Research Paper

The Role of Mental Work as a Mediator Between Work Stress and Employee Performance

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Abstract

In an increasingly competitive and dynamic world of work, employee performance is a key factor in achieving organizational goals. However, high employee performance is often accompanied by an increase in workload which can cause work stress. This research aims to determine whether work stress has an influence on employee performance through mental workload, the second hypothesis that work mental load can directly influence employee performance, the third hypothesis that work stress has an influence on employee performance and the fourth hypothesis that work stress has an influence on work mental load. This research uses the method that work stress has an influence on employee performance through mental workload, the second hypothesis that work mental load can directly influence employee performance, the third hypothesis that work stress has an influence on employee performance and the fourth hypothesis that work stress has an influence on work mental load. The research method used is a quantitative method with a mediation analysis approach using the help of Smart PLS statistical software. The research results show that (1) mental workload can play a partial role as a mediator between work stress and employee performance, (2) work stress is able to directly influence employee performance, (3) work stress is able to influence mental workload, (4) mental workload can affect employee performance. The implication of this research is that organizations can develop a more holistic approach in managing work stress and mental workload.

Keywords: *Employee Performance, Work Mental, Work Stress*

INTRODUCTION

In an increasingly competitive and dynamic world of work, employee performance is a key factor in achieving organizational goals. Employee performance not only determines productivity but also affects the overall success of the organization. This success includes various aspects, ranging from achieving business targets, increasing profits, to strengthening competitive positions in the market. Therefore, it is important for organizations to continuously encourage and maintain high employee performance (Ludin et al., 2023). High employee performance is often accompanied by an increase in workload that can cause work stress. This increased workload can come from a variety of sources, such as additional responsibilities, tight deadlines, or high expectations from employers and coworkers. This increase in workload can generate significant psychological distress, which in turn can lead to work stress (Taher, 2024).

A high mental load of work can also reduce an employee's cognitive capacity to handle stress. When employees face a high mental load, they may find it difficult to manage work pressure and find effective solutions to cope with stress. This can accelerate the onset of symptoms of work stress, such as fatigue, tension, and decreased performance (Wahjono, 2022). In this context, understanding the role of work mental burden as a mediating variable in the relationship between employee performance and work stress is very important. Research by Gaillard (2001) found that employees who have a high mental load are more prone to fatigue and decreased performance, which in turn increases their work stress levels. Therefore, it is important for organizations to identify and manage factors that can increase the mental load of work (Loudoe et al., 2023).

One strategy that can be implemented is to reduce the complexity of tasks and provide adequate support to employees. For example, organizations can provide relevant training, adequate resources, and a conducive work environment to help employees manage their mental burden. Thus, organizations can help employees to stay productive and mentally healthy (Pratama al., 2023). Studies have shown that high-performing employees often face greater workloads, higher responsibilities, and greater expectations from their employers. For example, a study by Wahdiniawati et al., (2024) found that high-performing employees are more likely to be given additional tasks and more challenging projects because they are perceived capable of completing them. This can significantly increase their workload.

Higher responsibilities are also often given to high-performing employees. They may be required to lead a team, manage a large project, or make important decisions that affect the course of the organization's operations. Higher expectations from superiors and co-workers are also an additional burden for high-performing employees. They are expected to continuously maintain or even improve their performance, which can create significant stress (Muslim & Ilmi, 2023).

This condition can trigger work stress, which is defined as a physiological and psychological response to work demands that exceed the individual's adaptive capacity. Work stress can arise when employees feel that the demands of their job are beyond their ability to cope. For example, tight deadlines, excessive work volumes, or overly complex tasks can cause employees to feel overwhelmed and stressed (Sembiring, 2020). According to a report from the American Institute of Stress, work stress is one of the leading causes of absenteeism and decreased performance at work. Ongoing work stress can lead to a variety of physical and mental health problems, including fatigue, sleep disturbances, depression, and chronic illnesses such as heart disease. Employees who experience work stress may take sick leave more frequently, which can reduce their attendance at work and affect the team's overall productivity (Loudoe et al., 2023).

Decreased performance due to work stress can also have a negative impact on the organization. Decreased quality of work, delays in task completion, and increased error rates can be detrimental to business operations and customer relationships. Therefore, managing work stress is very important to ensure that employees can work effectively and productively (Nu'man et al., 2024).

Understanding the factors that can mediate the relationship between performance and work stress is crucial to developing an effective management strategy. One of the important mediating factors is the work mental load. The mental load of work includes the cognitive load that employees face when completing their tasks. These loads can include the complexity of the task, the amount of information that must be processed, and the level of concentration required (Ariani, 2017). A high mental workload can exacerbate the negative impact of workload on work stress. When employees are faced with highly complex tasks or require a high level of concentration, they may feel tired and stressed more quickly. Research Muslims and Wisdom (2023) shows that a high mental load can exacerbate the negative impact of workload on employee stress.

Support from management is also an important factor in reducing work stress. Managers who understand and care about the well-being of their employees can make a big difference in managing workload and stress. Managers can provide constructive feedback, offer help when need, and create a positive and inclusive work environment (Wahjono, 2022). In addition to management support, technology can also play an important role in reducing the mental burden of work. Tools and systems designed to improve work efficiency can help employees to complete their tasks faster and easier. For example, project management software, collaboration tools, and routine task automation can reduce the mental burden employees face (AL, 2024).

In this study, the first hypothesis is that work stress has an influence on employe

performance through mental workload, the second hypothesis is that work mental load is directly able to affect employee performance, the third hypothesis is that work stress has an influence on employee performance and the fourth hypothesis that work stress influences work mental load.

LITERATURE REVIEW
Work Mental Load

Work Mental Load refers to the cognitive demands that individuals face when carrying out work tasks. This includes the amount and complexity of information that must be processed, the level of concentration required, and the ability to manage multitasking (Zulkifli et al., 2021). The mental load of work reflects the extent to which work affects an individual's cognitive and psychological capacity in the work environment. Factors that affect *work mental load* are the difficulty level of tasks, deadlines, resources and support, as well as the complexity of the work environment and skills (Ferdiawan et al., 2020).

Work Stress

Work stress is a physiological and psychological response that occurs when a person is faced with job demands that exceed the ability and resources he or she must cope with or meet those demands. Work stress can affect employees' mental and physical health as well as their performance at work (Subroto, 2018). Aspects of work stress include, Job demands, work control, social support, roles in the organization and work environment. Factors that affect work stress include workload, time pressure, interpersonal relationships, self-balance, and individual characteristics (Safitri & Kasmari, 2022).

Employee Performance

Employee Performance refers to how well an employee performs the tasks and responsibilities given by the organization. Employee performance includes the achievement of goals, the quality and quantity of output, work efficiency, and contribution to the overall goals of the organization. Employee (Gumilar & Rismawati, 2022) *performance* aspects consist of productivity, work quality, punctuality, initiative and cooperation. Factors that affect *employee performance* are skills, motivation, work environment, leadership, and workload (Ataunur & Ariyanto, 2016).
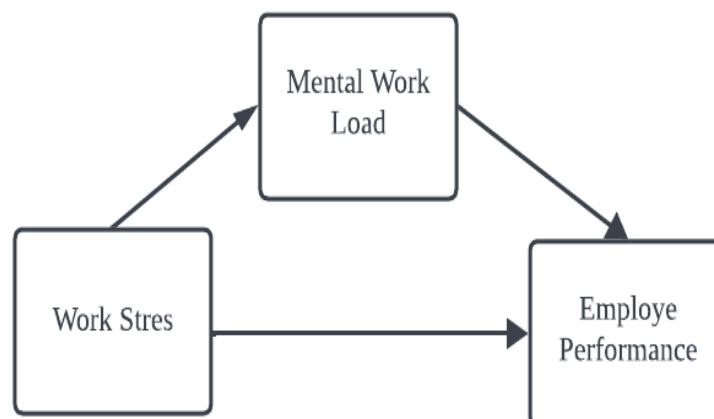

Figure 1. Research Model

RESEARCH METHOD

The research method used is a quantitative method with bound variables/outcomes, namely employee performance and input variables, namely work stress and mediators, namely work mental load.

Research Subject

The number of samples in this study was 40 leaders of Ciputra University Surabaya. The sampling technique in this study uses probability sampling, which is a purposive sampling technique that selects subjects based on criteria, namely leaders at Ciputra University.

Data Collection Methods

This study uses a survey in the form of a Likert type scale as a form of research measurement tool to collect research data. In this study, there are three research measuring tools used, namely work stress, mental work and employee performance, work readiness scale, organizational activity scale, and self-efficacy scale. The Likert scale uses an item in the form of statements or questions that are systematically arranged regarding the attitude, response (opinion), and perception of the subject regarding a phenomenon in the research (Priyono, 2016).

Data Analysis Techniques

The analysis technique in this study is mediation analysis, used to test regression equations involving several exogen and endogenous variables to allow testing of mediator variables (Umrati & Wijaya, 2020).

FINDINGS AND DISCUSSION

Based on the values in Table 1, all measures of convergent validity and reliability have been met, so the measurement model is declared good. Next, a mediation analysis was carried out, here are the results.

Table 1. Results of Measurement Model Evaluation Analysis

	Cronbach's alpha (CA)	Composite reliability (CA)	Average variance extracted (AVE)
Employe performance (Y)	0.838	0.844	0.756
Work mental load (M)	0.884	0.885	0.684
Work stress (Y)	0.880	0.881	0.677

From the results of the analysis, it was found that mental workload was able to partially play a role as a mediator between work stress and employee performance, as evidenced by a p value of <0.05 (p=0.000). Furthermore, work stress can directly affect employee performance by 82% as evidenced by the value of $p<0.05$ (p=0.000), then work stress is able to affect mental workload by 89.8% as evidenced by $p<0.05$ (p=0.000) and mental workload is able to affect employee performance as evidenced by the value of $p<0.05$ (p=0.000).

Table 2. Results of Research Analysis

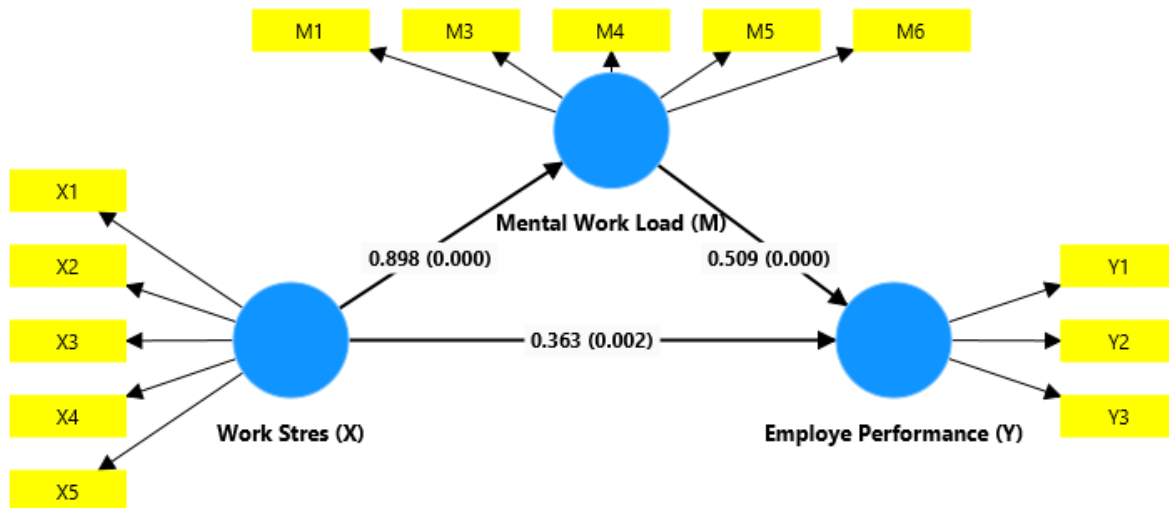| Variable	R2	P values
Work stress (X) -> mental workload (M) -> employe performance (Y)	0.457	0.000
Work stress (X) -> employe performance (Y)	0.820	0.000
Stress Works (X) -> mental workload (M)	0.898	0.000
Mental workload (M) -> employe performance (Y)	0.509	0.000

Figure 2. Mediation Analysis Results

Discussion

Work stress and mental workload are two important components that affect employee performance in the workplace. Work stress is often caused by a variety of factors such as time pressure, excessive workload, and lack of support from superiors or coworkers (Ataunur & Ariyanto, 2016). Mental workload, on the other hand, refers to the amount of cognitive effort required to complete job tasks. These two factors are interrelated and can negatively impact employee performance if not managed properly. To create a productive and healthy work environment, it is important to understand the relationship between work stress and mental workload and strategies for managing both (Usman et al., 2023).

High stress can lead to an increase in mental workload, which in turn can negatively affect employee performance. The study of Anggraini et al., (2023) show that work stress can increase mental workload, which has an impact on decreased performance. When the mental workload increases, individuals may feel stressed and have difficulty completing tasks effectively. Mental workload serves as a mediator helping in designing more effective interventions to reduce the negative impact of work stress on performance. For example, managing mental workload can help employees better deal with stress (Busti & Rivai, 2023). Managerial strategies such as realistic workload planning, and social support can help reduce mental workload. This can ultimately help reduce the negative impact of work stress on employee performance. Measuring and evaluating mental workload becomes important to understand how stress affects performance. With the right metrics, organizations can identify and address mental workload issues early (Parashakti, 2020).

Decreased motivation due to stress can affect employees' commitment to their work. Employees who feel pressured may not have the same drive to achieve targets or complete tasks with high quality. The study of Loudoe et al., (2023) shows that high work stress can result in decreased work quality and productivity. Stress can lead to impaired concentration and poor decision-making, which ultimately affects performance. Work stress can disrupt work-life and personal balance, which can have an impact on performance at work. Employees who experience severe stress may struggle to maintain a balance between the demands of work and their personal needs. The impact of work stress on employee performance can also be seen from the interpersonal aspect. Stress can lead to conflicts and tensions in the workplace, which can interfere with teamwork and communication (Sembiring, 2020).

When the mental workload increases, employees may experience cognitive fatigue. This fatigue can reduce concentration, information processing speed, and the ability to make good

decisions. The study of Hermawan (2022) show that a high mental workload is negatively associated with performance. Employees who experience a high mental workload often show a decrease in productivity and quality of work. Factors such as the complexity of the task, the time available, and the support of the work environment can affect the mental workload. Employees who face complex tasks with minimal support may feel more stressed and experience decreased performance. A high mental workload can also affect the mental health of employees. Prolonged mental stress can lead to sleep disturbances, anxiety, and depression, which further affects performance (Muslim & Ilmi, 2023).

To manage mental workloads, it is important to design tasks that are appropriate to the employee's cognitive capacity. This can involve the division of smaller tasks, the provision of sufficient rest time, and training to improve cognitive skills (Wahdiniawatiet al., 2024). Technology can also play a role in managing mental workloads. Technology tools that can reduce cognitive workload, such as project management software and automated tools, can help improve employee performance (Pratama et al., 2023).

Creating a supportive work environment can help reduce mental workload. Support from superiors, a non-stressful work environment, and the opportunity to share workloads can improve employee performance. Regular evaluation and monitoring of mental workload is also important (Cahyati & Adelia, 2024). Organizations can use mental workload measurement tools to identify potential problems and design appropriate interventions. By understanding the relationship between mental workload, work stress, and employee performance, organizations can develop more effective strategies to improve employee well-being and productivity. This will bring benefits not only to the individual but also to the entire organization (Nurhasanah et al., 2022).

CONCLUSIONS

This study reveals that mental workload plays a role as a partial mediator in the relationship between work stress and employee performance, with work stress affecting mental workload and employee performance directly. Employees who experience high work stress tend to have a greater mental workload, which in turn decreases their performance. Practical implications for organizations include developing a holistic approach to managing stress and mental workload, improving support for employees, creating a supportive work environment, and adopting technology that can reduce cognitive workload. The implementation of these findings in human resource management can improve employee well-being and overall organizational productivity.

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