

# **FINAL PROJECT**

**FACTORS ANALYSIS OF THE OCCUPATIONAL  
HEALTH, AND SAFETY (OHS) TOWARDS TIME & COST  
OF WORK ON THE IMPLEMENTATION OF NATIONAL  
ROAD PROJECTS IN EAST JAVA**



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**CIVIL ENGINEERING DEPARTMENT  
FACULTY OF ENGINEERING  
UNIVERSITY OF 17 AGUSTUS 1945 SURABAYA**

**2022**

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**Compiled as a Requirement to Obtain a Bachelor of Engineering Degree  
University of 17 Agustus 1945 Surabaya**



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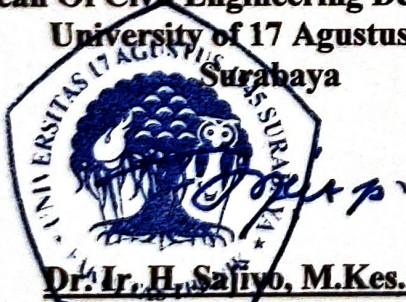
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# **FACTORS ANALYSIS OF THE OCCUPATIONAL HEALTH, AND SAFETY (OHS) TOWARDS TIME & COST OF WORK ON THE IMPLEMENTATION OF NATIONAL ROAD PROJECTS IN EAST JAVA**

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## **ABSTRACT**

In various construction projects, work accidents often occur. Work accidents can occur during the construction process and cannot be avoided. The occurrence of work accidents on construction projects often has a negative impact that can affect the time of the project. This study aims to determine the magnitude of the influence of work accidents on the cost and time of construction projects. The implementation of occupational safety and health in the industrial sector has not shown the expected results, and the high rate of work accidents indicates this.

Factors causing work accidents in this study can directly or indirectly affect the project. This research began with data collection through the questionnaire method, distributed to the national road project contractors in East Java, with the respondents being project managers or project leaders. Furthermore, the collected data questionnaires were analyzed using the Partial Least Square (PLS) method.

The partial least squares analysis results show that work accidents have a positive and significant impact on the cost and time of construction projects for national road projects in East Java, with a magnitude of influence exerted on costs of 54.9% and time of 47.8% and the factors that most influenced the implementation of OHS were Management Role Factor (X2) ranked first.

**Keywords** : *Implementation, The Occupational Health, And Safety (OHS), Time, Cost, Management Role Factor and Partial Least Square*

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## LIST OF NOTATION

OHS	=	Occupational Safety and Health
System OHS	=	Construction Occupational Safety and Health Management System
PUPR	=	Kementerian Pekerjaan Umum dan Perumahan Rakyat Republik Indonesia
ISO 9000	=	Kumpulan standar untuk sistem manajemen mutu
Scale of Likert	=	The research scale used to measure attitudes and opinions. This scale is used to complete a questionnaire that requires respondents to indicate a level of agreement with a series of questions. Usually the questions used for research are called research variables and are specified specifically.
Outer Model	=	Measurement model to specify the relationship between latent variables and their indicators
AVE	=	Average Variance Extracted
Inner Model	=	Structural modeling is done to test the relationship between latent constructs
R-square	=	The coefficient of determination shows the diversity of endogenous constructs that can be explained by exogenous constructs simultaneously
Q-square	=	Predictive relevance in constructive models
PLS	=	Partial Least Squares
Slovin	=	The formula for calculating the minimum sample size if the behavior of a population is not known with certainty
n	=	Minimum number of samples
N	=	Population
d	=	Error margin of 5%
Cronbach's alpha	=	The measure of the lowest reliability value of a variable