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## RESEARCH ARTICLE

# Correlation of Work Stress and Performance of Construction Project Manager

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**Abstract:** A currently the development of construction work is increasingly complex and sophisticated. The nature of the production process in the construction industry makes construction work dangerous and full of risks with high complexity that can lead to stress. Project managers are demanded in terms of mastery of new technologies, tighter time limits or, changing demands on work results, and changes in work regulations can create stressful situations. However, they are required to remain productive and optimal as a form of professionalism. This study will examine the relationship between job stress and project manager performance. The purpose of this study is to determine the direction and significance of the relationship between the two variables. The population in this study were construction project managers in the Surabaya area with a sample of 23 respondents using purposive sampling. The test was carried out using SPSS 26 software. The data analysis techniques used in this study included validity, reliability, and correlation analysis. The results of the study show that stress and project manager performance have a strong negative relationship. Efforts to improve the performance of project managers is to pay attention to the work stress they experience.

**Keywords:** work stress, project manager performance, construction work.

## 1. Introduction

A project is a unique activity constrained by time and resources in the form of people, materials, costs, or tools. This requires project management from inception to completion. Human resources are an important factor in the implementation of construction projects because the role of human resources is very dominant as the main driver in construction project work. So, the quality of human resources is a determining factor for the success of a project, by having good quality human resources, the company's productivity will be higher (Khasanah, 2010).

The project manager is the main person responsible for the success of a project. The existence of significant time and cost deviations or the success of a project indicates the management of project implementation by a contractor manager and is a major concern for the project owner. A project manager is a person who is appointed or assigned to be responsible for the daily activities (day to day) of project management for the benefit of the organization. The project manager is the person who is responsible for the implementation of the project starting from the earliest activities until the project is completed.

In the process of building construction, performance measurements must be carried out to determine the level of achievement of good work. Project manager performance measurement needs to be done and known to achieve the ultimate goal of a construction



project. In every construction project implementation, the ability of each project manager from the contractor is never measured, only relying on the appointment of each contractor for the placement of project managers based on the fulfilment of the existing contract system in each project, without submitting a candidate in advance and there is no assessment for the project manager who will be placed in a project by the owner so that it does not represent or conclude whether the performance of an appointed project manager is good or not. Usually, the contractor places the project manager based on the availability and curriculum vitae/experience submitted to the owner without providing a real picture of the performance and an important study of the condition of the project manager.

One of the variables that determine the success or failure of a project is the performance of the project manager. According to Darmawan (2021), performance is the result of the quality and quantity of work that a person does because he performs tasks in accordance with his assigned responsibilities. To produce good performance, it must be managed properly by good quality managers, who have the required competencies including knowledge, skills, and elements of attitude and behavior (Mardikaningsih, 2014; Sudja'i and Arifin, 2021). The project manager has a fairly good formal educational background, at least a bachelor's degree has theoretical abilities related to project implementation, and is able to apply the knowledge gained in real terms in the field.

The development of construction work is currently becoming more complex and more sophisticated. With the demands on the project manager such as in terms of mastery of new technology, tighter limits on time, changing demands on work results, as well as changes in work regulations can create a situation that puts pressure on the project manager. This stressful situation causes project managers to often experience anxiety, boredom, resulting in stress. The nature of the production process that occurs in the construction industry makes construction work dangerous and full of risks with high complexity so that it can cause stress.

Stress is more often associated with demand and resources. These demands include: responsibility, pressure, obligation, and even uncertainty faced by individuals in the workplace. While resources are things or objects that can be used by individuals in meeting demands (Robbins and Judge, 2011). According to Miller and Phipps (2011), the main causes of stress are non-professional factors such as workload, management style, and relationships with family and coworkers. Robbins and Judge (2011) have identified three categories of potential stressors: environmental, organizational, and individual. Environmental uncertainty affects the level of stress on a person's project in carrying out the task. The environmental uncertainty is related to changes in the business cycle, uncertainties in the country's economy, and changes in technology. While organizational factors that can trigger stress include: task demands, role demands, and interpersonal demands. And in terms of personal factors that can cause stress are family problems, and personal economic problems.

Stress is not only related to mental abilities or internal state of mind, but also affects a person's behavior (Groen et al., 2012). Stress or can be referred to as a psychosocial risk factor has a positive or negative impact on health. The right level of stress on workers can improve their performance (Zafar et al., 2015). Another opinion is that there is a positive correlation between job stress and personal performance. In addition, many studies have shown that when job stress increases, performance can increase, but begins to decline to some extent (Luthans, 2013).

Based on this description, this study will examine the relationship between job stress and project manager performance. The purpose of this study is to determine the direction and significance of the relationship between the two variables.

## 2. Research Method

The population in this study are construction project managers in the Surabaya area. The sample in this study was taken from more than 27 respondents. The sampling method used non-probability sampling method. The sampling technique used is purposive sampling, namely sampling that limits the characteristics of a person. The criteria for taking the research sample are serving as a construction project manager which includes project managers, site managers, engineering managers, commercial managers, and other managers.

Work stress is measured based on the indicators mentioned by Darmawan (2021) which consist of fatigue, workload, work environment, and work pressure factors. Project manager performance consists of responsibility, discipline, cooperation, and loyalty (Darmawan, 2012). Collecting data using a questionnaire that has been compiled and measurement using a Likert scale consisting of 4 scales, namely strongly agree, agree, disagree, strongly disagree. The test was carried out using SPSS 26 software. The data analysis techniques used in this study included validity, reliability, and correlation analysis.

## 3. Results and Discussion

There were 27 questionnaires distributed to the respondents and the number of returned questionnaires was 23. The questionnaire can be used for data analysis. The validity test is carried out by looking at the calculated  $r$  value in the corrected total item correlation column with the provisions of 0.3 to be said to be valid. At the 5% significance level, all items were declared valid. Reliability test is performed taking into account the Cronbach's alpha value. The value of alpha must be greater than 0.6. From the results of the SPSS analysis, the value of Cronbach's alpha for the work stress variable is 0.705 and the performance variable is 0.793.

Based on the results of SPSS analysis on the correlation test between variables, it is known that the significant value or Sig. (2-tailed) of 0.004. This value means the value of Sig. (2-tailed)  $0.004 < \text{less than } 0.05$  or  $0.01$ , it means that there is a real or significant relationship between the work stress variable and the project manager's performance variable.

**Table 1:** Correlation Analysis

Correlation		Stress	Performance
Stress	Correlation Coefficient	1.000	-.598**
	Sig. (2-tailed)	.	.004
	N	23	23
Performance	Correlation Coefficient	-.598**	1.000
	Sig. (2-tailed)	.004	.
	N	23	23

Note: \*\* Correlation is significant at the 0.01 level (2-tailed)

In addition, the Spearman correlation coefficient between the work stress variable and the project manager's performance variable is -0.598 which can be concluded that the coefficient number indicates the relationship between the two variables is opposite. The minus sign indicates that the direction of the relationship is opposite or negative, i.e., at a low level of work stress the project manager's performance will increase, but at a high level of stress it can decrease performance only to a certain point. At high work stress levels that exceed this point, performance will decrease. Referring to the provisions of the correlation coefficient, it can be interpreted that the two variables have a fairly strong relationship. This finding supports the previous study of Jehangir et al. (2011); Arshadi and Damiri (2013); Darmawan (2015); Zafar et al. (2015); Mardikaningsih and Wisnujati (2021).

There are times when work stress is beneficial or detrimental for the company. However, at a certain level, the beneficial influence of the company is expected to spur someone to be able to complete the job as well as possible. Reaction to stress can be a psychological or

physical reaction. Usually someone who is stressed will show changes in behavior (Wahyudi, 2006). A person's performance is a combination of ability, effort and opportunity and can be judged by the outcome of the work. Most project managers find their work stressful, which as a result lowers their performance. When stress is not handled properly by the company, there will be a decrease in performance (Darmawan, 2015).

#### 4. Conclusion

Stress and project manager performance have been shown to have a strong negative relationship. Efforts to improve performance is to pay attention to work stress. Work stress that cannot be handled properly will be detrimental to the person concerned because the resulting performance decreases so that it affects the success of the construction project.

Excessive workload on the project manager can cause stress in his work. Because each individual has a limited work capacity and needs adequate rest time. Companies must minimize work overload through prevention - prevention and improvement of these stressful situations. Companies must be able to identify factors that can cause stress and immediately take steps to overcome them because they can affect the project manager's performance and have an impact on financial losses.

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