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**A STUDY ON SAFETY MANAGEMENT PRACTICES AND  
SAFETY PERFORMANCE**

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***Abstract***

Safety performance improvements in an organization can increase its resistance or robustness and lower risk of accidents. Safety management practices are the policies, strategies, procedures, and activities implemented or followed by the management of an organization targeting safety of their employees. It is the important element that will approve an effective management of safety organization. There are more than 50 cases involved each year by negligence of driver in Port Pasir Gudang, and death case reported at Port Pulau Pinang. Meanwhile, there is death case reported because crushed by container at Port Klang Westport. Thus, this study want to investigate the relationship between safety management practices and safety performance in port industries, focus on Port Tanjung Pelepas and Port Pasir Gudang at Johor, Malaysia. The data collected by using questionnaire and distributed to 300 employees but only 146 were collected. This study found that safety management practices are important predictor of safety performance in organization.

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**Keywords:** Safety management practices, safety performance, port industries.

## 1. Introduction

Safety performance is important aspect that need to be take into consideration. According to Nevhage and Lindahl (2008) safety performance is defined as the quality of safety related work, and its improvement in organization can increase its resistance or robustness and lower risk of accidents. Based on Sawacha, Naoum & Fong (1999) safety performance can be effect by lacking controlled working environment and complexity, diversity of size of organizations. Good safety performance and high productivity are companionable and should not be separately (Memarian, 2017). Practice of safety management is important element to improve effective management of safety organization. According to Surlenty, Hong & Hung, (2011) they had mentioned that safety management are related to the original practices, parts and purposes linked with safe, it is usually viewed as one of the structure of the total organizational management and is carried out by the safety management system with the assistance of numerous safety management practices (Vinodkumar & Bhasi 2010). As mentioned by Vinodkumar and Bhasi (2010) safety management practices consist of management commitment, safety training, worker's involvement, safety communication and feedback, safety rules and procedure, safety promotion and policy.

Management commitment is very important to reduce number of accidents at workplace. Moreover, it also imitates the significance of the management of safety-related issues, reflected in the care and support given to implement safety related program. (Vinodkumar & Bhasi, 2010; Hsu, 2008). Safety training is crucial especially to educate employees on safety practice and compliance. It will provides prevention of accidents and controls. (Cooper, 2000) Otherwise, safety training is also main for the successful of OSH program. Vredenburg (2002) defined worker's involvement as a behaviour based technique which involves individuals or groups in rising communication flow and decision-making process within an organization. Communication between co-workers and management is crucial for involvement of employees to give any suggestion, comment on matters of safety. Ford and Tetrick (2011) found that involving workers in the safety management process was the key to organization's safety performance because such involvement empowered the workers psychologically via their participation in safety committees.

Safety communication and feedback is one of important practice that need to play main role, especially on reporting any problem, cause, troublesome, accident, non-compliance. There must be two ways communication between employees and management. Employees is to encourage to give their feedback, comments for the improvements safety related. Safety rules and procedure refer to organization that set clearly on their mission, vision, responsibilities, set up the standards of employee behaviour and provide safety system to correct worker's safety behaviour. (Lu & Yang, 2011) Safety promotion and policy is crucial by organization to apply in order to sustain, promote the safety policy that had been set up by organization. Safety reporting by employee is main crucial to prevents accidents in workplace (Subramaniam et al, 2016).

## 2. Problem Statement

At most of definition that relate to safety performance to a number of injury rates, occupational accidents and illness (Mohammadfam et al., 2016, Brett & Bradley, 2008). On November 2015, case reported by Department of Occupational Safety and Health Malaysia, there is accident case involved as by

negligence of driver in Port Pasir Gudang, on July 2016, death case reported at Port Pulau Pinang. Meanwhile, there is death case reported cause crushed by container at Port Klang Westport (The Star, 2013). According to statistic by Marine Department Malaysia, from 2008 until 2012, there are more than 50 cases involved each year. This showed that, the accident cases repeated been reported. The safety performance need to be manage and focus by implementing virtuous safety management practices. The good practices will be exposed and implement by employees in workplace, therefore it will increased the safety performance of the organization especially at port. Hence, this study is conducted to investigate the safety performance at port in Johor. Basically, only Johor have two port namely Port Tanjung Pelepas and Port Pasir Gudang, whereby other states only have one port.

### **3. Research Questions**

Does safety management practices will affect the safety performance in organization?

### **4. Purpose of the Study**

The purpose of the study is to examine the safety management practices with safety performance. Employees get through safety and health practices if the know how to conduct and complete their work and live safety within the employees' daily environments and in case of an emergency happen in their workplace. The safety management practices also help the employees and employers to reduce the chances of an accident happen in the workplace

### **5. Research Methods**

For this research, the target population are from employees at Port Tanjung Pelepas and Port Pasir Gudang. In Johor, Malaysia. Population for both port estimates to 1600 employees. There are 300 questionnaires were distributed to all level of employees, but only 146 questionnaires were received from both port. Data was collected using the questionnaire which was developed by Vinodkumar & Bhasi (2010). The questionnaire consist of 50 item questionnaires with the Likert's 5-point range. Part A consist of demographic profile of respondent such age, gender, position, year of service and educational background. Whereby, part B consist items of safety management practices and safety performance. Data that were gathered, analysed using the SPSS (Statistical Package for Social Science). Pearson Coefficient Correlation were applied to show the relationship between safety management practices and safety performance. Below is Table 1 explaining on demographic analysis of the respondents, followed by reliability analysis (Table 2) and correlation analysis (Table 3).

## 6. Findings

**Table 01.** Descriptive Statistical Analysis

	Characteristics	Frequency	Percentage %
<b>Gender</b>	Male	95	65.0
	Female	51	35.0
<b>Race</b>	Malay	103	71.0
	Chinese	19	13.0
	Indian	19	13.0
	Others	5	3.0
<b>Position</b>	Upper level	93	64.0
	Middle level	44	30.0
	Lower level	6	4.0
	Others	3	2.0
<b>Year of service</b>	More than 5 years	28	19.0
	5 years-3 years	61	42.0
	1-3 years	37	25.0
	Less than 1 years	20	14.0
<b>Age</b>	More than 45 years	8	5.0
	44-35	27	19.0
	34-25	45	31.0
	Less than 25	66	45.0
<b>Education</b>	Master	2	1.0
	Bachelor's Degree or Equivalent	46	32.0
	Diploma	40	27.0
	SPM	55	38.0
	Other	3	2.0

**Table 02.** Reliability Analysis

Variable	Number of item	Cronbach's Alpha
Management Commitment	5	0.793
Safety Training	5	0.637
Worker's Involvement	5	0.613
Safety Communication and Feedback	5	0.657
Safety Rules and Procedures	5	0.528
Safety Promotion Policies	5	0.681
Safety Performance	5	0.650

**Table 03.** Correlation Analysis

	Management Commitment	Safety Training	Workers' Involvement	Safety Communication & Feedback	Safety Rules & Procedure	Safety Promotion & Policy	Safety Performance
Management Commitment	1						.486**
Safety Training		1					.560**
Workers' Involvement			1				.408**
Safety Communication & Feedback				1			.422**
Safety Rules & Procedure					1		.569**
Safety Promotion & Policy						1	.444**
Safety Performance	.486**	.560**	.408**	.422**	.569**	.444**	1

## 7. Conclusion

Table above revealed that safety management practices are able to determine and influence the safety performance. Based on the result, p-value are less than 0.01 ( $p < 0.01$ ) thus hypotheses are supported. All the six practices directly affected safety performance. The findings are in line with previous researchers such as (Subramaniam et al, 2016; Diaz et al, 2007; Vinodkumar & Bhasi, 2010; Gillen et al, 2002; Ali et al, 2009). As stated by Ali et (2009) they also confirmed that management commitment has influence safety culture, and safety communication and feedback is significantly related to safety performance and injury rates. Management commitment reflects the values top management has on safety-related issues and the understanding that workplace safety is paramount toward organizational effectiveness. (Subramaniam et al, 2016)

The result also confirmed by Vinodkumar and Bhasi (2010) where they also confirmed the relationship between safety management practices and safety performance. This evidence showed that by focusing on implementation of safety management practices, organizations are most certain to reap benefits in terms of safety performance. The role of management commitment, safety training, worker's involvement, safety communication and feedback, safety rules and procedure, safety promotion and policy are important aspect and element that should be fulfilled for safety performance. In this study, the focus respondents are from port industries only, and it really shown that port industries have to apply good safety management practices in order to avoid any accident, troublesome happen especially during employee's working time.

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