



Employee Welfare, Work Environment, and Interpersonal Relations Impact on Productivity

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Abstract

This research examines how employee welfare, work environment, and interpersonal relations influence work productivity at BPJS Ketenagakerjaan Toba Samosir Balige Branch. Using quantitative methodology with 99 respondents and multiple linear regression analysis, findings reveal significant positive effects: employee welfare ($t = 5.158$, $p < 0.05$), work environment ($t = 3.973$, $p < 0.05$), and interpersonal relations ($t = 3.010$, $p < 0.05$) all significantly impact productivity. The F-test demonstrates collective significance ($F = 97.660$, $p < 0.001$), with adjusted $R^2 = 0.747$ explaining 74.7% of productivity variance. Results emphasize integrated human resource management strategies for enhancing organizational productivity in Indonesian public sector institutions.

Keywords: *Employee Welfare, Work Environment, Interpersonal Relations, Work Productivity*

Introduction

Contemporary organizational environments demand strategic approaches to human resource management, particularly in public sector institutions where service delivery excellence directly impacts societal welfare. Work productivity emerges as a fundamental metric determining organizational effectiveness and resource optimization capabilities (Chen & Rodriguez, 2021). Enhanced productivity levels enable organizations to achieve superior operational efficiency while maximizing available resources through systematic management practices.

Public sector organizations face unique challenges in maintaining optimal productivity levels due to regulatory constraints, bureaucratic structures, and diverse stakeholder expectations. BPJS Ketenagakerjaan, as Indonesia's primary social security institution for workers, operates within complex operational frameworks requiring exceptional performance standards to serve millions of beneficiaries effectively.

Preliminary organizational assessment reveals multiple productivity challenges including excessive workload distribution among employees, frequent instances of extended working hours beyond standard schedules, suboptimal physical work environments lacking adequate comfort and security measures, insufficient illumination systems in operational areas, workplace noise disruptions from various activities including video conferencing, deteriorated colleague relationships affecting collaboration quality, inadequate peer support mechanisms reflected in poor communication patterns, absence of dedicated workspace allocation for specific divisions, declining employee motivation levels, substandard performance outcomes from certain staff members, and overall underperformance in organizational productivity metrics.

These identified challenges necessitate comprehensive investigation into factors influencing productivity outcomes. Employee welfare, work environment quality, and interpersonal relationship dynamics represent critical determinants of organizational performance that warrant systematic examination within the context of Indonesian public sector operations.

Literature Review

Theoretical Framework

Self-Determination Theory

Self-determination theory provides foundational understanding of human motivation in organizational contexts,



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emphasizing autonomy, competence, and relatedness as fundamental psychological needs driving performance outcomes (Zhang & Martinez, 2022). This theory explains how employee welfare programs, environmental conditions, and social relationships contribute to intrinsic motivation and subsequent productivity enhancement.

Social Exchange Theory

Social exchange theory elucidates reciprocal relationships between organizations and employees, suggesting that positive workplace conditions generate commitment and performance improvements through perceived organizational support mechanisms (Johnson & Lee, 2021). This theoretical framework explains how welfare provisions, environmental investments, and relationship quality influence employee productivity through psychological contract fulfilment.

Work Productivity

Work productivity represents the efficiency ratio between output generation and input utilization within specified timeframes, measuring organizational capacity to transform resources into valuable outcomes (Anderson et al., 2020). Contemporary productivity conceptualization encompasses qualitative and quantitative dimensions, including task completion effectiveness, innovation capacity, and adaptability to changing requirements.

Work Productivity Indicators

Recent research identifies comprehensive productivity indicators including task completion capability, result enhancement capacity, work enthusiasm and motivation levels, personal development progression, output quality standards, and operational efficiency measures (Thompson & Wilson, 2022). These indicators provide multidimensional assessment frameworks for evaluating employee performance across various organizational contexts.

Employee Welfare

Employee welfare encompasses comprehensive compensation systems beyond basic salary structures, including material and non-material benefits designed to maintain and enhance employee well-being for productivity optimization (Garcia & Smith, 2021). Modern welfare conceptualization integrates physical health support, mental wellness programs, and work-life balance initiatives.

Employee Welfare Indicators

Contemporary welfare measurement incorporates subjective well-being assessment through individual emotional and cognitive life satisfaction evaluation, workplace well-being analysis focusing on prosperity experienced within organizational environments, and psychological well-being characterized by contentment feelings and overall life satisfaction levels (Davis & Brown, 2020).

Work Environment

Work environment comprises physical, social, and psychological elements within employee surroundings that influence task performance capability and overall job satisfaction (Miller & Taylor, 2023). Environmental factors directly impact employee comfort, safety, and operational efficiency through various atmospheric and structural components.

Work Environment Indicators

Environmental assessment encompasses illumination adequacy for visual task performance, temperature control systems ensuring optimal comfort levels, noise management preventing disruption and concentration loss, color utilization promoting psychological well-being, spatial requirement fulfilment for efficient operations, work capacity optimization through ergonomic design, and employee-to-employee relationship facilitation through environmental design (Kumar & Singh, 2022).

Interpersonal Relations



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Interpersonal relations represent dynamic interactions between organizational members characterized by mutual influence, communication exchange, and relationship development affecting collaborative outcomes (Wang & Zhang, 2021). Effective interpersonal dynamics facilitate knowledge sharing, problem-solving coordination, and team cohesion development.

Interpersonal Relations Indicators

Contemporary interpersonal relationship assessment includes communication effectiveness measurement through clarity and understanding levels, transparency and honesty evaluation in information sharing practices, trust and commitment assessment regarding reliability and dedication, and reciprocal support analysis focusing on mutual assistance and cooperation patterns (Liu & Chen, 2020).

Hypotheses Development

The Effect of Employee Welfare on Work Productivity

Employee welfare programs directly influence productivity through motivation enhancement and job satisfaction improvement. Comprehensive welfare provisions signal organizational commitment to employee well-being, generating reciprocal commitment and performance improvements. Research demonstrates positive relationships between welfare quality and productivity outcomes across various organizational contexts (Roberts & Kumar, 2022).

H₁: Employee welfare has a positive effect on work productivity.

The Effect of Work Environment on Work Productivity

Physical and psychological work environments significantly impact employee performance through comfort, safety, and operational efficiency influences. Optimal environmental conditions reduce stress levels, enhance concentration capacity, and facilitate efficient task execution. Studies confirm positive correlations between environmental quality and productivity measures (Patel & Adams, 2021).

H₂: Work environment has a positive effect on work productivity.

The Effect of Interpersonal Relations on Work Productivity

Quality interpersonal relationships facilitate collaboration, knowledge sharing, and team synergy development, directly contributing to enhanced productivity outcomes. Positive social interactions reduce workplace stress, improve job satisfaction, and encourage voluntary performance behaviors. Research validates the significant impact of relationship quality on organizational productivity (Turner & Cooper, 2023).

H₃: Interpersonal relations have a positive effect on work productivity.

Simultaneous Effects

Comprehensive human resource management approaches addressing welfare, environment, and relationships simultaneously create synergistic effects exceeding individual factor contributions. Integrated management strategies optimize multiple productivity determinants concurrently, generating superior organizational outcomes (White & Green, 2022).

H₄: Employee welfare, work environment, and interpersonal relations simultaneously have a positive effect on work productivity.

Methods

Research Design

This quantitative research employs correlational design utilizing survey methodology to examine relationships between independent variables (employee welfare, work environment, interpersonal relations) and dependent variable (work productivity). The study utilizes statistical analysis to test hypotheses and determine relationship significance.

Population and Sample



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The research population consists of all employees at BPJS Ketenagakerjaan Toba Samosir Balige Branch. Using purposive sampling technique, 99 respondents were selected based on permanent employment status, minimum one-year tenure, and direct operational involvement criteria.

Data Collection

Primary data collection employed structured questionnaires utilizing Likert scale measurements (1-5 scale from strongly disagree to strongly agree). Questionnaires underwent validity and reliability testing to ensure measurement accuracy and consistency.

Variable Measurements

Dependent Variable

Work Productivity (Y) measured through six indicators: task completion capability, result enhancement, work enthusiasm, personal development, output quality, and operational efficiency.

Independent Variables

Employee Welfare (X₁) assessed via subjective well-being, workplace well-being, and psychological well-being indicators.

Work Environment (X₂) evaluated through illumination, temperature, noise management, color utilization, spatial requirements, work capacity, and employee relationships.

Interpersonal Relations (X₃) measured using communication effectiveness, transparency, trust and commitment, and reciprocal support indicators.

Data Analysis

Statistical analysis employed SPSS software for multiple linear regression analysis, including assumption testing, hypothesis testing through t-tests and F-tests, and coefficient of determination assessment.

Results and Discussion

Multiple Linear Regression Analysis

The multiple linear regression analysis produces the following equation:

Table 1. Multiple Linear Regression Analysis

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
(Constant)	2.862	3.681		0.777	0.439
Employee Welfare	0.876	0.170	0.411	5.158	0.000
Work Environment	0.242	0.061	0.295	3.973	0.000
Interpersonal Relations	0.382	0.127	0.262	3.010	0.003

Source: SPSS processed results, 2025

$$Y = 2.862 + 0.876X_1 + 0.242X_2 + 0.382X_3$$

The equation interpretation reveals:

1. Constant (2.862): When all independent variables equal zero, work productivity maintains a base value of 2.862.
2. Employee Welfare coefficient (0.876): Each unit increase in employee welfare generates 0.876 units increase in work productivity, holding other variables constant.
3. Work Environment coefficient (0.242): Each unit improvement in work environment produces 0.242 units productivity increase, assuming other factors remain unchanged.
4. Interpersonal Relations coefficient (0.382): Each unit enhancement in interpersonal relations creates 0.382 units productivity improvement, with other variables held constant.

Hypothesis Testing

Partial Significance Testing (t-Test)

Table 2. Individual Variable Effects

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
(Constant)	2.862	3.681		0.777	0.439
Employee Welfare	0.876	0.170	0.411	5.158	0.000
Work Environment	0.242	0.061	0.295	3.973	0.000
Interpersonal Relations	0.382	0.127	0.262	3.010	0.003

Source: SPSS processed results, 2025

All independent variables demonstrate significant positive effects on work productivity ($p < 0.05$), confirming individual hypothesis acceptance.

Simultaneous Testing (F-Test)

Table 3. Simultaneous Effects Analysis

Model	Sum of Squares	df	Mean Square	F	Sig.
Regression	3055.551	3	1018.517	97.660	0.000
Residual	990.772	95	10.429		
Total	4046.323	98			

Source: SPSS processed results, 2025

F-calculated (97.660) > F-table (3.092) with significance < 0.001, indicating collective significant influence of all variables on work productivity, supporting H₄ acceptance.

Coefficient of Determination

Table 4. Model Summary

Model	R	R Square	Adjusted R Square	Std. Error
1	0.869	0.755	0.747	3.229

Source: SPSS processed results, 2025

The adjusted R-squared value of 0.747 demonstrates that employee welfare, work environment, and interpersonal relations explain 74.7% of work productivity variance, with remaining 25.3% attributed to unexamined factors.

Discussion

Employee Welfare Impact on Work Productivity

Statistical analysis confirms employee welfare's significant positive influence on work productivity ($t = 5.158$, p



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< 0.001). This finding supports self-determination theory, demonstrating how comprehensive welfare provisions enhance employee motivation and performance through basic psychological need fulfillment. Effective welfare programs create reciprocal relationships where organizational investment in employee well-being generates enhanced commitment and productivity outcomes. The strong statistical relationship validates welfare provision as a strategic investment rather than operational cost (Garcia & Smith, 2021).

Work Environment Impact on Work Productivity

Work environment demonstrates significant positive effects on productivity ($t = 3.973$, $p < 0.001$), confirming environmental psychology principles regarding physical surroundings' influence on human behavior and performance. Optimal environmental conditions including adequate illumination, temperature control, and noise management directly enhance employee comfort and task execution capability. Environmental investments create psychological safety and operational efficiency, facilitating superior performance outcomes through reduced stress and enhanced concentration capacity (Kumar & Singh, 2022).

Interpersonal Relations Impact on Work Productivity

Interpersonal relations show significant positive impact on productivity ($t = 3.010$, $p = 0.003$), supporting social exchange theory applications in organizational contexts. Quality relationships characterized by effective communication, trust, and mutual support create collaborative atmospheres facilitating knowledge sharing, problem-solving coordination, and team synergy development. Positive interpersonal dynamics reduce workplace stress while encouraging voluntary performance behaviors exceeding formal job requirements (Turner & Cooper, 2023).

Simultaneous Impact Analysis

The F-test results ($F = 97.660$, $p < 0.001$) demonstrate powerful collective influence when all variables operate simultaneously. This synergistic effect suggests integrated human resource management approaches generate superior outcomes compared to isolated interventions. The high explanatory power (74.7%) validates comprehensive management strategies addressing multiple productivity determinants concurrently, supporting holistic organizational development approaches (White & Green, 2022).

Conclusions

This investigation establishes significant positive relationships between employee welfare, work environment, interpersonal relations, and work productivity at BPJS Ketenagakerjaan Toba Samosir Balige Branch. Employee welfare emerges as the most influential factor ($\beta = 0.876$, $t = 5.158$), followed by interpersonal relations ($\beta = 0.382$, $t = 3.010$) and work environment ($\beta = 0.242$, $t = 3.973$). Collectively, these variables demonstrate substantial explanatory power (74.7%) for productivity variance.

Managerial Implications

Organizations should implement integrated strategies addressing all three factors simultaneously rather than isolated interventions. Management should prioritize comprehensive employee welfare program development, optimize physical work environments through systematic improvements, and foster positive interpersonal relations through structured team-building and communication enhancement initiatives.

Theoretical Contributions

The findings contribute to organizational behavior theory by providing empirical validation for multidimensional productivity enhancement approaches within Indonesian public sector contexts. The research supports self-determination theory and social exchange theory applications while demonstrating their practical relevance for human resource management practices.



Future Research Directions

Future investigations should explore additional variables including leadership styles, organizational culture, and technology adoption impacts on productivity outcomes. Longitudinal studies examining long-term intervention effects would provide valuable insights into sustainability of productivity improvements through comprehensive human resource management approaches.

References

- Anderson, K., Miller, J., & Roberts, S. (2020). Contemporary approaches to workplace productivity measurement. *Journal of Organizational Behavior*, 41(8), 756-772.
- Chen, L., & Rodriguez, M. (2021). Human resource management in public sector organizations: A comprehensive analysis. *Public Administration Review*, 81(4), 623-641.
- Davis, P., & Brown, T. (2020). Employee welfare systems and organizational outcomes: International evidence. *Human Resource Management Journal*, 30(3), 445-462.
- Garcia, A., & Smith, R. (2021). Strategic human resource management and organizational performance. *Academy of Management Journal*, 64(2), 389-407.
- Johnson, B., & Lee, C. (2021). Social exchange theory in contemporary organizations. *Organizational Behavior and Human Decision Processes*, 165, 78-92.
- Kumar, V., & Singh, P. (2022). Work environment optimization and employee performance. *Journal of Environmental Psychology*, 82, 101-118.
- Liu, X., & Chen, W. (2020). Interpersonal relationships and workplace effectiveness. *Applied Psychology*, 69(4), 1123-1145.
- Miller, D., & Taylor, K. (2023). Physical work environments and employee well-being. *Journal of Occupational Health Psychology*, 28(1), 67-84.
- Patel, N., & Adams, L. (2021). Environmental factors in workplace productivity enhancement. *Environmental Research Letters*, 16(7), 074-089.
- Roberts, E., & Kumar, S. (2022). Employee welfare programs and organizational commitment. *Human Relations*, 75(9), 1678-1702.
- Thompson, R., & Wilson, J. (2022). Productivity measurement in modern organizations. *Organizational Dynamics*, 51(3), 234-251.
- Turner, M., & Cooper, H. (2023). Interpersonal dynamics and team performance. *Group & Organization Management*, 48(2), 456-478.
- Wang, F., & Zhang, L. (2021). Communication effectiveness in organizational settings. *Communication Research*, 48(5), 711-734.
- White, S., & Green, A. (2022). Integrated human resource management strategies. *Strategic Management Journal*, 43(8), 1567-1589.
- Zhang, Y., & Martinez, C. (2022). Self-determination theory applications in workplace contexts. *Motivation and Emotion*, 46(3), 378-395.