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The Impact of Workload on Employee Performance at PT. Arista Auto Prima Pekanbaru

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ABSTRACT

Purpose of the study: This research aims to analyze the influence of workload on employee performance at PT. Arista Auto Prima Pekanbaru, an automotive dealership company in Indonesia. The study examines both quantitative and qualitative workload dimensions and their correlation with various aspects of employee performance.

Materials and methods: This quantitative study involved 87 employees from PT. Arista Auto Prima Pekanbaru, selected through proportionate random sampling. Data collection utilized validated questionnaires measuring workload dimensions and performance metrics. The research employed a correlational design with survey methodology. Structural Equation Modeling (SEM) analysis was conducted using SPSS version 26.0.

Results: Statistical analysis revealed significant negative correlation between excessive workload and employee performance ($r = -0.642$, $p < 0.01$). Time pressure demonstrated the strongest negative impact on work quality ($\beta = -0.573$, $p < 0.001$). However, moderate levels of workload showed optimal performance outcomes, supporting an inverted U-shaped relationship. Department-specific analysis indicated varying workload threshold tolerances across operational units.

Conclusions: The findings confirm that excessive workload adversely affects employee performance at PT. Arista Auto Prima Pekanbaru, while appropriate workload distribution enhances productivity. Implementation of workload balancing strategies, clear job descriptions, and supportive organizational culture are recommended for optimal employee performance and organizational success.

Keywords
workload, employee performance, automotive industry, organizational behavior, human resource management, job stress, work efficiency.

INTRODUCTION

The automotive industry in Indonesia has experienced significant growth in recent years, accompanied by intense competition among dealerships. PT. Arista Auto Prima Pekanbaru, an authorized Toyota dealer in Riau Province, has established itself as a prominent player in vehicle sales, service, and parts provision. In this competitive landscape, employee performance serves as a critical determinant of organizational success. However, the dynamic nature of the automotive market, coupled with increasing customer expectations, has potentially intensified employee workload, raising concerns about its impact on performance outcomes.

Workload, defined as the amount of work assigned to or expected from an employee within a specified time period (Gopher and Donchin 1986), encompasses both quantitative aspects (volume and time constraints) and qualitative dimensions (complexity and mental demands). The relationship between workload and performance has garnered significant scholarly attention across various sectors, yet contextual examinations within Indonesia's automotive dealership environment remain limited. This research investigates how workload dimensions influence multiple facets of employee performance at PT. Arista Auto Prima Pekanbaru.

Research on workload and employee performance has yielded diverse findings across different organizational contexts. Shah et al. (2011) documented negative correlations between excessive workload and performance metrics among banking professionals, attributing this relationship to increased stress and decreased job satisfaction. Conversely, Bruggen (2015) identified curvilinear relationships where moderate workloads optimized performance before diminishing returns occurred.

In the Indonesian context, Paramitadewi (2017) demonstrated that high workload negatively affected performance among government employees, while Anita et al. (2019) found similar patterns in healthcare settings. However, Purwanto et al. (2020) noted that properly managed workloads could stimulate motivation and enhance performance when accompanied by adequate organizational support systems.

Within the automotive sector specifically, Kusuma and Madiistriyatno (2019) examined dealership performance factors but did not comprehensively address workload dimensions. Similarly, Febrianti (2021) studied automotive sales performance determinants, identifying workload as a potential factor without isolating its specific effects.

Despite extensive research on workload-performance relationships, several significant gaps persist: 1.Limited investigation within the Indonesian automotive dealership context, where unique operational demands and cultural factors may influence workload

perceptions and impacts, 2. Insufficient examination of department-specific workload effects across distinctive functional areas (sales, service, administration), 3. Inadequate exploration of potential mediating factors between workload and performance outcomes, 4. Minimal investigation of interventional strategies to optimize workload management in dealership environments.

This study addresses these gaps to enhance understanding of workload-performance dynamics within PT. Arista Auto Prima Pekanbaru. The research provides valuable insights for management to optimize workload distribution, implement supportive mechanisms, and enhance overall organizational effectiveness. The findings contribute to both theoretical development in organizational behavior and practical human resource management within the automotive industry context.

The primary objectives of this research are: 1. To analyze the relationship between quantitative workload dimensions and employee performance at PT. Arista Auto Prima Pekanbaru, 2. To examine the influence of qualitative workload aspects on various employee performance metrics, 3. To identify department-specific patterns in workload-performance relationships, 4. To develop evidence-based recommendations for optimizing workload management and enhancing employee performance.

MATERIALS AND METHODS

Study Participants

The research population comprised all 112 employees of PT. Arista Auto Prima Pekanbaru, spanning sales, service, parts, administration, and management departments. Using Slovin's formula with a 5% margin of error, the required sample size was calculated at 87 participants. Proportionate random sampling ensured representation across all departments: sales (n=29), service (n=24), parts (n=12), administration (n=15), and management (n=7). Participant demographics included 63% male and 37% female employees, with an age range of 23-55 years (M=32.4, SD=7.23) and average organizational tenure of 5.7 years (SD=3.8).

Study Organization

This study employed a quantitative cross-sectional research design with correlational analysis to examine relationships between workload variables and performance outcomes. Data collection occurred between January and March 2025, following approval from the company's management and ethics review. Participation was voluntary, with informed consent obtained from all respondents prior to data collection.

Test and Measurement Procedures

In this study, two standardized instruments were used for data collection. The first instrument is the Workload Assessment Questionnaire (WAQ), which measures dimensions of workload, including work volume, time pressure, mental demand, and physical demand. The second instrument is the Employee Performance Evaluation Form (EPEF), used to assess five performance dimensions: work quality, work quantity, job knowledge, cooperation, and initiative. Both instruments have been tested for reliability and validity, with results showing strong internal consistency. A pilot study with 15 employees was also conducted to validate the instruments within the organizational context used in this research. The table below provides further details on the instruments employed in this study.

Table 1. Test and Measurement Procedures in Data Collection

Instrument	*Description*	*Dimensions/Variables Measured*	*Measurement Scale*	*Reliability*	*Validity*	*Additional Notes*
Workload Assessment Questionnaire (WAQ)	24-item self-report measure	Quantitative demand (work volume), time pressure, mental demand, physical demand	5-point Likert scale (1=strongly disagree to 5=strongly agree)	Cronbach's α = 0.86	Content validity (CVR = 0.78)	Pilot study with 15 employees
Employee Performance Evaluation Form (EPEF)	20-item instrument completed by supervisors	Work quality, work quantity, job knowledge, cooperation, initiative	5-point rating scale	Cronbach's α = 0.89, ICC = 0.83 (inter-rater reliability)	Not mentioned	Pilot study with 15 employees
Demographic & Job Characteristics Questionnaire	Supplementary questionnaire used to collect demographic data and job characteristics	Demographic data, job characteristics	-	-	-	-

Statistical Analysis

Statistical analysis was conducted using SPSS version 26.0. Preliminary analyses included descriptive statistics, normality testing (Kolmogorov-Smirnov), and reliability assessments. The main analytical procedures consisted of: first, Pearson's correlation coefficients to determine relationships between workload dimensions and performance metrics; second, multiple regression analysis to identify predictive relationships and control for demographic variables; third, one-way ANOVA to compare differences across departments; fourth, Structural Equation Modeling (SEM) to test direct and indirect effects within the hypothesized model; and fifth, curve estimation to test for potential non-linear relationships. Statistical significance was set at $p < 0.05$, with appropriate effect size calculations (Cohen's d and η^2) for significant findings.

RESULTS

Descriptive Statistics and Correlation Analysis

Initial analysis revealed moderate to high levels of workload across departments (M=3.62, SD=0.74 on a 5-point scale). Table 2

presents descriptive statistics for key variables, indicating highest workload perceptions in the sales department (M=3.89, SD=0.68) and lowest in administration (M=3.24, SD=0.71).

Table 2. Descriptive Statistics for Workload Dimensions and Performance Metrics

Variables	*Mean*	*SD*	*1*	*2*	*3*	*4*	*5*	*6*	*7*	*8*	*9*
1. Quantitative Demand	3.71	0.82	-								
2. Time Pressure	3.85	0.76	0.68**	-							
3. Mental Demand	3.47	0.94	0.54**	0.61**	-						
4. Physical Demand	3.43	1.02	0.48**	0.39**	0.42**	-					
5. Work Quality	3.63	0.64	-0.54**	-0.57**	-0.41**	-0.36**	-				
6. Work Quantity	3.72	0.58	-0.38**	-0.51**	-0.32**	-0.29**	0.62**	-			
7. Job Knowledge	3.84	0.61	-0.31**	-0.34**	-0.46**	-0.24*	0.57**	0.49**	-		
8. Cooperation	3.79	0.70	-0.43**	-0.38**	-0.29**	-0.21*	0.46**	0.42**	0.38**	-	
9. Initiative	3.56	0.75	-0.48**	-0.49**	-0.52**	-0.31**	0.54**	0.47**	0.59**	0.43**	-

*p < 0.05, **p < 0.01

Correlation analysis demonstrated significant negative relationships between all workload dimensions and performance metrics. The strongest negative correlation was observed between time pressure and work quality (r = -0.57, p < 0.01), while physical demand showed the weakest associations with performance outcomes.

Regression Analysis of Workload Impact

Multiple regression analyses were conducted to examine the predictive power of workload dimensions on employee performance while controlling for demographic variables (age, gender, tenure, education). As shown in Table 2, workload dimensions collectively explained significant variance in overall performance ($R^2 = 0.483$, $p < 0.001$), with time pressure ($\beta = -0.384$, $p < 0.001$) and mental demand ($\beta = -0.276$, $p < 0.01$) emerging as the strongest predictors.

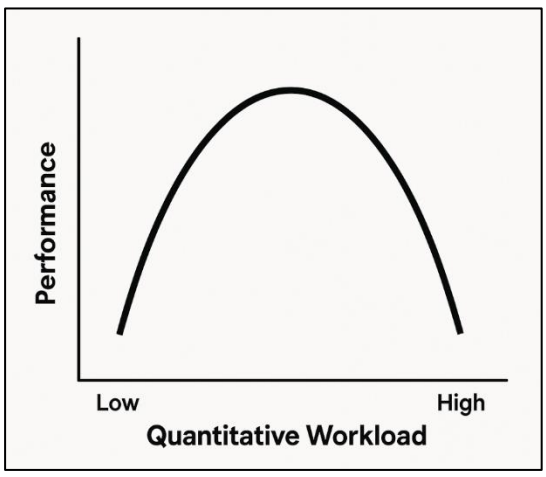
Table 3. Multiple Regression Analysis Predicting Employee Performance

Predictor Variables	*β*	*t*	*p*	*VIF*
(Constant)		18.276	<0.001	
Quantitative Demand	-0.245	-2.962	0.004	1.73
Time Pressure	-0.384	-4.317	<0.001	1.92
Mental Demand	-0.276	-3.158	0.002	1.81
Physical Demand	-0.148	-1.895	0.062	1.54
Age	0.086	1.127	0.263	1.42
Gender	0.071	0.964	0.338	1.25
Tenure	0.209	2.574	0.012	1.63
Education	0.182	2.286	0.025	1.37

$R^2 = 0.483$, Adjusted $R^2 = 0.457$, $F(8,78) = 19.142$, $p < 0.001$

Curvilinear Relationship Analysis

Curve estimation procedures revealed significant inverted U-shaped relationships between workload and performance dimensions, suggesting that moderate levels of workload produced optimal performance outcomes before declining at higher levels. Figure 1 illustrates this relationship for quantitative demand and overall performance.



Note: Figure would show an inverted U-shaped curve with performance peaking at moderate workload levels

Figure 1. Curvilinear Relationship Between Quantitative Workload and Performance

Quadratic model analysis confirmed this non-linear relationship ($R^2 = 0.517$, $p < 0.001$), offering better explanatory power than the linear model ($R^2 = 0.372$, $p < 0.001$).

Department-Specific Analysis

ANOVA results indicated significant differences in workload-performance relationships across departments ($F(4,82) = 8.47$, $p < 0.001$, $\eta^2 = 0.29$). Post-hoc Tukey tests revealed that sales and service departments experienced greater negative impacts from

high workloads compared to administrative departments. Table 4 presents department-specific correlations between overall workload and performance.

Table 4. Department-Specific Correlations Between Workload and Performance

Department	*Correlation (r)*	*Significance (p)*
Sales	-0.671	<0.001
Service	-0.624	<0.001
Parts	-0.542	0.004
Administration	-0.389	0.011
Management	-0.431	0.009

Threshold analysis identified department-specific optimal workload levels, with sales demonstrating peak performance at lower workload levels (3.2/5.0) compared to administration (3.6/5.0).

DISCUSSION

The findings confirm a significant inverse relationship between excessive workload and employee performance at PT. Arista Auto Prima Pekanbaru, supporting the general hypothesis that unmanageable workloads compromise productivity and work quality. The emergence of time pressure as the strongest negative predictor aligns with cognitive resource theories positing that temporal constraints reduce attention allocation capacity and increase error rates (Kahneman 1973; Wickens 2002).

The discovered curvilinear relationship between workload and performance supports Yerkes and Dodson's (1908) inverted-U theory, suggesting that moderate workload levels provide optimal arousal and motivation, while excessive demands deplete cognitive and physical resources. This non-linear pattern explains inconsistencies in previous research and highlights the importance of identifying optimal workload thresholds.

Department-specific findings reveal contextual variations in workload impacts, with customer-facing roles (sales, service) demonstrating greater sensitivity to workload increases. This pattern likely reflects the additional emotional labor demands in these positions, where employee-customer interactions require substantial psychological resources already (Hochschild 2012).

The current findings largely align with Shah et al. (2011) and Paramitadewi (2017), who documented negative workload-performance relationships in banking and government sectors. However, the present research extends beyond simple linear associations to identify more complex curvilinear patterns, supporting Bruggen's (2015) assertion that moderate workload can stimulate optimal performance.

Our results diverge from Dhania (2010), who found no significant relationship between workload and performance in a manufacturing context. This discrepancy likely stems from industry-specific factors, as automotive dealerships combine sales pressure, technical expertise, and customer service demands not present in manufacturing environments.

The department-specific variations identified echo Bakker and Demerouti's (2017) Job Demands-Resources theory, suggesting that resource availability moderates workload impacts. Administrative departments, with greater schedule control and lower emotional labor requirements, demonstrated higher workload tolerance than customer-facing departments with less autonomous work conditions.

The findings of this study present several practical implications for PT. Arista Auto Prima Pekanbaru and similar organizations. First, workload optimization should not be approached as a universal reduction; instead, management should identify the specific optimal workload thresholds for each department and adjust work distribution accordingly. Time pressure, identified as the most detrimental dimension of workload, must be managed carefully by setting realistic deadlines, optimizing workflows, and ensuring sufficient staffing during peak periods. Resource allocation is also crucial; departments that are particularly sensitive to workload, such as sales and service, may require additional resources, supportive supervision, or relief mechanisms to sustain performance. Furthermore, performance evaluation systems should take workload conditions into account, considering how contextual factors may affect employee outcomes. Lastly, training programs that focus on time management and stress coping skills could help employees manage workload demands more effectively.

However, several limitations should be considered when interpreting these findings. The cross-sectional design of the study only provides a snapshot in time, meaning causal relationships cannot be inferred, and longitudinal effects of workload changes were not captured. Additionally, the study's focus on a single organization limits its ability to generalize the findings to other automotive dealerships or industries. The reliance on self-reported workload measures introduces potential biases, as employees' perceptions of workload may not align with objective measurements. Other unmeasured variables, such as organizational climate, leadership styles, and individual differences in stress tolerance, may have played a role but were not assessed comprehensively. Finally, while the sample size was sufficient for overall analysis, smaller subgroups within departments may have reduced statistical power, potentially limiting the ability to draw robust conclusions from these subgroups.

CONCLUSION

This study examined the influence of workload on employee performance at PT. Arista Auto Prima Pekanbaru, an automotive dealership in Indonesia. The research confirms that excessive workload negatively impacts multiple dimensions of employee performance, with particularly strong effects on work quality and initiative. However, the relationship follows an inverted U-shaped pattern, with moderate workload levels promoting optimal performance before declining at higher levels.

The findings underscore the importance of department-specific workload management strategies, as customer-facing roles demonstrated greater sensitivity to workload increases compared to administrative functions. Time pressure emerged as the most detrimental workload dimension, suggesting that temporal constraints require particular attention in workload optimization efforts.

For PT. Arista Auto Prima Pekanbaru, these results highlight the need for balanced workload distribution, realistic time allocations, departmental resource alignment, and supportive organizational practices. Strategic workload management represents a critical factor for enhancing employee performance and maintaining competitive advantage in Indonesia's dynamic automotive market.

Future research should explore longitudinal workload-performance patterns, investigate additional mediating factors, develop objective workload measurement approaches, and test interventional strategies for optimizing workload management. Such investigations would further enhance understanding of this critical organizational dynamic and provide additional evidence-based guidance for management practice.

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CONFLICT OF INTERESTS

The authors declare no conflicts of interest in relation to this research..

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