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THE IMPLEMENTATION OF THE OCCUPATIONAL HEALTH AND SAFETY MANAGEMENT SYSTEM AND THE MATURITY LEVEL OF OCCUPATIONAL HEALTH, SAFETY, AND ENVIRONMENT ON PERFORMANCE ACHIEVEMENTS WITH CULTURE TRANSFORMATION AS AN INTERVENING VARIABLE AT PT. PLN (PERSERO) UP3 NORTH MEDAN

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Abstract

This study aims to analyze the effect of the Implementation of the Occupational Health and Safety Management System (SMK3) and the Maturity Level of Health, Safety, and Environment (K3L) on Performance Achievement, with Cultural Transformation as an intervening variable at PT. PLN (Persero) UP3 North Medan. The sample of this study consisted of 130 respondents selected using purposive sampling technique. The data analysis method used was Partial Least Square Structural Equation Modeling (PLS-SEM) to test the validity, reliability, and relationship between research variables. The results of the study indicate that the Implementation of SMK3 and Maturity Level K3L have a positive and significant effect on Performance Achievement directly and through Cultural Transformation as a mediator. In addition, Cultural Transformation is also proven to mediate the relationship between the Implementation of SMK3 and Maturity Level K3L on Performance Achievement, thereby increasing the effectiveness of the K3L and SMK3 systems in improving organizational performance. The results of this study provide practical implications for the management of PT. PLN (Persero) UP3 North Medan to continuously improve the implementation of SMK3, develop the K3L Maturity Level, and strengthen Cultural Transformation as a strategy to improve employee performance. This research also provides theoretical contributions in strengthening empirical evidence on the role of Cultural Transformation as a mediating variable in the context of occupational health and safety.

Keywords: ***SMK3, K3L Maturity Level, Cultural Transformation, Performance Achievement,***

Background

In the era of globalization and increasingly fierce industrial competition, companies are required to improve work quality and operational efficiency. PT PLN (Persero) UP3 Medan Utara (PLN UP3 Medan Utara), as an electricity provider, has a significant responsibility to ensure superior operational performance and meet occupational safety standards. One key factor in achieving this goal is the implementation of the Occupational Safety and Health Management System (SMK3), which has been regulated in Government Regulation No. 50 of 2012. SMK3 aims to reduce workplace accidents, improve worker welfare, and improve company productivity. Data from the Ministry of Manpower of the Republic of Indonesia (2023) shows that the rate of workplace accidents in the industrial sector has increased by 15% in the last five years. The energy sector, including PT PLN (Persero), is one that has high risks in its operations. Therefore, the implementation of SMK3 is a crucial aspect in the company's management strategy. Several previous studies have proven that the implementation of SMK3 has a positive impact on improving company performance. For example, research by Wahyudi (2021) shows that effective implementation of an OHSMS can increase operational efficiency by up to 20%. Research by Sari (2020) also found that companies with a strong safety

culture can increase employee commitment by up to 30%. However, in its implementation, the success of SMK3 implementation depends not only on technical policies and regulations but also on the transformation of organizational culture. A company culture that supports occupational safety can increase the effectiveness of SMK3 implementation and contribute to the achievement of overall company performance. According to Schein (1992), organizational culture plays a significant role in shaping employee behavior in adopting safety policies. The K3L maturity level is a concept that measures the extent to which an organization has achieved maturity in health, safety, and environmental management. This involves evaluating various aspects, including safety policies, operational procedures, safety culture, employee training, and monitoring systems. In an article by Pramudyastuti (2024), it is stated that there are five levels of K3L maturity, as follows:

1. Level 1: Reactive
   a. At this level, the company only responds to workplace accidents after they occur.
   b. The primary focus is on corrective actions after an incident occurs, without significant preventive efforts beforehand.
2. Level 2: Compliant Companies achieve this level when they comply with applicable occupational safety regulations and requirements.
   a. Compliance with regulations and standards is a major focus, but there is no established proactive strategy.
3. Level 3: Proactive
   a. Companies are starting to proactively identify and manage occupational safety risks.
   b. Initiatives to prevent accidents are being implemented by providing training, developing safety procedures, and increasing employee awareness.
4. Level 4: Predictive
   a. At this level, companies use data and analysis to predict potential workplace accidents.
   b. Technology and analytical methods are used to identify patterns and trends, so that preventive action can be taken before an accident occurs.
5. Level 5: Resilient
   a. Companies reach the highest level of maturity when they have a strong safety culture and are able to adapt to change.
   b. A safety culture integrated into all aspects of the company's operations, with active involvement from management to grassroots employees.

At PLN UP3 North Medan, work culture transformation has become a key focus in recent years to improve compliance with Occupational Safety, Health, and Environment (K3L) regulations. PLN's 2023 annual report noted that by strengthening its safety culture, the workplace accident rate could be reduced by up to 25%, ultimately improving operational efficiency and productivity. Based on these problems, this study aims to analyze the effect of SMK3 implementation on performance achievement at PT PLN (Persero) UP3 North Medan with the background of cultural transformation as an intervening variable. The results of this study are expected to contribute to the company in developing more effective occupational safety management strategies and provide academic insights in the development of occupational safety and performance management theories.

Formulation of the problem

Based on the background above, the problem formulation in this research is:

1. Does the implementation of SMK3 have a positive and significant impact on performance achievement at PLN UP3 North Medan?
2. Does the K3L maturity level have a positive and significant effect on performance achievement at PLN UP3 North Medan?
3. Does the implementation of SMK3 have a positive and significant impact on cultural transformation at PLN UP3 North Medan?
4. Does the K3L maturity level have a positive and significant impact on cultural transformation at PLN UP3 North Medan?
5. Does cultural transformation have a positive and significant impact on performance achievement at PLN UP3 North Medan?
6. Does the implementation of SMK3 have a positive and significant impact on performance achievement through cultural transformation at PLN UP3 North Medan?

7. Does the K3L maturity level have a positive and significant effect on performance achievement through cultural transformation at PLN UP3 North Medan?

Research purposes

The objectives of this research are:

1. To test and analyze the positive and significant influence of the implementation of SMK3 on performance achievement at PLN UP3 North Medan.
2. To test and analyze the positive and significant influence of the K3L maturity level on performance achievement at PLN UP3 North Medan.
3. To test and analyze the positive and significant influence of the implementation of SMK3 on cultural transformation at PLN UP3 North Medan.
4. To test and analyze the positive and significant influence of K3L maturity level on cultural transformation at PLN UP3 North Medan.
5. To test and analyze the positive and significant influence of cultural transformation on performance achievement at PLN UP3 North Medan.
6. To test and analyze the positive and significant influence of the implementation of SMK3 on performance achievement through cultural transformation at PLN UP3 North Medan.
7. To test and analyze the positive and significant influence of K3L maturity level on performance achievement through cultural transformation at PLN UP3 North Medan.

Benefits of research

1. Theoretical Benefits
   1. This research contributes to the development of knowledge in the field of human resource management, particularly regarding employee performance.
   2. The results of this study can be a reference for other researchers who wish to study similar topics in the future.
2. Practical Benefits
   1. Practically, the results of this study are expected to provide input and recommendations for the management of PT PLN (Persero).
   2. Thus, the organization is expected to be able to increase productivity, service quality, and overall target achievement.

LITERATURE REVIEW

Performance

According to Robbin (2016), performance is a result achieved by employees in their work according to certain criteria that apply to a job.

Performance Indicators

According to Robbins (2016), performance indicators are tools for measuring employee performance. Here are some indicators for measuring employee performance:

(1) Quality of Work
(2) Quantity
(3) Punctuality
(4) Effectiveness
(5) Independence

Factors Affecting Performance

1. **SMK3 (Occupational Safety and Health Management System)**
   a. Compliance with K3 procedures
   b. Occupational risk control
   c. K3 Training
   d. Work protection facilities
   e. Safety culture

2. **Management System Maturity Level**
    a. Level of maturity of work procedure implementation (initial, repeatable, defined, managed, optimizing)
    b. Consistency in implementing SOPs
    c. Continuous monitoring & evaluation
    d. Integration of risk management into operations

SMK3 (Occupational Safety and Health Management System)

According to Government Regulation Number 50 of 2012, SMK3 is an integral part of a company's management system which includes organizational structure, planning, responsibilities, implementation, procedures, processes, and resources needed to develop, implement, achieve, review, and maintain K3 policies.

SMK3 Indicators

According to Government Regulation Number 50 of 2012, those that are frequently used include:

1. Number of Work Accidents: Records the number of work accidents that occurred during a certain period.
2. Severity of Work Accidents: Assess the severity of injuries or injuries resulting from work accidents.
3. Occupational Diseases: Record cases of occupational diseases experienced by workers.
4. Work Accident Costs: Calculate the costs incurred by the company due to work accidents (e.g. medical costs, compensation).
5. Other OHS Performance Indicators: Other indicators such as frequency of accidents, accident severity, and indicators related to OHS training and awareness.

K3L Maturity Level (X2)

According to Pramudyastuti (2024), the K3L maturity level is a concept that measures the extent to which an organization has achieved maturity in safety management. This involves evaluating various aspects, including safety policies, operational procedures, safety culture, employee training, and monitoring systems.

K3L maturity level indicator

According to Pramudyastuty (2024), it is as follows:

1. Leadership Commitment: The level of leadership involvement and support in the K3L program.
2. Safety Culture: The level of safety awareness, participation, and behavior among employees.
3. K3L Management System: Effectiveness and implementation of a structured K3L management system.
4. Measurement and Reporting: The level of accuracy and compliance in measuring, reporting, and analyzing K3L data.
5. Riskand Control: The organization's ability to identify, evaluate, and control K3L risks.
6. Employee Competence: The level of employee knowledge and skills in terms of K3L.
7. Information and Communication: Effectiveness of delivering information and communication related to K3L to employees.
8. Organizational Learning: The ability of an organization to learn from HSE experiences and events to improve performance.

Cultural Transformation

According to Rhonda Gardner (2023), “it is about accelerated change being made by companies that are focused on developing their businesses from the inside out empowering people and the way they work through a human-centered approach.

Cultural Transformation Indicators

According to Rhonda Gardner (2023) is:

1. Changes in Attitude and Behavior:
   Individuals and groups exhibit changes in the way they think, behave, and act, reflecting new values and norms.
2. Changes in How It Works:

Organizations or groups experience changes in the way they work, including the structures, processes, and technologies used.

3. Adaptation to the Environment:
   Cultural transformation includes the ability to adapt to environmental changes, both internal and external, and create innovations to face new challenges.
4. Changes in Value Systems:
   The values that underlie the behavior and habits of a group or organization undergo change, creating new foundations for action and interaction.
5. Changes in How to Interact:
   The forms of interaction between individuals and groups, as well as between groups and the environment, undergo changes that reflect new values and norms.
6. Changes in Problem Solving:
   Approaches to dealing with problems and making decisions are changing, reflecting new values and norms.

Conceptual Framework

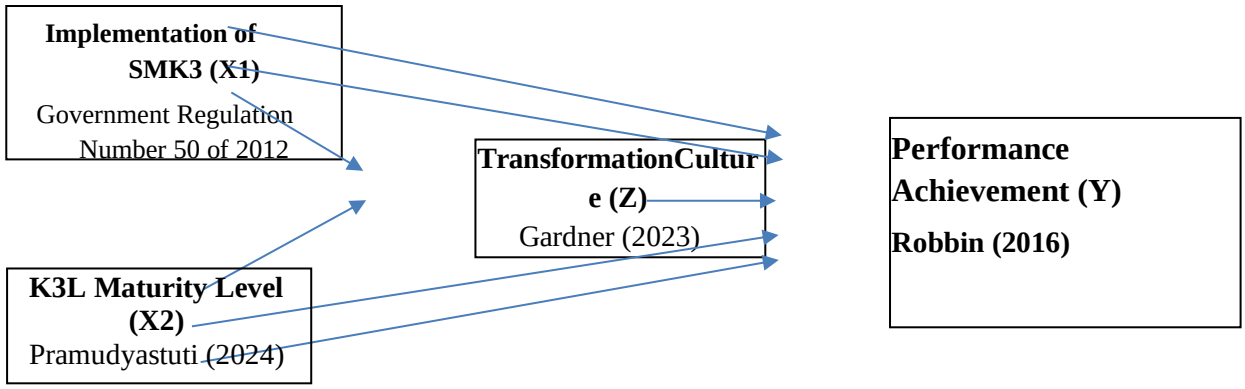

Figure 1. Conceptual Framework

Hypothesis

1. The implementation of SMK3 has a positive and significant impact on employee performance achievement at PLN UP3 North Medan.
2. The K3L maturity level has a positive and significant effect on employee performance achievement at PLN UP3 North Medan.
3. The implementation of SMK3 has a positive and significant impact on the transformation of employee culture at PLN UP3 North Medan.
4. The K3L maturity level has a positive and significant influence on the transformation of employee culture at PLN UP3 North Medan.
5. Cultural Transformation has a positive and significant influence on employee performance achievement at PLN UP3 North Medan.
6. The implementation of SMK3 has a positive and significant impact on performance achievement through employee cultural transformation at PLN UP3 North Medan.
7. The K3L maturity level has a positive and significant effect on performance achievement through employee culture transformation at PLN UP3 North Medan.

Research Method Research Type

The type of research used is quantitative research. According to Sugiyono (2018), quantitative data is a research method based on positivity (concrete data). Research data consists of numbers that will be measured using statistics as a calculation test tool, related to the problem being studied to produce a conclusion.

Time and Location of Research

This research was conducted from July 2025 to August 2025 at PLN UP3 North Medan, Jalan KL. Yos Sudarso No. 115 Medan.

Data source

The research data sources used by researchers are primary data sources, primary data sources are those from which researchers obtain data directly. Sugiyono (2018) states that primary data sources are those that directly provide data to data collectors or researchers.

1. Primary Data: Collected through a questionnaire distributed to PLN UP3 Medan Utara employees.
2. Secondary Data: Derived from company reports, academic literature, and previous research.

Population and Research Sample

Population

Population is a generalization area consisting of objects/subjects that have certain qualities and characteristics that are applied by researchers to be studied and conclusions drawn (Sugiyono, 2016). The population used in this study was all 130 employees of PLN UP3 North Medan.

Sample

According to Sugiyono (2016), a research sample is a portion of the population and its characteristics. The sample in this study was 130 employees of PLN UP3 North Medan (saturated sample).

Data collection technique

The data collection technique used is a questionnaire. Researchers will distribute questionnaires to sample respondents. According to Sugiyono (2018), a questionnaire is a data collection technique carried out by providing a set of written questions or statements to respondents to answer.

Operational Definition of Variables

According to Sugiyono (2018), a variable is an attribute, characteristic, or value of a person, object, or activity that has a certain variation in activity determined by the researcher to be studied and conclusions drawn. In this study, there are two types of variables: independent variables, dependent variables, and intervening variables.

Table 1. Operational Definition of Variables

Variables	Operational Definition	Indicator
Performance Achievement (Y)	According to Robbin (2016), performance is a result achieved by an employee in his work according to certain criteria that apply to a job.	According to Robbins (2016) performance indicators are: 1. Quality of Work 2. Quantity 3. Punctuality 4. Effectiveness of Independence
Implementation of SMK3 (X_1)	According to Government Regulation Number 50 of 2012, SMK3 is an integral part of a company's management system which includes organizational structure, planning, responsibilities, implementation, procedures, processes, and resources needed to develop, implement, achieve, review, and maintain K3 policies.	Several SMK3 indicators according to Government Regulation Number 50 of 2012 that are frequently used include: 1. Number of Work Accidents 2. Severity Level of Work Accidents 3. Occupational Diseases 4. Work Accident Costs

Maturity Level K3L (X_2)	According to Pramudyastuti (2024), the K3L maturity level is a concept that measures the extent to which an organization has achieved maturity in safety management. This involves evaluating various aspects, including safety policies, operational procedures, safety culture, employee training, and monitoring systems.	K3L maturity level indicators according to Pramudyastuti (2024) are: 1. Leadership Commitment 2. Safety Culture 3. K3L Management System 4. Measurement and Reporting 5. Risk and Control 6. Employee Competence 7. Information and Communication 8. Organizational Learning
Cultural Transformation (Z)	According to Gardner (2023), it is about accelerated change undertaken by companies that focus on developing their business from the inside out empowering people and the way they work through a human-centered approach.	Indicators of Cultural Transformation according to Gardner (2023) are: 1. Changes in Attitude and Behavior 2. Changes in the Way of Working 3. Adaptation to the Environment: Cultural Transformation 4. Changes in Value Systems 5. Changes in the Way of Interacting 6. Changes in Problem Solving

Data Analysis Model

This study uses path analysis to analyze the direct and indirect influences between variables.
FormulaPathAnalysis:

1. Direct Impact:
2. Indirect Influence:
3. Total Influence:

With this approach, the research is expected to comprehensively reveal how the implementation of SMK3 and K3L maturity level with cultural transformation as an intervening variable influences performance achievement at PLN UP3 North Medan.

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RESULTS AND DISCUSSION

Outer Model Analysis

Outer model analysis was conducted to evaluate the extent to which the indicators used can measure the latent constructs validly and reliably. This assessment includes internal reliability, convergent validity, and discriminant validity. Furthermore, convergent validity was examined using Average Variance Extracted (AVE). The analysis results showed that all constructs had an AVE above 0.5. This indicates that more than 50% of the indicator variance can be explained by the construct being measured, thus the indicators are convergently valid.

Convergent Validity

Convergent validity is used to assess the extent to which a construct's indicators actually measure that construct. In this study, convergent validity was measured using two main parameters: factor loading and Average Variance

Extracted (AVE). The analysis results showed that all indicators had factor loadings above 0.7, indicating that each indicator made a strong contribution to the construct being measured.

Figure 1. Outer Model

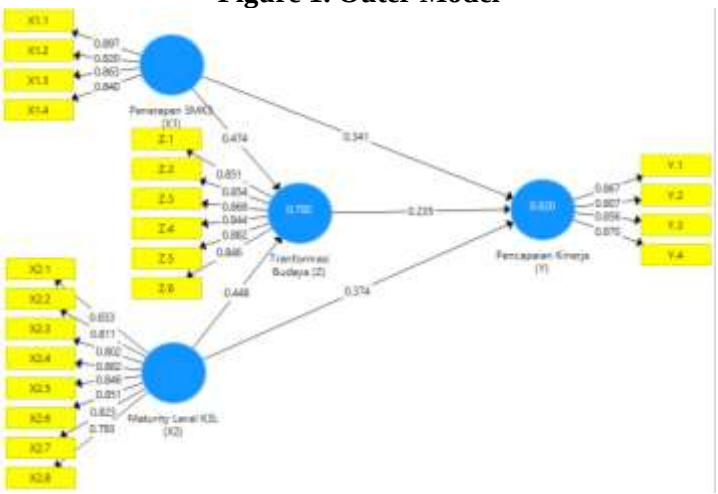

Figure 2. Outer Model

Source: Smart PLS 3.3.3.

The Smart PLS output for loading factor gives the results in the following table: Outer Loadings In this study there is an equation and the equation consists of two substructures for substructure 1

Z = b1X1 + b2X2 + e1

Z = 0.474 + 0.448 + e1

For substructure 2

Y = b2X1 + b4X2 + b3Z + e2

Y = 0.341 + 0.374 + 0.235 + e2

Table 2. Outer Loadings

	K3L Maturity Level (X2)	Performance Achievement (Y)	Implementation of SMK3 (X1)	Cultural Transformation (Z)
X1.1			0.897	
X1.2			0.820	
X1.3			0.863	
X1.4			0.840	
X2.1	0.833			
X2.2	0.811			
X2.3	0.802			
X2.4	0.882			
X2.5	0.846			
X2.6	0.851			
X2.7	0.823			
X2.8	0.793			
Y.1		0.867		
Y.2		0.807		
Y.3		0.856		
Y.4		0.870		
Z.1				0.851
Z.2				0.854
Z.3				0.869
Z.4				0.844
Z.5				0.882
Z.6				0.846

Source: Smart PLS 3.3.3.

Convergent validity was tested through the factor loading of each indicator, with a minimum criterion of 0.7. The analysis results showed that all indicators in the SMK3 Implementation construct (X1), K3L Maturity Level (X2), Performance Achievement (Y), and Cultural Transformation (Z) had factor loadings above 0.7. This indicates that each indicator consistently measures its latent construct well. Thus, all indicators were declared valid and effective, so they can be used to continue the inner model analysis to test the relationships between variables in this study.

Discriminant Validity

Discriminant validity is used to ensure that each construct is empirically distinct from other constructs in the model. This means that the indicators of a construct should be more strongly related to its own construct than to other constructs. In this study, discriminant validity was tested using the Fornell-Larcker criterion, which compares the square root of the Average Variance Extracted (AVE) of each construct with the correlation between constructs. The analysis results show that the square root of the AVE of each construct is greater than its correlation with other constructs. This indicates that each construct in this study has clear differences from one another and its indicators specifically represent each construct.

Table 3. Discriminant Validity

	K3L Maturity Level (X2)	Performance Achievement (Y)	Implementation of SMK3 (X1)	Cultural Transformation (Z)
X1.1	0.818	0.754	0.897	0.798
X1.2	0.680	0.751	0.820	0.789
X1.3	0.708	0.751	0.863	0.693
X1.4	0.746	0.703	0.840	0.650
X2.1	0.833	0.716	0.684	0.645
X2.2	0.811	0.700	0.690	0.699
X2.3	0.802	0.711	0.680	0.736
X2.4	0.882	0.730	0.812	0.789
X2.5	0.846	0.656	0.724	0.716
X2.6	0.851	0.792	0.766	0.711
X2.7	0.823	0.781	0.670	0.658
X2.8	0.793	0.682	0.699	0.732
Y.1	0.741	0.867	0.782	0.768
Y.2	0.727	0.807	0.746	0.726
Y.3	0.741	0.856	0.715	0.687
Y.4	0.747	0.870	0.697	0.703
Z.1	0.728	0.771	0.763	0.851
Z.2	0.724	0.738	0.765	0.854
Z.3	0.812	0.746	0.769	0.869
Z.4	0.685	0.705	0.698	0.844
Z.5	0.718	0.691	0.713	0.882
Z.6	0.735	0.711	0.714	0.846

Source: Smart PLS 3.3.3.

Discriminant validity is used to ensure that each construct is empirically distinct from other constructs and that the indicators are more strongly associated with its own construct than with other constructs. Based on the analysis results, all indicators in the SMK3 Implementation (X1), K3L Maturity Level (X2), Performance Achievement (Y), and Cultural Transformation (Z) constructs have the highest correlation with their respective constructs compared to other constructs. This indicates that each construct is clearly distinct and its indicators specifically represent the intended construct. Thus, all constructs have met the criteria for discriminant validity and are suitable for use in inner model analysis.

Composite reliability

In composite reliability research, each variable is evaluated using its reliability value. If the variable value is greater than 0.60, the research is considered reliable; if it is between 0.60 and 0.7, it is unreliable. The table below shows the Coranbach's alpha, composite reliability, and AVE values, which are used to determine whether the research is reliable and valid.

Table 4. Construct Reliability and Validity

	Cronbach's Alpha	Composite Reliability	Average Variance Extracted (AVE)
K3L Maturity Level (X2)	0.935	0.947	0.690
Performance Achievement (Y)	0.872	0.913	0.723
Implementation of SMK3 (X1)	0.877	0.916	0.732
Cultural Transformation (Z)	0.928	0.943	0.736

Source: Smart PLS 3.3.3.

Outer model analysis was conducted to evaluate the validity and reliability of indicators in measuring latent constructs. This assessment includes convergent validity, discriminant validity, and construct reliability. Convergent validity was tested through factor loading and Average Variance Extracted (AVE). The analysis results showed that all indicators in the SMK3 Implementation construct (X1), K3L Maturity Level (X2), Performance Achievement (Y), and Cultural Transformation (Z) had factor loadings above 0.7, indicating that each indicator consistently measured its latent construct. In addition, the AVE values for all constructs were above 0.5, namely X1 = 0.732, X2 = 0.690, Y = 0.723, and Z = 0.736, indicating that more than 50% of the indicator variance was explained by the respective constructs. Thus, the convergent validity of all indicators has been met.

Discriminant validityused to ensure that each construct is empirically distinct from the other constructs. Based on the analysis results, all indicators have the highest correlation with their respective constructs compared to other constructs. This indicates that each construct is clearly distinct and its indicators specifically represent the intended construct, thus discriminant validity is met. Construct reliability was measured using Cronbach's Alpha and Composite Reliability (CR). Cronbach's Alpha values for all constructs were above 0.7, namely X1 = 0.877, X2 = 0.935, Y = 0.872, and Z = 0.928. CR values were also above 0.7, namely X1 = 0.916, X2 = 0.947, Y = 0.913, and Z = 0.943. This indicates that the indicators in each construct are mutually consistent and internally reliable. Based on these results, all constructs in this study met the criteria of high reliability, convergent validity, and discriminant validity. Therefore, the outer model of this study is suitable for use in continuing the inner model analysis to examine the relationships between the research variables.

Inner Model Analysis

The structural model (inner model) is evaluated to ensure the resulting base model is robust and correct. Several markers that can be used to identify the stages of the main model assessment include:

Coefficient of Determination (R2)

Based on the data processing that has been carried out using the SmartPLS 3.0 program, the R Square value is obtained as follows:

Table 5. R Square Results

	R Square	Adjusted R Square
Performance Achievement (Y)	0.820	0.816
Cultural Transformation (Z)	0.792	0.788

Source: Smart PLS 3.3.3.

The R^2 value of 0.820 and Adjusted R^2 of 0.816 indicate that 82% of the variance in Performance Achievement can be explained by the constructs of SMK3 Implementation (X1), K3L Maturity Level (X2), and Cultural Transformation (Z). The remaining 18% is explained by other factors outside the model. The Adjusted R^2 value that is close to R^2 indicates that the predictor model is quite stable and is not greatly influenced by the number of variables or samples.The R^2 value of 0.792 and Adjusted R^2 of 0.788 indicate that 79.2% of the variance in Cultural Transformation can be explained by the SMK3 Implementation construct (X1) and K3L Maturity Level (X2), while

the remaining 20.8% is explained by other factors not included in the model.

Hypothesis Testing

After assessing the inner model, the next step is to assess the relationship between idle builds, as hypothesized in this review. Speculative testing in this review is conducted by examining T-statistics and P-values. Speculation is announced if the T-influence value is >1.96 and P-values <0.05. The following is the direct impact of the Path Coefficient:

Table 6. Path Coefficients (Direct Effect)

	Original Sample (O)	T Statistics (| O/STDEV |)	P Values	Results
K3L Maturity Level (X2) -> Performance Achievement (Y)	0.374	4,328	**0,000**	**Accepted**
K3L Maturity Level (X2) -> Cultural Transformation (Z)	0.448	5,631	**0,000**	**Accepted**
Implementation of SMK3 (X1) -> Performance Achievement (Y)	0.341	4,045	**0,000**	**Accepted**
Implementation of SMK3 (X1) -> Cultural Transformation (Z)	0.474	5,603	**0,000**	**Accepted**
Cultural Transformation (Z) -> Performance Achievement (Y)	0.235	2,830	**0.002**	**Accepted**

Source: Smart PLS 3.3.3.

After fulfilling the research requirements, the hypothesis in this research can be explained as follows:

1. The Effect of K3L Maturity Level (X2) on Performance Achievement (Y) The results of the analysis show that the K3L Maturity Level has an Original Sample (O) value of 0.374, a T-statistic of 4.328, and a P-value of 0.000. This value meets the significant criteria (T> 1.96 and P < 0.05), so the first hypothesis is accepted. This shows that increasing the K3L maturity level has a positive effect on Performance Achievement, so that the more mature the K3L system, the better the organizational performance.
2. The Effect of K3L Maturity Level (X2) on Cultural Transformation (Z) The results show that the Original Sample (O) is 0.448, T-statistic is 5.631, and P-value is 0.000. Thus, the second hypothesis is accepted. This indicates that K3L Maturity Level has a positive and significant effect on Cultural Transformation, so that increasing K3L maturity encourages change and strengthening of organizational culture.
3. The Effect of SMK3 Implementation (X1) on Performance Achievement (Y)The Original Sample Value (O) of 0.341, T-statistic of 4.045, and P-value of 0.000 indicate a positive and significant influence. The third hypothesis is accepted, which means that the implementation of SMK3 directly improves organizational Performance Achievement.
4. The Effect of SMK3 Implementation (X1) on Cultural Transformation (Z) The results of the analysis show that the Original Sample (O) is 0.474, T-statistic is 5.603, and P-value is 0.000. The fourth hypothesis is accepted, indicating that the implementation of SMK3 significantly encourages Cultural Transformation, so that the implementation of the occupational safety and health system strengthens the organizational culture.
5. The Effect of Cultural Transformation (Z) on Performance Achievement (Y) The results of the analysis show that the Original Sample (O) is 0.235, the T-statistic is 2.830, and the P-value is 0.002. This value is significant, so the fifth hypothesis is accepted. This shows that Cultural Transformation has a positive effect on Performance Achievement, so that a good organizational culture can increase employee effectiveness and performance.

Table 7. Path Coefficients (Indirect Effect)

	Original Sample (O)	T Statistics (| O/STDEV |)	P Values	Results
K3L Maturity Level (X2) -> Cultural Transformation (Z) -> Performance Achievement (Y)	0.105	2,216	**0.014**	**Accepted**
Implementation of SMK3 (X1) -> Cultural Transformation (Z) -> Performance Achievement (Y)	0.111	2,988	**0.001**	**Accepted**

Source: Smart PLS 3.3.3.

6. Mediation of Cultural Transformation (Z) on the influence of K3L Maturity Level (X2) on Performance Achievement (Y) The results of the analysis show the Original Sample (O) value of 0.105, T-statistic 2.216, and P-value 0.014. The T value > 1.96 and P < 0.05 indicate that Cultural Transformation significantly mediates the influence of K3L Maturity Level on Performance Achievement. In other words, in addition to the direct influence of X2 on Y, increasing K3L Maturity Level also increases Performance Achievement through Cultural Transformation as a mediating variable.
7. Mediation of Cultural Transformation (Z) on the influence of SMK3 Implementation (X1) on Performance Achievement (Y) The results of the analysis show that the Original Sample (O) is 0.111, T-statistic is 2.988, and P-value is 0.001. This value is significant, so the seventh hypothesis is accepted. This indicates that Cultural Transformation mediates the influence of SMK3 Implementation on Performance Achievement. In other words, SMK3 implementation not only improves performance directly, but also through improving organizational culture.

Conclusion

After obtaining the results from the hypothesis and explaining them, the conclusions of this study are as follows:

1. K3L Maturity Level (X2) has a positive and significant effect on Performance Achievement (Y).
2. K3L Maturity Level (X2) has a positive and significant effect on Cultural Transformation (Z).
3. The implementation of SMK3 (X1) has a positive and significant effect on Performance Achievement (Y).
4. The implementation of SMK3 (X1) has a positive and significant effect on Cultural Transformation (Z).
5. Cultural Transformation (Z) has a positive and significant effect on Performance Achievement (Y).
6. Cultural Transformation (Z) mediates the influence of K3L Maturity Level (X2) on Performance Achievement (Y).
7. Cultural Transformation (Z) mediates the influence of SMK3 Implementation (X1) on Performance Achievement (Y).

Suggestion

After drawing conclusions and obtaining the results, the research suggestions are as follows:

1. **Increasing the K3L Maturity Level**: Organizations are advised to continue to improve the maturity of their K3L systems through training, regular evaluations, and procedural improvements to enhance employee performance.
2. **Optimization of SMK3 Implementation**: The implementation of SMK3 should be more consistent and comprehensive, including socialization and supervision, in order to encourage optimal performance and Cultural Transformation.
3. **Strengthening Organizational Culture**Cultural transformation needs to be a strategic focus, as it has been proven to improve performance. Internal programs, workshops, or culture-based awards can be used to reinforce positive values.
4. This research shows that Cultural Transformation acts as an important mediating variable between the K3L/SMK3 system and performance. Future researchers can explore other mediating or moderating variables, such as work motivation or job satisfaction, to examine the impact more comprehensively.
5. This research model can be applied to other industries or organizations to test the generalization of the relationship between the K3L system, SMK3, Cultural Transformation, and performance.

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