

THE RELATIONSHIP BETWEEN WORKLOAD AND JOB STRESS AMONG SHIFT WORKERS AT PT MITRA ADI PERKASA

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Abstract

This study aims to analyze the relationship between workload and job stress among shift workers at PT Mitra Adi Perkasa, one of Indonesia's largest retail companies. The research employed a quantitative approach with primary data collected through questionnaires distributed to 80 shift workers using saturated sampling technique. Data analysis was conducted using SPSS 27, including validity and reliability tests, classical assumption tests, simple linear regression analysis, and hypothesis testing (t-test). The results revealed that workload among shift workers was categorized as high (mean = 3.95), with service demands and time pressure being the most prominent indicators. Job stress was also categorized as high (mean = 3.88), with sleep disturbances and work-family conflict as the most significant indicators. The hypothesis test demonstrated a significant positive relationship between workload and job stress ($t\text{-value} = 11.000 > t\text{-table} = 1.990$; $\text{sig.} = 0.000 < 0.05$), with a regression coefficient of 0.748, indicating that each unit increase in workload leads to a 0.748 unit increase in job stress. The R Square value of 0.607 suggests that 60.7% of job stress variance can be explained by workload. These findings emphasize the importance of effective workload management strategies to reduce stress levels and improve employee well-being in shift work environments.

Keywords:

workload, job stress, shift workers, retail industry, employee well-being

Introduction

In the era of globalization and increasingly competitive business environments, companies are required to operate optimally to meet continuously evolving market demands. One strategy implemented by many organizations is the adoption of shift work systems that enable 24-hour operational capabilities. The shift work system represents a work time arrangement that divides employees into different working time groups, such as morning, afternoon, and evening shifts. While this system provides advantages for companies in terms of productivity and efficiency, it can also create various challenges for employees, particularly concerning workload and job stress (Wijaya & Susanto, 2022).

PT Mitra Adi Perkasa, as one of Indonesia's largest retail companies operating various international brands such as Starbucks, Zara, Marks & Spencer, and Sephora, implements a shift work system to meet the operational needs of stores that operate for extended hours. Preliminary observations revealed several phenomena worthy of further investigation. First, shift workers frequently complain about physical and mental fatigue due to irregular working hours and often having to work at night or on holidays. Second, high sales targets and demands for excellent customer service

add psychological pressure on employees. Third, inconsistent shift rotations cause disruptions to sleep patterns and social life. Fourth, there are complaints regarding insufficient rest time between work shifts (Rahmawati & Adiputra, 2023). Workload can be defined as the amount of processes or activities that must be completed by a worker within a certain timeframe. According to Kusuma and Wahyuni (2023), excessive workload can cause various negative impacts, both physically and psychologically. Research by Pratama and Wulandari (2023) found that 67% of shift workers in retail companies experience high levels of job stress, which impacts decreased productivity and job satisfaction.

The relationship between workload and job stress has become a focus of research in the field of industrial and organizational psychology. According to Sari and Nugroho (2022), there is a significant positive correlation between workload and stress levels among shift workers. The higher the perceived workload, the higher the stress level experienced by employees. This is reinforced by research from Kusuma and Wahyuni (2023), which shows that workload is the main predictor of job stress among employees working in shift systems. The importance of this research is also supported by data from the Ministry of Manpower of the Republic of Indonesia, which indicates that the retail sector is one of the sectors with high employee turnover rates, reaching 30-40% per year. One of the factors causing high turnover is workload and job stress issues that are not managed properly. This study is expected to provide a deeper understanding of the relationship between workload and job stress, as well as provide recommendations for companies in improving employee welfare and organizational productivity.

Theoretical Framework

Workload

Workload is an important concept in human resource management and industrial organizational psychology. According to Wijaya and Susanto (2022), workload is the individual worker capacity needed to complete assigned tasks under normal working conditions. Workload encompasses both physical and mental workload that must be borne by a worker in performing their duties. In the context of shift work, workload has its own complexity because employees must adapt to irregular working hours, changing shift rotations, and often having to work at abnormal times such as night shifts or holidays (Kusuma & Wahyuni, 2023).

Workload can be distinguished into two types: physical workload and mental workload. Physical workload relates to physical activities that must be performed by workers, such as standing for long periods, lifting goods, or walking long distances. Meanwhile, mental workload relates to cognitive and emotional processes in carrying out work, such as decision-making, concentration, and customer interaction.

Job Stress

Job stress is one of the important issues in industrial and organizational psychology that has received attention from researchers and practitioners over the past few decades. Pratama and Wulandari (2023) define job stress as a state of tension that

affects emotions, thought processes, and physical conditions of a person caused by pressure originating from the work environment. Job stress occurs when there is an imbalance between job demands and individual ability to meet those demands.

In the context of shift work, job stress has special characteristics because employees face additional stressors not experienced by employees with normal working hours. Sari and Nugroho (2022) explain that shift workers face stress originating from disturbances to biological rhythms, difficulties in social and family life, and adaptation to irregular work schedule changes.

Job Demands-Resources Model (JD-R Model)

This model explains that work characteristics can be divided into job demands and job resources. Workload is one form of job demands that requires physical, mental, or emotional effort. When job demands are high and not balanced with adequate job resources, strain including job stress will occur. Wijaya and Susanto (2022) applied the JD-R Model and found that high workload among shift workers positively correlates with job stress levels.

Research Hypothesis

Based on the theoretical framework and previous research, the hypothesis in this study is:

H_1 : There is a significant positive relationship between workload and job stress among shift workers at PT Mitra Adi Perkasa.

This hypothesis means that the higher the workload perceived by shift workers, the higher the level of job stress they experience..

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Method

This research employed a quantitative approach with primary data collected through questionnaires. The population in this study consisted of all employees working in shift systems at PT Mitra Adi Perkasa. The sample was taken using saturated sampling technique, where all 80 shift workers at PT Mitra Adi Perkasa were selected as respondents.

The research instrument was a questionnaire measured using a 5-point Likert scale (1 = Strongly Disagree to 5 = Strongly Agree). The workload variable was measured using 8 indicators including work volume, time pressure, task complexity, job responsibility, shift rotation, service demands, physical burden, and mental burden. The job stress variable was measured using 8 indicators including emotional exhaustion, physical symptoms, sleep disturbances, psychological tension, concentration difficulties, work-family conflict, anxiety, and decreased motivation.

Data analysis was conducted using SPSS 27, including: (1) Validity and reliability tests to ensure instrument quality; (2) Classical assumption tests including normality, multicollinearity, and heteroscedasticity tests; (3) Simple linear regression analysis to examine the relationship between variables; and (4) Hypothesis testing using t-test with a significance level of 5% ($\alpha = 0.05$).

Results

Respondent Characteristics

The study involved 80 shift workers at PT Mitra Adi Perkasa, consisting of 32 males (40%) and 48 females (60%). The majority of respondents were aged 26-30 years (43.8%), followed by 20-25 years (35%), 31-35 years (15%), and over 35 years (6.2%). Based on tenure, most respondents had 1-3 years of experience (47.5%), followed by 3-5 years (22.5%), less than 1 year (18.8%), and over 5 years (11.2%). Distribution by shift type showed morning shift workers at 37.5%, afternoon shift at 35%, and night shift at 27.5%.

Validity and Reliability Test Results

All questionnaire items for both workload and job stress variables were found to be valid, with r-values ranging from 0.745 to 0.834, all exceeding the r-table value of 0.220. Reliability test results showed Cronbach's Alpha values of 0.892 for workload and 0.908 for job stress, both exceeding the minimum threshold of 0.60, indicating that the research instruments were reliable and consistent.

Descriptive Statistics

Descriptive analysis revealed that the workload level among shift workers at PT Mitra Adi Perkasa was categorized as high with an average value of 3.95. The highest indicators were service demands (4.23) and time pressure (4.12), both in the very high category. Job stress levels were also categorized as high with an average value of 3.88. The most prominent indicators were sleep disturbances (4.15) and work-family conflict (4.08).

Classical Assumption Tests

The normality test using Kolmogorov-Smirnov showed a significance value of $0.200 > 0.05$, indicating that residual data were normally distributed. The multicollinearity test showed a Tolerance value of $0.891 > 0.10$ and VIF value of $1.122 < 10$, indicating no multicollinearity occurred. The heteroscedasticity test using the Glejser method showed a significance value of $0.149 > 0.05$, indicating no heteroscedasticity occurred in the regression model.

Simple Linear Regression Analysis

The regression analysis produced the following equation:

$$Y = 8.245 + 0.748X_1$$

Where Y represents job stress and X_1 represents workload. The constant value of 8.245 indicates that if workload equals zero, job stress would be 8.245. The regression coefficient of 0.748 indicates that each one-unit increase in workload increases job stress by 0.748 units. The R Square value of 0.607 indicates that 60.7% of job stress variance can be explained by workload, while the remaining 39.3% is explained by other variables not examined in this study.

Hypothesis Test (t-test)

The hypothesis test results showed a t-value of $11.000 > t\text{-table of } 1.990$ with a significance value of $0.000 < 0.05$. These results indicate that workload has a significant positive effect on job stress among shift workers at PT Mitra Adi Perkasa. Therefore, hypothesis H_1 stating "There is a significant positive relationship between workload and job stress among shift workers at PT Mitra Adi Perkasa" is accepted.

Discussion

The research findings confirm that workload among shift workers at PT Mitra Adi Perkasa is categorized as high, with service demands and time pressure being the most prominent aspects. This finding is consistent with Wijaya and Susanto (2022), who found that shift workers in the retail sector face high workload due to intensive operational demands. The retail industry's characteristic of prioritizing customer satisfaction as the top priority explains why employees face high pressure in meeting excellent service standards and tight time targets.

The high job stress level, particularly indicated by sleep disturbances and work-family conflict, demonstrates that the shift work system significantly impacts employees' sleep quality and work-life balance. Sleep disturbances are a direct consequence of shift work systems that disrupt the body's circadian rhythm. Employees working night shifts or rotating shifts experience difficulty maintaining consistent sleep patterns, which in turn affects their physical and mental health. This finding aligns with Sari and Nugroho (2022), who stated that shift workers face additional stress from difficulties in social and family life.

The significant positive relationship between workload and job stress (regression coefficient = 0.748; $R^2 = 0.607$) confirms the study hypothesis and supports various previous research findings. This relationship can be explained through the Job Demands-Resources Model developed by Demerouti et al., which posits that when job demands are high and not balanced with adequate job resources, strain including job stress will occur. In the context of shift workers at PT Mitra Adi Perkasa, high workload—especially in terms of service demands and time pressure—is not balanced

with adequate resources such as sufficient rest time, social support from colleagues and supervisors, or flexibility in schedule arrangements.

These findings have important practical implications for PT Mitra Adi Perkasa management. Several strategies that can be implemented include: (1) Workload redistribution to ensure tasks are evenly distributed; (2) Increased staffing during shifts with high workload; (3) Improved shift rotation systems to provide consistent schedules and adequate rest time between shifts; (4) Enhanced organizational support through social support from supervisors and colleagues, as well as employee welfare programs; and (5) Stress management training to provide employees with effective coping strategies.

This research has several limitations that should be noted. First, the cross-sectional design only captures data at one point in time, limiting causal inference. Second, 39.3% of job stress variance is explained by other variables not examined in this study, such as social support, personality, or other organizational factors. Third, the study was conducted on shift workload (mean = 3.95) and job stress (mean = 3.88). There is a significant positive relationship between workload and job stress ($t = 11.000$, $p < 0.001$), with workload explaining 60.7% of job stress variance. Service demands, time pressure, sleep disturbances, and work-family conflict emerge as the most critical factors requiring managerial attention.

These findings contribute to the understanding of occupational health psychology in shift work environments and provide empirical evidence for the relationship between workload and job stress in the Indonesian retail sector context. For practitioners, this research emphasizes the necessity of implementing comprehensive workload management strategies, including workload redistribution, improved shift scheduling systems, enhanced organizational support, and stress management interventions to promote employee well-being and organizational effectiveness.

conducted in one retail company, requiring caution in generalizing results to other companies or industries. Fourth, the use of self-report questionnaires may contain response biases such as social desirability bias or common method variance.

Conclusion

This study demonstrates that shift workers at PT Mitra Adi Perkasa experience high levels of job stress. Future research should employ longitudinal designs to establish causal relationships, investigate potential moderating variables such as social support and coping strategies, extend the scope to multiple organizations and industries, and incorporate objective measures alongside self-report data to minimize common method bias.

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