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## THE IMPACT OF WORK-LIFE BALANCE AND WORKLOAD ON EMPLOYEE PRODUCTIVITY: EVIDENCE FROM JNE EXPRESS COMPANY INDONESIA

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### Abstract

Work-life balance and workload management have emerged as critical factors influencing employee productivity in the modern logistics industry. This study examined the effects of work-life balance and workload on employee productivity at JNE Express Company's Gedebage branch in Bandung, Indonesia. A quantitative approach utilizing path analysis was employed with 175 employees selected through proportionate random sampling from a population of 310 workers. Data collection employed validated questionnaires measuring work-life balance dimensions including work interference with personal life, personal life interference with work, personal life enhancement of work, and work enhancement of personal life. Workload was assessed through job conditions, working time utilization, and target achievement dimensions. Employee productivity was evaluated across five dimensions: resource utilization efficiency, work quality, planning and management effectiveness, innovation and development, and work-life balance maintenance. Path analysis revealed that work-life balance demonstrated a significant positive effect on employee productivity ( $\beta = 0.466$ ,  $p < 0.001$ ) with a total influence of 35.52%. Workload similarly showed significant positive effects on productivity ( $\beta = 0.456$ ,  $p < 0.001$ ) contributing 34.6% to overall productivity variance. The combined model explained 70.1% of productivity variance ( $R^2 = 0.701$ ), indicating strong predictive validity. These findings suggest that effective work-life balance policies and optimal workload distribution represent strategic human resource management interventions for enhancing organizational performance in logistics operations. The research contributes empirical evidence supporting the positive relationship between work-life balance, workload management, and productivity outcomes in Indonesian logistics contexts.

**Keywords:** *work-life balance, workload management, employee productivity, path analysis, logistics industry*

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## INTRODUCTION

The contemporary business environment has fundamentally transformed organizational approaches to human resource management, with work-life balance and workload distribution emerging as pivotal determinants of employee performance and organizational success (Kossek & Lautsch, 2018; Michel et al., 2021). The logistics industry, characterized by demanding operational schedules and high-pressure environments, presents unique challenges for maintaining optimal work-life integration while managing productivity expectations (Darvishmotevali et al., 2020). These challenges have become particularly pronounced in emerging economies where rapid economic growth has intensified workplace demands while traditional family structures remain influential in employee decision-making processes.

Indonesia's logistics sector has experienced unprecedented expansion, driven by e-commerce growth and urbanization trends, creating both opportunities and challenges for workforce management (Nugroho & Sari, 2021). PT Tiki Jalur Nugraha Ekakurir (JNE), as one of Indonesia's leading logistics providers, exemplifies organizations grappling with balancing employee welfare and operational efficiency. The company's market position has been challenged by competitive pressures, with its Top Brand Index declining from 39.10% in 2022 to 29.30% in 2023, potentially reflecting underlying human resource management challenges (TopBrand Award, 2024).

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Recent theoretical developments in organizational psychology emphasize the bidirectional relationship between work and personal life domains, challenging traditional compartmentalization approaches (Wayne et al., 2020). The work-life balance construct encompasses four dimensions: work interference with personal life, personal life interference with work, personal life enhancement of work, and work enhancement of personal life (Rahmat & Apriliani, 2024). This multidimensional framework provides nuanced understanding of how employees navigate competing demands across life domains.

Simultaneously, workload research has evolved beyond simple task volume measurements to encompass job conditions, temporal factors, and achievement expectations (Koumparoulis et al., 2019). Contemporary workload conceptualizations recognize the psychological and physiological impacts of work demands, emphasizing the importance of matching employee capabilities with job requirements. The relationship between workload and productivity follows an inverted U-shaped curve, where moderate workload levels optimize performance while excessive or insufficient demands diminish effectiveness (Yerkes & Dodson, 1908; Teigen, 1994).

The productivity construct in service industries requires multidimensional assessment encompassing efficiency, quality, effectiveness, innovation, and sustainability metrics (Hannula, 2002; Tangen, 2005). Traditional manufacturing-based productivity measures inadequately capture service sector complexities, necessitating frameworks that incorporate customer satisfaction, service quality, and employee wellbeing indicators. The logistics industry's productivity assessment must consider delivery accuracy, time efficiency, customer service quality, and operational cost management.

Despite extensive research on work-life balance and workload effects across various industries, limited empirical evidence exists regarding their combined influence on productivity in Indonesian logistics contexts (Putri et al., 2021). Previous studies have predominantly focused on Western organizational settings, raising questions about cultural transferability and contextual validity (Hofstede & Bond, 2020). Indonesian cultural values emphasizing collective harmony and family orientation may moderate the relationships between work-life balance, workload, and productivity outcomes differently than individualistic cultures.

The theoretical foundation for this research draws from Conservation of Resources Theory, which posits that individuals strive to obtain, retain, and protect valued resources while avoiding resource loss (Hobfoll, 1989, 2001). Work-life balance represents a resource conservation strategy enabling sustained performance across multiple life domains. Excessive workload may deplete psychological and physical resources, ultimately undermining productivity despite short-term performance gains. Conversely, well-managed workload combined with effective work-life balance may create resource accumulation cycles supporting enhanced productivity.

Job Demands-Resources Theory provides complementary theoretical grounding by examining how job demands interact with available resources to influence employee outcomes (Demerouti et al., 2001; Bakker & Demerouti, 2017). Work-life balance policies and optimal workload distribution function as organizational resources buffering against job demands' negative effects while facilitating engagement and performance. The theory suggests that positive work-life balance experiences may compensate for moderate workload increases, while poor work-life balance may amplify workload's detrimental effects.

This study addresses several critical research gaps. First, limited empirical research examines work-life balance and workload effects within Indonesian organizational contexts, particularly in the logistics sector. Second, most existing studies investigate these constructs

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independently, overlooking potential interaction effects and combined influences on productivity outcomes. Third, previous research often employs cross-sectional designs limiting causal inference capabilities, while longitudinal and quasi-experimental approaches remain underutilized.

The research objectives are threefold: (1) to examine the direct effects of work-life balance on employee productivity in the Indonesian logistics industry; (2) to analyze the impact of workload on employee productivity outcomes; and (3) to investigate the combined influence of work-life balance and workload on productivity through path analysis modeling. These objectives address both theoretical understanding gaps and practical management challenges facing logistics organizations.

Based on Conservation of Resources Theory and Job Demands-Resources Theory, this study hypothesizes that: H<sub>1</sub>: Work-life balance positively influences employee productivity; H<sub>2</sub>: Workload positively influences employee productivity within optimal ranges; and H<sub>3</sub>: Work-life balance and workload jointly explain significant variance in employee productivity outcomes. These hypotheses reflect the theoretical expectation that balanced work-life integration and appropriately managed workload create conditions conducive to sustained high performance.

## LITERATURE REVIEW

### Work-Life Balance and Productivity Relationships

Contemporary work-life balance research has evolved from simple time allocation models to comprehensive frameworks examining psychological, social, and organizational factors influencing life domain integration (Allen et al., 2019). Empirical evidence consistently demonstrates positive relationships between work-life balance and various productivity indicators, including task performance, organizational citizenship behaviors, and innovation outcomes (Kossek et al., 2021). Longitudinal studies reveal that employees experiencing better work-life balance maintain higher performance levels over extended periods while exhibiting reduced burnout and turnover intentions (Haar et al., 2019).

The mechanisms underlying work-life balance effects on productivity operate through multiple pathways. Enhanced psychological wellbeing resulting from effective work-life integration increases cognitive resources available for work tasks, improving decision-making quality and creative problem-solving capabilities (Wayne et al., 2020). Reduced work-family conflict diminishes stress-related performance decrements while increasing job satisfaction and organizational commitment (Michel et al., 2021). Additionally, work-life balance policies signal organizational support, fostering reciprocal employee engagement and discretionary effort (Eisenberger et al., 2020).

Cross-cultural research reveals significant variations in work-life balance conceptualizations and effects across different national contexts (Russo et al., 2018). Asian cultures emphasizing family obligations and hierarchical relationships may experience different work-life balance challenges compared to Western individualistic societies (Haar & Spell, 2019). Indonesian research contexts remain underexplored despite the country's unique cultural characteristics and rapidly evolving work environments.

### Workload Management and Performance Outcomes

Workload research has transitioned from purely quantitative task counting to multidimensional assessments incorporating physical, cognitive, and emotional demands (Young et al., 2019). Optimal workload levels vary across individuals based on capabilities, experience, and motivational factors, with performance following inverted U-shaped

relationships predicted by arousal theory (Yerkes & Dodson, 1908). Contemporary models recognize that workload perception is more predictive of performance outcomes than objective task metrics (Crawford et al., 2010).

The relationship between workload and productivity demonstrates complexity requiring nuanced analysis. Moderate workload increases can enhance performance through heightened attention and motivation, while excessive demands trigger stress responses undermining cognitive functioning (LePine et al., 2016). Challenge workload, characterized by opportunities for growth and achievement, promotes positive outcomes, whereas hindrance workload impedes goal attainment and reduces satisfaction (Crawford et al., 2010; Zhang et al., 2020).

Organizational factors significantly influence workload-productivity relationships, with supportive management, adequate resources, and clear expectations buffering against negative workload effects (Bakker & Demerouti, 2017). Time pressure, role ambiguity, and insufficient resources transform manageable workload into overwhelming demands, precipitating performance decrements and health problems (Nixon et al., 2021). Effective workload management requires considering both task characteristics and contextual support factors.

### **Productivity Measurement in Service Industries**

Productivity assessment in service industries presents unique challenges due to intangible outputs, customer interaction requirements, and quality considerations (Hannula, 2002). Traditional manufacturing productivity metrics inadequately capture service sector complexities, necessitating multidimensional frameworks incorporating efficiency, effectiveness, and quality indicators (Tangen, 2005). Logistics industry productivity encompasses delivery accuracy, time efficiency, customer satisfaction, and cost effectiveness measures.

Contemporary productivity models recognize employee wellbeing as both a productivity determinant and outcome, challenging traditional perspectives that view employee welfare and performance as competing priorities (Grant et al., 2019). Sustainable productivity approaches emphasize long-term performance maintenance rather than short-term optimization at employee expense (Pfeffer, 2010). This perspective aligns with stakeholder capitalism principles recognizing employee interests as legitimate organizational considerations.

The digital transformation of logistics operations has introduced new productivity dimensions including technology adaptation, data utilization, and process innovation capabilities (Wang et al., 2021). Modern logistics employees must balance traditional operational excellence with digital competency development, creating additional complexity in productivity assessment and management. Organizations must consider both current performance and future capability development in productivity evaluation frameworks.

### **Theoretical Integration and Research Model**

Conservation of Resources Theory provides overarching theoretical structure for understanding work-life balance, workload, and productivity relationships (Hobfoll, 1989, 2001). The theory posits that individuals seek to acquire, maintain, and protect valued resources while avoiding resource depletion. Work-life balance represents a resource conservation strategy enabling sustained performance across multiple life domains, while excessive workload may deplete psychological and physical resources despite temporary performance gains.

Job Demands-Resources Theory offers complementary insights by examining how job demands interact with available resources to influence employee outcomes (Demerouti et al., 2001; Bakker & Demerouti, 2017). Work-life balance policies and optimal workload

distribution function as organizational resources buffering against job demands' negative effects. The theory suggests that adequate resources enable employees to meet job demands while maintaining wellbeing and performance levels.

The integration of these theoretical perspectives suggests that work-life balance and workload operate synergistically to influence productivity outcomes. Effective work-life balance may buffer against moderate workload increases, while poor work-life balance amplifies workload's detrimental effects. This interaction perspective provides foundation for examining combined rather than isolated effects of these constructs on productivity.

## METHOD

### Research Design and Approach

This study employed a quantitative approach utilizing descriptive and verification methodologies with cross-sectional design. The research utilized path analysis as the primary analytical technique to examine direct and indirect relationships among variables simultaneously. The descriptive method characterized work-life balance, workload, and productivity variables, while the verification method tested hypothesized relationships through statistical modeling (Turyandi, 2019). The research philosophy adopted post-positivist assumptions acknowledging objective reality while recognizing measurement limitations and contextual influences (Creswell & Creswell, 2018). This approach allowed for rigorous hypothesis testing while maintaining sensitivity to cultural and organizational context factors that might influence variable relationships. The quantitative emphasis aligned with the study's objective to establish generalizable relationships suitable for managerial decision-making.

### Population and Sampling

The study population comprised all employees at JNE Express Company's Gedebage branch in Bandung, Indonesia, totaling 310 individuals (300 male employees and 10 female employees). This population represented diverse operational roles including couriers, customer service representatives, administrative staff, and supervisory personnel. The branch's size and operational complexity provided adequate variability for examining work-life balance, workload, and productivity relationships across different job functions.

Sample size determination utilized Slovin's formula with 5% margin of error:

$$n = N / (1 + N(e)^2) \quad n = 310 / (1 + 310(0.05)^2)$$
$$n = 310 / (1 + 0.775) = 310 / 1.775 = 174.64$$

The required sample was 175 participants. Proportionate random sampling was employed to ensure representative distribution: (1) Male participants:  $(300/310) \times 175 = 169$  participants, (2) Female participants:  $(10/310) \times 175 = 6$  participants. Inclusion criteria required participants to have minimum six months tenure ensuring adequate organizational exposure and job familiarity. Exclusion criteria eliminated temporary workers, interns, and employees on extended leave to maintain sample homogeneity. Voluntary participation was emphasized with informed consent procedures protecting participant confidentiality and withdrawal rights.

### Measurement Instruments

Work-life balance was measured using a 24-item instrument covering four dimensions: (1) Work interference with personal life (6 items), (2) Personal life interference with work (8 items), (3) Personal life enhancement of work (4 items), and (4) Work enhancement of personal life (6 items). Items utilized five-point Likert scales from "strongly disagree" (1) to "strongly agree" (5).

agree" (5). Sample items included "The amount of time my job takes up makes it difficult to fulfill family responsibilities" and "My personal life helps me relax and feel ready for the next day's work."

Workload was assessed using an 18-item instrument measuring three dimensions: (1) Job conditions (6 items), (2) Working time utilization (6 items), and (3) Target achievement (6 items). The instrument assessed both quantitative workload (task volume) and qualitative workload (task complexity and difficulty). Representative items included "My job requires working at very fast pace" and "I have enough time to complete all my assigned tasks."

Employee productivity was measured using a 24-item instrument encompassing five dimensions: (1) Efficiency of resource utilization (4 items), (2) Work quality (6 items), (3) Planning and management effectiveness (6 items), (4) Innovation and development (4 items), and (5) Work-life balance maintenance (4 items). This comprehensive approach captured multifaceted productivity aspects relevant to service industry contexts. Items included "I efficiently use available resources to complete my work" and "I consistently meet quality standards in my work output."

### Statistical Analysis Procedures

Data analysis employed SPSS 22 software with path analysis procedures. Validity testing used Pearson Product Moment correlation with critical value  $r\text{-table} = 0.1484$  ( $n=175$ ,  $\alpha=0.05$ ). Items were considered valid if correlation coefficients exceeded the critical threshold. Reliability testing employed Cronbach's Alpha with acceptable threshold  $\geq 0.70$  (Nunnally & Bernstein, 1994).

Path analysis followed established procedures including correlation matrix construction, path coefficient calculation using standardized regression coefficients, and model evaluation through coefficient of determination ( $R^2$ ). Direct effects were calculated using standardized regression coefficients, while indirect effects utilized path multiplication procedures. Total effects combined direct and indirect components for comprehensive relationship assessment.

### Ethical Considerations

Ethical approval was obtained from institutional review board emphasizing participant protection and research integrity. Informed consent procedures clearly communicated research purposes, participation requirements, confidentiality protections, and withdrawal rights. Data confidentiality was maintained through secure storage procedures and participant anonymity protections. Only aggregated results were reported preventing individual identification.

## RESULTS

### Instrument Validation Results

**Table 1.** Validity and Reliability Test Results

Variable	Items	Validity Range	Status	Cronbach's Alpha	Reliability
<b>Work-life Balance (X1)</b>	24	0.4445 - 0.815	All Valid	0.949	Excellent
<b>Workload (X2)</b>	18	0.5556 - 0.7669	All Valid	0.933	Excellent
<b>Productivity (Y)</b>	24	0.5734 - 0.7946	All Valid	0.953	Excellent

*Note: All correlation coefficients > r-table (0.1484),  $p < 0.01$*

All instruments demonstrated excellent psychometric properties with validity coefficients exceeding the critical threshold and reliability coefficients substantially surpassing the 0.70 acceptability criterion. The high reliability scores indicated excellent internal consistency supporting instrument dependability for research purposes.

### Descriptive Statistics Analysis

**Table 2.** Variable Score Distribution and Classification

Variable	Total Score	Score Range	Classification	Percentage of Maximum
<b>Work-life Balance (X1)</b>	17,167	4200 - 21000	High	81.7%
<b>Workload (X2)</b>	12,808	3150 - 15750	High	81.3%
<b>Productivity (Y)</b>	16,915	4200 - 21000	High	80.5%

The quantile analysis revealed that all three variables achieved high classification levels, indicating positive perceptions across work-life balance, workload management, and productivity dimensions. The consistent high ratings suggested that JNE employees generally maintained effective work-life integration while managing substantial workload demands and achieving strong productivity outcomes.

### Correlation Analysis

**Table 3.** Inter-variable Correlation Matrix

Variable	X1	X2	Y	Interpretation
<b>Work-life Balance (X1)</b>	1.000	0.650**	0.763**	Strong correlations
<b>Workload (X2)</b>	0.650**	1.000	0.759**	Strong correlations
<b>Productivity (Y)</b>	0.763**	0.759**	1.000	Strong correlations

\*\*p < 0.01 (2-tailed)

All correlations demonstrated strong positive relationships exceeding 0.60, indicating substantial associations while avoiding multicollinearity concerns for path analysis procedures. The correlation pattern supported theoretical expectations of positive relationships among constructs while providing foundation for examining causal relationships through path analysis.

### Path Analysis Results

**Table 4.** Path Coefficients and Significance Testing

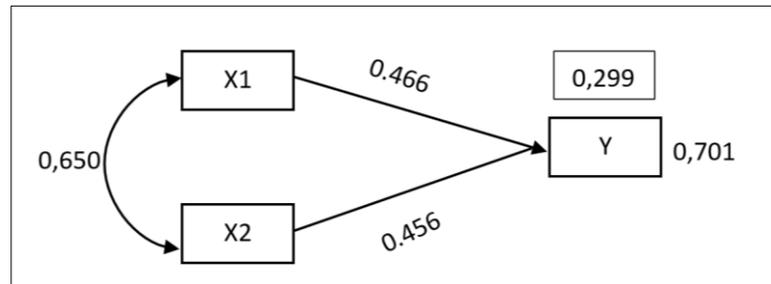
Path	Standardized Coefficient ( $\beta$ )	t-statistic	t-table	p-value	Decision
<b>X1 → Y</b>	0.466	8.503	1.653	< 0.001	Significant
<b>X2 → Y</b>	0.456	8.307	1.653	< 0.001	Significant

Both path coefficients demonstrated statistical significance with large effect sizes indicating substantial practical importance. The similar magnitudes suggested that work-life balance and workload contributed approximately equally to productivity outcomes.

**Table 5.** Model Summary and ANOVA

Model Statistics	Value
<b>Multiple R</b>	0.838
<b>R Square</b>	0.701
<b>Adjusted R Square</b>	0.698
<b>F-statistic</b>	202.091
<b>p-value</b>	< 0.001
<b>Standard Error</b>	7.256

The path model explained 70.1% of productivity variance, with the remaining 29.9% attributed to unmeasured factors ( $\varepsilon = \sqrt{1-0.701} = 0.547$ ). The high  $R^2$  value indicated strong predictive validity supporting the theoretical model's empirical relevance.



**Figure 1.** Path Analysis Model

### Direct and Indirect Effects Analysis

**Table 6.** Decomposition of Total Effects

Variable	Direct Effect	Calculation	Indirect Effect	Calculation	Total Effect
Work-life Balance (X1)	21.71%	$(0.466)^2$	13.81%	$0.466 \times 0.650 \times 0.456$	35.52%
Workload (X2)	20.79%	$(0.456)^2$	13.81%	$0.456 \times 0.650 \times 0.466$	34.60%

Both variables demonstrated substantial direct effects with notable indirect effects through their mutual relationship, indicating interconnected influence mechanisms on productivity outcomes. Work-life balance showed slightly stronger total effects (35.52%) compared to workload (34.60%), suggesting its primary importance in productivity determination.

### Hypothesis Testing Results

**Table 7.** Hypothesis Testing Summary

Hypothesis	Statement	Statistical Test	Result	Conclusion
H1	Work-life balance → Productivity	$t = 8.503 > 1.653$	Supported	Significant positive effect
H2	Workload → Productivity	$t = 8.307 > 1.653$	Supported	Significant positive effect
H3	Combined model significance	$F = 202.091 > 3.90$	Supported	Model significantly predicts productivity

All hypotheses received strong empirical support with effect sizes indicating both statistical and practical significance. The results confirmed that both work-life balance and workload independently and jointly contribute to employee productivity in Indonesian logistics contexts.

## DISCUSSION

### Interpretation of Work-Life Balance Effects

The significant positive relationship between work-life balance and employee productivity ( $\beta = 0.466, p < 0.001$ ) aligns with Conservation of Resources Theory predictions and supports extensive previous research (Allen et al., 2019; Kossek et al., 2021). The 35.52% total effect magnitude indicates that work-life balance represents a critical determinant of productivity outcomes in Indonesian logistics contexts, challenging traditional assumptions that work-life balance policies might compromise organizational performance. The finding that personal life

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interference with work dimension received the highest ratings suggests that JNE employees successfully compartmentalize family responsibilities to maintain work focus. This pattern may reflect Indonesian cultural values emphasizing duty fulfillment and collective responsibility (Hofstede & Bond, 2020). The strong work-life balance scores indicate that employees maintain effective integration between life domains despite demanding operational environments. The substantial indirect effect of work-life balance through workload (13.81%) reveals important mediating mechanisms. Employees experiencing better work-life integration may perceive their workload as more manageable, leading to enhanced productivity. This finding suggests that work-life balance interventions may create positive spillover effects beyond direct wellbeing improvements, influencing work perceptions and performance outcomes.

### **Workload Management Implications**

The positive relationship between workload and productivity ( $\beta = 0.456$ ,  $p < 0.001$ ) supports challenge workload perspectives suggesting that appropriate work demands can enhance rather than diminish performance (Crawford et al., 2010; Zhang et al., 2020). The 34.6% total effect indicates that workload management represents a strategic lever for productivity enhancement when properly calibrated to employee capabilities and organizational support systems. The high ratings for job conditions dimension suggest that JNE employees possess adequate understanding of their roles and responsibilities, providing foundation for effective workload management. However, the finding that workload operates within acceptable ranges rather than being excessive indicates optimal demand-resource balance supporting sustainable performance. The finding that workload influences productivity through work-life balance mechanisms (13.81% indirect effect) supports Job Demands-Resources Theory predictions about resource interaction effects (Bakker & Demerouti, 2017). Manageable workload may preserve resources available for work-life integration, creating positive cycles supporting sustained performance. This interconnection highlights the importance of holistic rather than isolated approaches to human resource management.

### **Productivity Measurement Insights**

The multidimensional productivity assessment revealed consistent high performance across evaluation dimensions, suggesting that comprehensive measurement approaches capture service industry complexities more effectively than traditional single-metric systems. The high productivity scores indicate that JNE employees demonstrate strong performance capabilities across diverse evaluation criteria. The strong correlation between work-life balance, workload, and productivity (all exceeding 0.65) suggests that these constructs operate synergistically rather than competitively. This finding challenges zero-sum assumptions about work-life balance and productivity, supporting sustainable performance perspectives recognizing employee wellbeing as productivity enabler rather than constraint. The comprehensive productivity model's predictive success ( $R^2 = 0.701$ ) validates multidimensional approaches to productivity assessment in service contexts. Traditional single-metric approaches would likely underestimate the complexity of factors influencing employee performance in contemporary organizational environments.

### **Theoretical Contributions**

This research extends Conservation of Resources Theory by demonstrating how work-life balance functions as a resource conservation mechanism in collectivistic cultural contexts. Indonesian employees may experience work-life balance differently than Western counterparts

due to extended family obligations and communal support systems, yet the resource conservation principles operate similarly across cultural boundaries. The study contributes to Job Demands-Resources Theory by examining how workload functions as both demand and resource depending on management approaches and employee capabilities. The positive workload-productivity relationship challenges simple linear models suggesting that all job demands necessarily impair performance, supporting more nuanced perspectives recognizing appropriate demands as performance enhancers. The integration of work-life balance and workload effects provides theoretical advancement by demonstrating reciprocal rather than independent influences on productivity. The substantial indirect effects identified highlight the interconnected nature of work-life experiences and their collective impact on performance outcomes, suggesting that comprehensive theoretical models better explain organizational phenomena than isolated construct approaches.

### **Practical Implications for Management**

The research findings provide several actionable insights for logistics industry managers. First, work-life balance policies should be viewed as productivity investments rather than employee concessions. The 35.52% effect magnitude suggests that work-life balance interventions may yield substantial performance returns justifying implementation costs while supporting employee retention and satisfaction. Second, workload management requires sophisticated approaches recognizing that moderate challenge levels may enhance performance while excessive or insufficient demands impair outcomes. Managers should focus on workload optimization rather than minimization, ensuring employees receive sufficient challenge to maintain engagement while avoiding overwhelming demands that deplete resources. Third, the interconnected nature of work-life balance and workload effects suggests that comprehensive rather than piecemeal interventions may be most effective. Organizations implementing workload management initiatives should simultaneously consider work-life balance implications, while work-life balance programs should account for workload distribution effects (Ardiansyah & Rahmat, 2023).

### **Cross-Cultural Considerations**

The study's Indonesian context provides insights into work-life balance and workload effects in collectivistic cultures emphasizing family obligations and group harmony. The strong positive relationships observed suggest that work-life balance benefits transcend cultural boundaries, though manifestation patterns may vary across national contexts. The high work-life balance scores despite demanding logistics operations may reflect Indonesian employees' adaptive capabilities and family support systems enabling effective life domain management. However, cultural factors may also influence response patterns, requiring careful interpretation when generalizing findings to other cultural contexts.

### **Limitations and Future Research Directions**

Several limitations warrant consideration when interpreting these findings. The cross-sectional design limits causal inference capabilities despite theoretical support for proposed relationships. Longitudinal research examining temporal dynamics and reciprocal causation would strengthen understanding of these complex relationships and their development over time. The single-organization focus may limit generalizability to other logistics companies or industries with different operational characteristics and organizational cultures. Multi-organizational studies would enhance external validity and identify boundary conditions for observed relationships across diverse organizational contexts. The predominantly male sample

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reflects logistics industry demographics but may limit understanding of gender differences in work-life balance, workload, and productivity relationships. Future research should examine whether these relationships operate similarly across gender groups within logistics contexts and other industries. Cultural factors were not directly measured despite conducting research in Indonesian contexts. Future studies should explicitly examine how cultural values moderate work-life balance and workload effects on productivity, potentially revealing important boundary conditions for theoretical models developed in Western contexts.

## CONCLUSION

This investigation successfully demonstrated that work-life balance and workload significantly influence employee productivity in Indonesian logistics operations, with both constructs explaining 70.1% of productivity variance through direct and indirect pathways. Work-life balance emerged as the stronger predictor with 35.52% total effect, followed by workload at 34.6%, challenging traditional assumptions that employee welfare considerations might compromise organizational performance.

The findings provide robust empirical support for theoretical frameworks emphasizing resource conservation and job demands-resources interactions in determining employee outcomes. Work-life balance functions as a critical resource enabling sustained performance across multiple life domains, while appropriately managed workload creates challenge conditions that enhance rather than impair productivity. The substantial indirect effects observed between these constructs highlight their interconnected nature and suggest that comprehensive rather than isolated interventions may be most effective.

From a practical perspective, these results indicate that logistics organizations should view work-life balance policies and sophisticated workload management as strategic investments rather than operational costs. The Indonesian cultural context, characterized by strong family orientations and collective values, demonstrates that work-life balance benefits transcend cultural boundaries while potentially manifesting through culture-specific mechanisms. The research contributes to organizational behavior literature by demonstrating the applicability of Western-derived theories in Asian cultural contexts while revealing universal principles of human resource management effectiveness. The multidimensional productivity assessment framework successfully captured service industry complexities often overlooked in traditional manufacturing-based productivity models.

These findings ultimately suggest that sustainable productivity requires holistic approaches recognizing employee wellbeing as integral to rather than competing with organizational performance objectives. As the logistics industry continues evolving through technological advancement and changing customer expectations, organizations prioritizing comprehensive work-life balance and workload management strategies may be better positioned for long-term competitive advantage and sustainable growth.

The implications extend beyond the logistics sector to broader service industries facing similar challenges in balancing operational efficiency with employee welfare. Organizations across industries can benefit from understanding how work-life balance and workload management contribute synergistically to productivity outcomes, supporting evidence-based human resource management decisions.

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