

Management Commitment, Safety Training, Safety Communication and Safety Performance among Manufacturing Employees in Malaysia

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ABSTRACT: The manufacturing sector recorded the highest number of occupational accidents in Malaysia for the past six years. Thus, this study focuses on the safety performance in the manufacturing sector and critical factors in developing it, such as management commitment, safety training, and safety communication. Statistical Package for Social Science (SPSS) Software Version 26 was used to analyze the data that had been collected. The findings indicate that management commitment, training, and communication have a significant relationship to safety performance. As a result of this research, the manufacturing industry should prioritize three areas: management commitment, safety training, and safety communication.

Keywords: Management commitment; Safety training; Safety communication; Safety performance; Manufacturing; Malaysia

1. INTRODUCTION

According to [1], employees working in manufacturing industries recorded the highest accident cases in the workplace. This situation is a major concern as the manufacturing industry is one of the largest contributors to the national economy. Therefore, it is crucial to improve Malaysia's manufacturing sector's safety performance to reduce workplace accidents [2][3].

Safety performance is defined as a comprehensive set of rules, laws, and actions to strengthen corporate security that are typically self-reported but ultimately seek to promote employee safety and health [1].

The management commitment can shape the perception of employees who operate safely, thus reducing accidents, injuries, and fatalities [1]. Hence, management commitment contributes to promoting safety compliance among employees and increasing safety performance [4].

Effective safety training is a critical aspect of every successful business, accident prevention plan, or occupational safety and health plan. It enhances the behavior, knowledge, and attitudes of employees toward safety [4].

Open and frequent safety communication between managers and employees is critical for high safety performance levels [1]. Good safety communication practices should facilitate safer behavior and fewer injuries at the workplace[4]. The study's primary objective was to measure whether there is a significant relationship between management commitment, safety training, and safety communication in influencing the view of manufacturing employees regarding safety

performance. Therefore, three hypotheses were developed as follows:

Hypothesis 1: There is a significant relationship between management commitment and safety performance in the Malaysian manufacturing industry.

Hypothesis 2: There is a significant relationship between safety training and safety performance in the Malaysian manufacturing industry.

Hypothesis 3: There is a significant relationship between safety communication and safety performance in the Malaysian manufacturing industry.

2. METHODOLOGY

This study is a quantitative-based approach that used a survey to examine the relationship between independents and dependent variables. The survey method is conducted by distributing questionnaires to employees in a manufacturing company located in the Northern region of Peninsular Malaysia. Specifically, the questionnaires are developed to provide the relationship between management commitment, safety training, and safety communication towards safety performance among the population of 657,212 manufacturing employees in this Northern region. By adopting simple random sampling, assuming alpha levels of 0.05, the sample size (n = 401) was derived using Krejcie and Morgan's (1970) theory with response rates of 91.17%.

3. RESULT AND DISCUSSION

3.1 Reliability Test

Reliability is determined by the degree of stability and internal consistency of the measurements utilized in this study. The reliability results for all variables in this investigation are shown in Table 1.

Table 1: Reliability Analysis

Variable	Cronbach Alpha value	Interpretation	No of Items
Safety performance	0.811	Good	10
Management Commitment	0.899	Good	5
Safety Training	0.854	Good	5
Safety Communication	0.768	Good	5

Overall, it showed that the dependent and independent variables were under good internal

consistency within a constant and stable range, which means the questionnaire was reliable for completing this study.

3.2 Correlation Analysis

A correlation test is conducted to measure the relationship between all variables in this study.

Table 2: Correlation Analysis between variables

Variable	1	2	3	4
1. Safety performance	-			
2. Management Commitment	0.358	-		
3. Safety Training	0.505	0.470	-	
4. Safety Communication	0.596	0.406	0.684	-

As Table 2 shown, the dependent variable (safety performance) and two independent variables (safety training, safety communication) are positive moderate relationships through all the values between 0.41 to 0.70. On the other hand, Table 2 also shows that the correlation between management commitment and safety performance in a small but definite relationship correlates with the value of 0.358.

3.3 Regression Analysis

Regression analysis is used to determine the effects of two or independent variables on a single as interval scaled dependent variables are investigated simultaneously.

Table 3: Summary of Regression Model

Model	R	R ²	Adjusted R ²	Std. Error of the Estimate
1	0.617	0.381	0.377	3.513

To determine the proposition of the variance in the dependent variable and the independent variables, R squared result is 0.381, as shown in Table 3. As a set, independent variables such as management commitment, safety training, and safety communication count 38.1% of the variance in safety performance. Thus, the R² also determines how robust the independent variables influenced the dependent variable. According to the result, R-value is 0.617, and the R² value is 0.381 indicating the dependent variable's variance and independent variable.

Table 4: Regression Analysis between variables

Variable	Beta	t-value	p-value
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Management Commitment	0.105	2.328	0.020
Safety Training	0.146	2.578	0.010
Safety Communication	0.453	8.304	0.000

As shown in Table 6, the value of R2 was at 0.381; and the value of the adjusted R2 was at 0.377. Results also indicated that safety performance is significantly and positively related to management commitment with p=0.02, safety training with p=0.01, and safety communication with p=0.000. Therefore, the standardized coefficient beta value also showed that all independent variables are positively related to safety performance. Hence, all hypotheses are accepted.

4. CONCLUSION

This study focuses on improving safety performance among Malaysian manufacturing employees. The researcher looked at management commitment, safety training, and safety communication on safety performance in the Malaysian manufacturing sector. Moreover, this study also developed three hypotheses, which all three hypotheses were accepted. Therefore, maximizing safety performance through management commitment, safety training, and safety communication will be effective ways for avoiding workplace accidents and injuries among manufacturing employees in Malaysia.

1. REFERENCES

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