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ANALYSIS OF IMPLEMENTATION BARRIERS FOR K3 ON WIYUNG SEJAHTERA HOSPITAL CONSTRUCTION PROJECT, SURABAYA

Ismail Halim[1], I Nyoman Dita Pahang Putra[2]*
[1,2] Civil Engineering Study Program, Faculty of Engineering
National Development University "Veteran"
Jl. Raya Rungkut Madya, Gunung Anyar, Surabaya, East Jawa, 60294, Indonesia
[1]20035010109@student.upnjatim.ac.id, [*2]putra_indp.ts@upnjatim.ac.id

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Abstract

The implementation of occupational health and safety (OHS) is one of the key factors in a project. This study aims to analyze the factors and constraints in implementing OHS by distributing questionnaires to contractors, consultants, and hospital employees. Based on the data, nine factors were identified: workplace safety on the project (X1), equipment and work clothing (X2), fire safety (X3), protection of the public (X4), worker health (X5), worker communication (X6), general factors (X7), obstacles from the company's side (X8), and obstacles from the workers' side (X9). The results were tested for validity, reliability, classical assumptions, and CFA, and then analyzed descriptively and using Pearson correlation analysis. The Pearson correlation analysis between factors showed that fire safety (X3) and public protection (X4) had the highest correlation, 0.699, indicating a very strong relationship. The relationship between factors and indicators with the highest correlation was between the general factor (X7) and the indicator of thoroughly identifying past workplace accidents (X7.5), with a very strong correlation of 0.881. The highest correlation between indicators was between the indicator of limiting flammable materials (X3.3) and providing storage for flammable materials (X3.4), with a very strong correlation of 0.810.

Keywords: K3 Obstacles , Implementation of K3, Hospital

Introduction

With the increasing number of patient needs followed by the conditions of piling up services and increasingly tight hospital business competition, Wiyung Sejahtera Hospital is developing by presenting a new building in the back area to be able to provide services to the community amidst the dense population in Surabaya, especially in the Wiyung sub-district and its surroundings. The construction process of a building is a complex activity and involves many parties (Prasetyono & Dani, 2022). Occupational safety and health are important for companies because they impact accidents and occupational diseases that harm employees and companies, both directly and indirectly (Nan Wangi, 2020). The implementation of the Occupational Safety and Health (K3) program is very important for construction employees, as it will have an impact on employee safety and health to avoid injury and death due to work accidents (Achmad & Prasetyo, 2023). OHS has several objectives, including ensuring that every employee gets a guarantee of occupational safety and health, both physically, social, and psychological (Korneilis & Gunawan, 2018).

A project is defined as a unique series of activities that are interconnected to achieve a certain result and are carried out within a certain time period (Hindami et al., 2024). The rate of work accidents in the workplace tends to increase from year to year. (Widiyanti & Prigantono, 2021). Construction activities are an essential component of development. These activities generate various unintended impacts, including those related to occupational safety and environmental aspects (Agusman et al., 2021). Construction services have an important and strategic role considering that construction services produce final products in the form of buildings or other physical forms, both in the form of infrastructure and facilities that function to support the growth and development of various fields, especially the economic, social and cultural fields to create a just and prosperous society that is evenly distributed materially and spiritually based on Pancasila and the 1945 Constitution (Handayani et al., 2020). The high number of accidents in the construction industry is not due to a lack of awareness of occupational health and safety, but rather due to the poor implementation of occupational health and safety programs and systems (Adi & Widodo, 2023). This certainly needs to be supported by the protection of the health and safety of the workers in order to maximize the performance of the workers for a company or organization (Putra et al., 2021). By paying attention to occupational safety and health, the company can make efforts to protect or provide protection for employees from the dangers of accidents and losses caused by the implementation of work (June & Siagian, 2020).

Workers and companies must focus on improving occupational health and safety. (Maulintika et al., 2024). An in-depth study of the factors that influence the obstacles in implementing K3 needs to be carried out. This study aims to identify the obstacles that arise during the implementation of K3 in the context of the construction project. The results of this study are expected to provide valuable input for contractors, consultants, and the Wiyung Sejahtera Hospital in supervising and implementing K3 in the field. The main objective is to encourage workers to implement good and effective K3, as well as to increase their awareness and knowledge of the importance of K3 for the smooth running of the project. As a result, it is hoped that it can eliminate and reduce work accidents in the project environment.

Research Methods

The research conducted on the construction project of the Wiyung Sejahtera Hospital in Surabaya, a four-story building with a contract value of IDR 30,000,000,000, analyzes the factors that hinder the implementation of Occupational Health and Safety (OHS) measures. This study uses a survey method by distributing questionnaires to 40 respondents, including contractors, consultants, and hospital staff involved in the project. The development of the questionnaire involved identifying 52 variables related to the implementation of OHS and the challenges based on literature studies. Data analysis includes validity and reliability tests of the questionnaire, normality, heteroscedasticity, and multicollinearity tests for regression analysis, mean calculation for ranking constraint factors, confirmatory factor analysis (CFA) based on existing theories, and Pearson correlation to determine the relationships between variables.

Research Results and Discussion

Table 1. List of factor variables and indicators

Factor	No	Indicators
Workplace safety on the project (X1)	X1.1	Access in and out of the project is not dangerous. (Alfianto et al., 2018).
	X1.2	Availability of safety covers/fences in places prone to danger, such as holes or excavations (Alfianto et al., 2018).
	X1.3	Good lighting and illumination in the project location (Harianto et al., 2023).
	X1.4	K3 signs have been installed in the work area, as well as signs that support the implementation of K3 (Juliana et al., 2023).
Equipment and work clothing (X2)	X2.1	The company provides work vests, helmets, boots, gloves, masks, safety belts, earplugs, etc (Juliana et al., 2023).
	X2.2	The company provides work safety equipment such as ladders, nets, railings, etc. (Juliana et al., 2023).
	X2.3	Workers at the project site are required to use PPE (Alfianto et al., 2018).
	X2.4	All PPE equipment is in good condition and can be used according to its function (Juliana et al., 2023).
	X2.5	Maintenance of work tools, materials properly (Alfianto et al., 2018).
	X2.6	Periodically supervise the work tools used (Juliana et al., 2023).
Fire safety (X3)	X3.1	A smoking ban has been implemented in the project area to avoid fires. (Jumari et al., 2024).
	X32	Fire extinguishers are available (Juliana et al., 2023).
	X3.3	Flammable materials have been limited (Jumari et al., 2024).
	X3.4	A place has been provided for storage of flammable materials (Harianto et al., 2023).
Protection for the public (X4)	X4.1	Fences have been installed along with project entrances and exits in good condition (Jumari et al., 2024)
	X4.2	Fences have been installed along with project entrances and exits in good condition (Jumari et al., 2024).
	X4.3	Installation of K3 sign boards, which contain, among other things, slogans that remind of the need to work safely, etc. (Jumari et al., 2024).
	X4.4	There are sufficient rescue routes as alternative routes in an emergency (Jumari et al., 2024).
Worker health (X5)	X5.1	The company is quick to handle accident cases in the field (Maretnowati et al., 2020).
	X5.2	A rest room and kitchen are available along with drinking water for workers (Juliana et al., 2023).
	X5.3	A first aid kit is available for first aid for workers at the project site (Juliana et al., 2023).
	X5.4	Initial health checks on workers before the project is carried out and periodic health checks during project implementation (Juliana et al., 2023).
	X5.5	The company provides health insurance to every worker (Maretnowati et al., 2020).
worker communication (X6)	X6.1	Workers can understand the delivery of information regarding K3 (Maretnowati et al., 2020).
	X6.2	There is good communication between workers and management (Maretnowati et al., 2020).

Factor	No	Indicators
	X6.3	There is good communication between workers (Maretnowati et al., 2020).
	X6.4	Workers remind other workers about hazards and K3 (Maretnowati et al., 2020).
General factors (X7)	X7.1	The company holds socialization/K3 training (Juliana et al., 2023).
	X7.2	Has actions by giving strict sanctions to workers who do not comply with the rules according to K3 procedures (Juliana et al., 2023).
	X7.3	The company holds briefings (directions/appeals) on the importance of K3 and the environment before starting work (Juliana et al., 2023)
	X7.4	Implementation of Safety meetings that are carried out routinely (Harianto et al., 2023)
	X7.5	Identifying comprehensively the work accidents that have occurred previously (Siahaan et al., 2022).
	X7.6	There are sufficient evacuation routes in the project (Mallapiang et al., 2017).
Company-side barriers (X8)	X8.1	The company provides the necessary budget dibidang K3 (Akbar et al., 2020).
	X8.2	Lack of attention regarding the use of proper personal protective equipment from the company (Juliana et al., 2023).
	X8.3	There is no first aid room and first aid box at the Project location (Juliana et al., 2023).
	X8.4	Lack of personal protective equipment not provided by the company (Juliana et al., 2023).
	X8.5	There are no strict sanctions for workers who violate existing K3 regulations (Juliana et al., 2023).
	X8.6	K3 supervision in the field by the government is not strict (Ong et al., 2018)
	X8.7	The company does not insure workers (Harianto et al., 2023).
	X8.8	Commitment top management contractors on low K3 (Ong et al., 2018).
	X8.9	Supervision of K3 implementation is still lacking or has not been carried out (Juliana et al., 2023).
	X8.10	Not yet providing counseling or coaching regarding the importance of K3 (Juliana et al., 2023)
Worker-side barriers (X9)	X9.1	Not feeling comfortable with the PPE used (Gustina et al., 2022).
	X9.2	Accustomed to what is without personal protective equipment (Gustina et al., 2022).
	X9.3	Personal protective equipment for workers is still inadequate and does not meet workers' needs (Juliana et al., 2023).
	X9.4	Low awareness and understanding of workers regarding the importance of K3 procedures (Meidianto et al., 2024).
	X9.5	Many workers are not aware of the K3 guarantee on existing construction projects (Gustina et al., 2022).
	X9.6	Workers' demands are still on basic needs (Wahyuningsih et al., 2021) .
	X9.7	No communication to include workers in the K3 program (Gustina et al., 2022).
	X9.8	Implementation of K3 and human resources that are less competent (Ruci & Kristiana, 2019)
	X9.9	Lack of competent workers (Fathoni, 2020).

Source: Author's Processed Results

The general purpose of the validity test is to determine whether the questionnaire is truly valid for measuring the variables being studied (Lidya et al., 2022). With N = 40 and using a significance level of 0.05. The value of the r-table is 0.312. A comparison between the calculated r value and the r-table is necessary, where the calculated r value must be greater than the r-table value for it to be considered valid, as shown in the following figure. Based on Figure 1 below, it can be concluded that there are 52 indicators with 9 factors that serve as the subject of the study, and each item question in every indicator has a calculated r value greater than the r-table value. Therefore, it can be concluded that the data used in this study is valid, as shown in Figure 1.

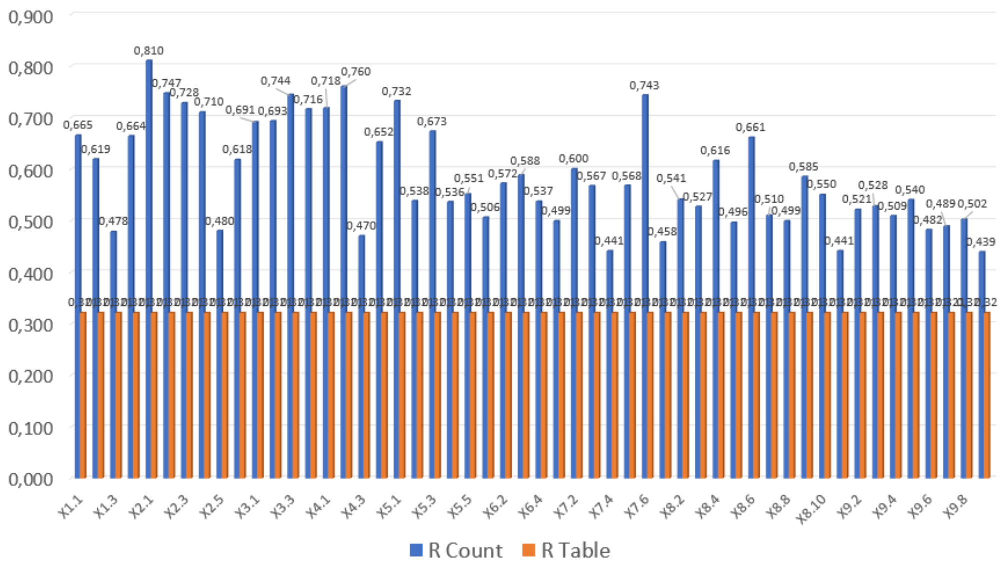

Figure 1. Validity Test Results
Source: Author's Processed Results

The reliability test is a tool used to measure the consistency of the questionnaire, which serves as an indicator of the variable. It assesses whether the variable is reliable and remains consistent when the measurement is repeated. If the reliability coefficient, Cronbach's Alpha, is greater than 0.75, the data is considered reliable; otherwise, it is not. The results of the test from SPSS 23 can be seen in Table 2 below:

Table 1. Reliability Test Results

Testing Criteria		
Value reference	Nilai Croanbach's Alpha	Conclusion
0,7	0,958	Reliable

Source: Author's Processed Results

Based on Table 2 above, it shows that there are 52 indicators with 9 factors that serve as the subject of the study. Each item in every variable has a Cronbach's Alpha value more significant than the reference value of 0.75. Therefore, each variable in this study is considered reliable.

A good regression model is one that has residual values that are normally distributed (Mardiatmoko, 2020). A normality test is conducted to determine whether the residuals are normally distributed or not, using the Kolmogorov-Smirnov test with the SPSS 2023 statistical software. The results of the normality test can be seen in the Normality Test table.

Table 2. Normality Test Results

One-Sample Kolmogorov-Smirnov Test		
		Unstandardized Residual
N		40
Normal Parameters[a,b]	Mean	0,0000000
	Std. Deviation	13,70288660
Most Extreme Differences	Absolute	0,098
	Positive	0,058
	Negative	-0,098
Test Statistik		0,098
Asymp. Sig. (2-tailed)		.200[c,d]

Source: Author's Processed Results

Based on Table 3 above, the results of the normality test using the One-Sample Kolmogorov-Smirnov Test show that the variable has a normal data distribution, as the data produces an Asymp Sig > 0.05, as presented in Table 3.

The heteroscedasticity test is conducted because the regression model must meet the assumption of no heteroscedasticity. If the significance value between the independent variable and the absolute residual is greater than 0.05, it indicates that heteroscedasticity does not occur.

Table 3. Heteroscedasticity Test Results

Coefficients[a]						
Model				Standardized Coefficients Beta	t	Sig.
1	Constant	47,3	13,01		3,635	0,001
	X1	-0,896	0,605	-0,290	-1,482	0,149
	X2	-0,197	0,556	-0,081	-0,354	0,726
	X3	1,119	0,594	0,417	1,884	0,069
	X4	-1,601	0,908	-0,416	-1,763	0,088
	X5	0,594	0,484	0,233	1,228	0,229
	X6	1,849	0,736	0,391	2,514	0,018
	X7	-1,528	0,524	-0,637	-2,915	0,007
	X8	0,136	0,224	0,089	0,605	0,550
	X9	-0,905	0,216	-0,663	-4,198	0,006
a. Dependent Variable: ABS_RES						

Source: Author's Processed Results

Based on Table 4 above, the results of the heteroscedasticity test using the SPSS statistical software show that the 9 independent variables, from XI to X9, have significance values greater than 0.05, as shown in Table 4. The results of the test indicate that there are no issues with heteroscedasticity in this regression model.

The multicollinearity test is used to determine whether there is any correlation among the independent variables in the regression model. The multicollinearity test can be conducted by examining the VIF value and the tolerance value using the SPSS 2023 software.

Table 4. Multicollinearity Test Results

Coefficients		
Model	Collinearity Statistics	
	Tolerance	VIF

Coefficients			
1	X1	0,408	2,448
	X2	0,300	3,337
	X3	0,319	3,135
	X4	0,281	3,561
	X5	0,434	2,306
	X6	0,647	1,546
	X7	0,328	3,050
	X8	0,730	1,369
	X9	0,627	1,596

Source: Author's Processed Results

Based on Table 5, data processing shows that the VIF values for the 9 independent factors are below the threshold of 10. The tolerance values for the 9 factors exceed the required tolerance value of 0.1. It can be concluded that, based on the data processing results with these VIF and tolerance values, there is no multicollinearity present in the research instrument.

The descriptive analysis in this study aims to determine the mean and standard deviation for each factor of the K3 implementation constraints. is said to be descriptive because it aims to obtain an objective explanation (Giawa, 2022). The mean value can indicate the highest ranking for each factor related to the implementation and obstacles of K3. This analysis method is useful for determining the ranking of respondents and prioritizing study variables (Y. I. Puspitasari et al., 2020). The results for each factor are presented as follows:

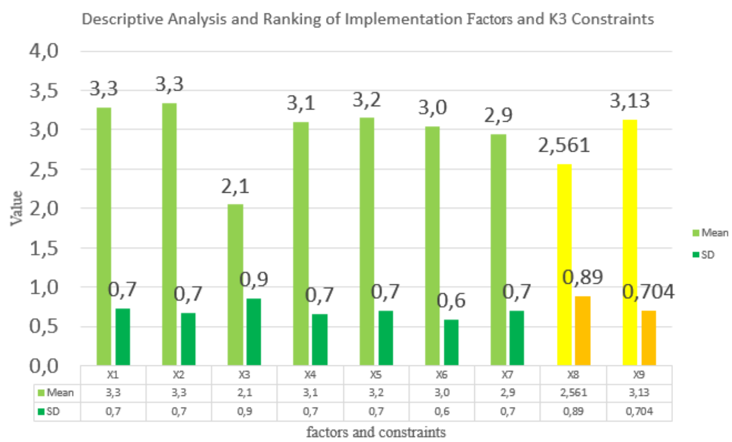

Figure 2. Results of Descriptive Analysis
Source: Author's Processed Results

Based on Figure 2 above, among the factors of K3 implementation, the highest mean value is found in the equipment and work clothing factor (X2), which has a mean value of 3.338 with a standard deviation of 0.679. Additionally, personal protective equipment should also be carefully considered to minimize potential hazards or risks that could lead to work accidents and occupational diseases, as well as reduce the losses from work-related accidents during the construction project execution. Workers should inspect safety equipment, such as safety belts, before use. Do not use damaged safety equipment, and report any damaged equipment immediately for replacement.

In confirmatory factor analysis, a number of variables are used to form a general factor based on existing theory. This is used to validate the correctness of a theory (R. Puspitasari et al., 2016). The CFA model is chosen to test the suitability of several indicator variables as a measure of a factor that has been determined based on the concept/theory (Ambarwati et al., 2024). CFA cannot be properly conducted without a measurement theory. Measurement theory determines how the variables measured logically and systematically represent the constructs involved in the theoretical model (Hair, 2010). This measurement is carried out through two analyses: the measurement model analysis (outer loading) and the structural model analysis (inner model) (Kutni et al., 2023). The results of the initial model of this study can be seen in Figure 3.

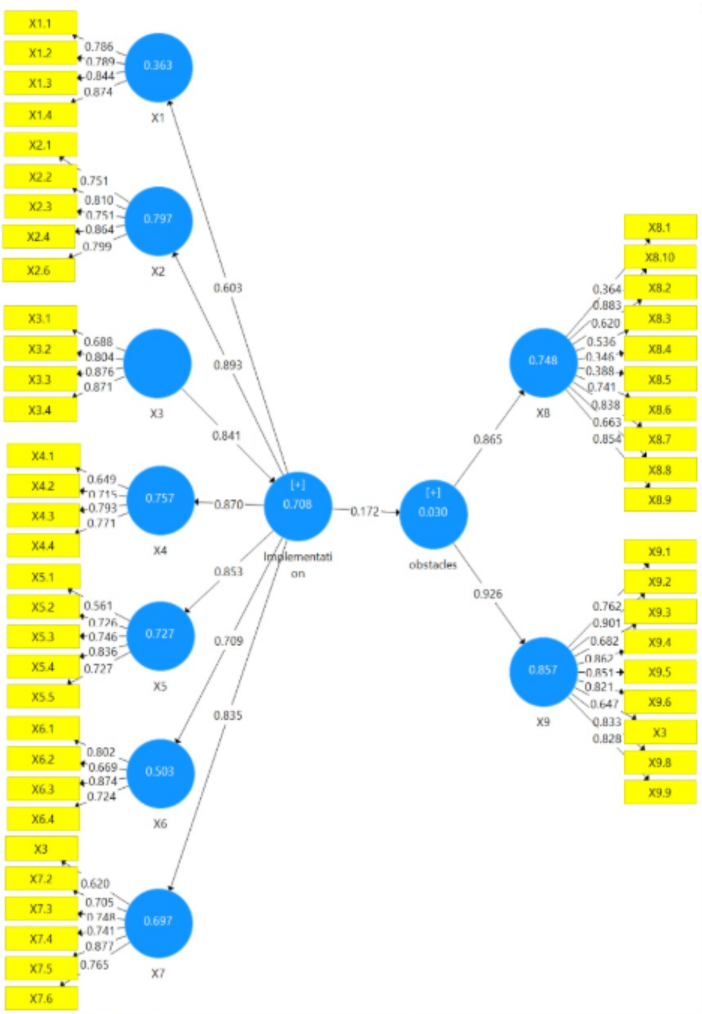

Figure 3. Initial CFA Modeling
Source: Author's Processed Results

Table 5. Results of Loading Factor

Indicators	Loading factor (Outer Loading)									Description
	CFA 1									
	XI	X2	X3	X4	X5	X6	X7	X8	X9	
X1.1	0,786									Valid
X1.2	0,789									Valid
X1.3	0,844									Valid
X1.4	0,874									Valid
X2.1		0,745								Valid

Indicators	Loading factor (Outer Loading)									Description
	CFA 1									
	XI	X2	X3	X4	X5	X6	X7	X8	X9	
X2.2		0,791								Valid
X2.3		0,743								Valid
X2.4		0,851								Valid
X2.5		0,621								Reduced
X2.6		0,804								Valid
X3.1			0,988							Valid
X3.2			0,804							Valid
X3.3			0,876							Valid
X3.4			0,871							Valid
X4.1				0,684						Reduced
X4.2				0,715						Valid
X4.3				0,793						Valid
X4.4				0,771						Valid
X5.1					0,561					Reduced
X5.2					0,726					Valid
X5.3					0,746					Valid
X5.4					0,836					Valid
X5.5					0,727					Valid
X6.1						0,802				Valid
X6.2						0,669				Valid
X6.3						0,874				Valid
X6.4						0,725				Valid
X7.1							0,620			Reduced
X7.2							0,705			Valid
X7.3							0,746			Valid
X7.4							0,741			Valid
X7.5							0,877			Valid
X7.6							0,765			Valid
X8.1								0,364		Reduced
X8.2								0,883		Valid
X8.3								0,620		Reduced
X8.4								0,536		Reduced
X8.5								0,346		Reduced
X8.6								0,388		Valid
X8.7								0,741		Valid
X8.8								0,838		Valid
X8.9								0,663		Reduced
X8.10								0,854		Valid
X9.1									0,762	Valid
X9.2									0,901	Valid
X9.3									0,682	Reduced
X9.4									0,852	Valid
X9.5									0,851	Valid
X9.6									0,821	Valid
X9.7									0,647	Reduced
X9.8									0,833	Valid
X9.9									0,828	Valid

Source: Author's Processed Results

Based on Table 6 and Table 7, the factor loading values (outer loading) above show that some values are still < 0.7 and must be excluded. The loading estimate should be 0.5 or higher, and ideally, it should be 0.7 or higher. Good practice requires a minimum of three items per factor, preferably four items, not only to provide adequate coverage of the theoretical domain of the construct but also to ensure proper identification of the construct, as will be discussed further (Hair, 2010). The results of the research constructs after some constructs were removed can be seen in Figure 4.

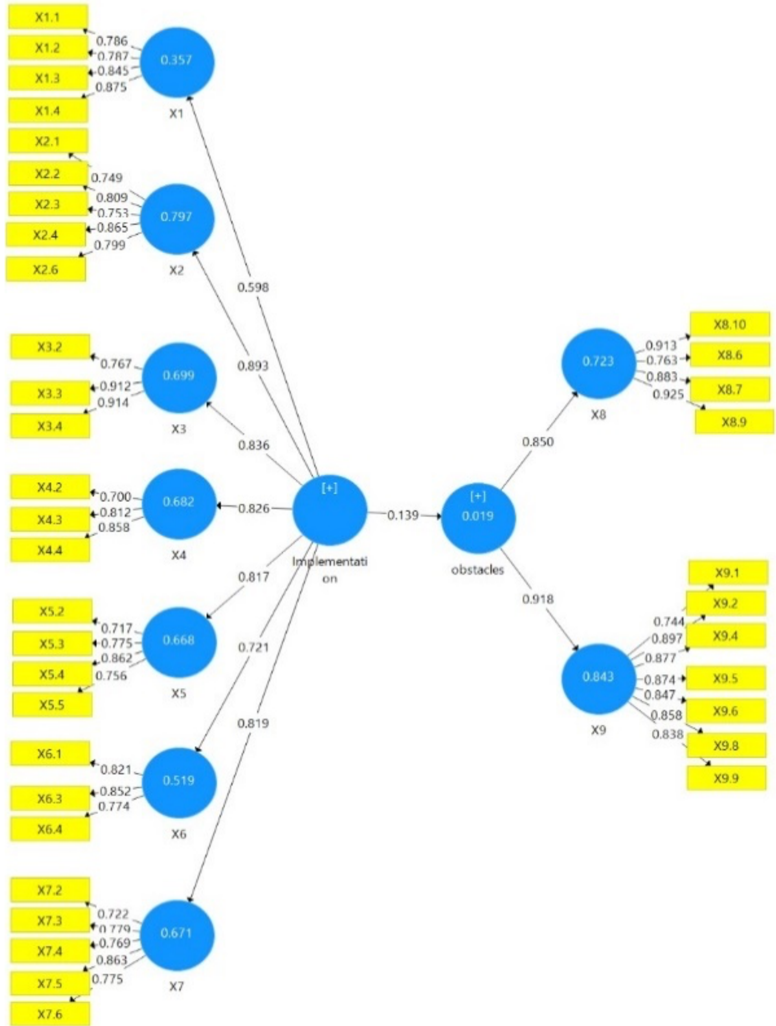

Figure 4. Final CFA Modeling
Source: Author's Processed Results

Based on Figure 4, only 4 constructs remain, namely X1, X4, X8, and X5. Indicators X2 and X7 remain with 5 constructs, followed by indicators X3 and X6 with 3 constructs, and finally indicator X9 with 6 constructs. The reliability of the construct must be 0.7 or higher to indicate adequate internal consistency (Hair, 2010). The indicators that are invalid do not represent the existing constructs and must be excluded from the PLS 4.0 algorithm analysis (Kutni et al., 2023). Based on the outer loading validity, it is stated that all items or indicators are valid in terms of item validity.

The factor loading values that have been tested are followed by examining the AVE (Average Variance Extracted) values, where the AVE value indicates the ability of the latent variable to represent the original data scores. As the AVE value increases, it shows a higher ability to explain the values of the indicators that measure the latent variable. The cut-off value for AVE used is 0.5, where an AVE value of at least 0.5 indicates good convergent validity (Kutni et al., 2023). Below are the AVE values generated from the data processing.

Table 6. Results of Average Variance Extracted (AVE) and Composite Reliability Tests

	Cronbach's Alpha	**Rho A**	**Composite Reliability**	**Average Variance Extracted (AVE)**
Constraints	0,917	0,935	0,929	0,427
Implementation	0,947	0,953	0,952	0,382
X1	0,843	0,854	0,894	0,679
X2	0,854	0,868	0,892	0,582
X3	0,829	0,854	0,886	0,661
X4	0,714	0,723	0,823	0,539
X5	0,769	0,784	0,845	0,525
X6	0,772	0,798	0,853	0,595
X7	0,838	0,848	0,882	0,557
X8	0,834	0,888	0,872	0,427
X9	0,929	0,935	0,942	0,644

Source: Author's Processed Results

Based on Table 8, it can be seen that the AVE of the constructs has validity above 0.5, except for variable X8. This suggests that the constructs have good validity. The composite reliability and Cronbach's alpha for all variables are above 0.7 (Kutni et al., 2023). It can be concluded that the nine variables have reliable reliability because they meet the reliability test criteria. The data meets the measurement requirements and can proceed with the bootstrapping method in Smart PLS 4.0. The results of the bootstrapping method can be seen in Table 9.

Table 7. Results of T-Statistic Tests

	Original Sample (O)	**Sample Mean (M)**	**Standard Deviation (STDEV)**	**TStatistiks (O/STDEV)**	**P Values**
Constraints X8	0,865	0,866	0,048	18,049	0,00
Constraints X9	0,926	0,928	0,023	40,301	0,00
Implementation – Constraints	0,172	0,121	0,256	0,670	0,50
Implementation X1	0,603	0,605	0,135	4,477	0,00
Implementation X2	0,896	0,894	0,041	21,641	0,00
Implementation X3	0,840	0,845	0,035	23,813	0,00
Implementation X4	0,870	0,876	0,029	30,082	0,00
Implementation X5	0,853	0,862	0,044	19,317	0,00
Implementation X6	0,709	0,715	0,083	8,514	0,00
Implementation X7	0,835	0,847	0,050	16,571	0,00

Source: Author's Processed Results

Based on Table 9, it can be observed that Constructs XI, X2, X3, X4, X5, X6, X7, X8, and X9 each have a t-statistic value greater than 1.96 and a p-value of 0.000, which is smaller than 0.05 (Kutni et al., 2023). It can be concluded that the hypothesis is accepted, indicating that the factors

have a positive impact on the implementation of Occupational Health and Safety (K3) and the constraints in the implementation of Occupational Health and Safety (K3).
In the correlation analysis between the 9 factors, it appears that some of the correlations are significant, while others are not. The highest correlation coefficient is observed between factors X3 (Fire) and X4 (Public Protection Factors). This indicates a strong relationship between these two factors, with a correlation coefficient of 0.699. The correlation values can be seen in Figure 5.

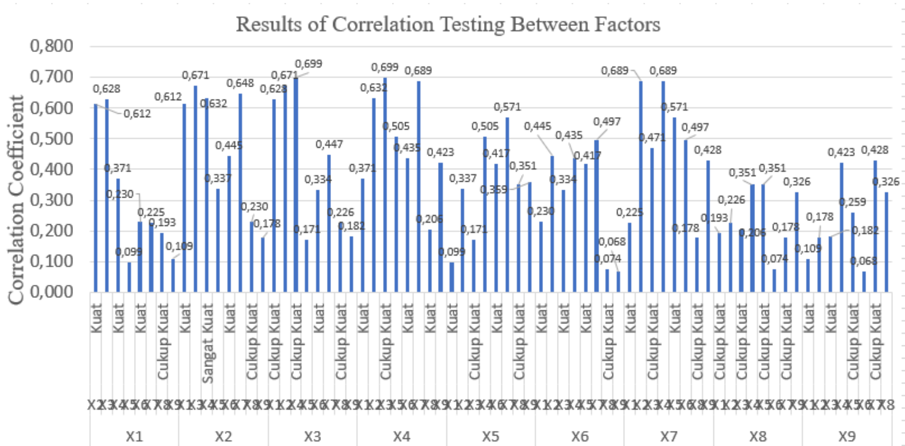

Figure 5. Results of Pearson Correlation Tests Between Factors
Source: Author's Processed Results

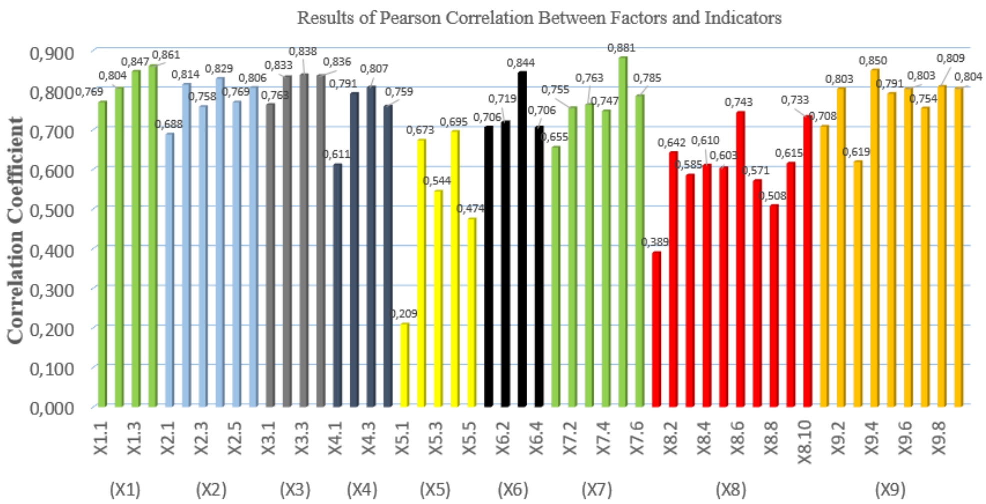

Figure 6. Results of Pearson Correlation Between Factors and Indicators
Source: Author's Processed Results

Based on Figure 6 above, the highest correlation value obtained from the Pearson correlation analysis between factors and indicators is between factor X7 and indicator X7.5, which identifies work accidents that have occurred previously. This shows a strong relationship between the factor and the indicator, with a correlation coefficient of 0.881. The second highest correlation is between factor X1 and indicator X1.4, which refers to installing K3 safety signs in the work area and supporting signs for K3 implementation. This also shows a strong relationship between the factor and the indicator, with a correlation coefficient of 0.861. The third highest correlation is between factor X9 and indicator X9.4, which concerns workers' low awareness and understanding of the importance of K3 procedures. This demonstrates a very strong relationship between the factor and the indicator, with a correlation coefficient of 0.850.

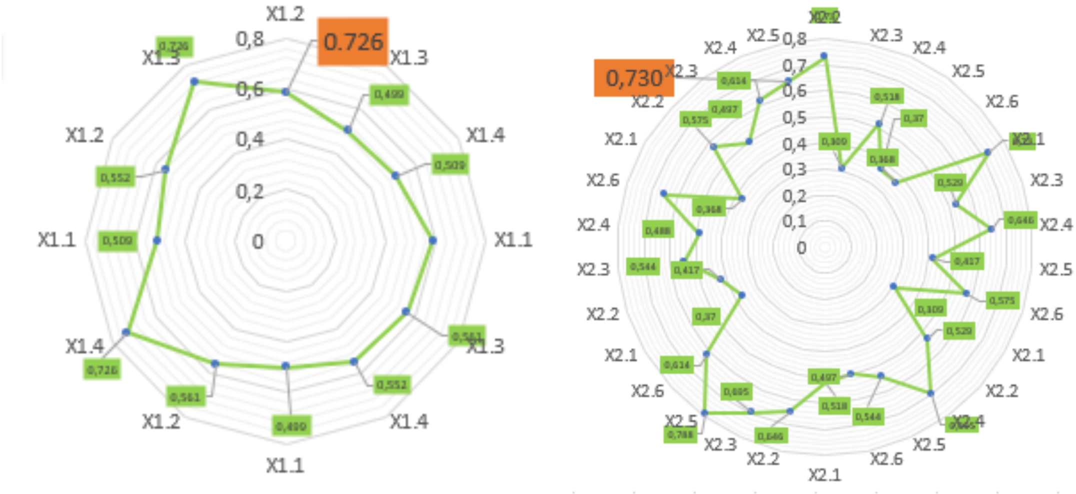

Figure 7. (a) Results of Pearson Correlation Analysis Between Indicators of Occupational Safety Factors in the Project (X1) and (b) Results of Pearson Correlation Analysis Between Indicators of Equipment and Workwear Factors (X2)
Source: Author's Processed Results

Based on Figure 7 (a), the highest correlation coefficient between indicators in the occupational safety factor on the project is found between indicator X1.3 and X1.4, with a very strong correlation of 0.726. Based on Figure 7 (b), the highest correlation coefficient between indicators in the equipment and workwear factor is found between indicator X2.1 and X2.2, with a very strong correlation of 0.730.

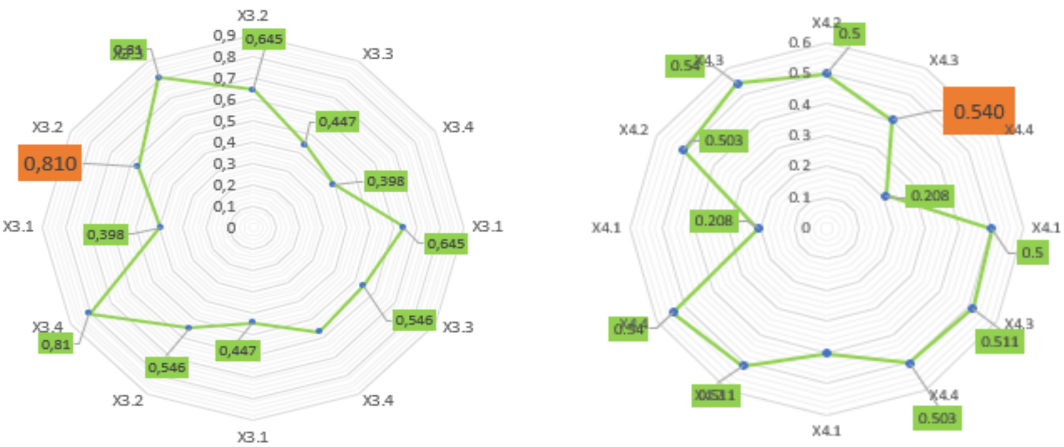

Figure 8. (a) Results of Pearson Correlation Analysis Between Indicators of Fire Factors (X3) and (b) Results of Pearson Correlation Analysis Between Indicators of Community Protection Factors (X4)
Source: Author's Processed Results

Based on Figure 8 (a), the highest correlation coefficient between indicators in the fire safety factor is found between indicator X3.3 and X3.4, with a very strong correlation of 0.810. Based on Figure 8 (b), the highest correlation coefficient between indicators in the public protection factor is found between indicator X4.3 and X4.4, with a very strong correlation of 0.540.

Figure 9. (a) Results of Pearson Correlation Analysis Between Indicators of Occupational Health Factors (X5) and (b) Results of Pearson Correlation Analysis Between Indicators of Worker Communication Factors (X6)
Source: Author's Processed Results

Based on Figure 9, the highest correlation coefficient between indicators in the fire safety factor is found between indicator X3.3 and X3.4, with a very strong correlation of 0.810. Based on Figure 10 (b), the highest correlation coefficient between indicators in the public protection factor is found between indicator X4.3 and X4.4, with a very strong correlation of 0.540.

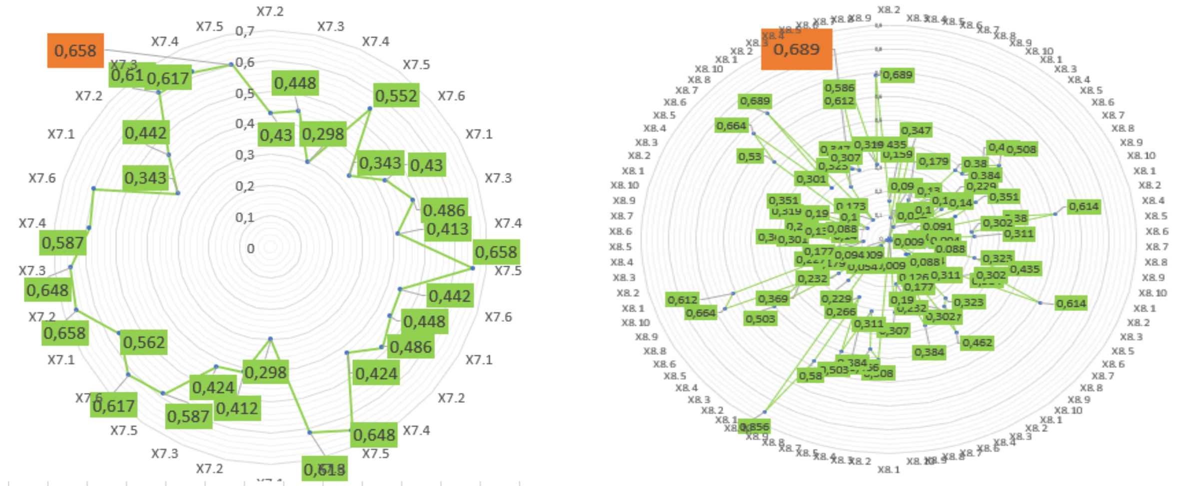

Figure 10. (a) Results of Pearson Correlation Analysis Between Indicators of General Factors (X7) and (b) Results of Pearson Correlation Analysis Between Indicators of Company Side Inhibiting Factors Indicator (X8)
Source: Author's Processed Results

Based on Figure 13, the highest correlation coefficient between indicators in the general factor is found between indicators X7.2 and X7.5, with a strong correlation of 0.658. Based on Figure 14, the highest correlation coefficient between indicators in the obstacles from the company side is found between indicator X8.9 and X8.10, with a very strong correlation of 0.689.

Conclusion

Based on the discussion above, the conclusions that can be drawn from the descriptive analysis results are as follows: The highest factor in the implementation of occupational health and safety (OHS) practices in the construction of the Wiyung Sejahtera Hospital is the equipment and workwear factor (X2), which has a mean value of 3.388 and a standard deviation of 0.679. The highest factor in the challenges or obstacles to OHS implementation is the obstacles from the workers' side (X9), with a mean value of 3.130 and a standard deviation of 0.704. The highest correlation in the Pearson correlation between factors is observed between the fire factor (X3) and the public protection factor (X4), with a strong correlation value of 0.699. The highest correlation between factors and indicators is found between the general factor (X7) and the indicator identifying work accidents that have occurred previously (X7.5), with a very strong correlation value of 0.881. The most significant correlation between indicators is observed between the indicator of limiting flammable materials (X3.3) and the indicator of providing storage and disposal areas for flammable materials (X3.4), with a very strong correlation value of 0.810.

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