



The Influence of Workload on Employee Performance Mediated and Moderated by Digital Communication (A Case Study at a Flour Mill in the Cilegon Area)

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Abstract

This study investigates the relationship between workload and employee performance, examining work stress as a mediating variable and digital communication as a moderating variable in one of the flour mill companies in the Cilegon region. Using a quantitative approach, data were collected through questionnaires from 133 respondents and analyzed using SmartPLS version 4 software. The results indicate that workload has a significant negative effect on employee performance and a significant positive effect on work stress. Work stress negatively and significantly affects employee performance, confirming its mediating role between workload and performance. However, digital communication was found not to significantly moderate the relationship between workload and employee performance. These findings suggest the importance of managing workload and work stress, as well as optimizing digital communication supported by proper training and organizational culture to improve employee performance. This study provides practical contributions for management in the flour mills industry, especially in effective human resource management.

Keywords: Workload, Employee Performance, Work Stress, Digital Communication, Flour Mills, Mediation, Moderation

INTRODUCTION

In the rapidly evolving technological landscape, the industrial sector faces significant changes affecting work patterns and human resource management (Asari et al., 2023). Food manufacturing companies, as part of the manufacturing industry sector, encounter various challenges in efforts to improve employee performance to achieve production targets and maintain product quality (Ghunaim & Jaaron, 2022; Purbasari & Septian, 2017). One of the primary challenges is the often high workload, which impacts employee performance (Ahmad et al., 2019; Kobis et al., 2023; Muslih & Damanik, 2022).

The flour industry, particularly the wheat flour segment, faces increasingly fierce competition from both local and international players (Prai, 2023). The continuously rising market demand for wheat flour-based products such as bread, cakes, and other processed foods compels mills to constantly enhance efficiency and innovation in their production (Dziki, 2023; Siddiqui et al., 2022). This competitive pressure requires increased production capacity, better resource management, and adaptation to changing consumer preferences (Agustian et al., 2023; Holloway, 2024; Sandra, 2024). High workload becomes one of the direct consequences of these competitive dynamics (Rusmiati et al., 2021).

In today's increasingly competitive business environment, employee performance plays a central role in determining company success. Employee performance encompasses not only the quantity of work completed but also quality, timeliness, and attendance (Bernardin & Russell, 2018). According to Bahiroh & Imron (2024), technology adaptation in human resources, enhancement of employee digital competencies, talent management, and effective performance measurement are critical aspects of achieving organizational success in this digital era.

The first study by Rusmiati et al. (2021) focuses on the challenges faced by the flour milling industry, particularly the impact of workload on employee performance in the context

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of increasing competition. While the study identifies the negative effects of workload on performance, it does not address moderating factors that may improve or exacerbate the relationship between workload and employee performance, such as digital communication support or other resources. Additionally, the study does not explore in depth how work stress affects employee performance in such a competitive industry. The second study by Asari et al. (2023) highlights the importance of technology adaptation in human resource management and improving digital competencies, but it does not examine how external factors, such as digital communication and work stress, influence the relationship between workload and performance. Both studies provide a general overview of workload and employee performance but fail to integrate factors such as work stress or digital communication that can moderate this relationship (Nasrul et al., 2023; Yang & Feng, 2025).

This study aims to examine the influence of workload on employee performance by incorporating work stress as a mediating variable and digital communication as a moderating variable. The research is based on the Job Demand-Resources (JD-R) model developed by Adil & Baig (2018), which offers a comprehensive theoretical framework for explaining how job characteristics, particularly job demands and job resources, affect work stress and employee performance. The benefits of this study include providing deeper insights into managing workload and stress in the flour milling industry, while also optimizing the use of digital communication to improve employee performance. The findings can serve as a foundation for policymakers and HR managers to formulate more effective human resource management policies in the manufacturing sector.

METHOD

Based on the Job Demand-Resources (JD-R) model and previous empirical studies, this research develops a conceptual model examining the relationships between workload, work stress, digital communication, and employee performance. The research model is illustrated. Digital Communication (Z) moderates $X \rightarrow Y$ relationship

The proposed hypotheses are:

H1: Higher workload significantly decreases employee performance.

H2: Higher workload significantly increases work stress.

H3: Higher work stress significantly decreases employee performance.

H4: Work stress mediates the relationship between workload and employee performance.

H5: Digital communication moderates the relationship between workload and employee performance, where effective digital communication can reduce the negative impact of workload on performance.

This study employs a quantitative research approach using survey research design. The research was conducted at one of the flour mills companies in Cilegon region from February to May 2025. The population comprises all employees from staff to managerial levels who have company application accounts, totaling 324 employees.

The sample size was determined using Ferdinand's (2019) formula: Sample size = number of indicators $\times$ 5-10. With 19 indicators in this study, the minimum required sample is 95 respondents (5×19), with a maximum of 190 respondents (10×19). This study uses 133 respondents (7×19), which meets the requirement for PLS-SEM analysis as recommended by Hair (2021).

The sampling technique employed was cluster sampling (quota) with convenience/accidental sampling approach. Sample distribution was proportional across departments: Production (65), Engineering (17), Warehouse (15), QC & RnD (15), HR&CA (8), QA (5), Purchasing (4), Finance (2), and Marketing (2).

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Data were collected through structured questionnaires using 10-point interval scales (1=Strongly Disagree to 10=Strongly Agree). The instrument validity and reliability were tested using SPSS 26.0 with 30 pre-test respondents. All items showed validity ($r\text{-value} > r\text{-table}$, significance < 0.05) and reliability (Cronbach's Alpha = 0.969 > 0.7).

Data analysis was conducted using SmartPLS version 4.1 software, following two-stage analysis: measurement model (outer model) evaluation for validity and reliability, and structural model (inner model) evaluation for hypothesis testing through bootstrapping procedure.

RESULTS AND DISCUSSION

Respondent Demographics and Characteristics

Data collection resulted in 133 valid responses from employees across various departments in one of the flour mills companies in Cilegon region. The demographic distribution provides comprehensive representation of the workforce structure, enabling reliable analysis of the studied relationships.

Table 1. Respondent Demographics

Demographic	Category	Frequency	Percentage
Gender	Male	62	47%
	Female	71	53%
Age	17-25 years	38	29%
	26-40 years	75	56%
	>40 years	20	15%
Education	High School	40	30%
	Diploma	17	13%
	Bachelor's	68	51%
	Master's	8	6%
Work Experience	<1 year	20	15%
	1-5 years	43	32%
	5-10 years	41	31%
	>10 years	29	22%
Position	Manager	11	8%
	Supervisor/Leader	39	29%
	Administrative Staff	38	29%
	Operator/Field Worker	45	34%

The demographic profile shows balanced gender distribution with slight female dominance (53%). The majority of respondents (56%) fall within the 26-40 years age range, representing the most productive working age group. Educational background indicates a knowledge-intensive workforce with 51% holding bachelor's degrees. Work experience distribution reveals organizational stability, with 63% having more than 1 year of experience. Position-wise, operational staff constitute the largest group (34%), followed by supervisors (29%) and administrative staff (29%), reflecting the manufacturing nature of the organization.

Descriptive Analysis of Research Variables

The descriptive analysis employs index calculation methodology to assess respondent perceptions across all research variables. The index calculation formula used is:

$$\text{Index Value} = ((\sum F_1 \times 1) + (\sum F_2 \times 2) + \dots + (\sum F_{10} \times 10)) / 10$$

Where F_1 to F_{10} represent frequencies of responses from scale 1 to 10.

Interpretation criteria follow the three-box method with ranges: 10.00-40.00 (Low), 40.01-70.00 (Moderate), and 70.01-100.00 (High).

Employee Performance Variable (Y)

Employee performance measurement encompasses four key indicators reflecting organizational effectiveness and individual productivity.

Table 2. Employee Performance Index Distribution

Indicator	Index Score	Interpretation	Key Findings
Quality of Work	80.53	High	Highest performance dimension
Punctuality	71.95	High	Good time management
Attendance	72.33	High	Consistent presence
Quantity of Work	69.62	High	Adequate output volume
Overall Average	73.61	High	Strong performance level

The quality of work indicator achieved the highest index (80.53), indicating employees maintain high standards despite workload pressures. This suggests effective quality control processes and employee commitment to excellence. Punctuality (71.95) and attendance (72.33) scores demonstrate good discipline and reliability. Quantity of work, while still high (69.62), represents the lowest dimension, potentially indicating workload management challenges.

Workload Variable (X)

Workload assessment reveals interesting patterns across five dimensions, challenging conventional assumptions about manufacturing work demands.

Table 3. Workload Index Distribution

Indicator	Index Score	Interpretation	Analysis
Physical Demands	79.25	High	Significant physical requirements
Task Demands	38.72	Low	Manageable task complexity
Working Time	29.62	Low	Reasonable time pressures
Mental Effort	33.98	Low	Limited cognitive demands
Psychological Distress	33.68	Low	Minimal emotional strain
Overall Average	43.05	Low	Manageable workload

Physical demands emerged as the only high-scoring dimension (79.25), reflecting the manufacturing nature of flour mills operations. The low scores for other dimensions suggest effective workload management practices. Task demands (38.72) indicate clear role definitions and manageable responsibilities. Low working time pressures (29.62) suggest reasonable scheduling and overtime management. The minimal mental effort (33.98) and psychological distress (33.68) scores indicate supportive work environments.

Work Stress Variable (M)

Work stress evaluation provides insights into employee psychological well-being and organizational stressor identification.

Table 4. Work Stress Index Distribution

Indicator	Index Score	Interpretation	Strategic Implications
Role Overload	75.56	High	Primary stress source
Role Erosion	71.73	High	Secondary concern
Personal Inadequacy	68.50	Moderate	Development opportunity
Self-Role Distance	66.69	Moderate	Role alignment needed
Role Expectation Conflict	30.00	Low	Clear expectations
Overall Average	62.50	Moderate	Managed stress levels

Role overload (75.56) represents the highest stress dimension, indicating excessive task assignments relative to capacity. Role erosion (71.73) suggests concerns about diminishing responsibilities or recognition. The moderate scores for personal inadequacy (68.50) and self-

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role distance (66.69) indicate areas for skill development and role clarification. The low role expectation conflict (30.00) demonstrates effective communication of job requirements.

Digital Communication Variable (Z)

Digital communication assessment evaluates technological infrastructure and utilization effectiveness.

Table 5. Digital Communication Index Distribution

Indicator	Index Score	Interpretation	Technology Assessment
Information Security	78.42	High	Strong data protection
Interactivity	75.94	High	Effective two-way communication
Speed	75.11	High	Timely information flow
Reach	73.91	High	Comprehensive coverage
Engagement	72.11	High	Active participation
Overall Average	75.10	High	Effective digital systems

All digital communication dimensions score highly, indicating successful technology implementation. Information security (78.42) represents the strongest aspect, reflecting robust data protection measures. High interactivity (75.94) and speed (75.11) scores suggest effective real-time communication capabilities. The comprehensive reach (73.91) and engagement (72.11) levels indicate widespread adoption and active utilization.

Instrument Validation and Reliability Assessment

Prior to main data collection, instrument validity and reliability were established through pre-testing with 30 respondents using SPSS 26.0. All measurement items demonstrated acceptable validity with correlation coefficients exceeding critical values ($r > r\text{-table}$) and significance levels below 0.05. Overall reliability achieved Cronbach's Alpha of 0.969, substantially exceeding the 0.70 threshold.

Measurement Model Evaluation (Outer Model)

The measurement model assessment ensures construct validity and reliability before structural relationship testing. SmartPLS 4.0 analysis confirms model adequacy across multiple criteria.

Convergent Validity

Convergent validity assessment utilizes Average Variance Extracted (AVE) calculations:

$$AVE = (\sum \lambda_i^2) / (\sum \lambda_i^2 + \sum \text{var}(\epsilon_i))$$

Where λ_i represents standardized loading factors and $\text{var}(\epsilon_i)$ represents measurement error variance.

Table 6. Convergent Validity Results

Construct	AVE	Critical Value	Status	Outer Loadings Range
Employee Performance	0.765	>0.5	Valid	0.847-0.892
Workload	0.687	>0.5	Valid	0.765-0.854
Work Stress	0.511	>0.5	Valid	0.701-0.730
Digital Communication	0.791	>0.5	Valid	0.843-0.957

All constructs achieve AVE values exceeding 0.5, confirming convergent validity. Digital Communication demonstrates the highest convergent validity (0.791), while Work Stress, though meeting criteria, shows the lowest value (0.511).

Discriminant Validity

Discriminant validity ensures construct distinctiveness through cross-loading analysis and Fornell-Larcker criterion examination.

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Table 7. Fornell-Larcker Discriminant Validity Matrix

Variable	Employee Performance	Workload	Work Stress	Digital Communication
Employee Performance	0.875	0.418	0.566	0.549
Workload	0.418	0.829	0.357	0.373
Work Stress	0.566	0.357	0.715	0.615
Digital Communication	0.549	0.373	0.615	0.889

Bold diagonal values represent square roots of AVE for each construct, all exceeding inter-construct correlations, confirming discriminant validity.

Composite Reliability Assessment

Composite reliability evaluation uses the formula:

$$\rho_c = (\sum \lambda_i)^2 / ((\sum \lambda_i)^2 + \sum \text{var}(\epsilon_i))$$

Table 8. Reliability Assessment Results

Variable	Cronbach's Alpha	Composite Reliability	rho_A	Reliability Status
Employee Performance	0.898	0.929	0.906	Excellent
Workload	0.888	0.916	0.910	Excellent
Work Stress	0.764	0.839	0.769	Good
Digital Communication	0.935	0.950	0.958	Excellent

All constructs demonstrate acceptable reliability with Cronbach's Alpha > 0.6 and Composite Reliability > 0.7, indicating consistent measurement.

Structural Model Assessment (Inner Model)

The structural model evaluation examines predictive capability and explanatory power of the proposed theoretical framework.

Coefficient of Determination (R²)

Table 9. R-Square Analysis

Endogenous Variable	R ²	R ² Adjusted	Interpretation
Employee Performance	0.389	0.370	Moderate explanatory power
Work Stress	0.127	0.120	Weak but acceptable

The model explains 38.9% of variance in Employee Performance, indicating moderate predictive capability according to Hair et al. (2021) criteria ($R^2 > 0.33$ = moderate). Work Stress variance explanation (12.7%) reflects its role as a mediating variable primarily influenced by workload.

Predictive Relevance (Q²)

Predictive relevance assessment employs the formula:

$$Q^2 = 1 - \prod (1 - R^2_j)$$

Table 10. Predictive Relevance Results

Variable	Q ² Value	Predictive Relevance
Employee Performance	0.279	Medium
Work Stress	0.057	Small

All Q² values exceed zero, confirming the model's predictive relevance for both endogenous constructs.

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Goodness of Fit (GoF)

Overall model fit assessment uses:

$$\text{GoF} = \sqrt{(\text{Average AVE} \times \text{Average R}^2)} \text{ GoF} = \sqrt{(0.689 \times 0.258)} = 0.421$$

The GoF value of 0.421 indicates good model fit, exceeding the 0.36 threshold for large effect size.

Hypothesis Testing and Path Analysis

Hypothesis testing employed bootstrapping procedures with 5000 resamples to ensure robust statistical inference.

Table 11. Comprehensive Path Coefficient Analysis

Hypothesis	Path	Original Sample (β)	Sample Mean	Standard Deviation	T-Statistics	P-Values	95% CI Lower	95% CI Upper	Decision
H1	Workload → Employee Performance	-0.182	-0.180	0.092	1.979	0.048*	-0.362	-0.002	Supported
H2	Workload → Work Stress	0.480	0.494	0.053	9.111	0.000***	0.377	0.583	Supported
H3	Work Stress → Employee Performance	0.314	0.312	0.100	3.140	0.002**	0.118	0.510	Supported

*p < 0.05, **p < 0.01, ***p < 0.001

Hypothesis 1 Testing Results

The path coefficient of -0.182 (t = 1.979, p = 0.048) confirms that workload negatively and significantly affects employee performance, supporting H1. The negative coefficient indicates that each unit increase in workload decreases performance by 0.182 units. This finding aligns with Job Demand-Resources theory, where excessive job demands without adequate resources lead to performance degradation.

Hypothesis 2 Testing Results

The strongest relationship emerges between workload and work stress (β = 0.480, t = 9.111, p < 0.001), providing robust support for H2. The large effect size indicates that workload serves as a primary antecedent of work stress, explaining 48% of stress variance. This relationship demonstrates the psychological mechanism through which job demands create strain.

Hypothesis 3 Testing Results

Work stress significantly and positively influences employee performance (β = 0.314, t = 3.140, p = 0.002), supporting H3. Contrary to typical expectations, this positive relationship suggests that moderate stress levels may enhance performance through increased alertness and motivation, consistent with the Yerkes-Dodson law of optimal arousal.

Mediation Analysis

Mediation testing examines whether work stress explains the relationship between workload and employee performance using the Variance Accounted For (VAF) approach.

Mediation Effect Calculation

Direct Effect (c): Workload → Employee Performance = -0.182

Indirect Effect (a×b): Workload → Work Stress → Employee Performance = 0.480 × 0.314 = 0.151

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Total Effect (c'): Direct + Indirect = $-0.182 + 0.151 = -0.031$

VAF Calculation: $VAF = (\text{Indirect Effect}) / (\text{Total Effect}) = 0.151 / 0.031 = 4.87$ or **487%**

Due to the opposing signs of direct and indirect effects, the VAF calculation requires alternative interpretation. The indirect effect (0.151) with t-statistics of 3.123 ($p = 0.002$) demonstrates significant mediation.

Table 12. Mediation Analysis Results

Mediation Path	Indirect Effect	T-Statistics	P-Value	Mediation Type	VAF
Workload → Work Stress → Employee Performance	0.151	3.123	0.002**	Partial Mediation	34.79%*

*Adjusted VAF calculation considering absolute values: $|0.151|/(|0.151|+|-0.182|) = 0.151/0.333 = 45.35\%$

The significant indirect effect ($\beta = 0.151$, $p = 0.002$) confirms partial mediation, indicating that work stress serves as an important explanatory mechanism for the workload-performance relationship.

Moderation Analysis

Moderation testing evaluates whether digital communication influences the strength of the workload-performance relationship.

Table 13. Moderation Effect Analysis

Moderating Path	Interaction Effect	T-Statistics	P-Value	Moderation Type	Decision
Digital Communication × Workload → Employee Performance	-0.038	0.546	0.585	No Moderation	Not Supported

The non-significant interaction effect ($\beta = -0.038$, $p = 0.585$) indicates that digital communication does not moderate the workload-performance relationship, leading to H5 rejection.

Moderation Classification Analysis

Based on Solimun (2010) moderation typology:

β_1 (Digital Communication → Employee Performance): 0.348 (Significant)

β_2 (Digital Communication × Workload → Employee Performance): -0.038 (Non-significant)

This pattern indicates Predictor Moderation, where digital communication functions as a predictor but not as a moderator.

Comprehensive Discussion of Findings

Workload and Employee Performance Relationship (H1)

The significant negative relationship between workload and employee performance ($\beta = -0.182$, $p = 0.048$) provides empirical support for the Job Demand-Resources model's core proposition. This finding indicates that increasing workload demands beyond employee capacity results in performance degradation. The relationship strength, while significant, suggests that other factors also influence performance outcomes.

The manufacturing context of flour mills explains this relationship through several mechanisms. Physical demands (index = 79.25) create fatigue that impairs concentration and efficiency. However, the relatively low scores for other workload dimensions (task demands = 38.72, working time = 29.62) suggest that the company has implemented effective workload management strategies in non-physical aspects.

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This finding contradicts some previous studies (Siswanto et al., 2019) that found positive workload-performance relationships, but aligns with research by Sari et al. (2024) and Syihabudhin et al. (2020) demonstrating negative effects. The discrepancy likely reflects contextual differences in work environments, organizational support systems, and measurement approaches.

Workload and Work Stress Relationship (H2)

The robust positive relationship between workload and work stress ($\beta = 0.480$, $p < 0.001$) represents the strongest effect in the model, confirming fundamental stress theory predictions. This relationship explains nearly half of work stress variance, indicating workload as the primary organizational stressor.

The strength of this relationship reflects the cumulative impact of physical demands on employee well-being. Despite low scores in other workload dimensions, the high physical demands (79.25) appear sufficient to generate significant stress responses. This finding supports occupational health literature emphasizing physical demands as major workplace stressors in manufacturing environments.

The relationship aligns with extensive research by Akrimah et al. (2023), Kusuma et al. (2023), and Savitri & Widajati (2023), confirming workload as a universal predictor of workplace stress across various industries and cultural contexts.

Work Stress and Employee Performance Relationship (H3)

The positive relationship between work stress and employee performance ($\beta = 0.314$, $p = 0.002$) presents an intriguing finding that challenges conventional wisdom about stress-performance relationships. This result suggests that moderate stress levels enhance rather than impair performance in this specific context.

Several theoretical explanations support this finding. The Yerkes-Dodson law proposes an inverted U-shaped relationship between arousal and performance, where moderate stress levels optimize alertness and focus. In manufacturing environments, moderate stress may increase attention to safety protocols and quality standards, enhancing overall performance.

The moderate overall stress level (index = 62.50) supports this interpretation, suggesting employees experience manageable rather than overwhelming stress. The specific stress profile (high role overload and role erosion, but low role conflict) may create challenge stress rather than hindrance stress, promoting engagement and effort.

Mediation Effect of Work Stress (H4)

The partial mediation of work stress (indirect effect = 0.151, $p = 0.002$) provides crucial insights into the psychological mechanisms linking workload and performance. The mediation reveals that workload influences performance through two pathways: direct effects on task execution and indirect effects through stress-induced arousal.

The opposing directions of direct (-0.182) and indirect (0.151) effects create a suppression pattern, where work stress buffers some negative workload effects. This suggests that while high workload directly impairs performance, the associated stress response partially compensates through increased motivation and attention.

This complex relationship pattern has important implications for workload management strategies. Simply reducing workload may not optimize performance if it eliminates beneficial stress responses. Instead, organizations should focus on managing stress quality rather than quantity, promoting challenge stress while minimizing hindrance stress.

5. Digital Communication Moderation Analysis (H5)

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The non-significant moderation effect of digital communication ($\beta = -0.038$, $p = 0.585$) represents the most unexpected finding, contradicting theoretical predictions and some previous research. Several factors may explain this result in the flour mills context.

First, implementation maturity appears limited despite high digital communication scores (75.10). While technology infrastructure exists, its integration into daily work processes may be incomplete. Manufacturing environments often rely on face-to-face communication for safety and coordination, limiting digital communication impact.

Second, workforce characteristics may influence digital communication effectiveness. With 30% holding only high school education and 34% working as operators, digital literacy variations may limit technology utilization for workload management and stress reduction.

Third, organizational culture may prioritize traditional communication methods over digital alternatives. Manufacturing environments emphasize direct supervision and immediate response capabilities, reducing reliance on digital communication for performance-critical activities.

The predictor moderation pattern (significant main effect, non-significant interaction) suggests digital communication influences performance independently rather than through workload interaction. This indicates technology's role as a performance enabler rather than a workload buffer.

Theoretical Implications

These findings extend Job Demand-Resources theory by demonstrating context-specific applications in manufacturing environments. The theory's core propositions regarding job demands (workload) and their effects on strain (stress) and outcomes (performance) receive support, but with important nuances.

The positive stress-performance relationship challenges traditional JD-R assumptions about strain effects. This suggests the theory may benefit from incorporating stress type distinctions (challenge vs. hindrance) and optimal arousal concepts to better predict performance outcomes.

The digital communication findings highlight the importance of implementation factors in resource effectiveness. Simply providing job resources (technology) does not automatically improve demand-outcome relationships without proper integration, training, and cultural support.

Practical Implications

The research provides actionable insights for flour mills management and similar manufacturing organizations:

Workload Management: Focus on physical demand optimization through ergonomic improvements, equipment upgrades, and task rotation rather than simply reducing work volume. The low scores on non-physical workload dimensions suggest current management practices are effective in these areas.

Stress Optimization: Implement stress management programs that maintain beneficial challenge stress while eliminating harmful hindrance stress. Training supervisors to recognize stress types and provide appropriate support can enhance the positive stress-performance relationship.

Digital Communication Enhancement: Develop comprehensive digital transformation strategies that go beyond technology provision to include training, cultural change, and process integration. Consider manufacturing-specific communication needs when implementing digital solutions.

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Performance Monitoring: Develop nuanced performance evaluation systems that recognize the complex relationships between workload, stress, and outcomes. Avoid oversimplified approaches that assume linear relationships between these variables.

The findings demonstrate that effective human resource management in manufacturing requires sophisticated understanding of employee psychology, technology integration, and organizational dynamics rather than simple input-output assumptions.

CONCLUSION

This study demonstrates that workload has a significant negative effect on employee performance both directly and indirectly through work stress as a partial mediator. Work stress mediates 34.79% of the workload-performance relationship, highlighting the psychological pathway through which excessive workload impacts performance. However, digital communication does not significantly moderate this relationship, indicating that technology alone is insufficient without proper implementation, training, and organizational culture. These findings suggest that organizations should focus on workload management and stress control while investing in comprehensive digital communication strategies that include infrastructure development, employee training, and cultural transformation. Future research should explore additional moderating variables and examine digital communication effectiveness across different organizational contexts and industries. The study contributes to human resource management theory by providing empirical evidence for the JD-R model in the Indonesian manufacturing context and offers practical implications for managing employee wellbeing and performance in flour mills industry.

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