and design while also addressing psychological pressures through clear job roles, workload management, and employee well-being programs.

CONCLUSION

The study concludes that both the physical work environment and work stress significantly influence employee productivity at PT Persada Sokka Tama. A supportive workspace—through proper lighting, layout, cleanliness, and noise control—enhances focus and performance, while excessive stress from heavy workloads, unclear roles, and limited support reduces productivity. These findings emphasize the need for organizations to optimize physical conditions and implement effective stress management strategies, such as supportive policies, regular workplace assessments, and wellness programs, to sustain productivity. Future research could explore the long-term interaction between physical and psychological workplace factors across different industries and organizational scales in Indonesia to provide a more comprehensive framework for improving employee performance.

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