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INTEGRATING THE JOB DEMANDS-RESOURCES MODEL: THE EFFECTS OF WORK MOTIVATION, WORKLOAD, AND WORK DISCIPLINE ON EMPLOYEE PERFORMANCE AT PT BARA BENTALA INDONESIA

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Abstract *– This study develops and tests an integrated theoretical model combining the Job Demands-Resources (JD-R) framework with Social Cognitive Theory to examine how work motivation, workload, and work discipline influence employee performance at PT. Bara Bentala Indonesia. A quantitative approach was employed using Partial Least Squares Structural Equation Modeling (PLS-SEM) with data from 40 employees. A saturated sampling method was used to include the entire workforce. Results demonstrate that work motivation (β = 0.412, p < 0.001) and work discipline (β = 0.338, p < 0.01) significantly enhance employee performance, while workload shows no significant effect (β = -0.089, p > 0.05). The integrated model explains 68.2% of performance variance, supporting the JD-R framework's applicability in Indonesian organizational contexts. This research contributes to literature by (1) integrating JD-R theory with Social Cognitive Theory to explain performance mechanisms, (2) resolving inconsistent findings about workload effects through resource-demand balance analysis, and (3) providing empirical evidence for the JD-R model in Indonesian mining sector contexts. Findings provide actionable insights for HR management at PT. Bara Bentala Indonesia, emphasizing motivation enhancement and discipline reinforcement over workload reduction as performance improvement strategies.*

Keywords: *Job Demands-Resources Model, Work Motivation, Workload Management, Work Discipline, Employee Performance, Mining Industry.*

INTRODUCTION

Employee performance represents the cornerstone of organizational success, particularly in resource-intensive industries like mining where operational efficiency directly impacts profitability and safety outcomes. At PT. Bara Bentala Indonesia, fluctuating employee performance patterns have emerged as a critical challenge, with observable variations in productivity, quality standards, and behavioral consistency that threaten organizational objectives. These performance inconsistencies manifest through increased absenteeism rates, delayed project completions, and suboptimal adherence to safety protocols issues that demand systematic investigation through robust theoretical frameworks.

Existing research on employee performance presents fragmented findings regarding the relationships between motivational factors, job demands, and performance outcomes. While some studies demonstrate positive motivation-performance relationships (Sembiring, 2019; Lisnatiawati & Lukertina, 2020), others reveal contradictory findings about workload effects and discipline mechanisms (Sanjaya & Prijati, 2020; Nabawi, 2019). These inconsistencies suggest the need for an integrated theoretical approach that can explain the complex interplay between multiple performance determinants within specific organizational contexts.

This study addresses these gaps by developing and testing an integrated theoretical model that combines the Job Demands-Resources (JD-R) framework with Social Cognitive Theory principles. The JD-R model provides a comprehensive structure for understanding how job resources (motivation, discipline) and job demands (workload) influence performance outcomes, while Social Cognitive Theory explains the psychological mechanisms through which these factors operate. This integration offers a

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more nuanced understanding of performance drivers than traditional single-theory approaches.

2.1 The Integrated Theoretical Model

The theoretical foundation for this study rests on the integration of two complementary frameworks: the Job Demands-Resources (JD-R) model (Demerouti et al., 2001) and Social Cognitive Theory (Bandura, 1991). The JD-R model posits that workplace factors can be categorized into job demands (physical, social, or organizational aspects requiring effort) and job resources (aspects that help achieve goals, reduce demands, or stimulate growth). Social Cognitive Theory contributes by explaining how individual agency, behavioral patterns, and environmental factors interact to influence performance outcomes through self-regulation and self-efficacy mechanisms.

In this integrated framework, work motivation functions as a key job resource that enhances self-efficacy and goal-directed behavior. Work discipline operates as both a resource (providing structure and behavioral guidance) and a personal factor (reflecting self-regulation capabilities). Workload represents a job demand that can either challenge employees to grow (when moderate) or overwhelm their capacity (when excessive), with effects moderated by available resources.

2.2 Conceptual Framework

INTEGRATED JD-R AND SOCIAL COGNITIVE THEORY MODEL

JOB RESOURCES	JOB DEMANDS	OUTCOMES
Work Motivation **• Self-efficacy** **• Goal orientation** **• Energy mobilization** **Work Discipline** **• Self-regulation** **• Behavioral control** **• Structure provision**	**Workload** **• Task volume** **• Time pressure** **• Cognitive demands** **• Complexity levels**	**Employee Performance** **• Task performance** **• Quality outcomes** **• Behavioral consistency** **• Goal achievement**

→ Resource Enhancement Path **↭ Resource-Demand Interaction**

2.3 Causal Mechanisms and Theoretical Propositions

Work Motivation → Employee Performance Mechanism:

Motivated employees exhibit enhanced self-efficacy beliefs and stronger goal commitment, leading to increased effort allocation and persistence in task execution. Through Social Cognitive Theory's triadic reciprocal determinism, motivation influences behavior directly (increased effort), cognitively (enhanced focus and strategic thinking), and environmentally (seeking challenging assignments). The JD-R framework positions motivation as a psychological resource that buffers against demands while promoting engagement and proactive behaviors.

Work Discipline → Employee Performance Mechanism:

Disciplined employees demonstrate superior self-regulation capabilities, translating into consistent performance patterns and reduced behavioral variance. Discipline operates through multiple pathways: temporal regulation (punctuality and deadline adherence), behavioral regulation (following procedures and standards), and cognitive regulation (maintaining focus and attention). These regulatory processes reduce performance variability and enhance predictability of outcomes, contributing to both individual and team effectiveness (Puspitasari and Agustini, 2023).

Workload → Employee Performance Mechanism:

The relationship between workload and performance follows an inverted-U pattern moderated by resource availability. Moderate workload levels provide optimal challenge and engagement, stimulating cognitive activation and skill utilization. However, excessive workload depletes cognitive resources, impairs decision-making processes, and triggers stress responses that interfere with performance quality. The JD-R model predicts that workload effects depend critically on the presence of adequate job resources to manage demands effectively.

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2.4 Hypotheses Development

Based on the integrated theoretical framework and causal mechanisms analysis, the following hypotheses are proposed:

H_1: Work motivation has a significant positive effect on employee performance at PT. Bara Bentala Indonesia.

H_2: Work discipline has a significant positive effect on employee performance at PT. Bara Bentala Indonesia.

H_3: Workload has a significant effect on employee performance at PT. Bara Bentala Indonesia (direction to be determined empirically).

METHODS

3.1 Research Design and Approach

This study employs a quantitative research design using cross-sectional survey methodology to test the proposed theoretical model. The research adopts a positivist paradigm, utilizing Partial Least Squares Structural Equation Modeling (PLS-SEM) for hypothesis testing and model validation. This approach is appropriate for theory testing, complex model evaluation, and handling smaller sample sizes while accommodating both reflective and formative measurement models.

3.2 Population and Sampling

The target population consists of all operational employees at PT. Bara Bentala Indonesia (N=40). Given the limited population size, a saturated sampling approach was implemented, including the entire workforce to maximize statistical power and ensure comprehensive coverage of organizational perspectives. This approach eliminates sampling bias and provides complete representativeness of the organizational context.

3.3 Measurement Instruments

All constructs were measured using validated multi-item scales adapted for the Indonesian context. **Work Motivation** was assessed using a 12-item scale adapted from Herzberg's Two-Factor Theory, measuring intrinsic and extrinsic motivation dimensions. **Work Discipline** employed a 10-item scale measuring time discipline, procedural adherence, and behavioral consistency. **Workload** utilized an 8-item scale assessing quantitative, qualitative, and temporal demand dimensions. **Employee Performance** was measured through a 15-item scale covering task performance, contextual performance, and adaptive performance dimensions. All scales used 5-point Likert response formats (1=Strongly Disagree to 5=Strongly Agree).

RESULTS and DISCUSSION

Respondent descriptions are used to determine the diversity of respondents based on gender, age, and monthly income.

Table 1 Respondent Description

Criteria	Description	Count	%
Gender	Male	20	50
	Female	20	50
Total		**40**	**100**
Age	<20 years	3	7,5
	21 -30 years	26	65
	31 – 40 years	6	15
	>40 years	5	12,5
Total		**40**	**100**
Monthly income	<3 million	6	15
	3 million – 4 million	**7**	17,5
	4 million – 5 million	6	15
	>5 million	21	52,5
Total		**40**	**100**

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Based on the results of data processing in Table 1 above, it shows that out of 40 respondents, 20 respondents or 50% are male, while the remaining 20 respondents or 50% are female. Furthermore, the table above shows that out of 40 respondents, the highest number are respondents aged between 21-30 years, namely 26 respondents or 65% and the lowest are respondents aged >20 years, namely 3 respondents or 7.5%. Then, the table above shows that out of 40 respondents, the largest number are respondents with a monthly income of >5 million, namely 21 respondents or 52.5%, while the smallest number of respondents are respondents with a monthly income of <3 million and 4 million-5 million, namely 3 respondents or 15%

Table 2 Convergent Validity test results

Variable	Indicator	Loading factor	AVE	Description
Work motivation	MK1	0.848	0.711	Valid
	MK2	0.883		Valid
	MK3	0.832		Valid
	MK5	0.843		Valid
	MK6	0.872		Valid
	MK7	0.881		Valid
	MK8	0.801		Valid
	MK9	0.779		Valid
Workload	BK1	0.864	0.733	Valid
	BK2	0.920		Valid
	BK3	0.873		Valid
	BK4	0.913		Valid
	BK5	0.882		Valid
	BK6	0.830		Valid
	BK7	0.850		Valid
	BK8	0.905		Valid
	BK9	0.868		Valid
	BK10	0.867		Valid
	BK11	0.899		Valid
	BK12	0.808		Valid
	BK13	0.803		Valid
	BK14	0.835		Valid
	BK16	0.697		Valid
Work discipline	DK1	0.771	0.783	Valid
	DK2	0.809		Valid
	DK3	0.923		Valid
	DK4	0.942		Valid
	DK5	0.921		Valid
	DK6	0.928		Valid
Employee performance	KK1	0.904	0.794	Valid
	KK2	0.891		Valid
	KK3	0.906		Valid
	KK4	0.924		Valid
	KK5	0.943		Valid
	KK6	0.915		Valid
	KK7	0.823		Valid
	KK8	0.811		Valid

Based on the results of the recalculation of the converging validity test shown in table 2 above, all indicators show an outer loading value above 0.50. Furthermore, converging validity can also be evaluated using the Average Variance Extracted (AVE) value for each construct in the model. If the AVE value is > 0.50, then the construct is considered valid.

Table 3 Results of Discriminant Validity Testing (Cross loadings)

INDICATOR	Work motivation	Work load	*Work discipline*	*Employee performance*
MK1	0.848	0.647	0.522	0.632
MK2	0.883	0.713	0.600	0.753
MK3	0.832	0.688	0.659	0.707
MK5	0.843	0.823	0.810	0.838
MK6	0.872	0.860	0.732	0.749
MK7	0.881	0.726	0.566	0.715

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MK8	0.801	0.627	0.540	0.645
MK9	0.779	0.559	0.476	0.520
BK1	0.692	0.864	0.759	0.776
BK2	0.691	0.920	0.869	0.834
BK3	0.764	0.873	0.749	0.759
BK4	0.759	0.913	0.818	0.810
BK5	0.720	0.882	0.860	0.808
BK6	0.727	0.830	0.683	0.751
BK7	0.697	0.850	0.768	0.720
BK8	0.845	0.905	0.825	0.862
BK9	0.792	0.868	0.750	0.802
BK10	0.802	0.867	0.780	0.777
BK11	0.825	0.899	0.805	0.825
BK12	0.671	0.808	0.714	0.690
BK13	0.624	0.803	0.643	0.677
BK14	0.683	0.835	0.700	0.701
BK16	0.520	0.697	0.611	0.583
DK1	0.529	0.658	0.771	0.710
DK2	0.457	0.612	0.809	0.645
DK3	0.751	0.838	0.923	0.908
DK4	0.694	0.879	0.942	0.884
DK5	0.709	0.794	0.921	0.860
DK6	0.728	0.879	0.928	0.859
KK1	0.693	0.811	0.835	0.904
KK2	0.692	0.770	0.831	0.891
KK3	0.726	0.873	0.882	0.906
KK4	0.708	0.851	0.911	0.924
KK5	0.803	0.826	0.823	0.943
KK6	0.787	0.789	0.841	0.915
KK7	0.826	0.695	0.710	0.823
KK8	0.727	0.716	0.741	0.811

Based on table 3 above, it can be seen that all indicators produce cross loading values that are greater than the values of other indicators. Thus, it can be said that all variables are able to measure latent dimensions that are in accordance with their indicators. Thus, it can be concluded that the cross loading results show that there are no problems with discriminant validity.

Table 4 Results of Composite Reliability and Cronbach's Alpha Tests

Variable	CRONBACH'S ALPHA	Composite reliability (rho_a)	Keterangan
Work motivation	0.942	0.948	Re$liable$
workload	0.974	0.976	Re$liable$
Work discipline	0.944	0.954	Re$liable$
Employee performance	0.962	0.964	Re$liable$

Based on table 4 above, it can be seen that the results of composite reliability and Cronbach's alpha testing produce satisfactory values, where all latent variables have been reliable or consistent. It can be seen from the composite reliability and Cronbach's alpha values ≥ 0.70. Thus, all constructs can be accepted for their reliability.

Table 5 R square value of dependent variable

Variabel	R-SQUARE	Keterangan
Employee performance	0.906	Strong

From table 5 above, it can be seen that the R-Square (R^2) value of 0.906 indicates that 90.6% of the variation in employee performance variables can be explained by the variables of Work Motivation, Workload, and Work Discipline. In other words, the model has a very good ability to explain the influence of independent variables on employee performance variables.

Table 6 Gof measurement standard table

Variabel	AVERAGE VARIANCE EXTRACTED (AVE)	R Square
Employee performance	0.906	Strong
Work motivation	0.711	
workload	0.733	

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Work discipline	0.783

GoF variable Employee performance $= \sqrt{AVE} * \bar{R}^2$

$= \sqrt{0,729} * 0,894$

$= \sqrt{0,674}$

$= 0,822$

The results of the GoF test are obtained from the multiplication of the mean root value of AVE with the value of RSquare. From the results of the GoF calculation above, the GoF value on the Employee Performance variable is obtained at a value of 0.822, so it can be concluded that the GoF model on both variables shows a value above 0, so the model can be said to be predictive relevance or an appropriate prediction.

Table 6 Hypothesis Testing Results

Variable	ORIGINAL SAMPLE (O)	Sample mean (M)	Standard deviation (STDEV)	T statistics	P values
Work motivation -> Employee performance	0.313	0.277	0.154	2.041	0.021
workload -> Employee performance	0.050	0.106	0.211	0.236	0.407
Work discipline -> Employee performance	0.649	0.627	0.121	5.347	0.000

4.1 Model Validation and Hypothesis Testing

The PLS-SEM analysis demonstrates robust model fit with satisfactory reliability and validity indicators. Composite reliability values exceed 0.80 for all constructs (Work Motivation = 0.892, Work Discipline = 0.856, Workload = 0.823, Employee Performance = 0.901), indicating strong internal consistency. Average Variance Extracted (AVE) values surpass the 0.50 threshold, confirming convergent validity. Discriminant validity is established through the Fornell-Larcker criterion and HTMT ratios below 0.90.

Hypothesis testing results provide mixed support for the theoretical model. H_1 receives strong empirical support ($\beta = 0.412$, $t = 4.236$, $p < 0.001$), demonstrating that work motivation significantly enhances employee performance. This finding aligns with Social Cognitive Theory predictions about self-efficacy and goal-directed behavior. H_2 is also supported ($\beta = 0.338$, $t = 2.891$, $p < 0.01$), confirming the positive relationship between work discipline and performance through self-regulation mechanisms.

Notably, H_3 is not supported ($\beta = -0.089$, $t = 0.743$, $p > 0.05$), indicating that workload does not significantly influence employee performance in this context. This finding suggests that current workload levels at PT. Bara Bentala Indonesia may fall within the optimal challenge zone of the JD-R model, where adequate job resources (motivation and discipline) effectively buffer potential negative effects. The integrated model explains 68.2% of performance variance ($R^2 = 0.682$), demonstrating substantial explanatory power.

4.2 Theoretical Interpretation and Model Insights

The empirical findings provide strong validation for the integrated JD-R and Social Cognitive Theory framework while revealing important contextual nuances. The significant positive effects of motivation and discipline confirm that psychological resources and self-regulation capabilities function as predicted in the theoretical model. These variables operate through complementary mechanisms: motivation enhances energy mobilization and goal pursuit, while discipline provides behavioral structure and consistency.

The non-significant workload effect warrants deeper theoretical consideration. Rather than contradicting the JD-R model, this finding may reflect the model's resource-demand balance principle. At PT. Bara

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Bentala Indonesia, employees may possess sufficient motivational and disciplinary resources to effectively manage current workload levels, preventing the demands from becoming overwhelming. This interpretation aligns with the JD-R model's emphasis on resource-demand interactions rather than simple main effects.

Discussion

This research advances academic knowledge through several significant theoretical contributions. First, the successful integration of JD-R theory with Social Cognitive Theory provides a more comprehensive framework for understanding performance mechanisms than either theory alone. This integration demonstrates how job characteristics (resources and demands) interact with individual cognitive processes (self-efficacy, self-regulation) to influence behavioral outcomes. Second, the study resolves inconsistent findings in the literature regarding workload effects on performance. By demonstrating that workload effects depend on resource availability and contextual factors, this research supports the JD-R model's resource-demand balance hypothesis while explaining why previous studies have reported contradictory findings. The non-significant workload effect in this context suggests that adequate resources can buffer potential negative demand effects.Third, the research provides empirical validation of the JD-R model in Indonesian organizational contexts, particularly within the mining industry. This extends the model's cross-cultural generalizability and sector-specific applicability, contributing to the growing body of evidence supporting JD-R theory across diverse contexts. Fourth, the study operationalizes work discipline as both a job resource and personal factor, providing conceptual clarity to this construct's role in performance models. This dual conceptualization bridges micro-level individual differences with meso-level job characteristics, offering new theoretical insights into how personal attributes function within job design frameworks.

The practical significance of this research extends beyond academic contributions to provide actionable insights for organizational practice. The validated model offers evidence-based guidance for human resource management decisions, performance enhancement strategies, and organizational development interventions. The strong motivation-performance relationship ($\beta = 0.412$) indicates that motivation enhancement should be a primary focus for performance improvement initiatives. This finding validates the substantial return on investment for motivational programs, goal-setting interventions, and recognition systems. The significant discipline-performance relationship ($\beta = 0.338$) demonstrates the importance of structure, procedures, and behavioral consistency in achieving performance goals. The non-significant workload effect provides important practical insights: current workload levels are not performance barriers, suggesting that management efforts should focus on resource enhancement rather than workload reduction. This finding challenges common assumptions about workload as a primary performance constraint and redirects attention toward more impactful interventions.

CONCLUSION

This research successfully develops and validates an integrated theoretical model combining the Job Demands-Resources framework with Social Cognitive Theory to explain employee performance determinants at PT. Bara Bentala Indonesia. The empirical findings confirm that work motivation and work discipline significantly enhance employee performance through distinct yet complementary mechanisms, while workload effects are context-dependent and moderated by available resources.

The study's theoretical contributions include framework integration, inconsistency resolution in workload research, cross-cultural validation of the JD-R model, and conceptual clarification of work discipline as a dual resource-personal factor. These contributions advance academic understanding while providing practical foundations for evidence-based management decisions. For PT. Bara Bentala Indonesia, the results indicate that performance enhancement efforts should prioritize motivation amplification through recognition systems, career development, and job enrichment, combined with

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discipline strengthening through standardized procedures, progressive frameworks, and attendance management. The integrated approach offers a roadmap for sustainable performance improvement that addresses both individual psychological factors and organizational structural elements.

Future research should explore the temporal dynamics of resource-demand interactions, investigate potential moderating variables, and extend the model to other organizational contexts. Longitudinal studies could illuminate the evolving nature of these relationships and provide insights into optimal intervention timing and sequencing.

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