



# **Favorable Working Environment in Promoting Safety at Workplace**

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## **Abstract**

Occupational safety is important as it affects the well-being of organizational members and its visitors. This study attempts to investigate the safety awareness among staff of higher learning institutions (HLI) in the Northern part of Malaysia. The objective is to investigate the relationship between office environment, management commitment, staff's attitudes and organizational policies with safety at the workplace. The data were analyzed using correlation and multiple regressions. The findings indicate there is a significant relationship among the studied variables. The study suggests that it is vital for the management to install and promote a safety culture in the office.

**Keywords:** awareness; safe workplace; commitment ; management; attitudes.

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## 1.0 Introduction

Occupational safety and health covers both the employees and the visitors who patronize the premises. Hence, occupational safety incorporates safe systems of work where it requires safe premises, effective preventive maintenance, adequate heating, lighting and ventilation, enforcement of safety rules and appropriate training to employees. In addition, many policies passed by government require managers to provide arrangements for the safe use of the premises and specify rules for safe system at work.

The importance of safety at work environment has been marginalized due to limited understanding on its consequences. Organizations encounter high cost when safety requirements are ignored. It involves losses in terms of man-made hour, production time and productivity. Organizations not only must pay for the medical expenses incurred when there is any accident, there are also the possibilities of facing legal actions if safety procedures are inappropriate. Therefore, the losses due to work disruption, equipment damage, insurance claims and workers' compensation would eventually affect the organization's performance.

Scholars (Zubaidah Ismail, SamadDoostdar&ZakariaHarun; 2012) of occupational safety and health have focused more on constructions and manufacturing premises. This is because, their nature of work which exposes the workers and visitors to many dangerous equipment and situations. Moreover, records of fatalities also showed that the cases are higher for these industries (See Table 1.0). Nevertheless, other industries also demonstrated a need for safety and health agenda. Records of fatalities and death rate cases indicate that the investigated cases for public organizations (government offices and related bodies) have increased from 45 cases to 67 in 2009 and 2011 respectively, which make the study of them deemed necessary. Details are shown in Table 1.0.

Table 1.0: Number of fatalities and death rate cases from 2009-2011 according to industry

Industrial categories/Year	2009	2010	2011
<b>Public organization</b>	<b>1</b>	<b>45</b>	<b>67</b>
Finance , Insurance & Real Estate	1	32	37
Hotel & Restaurant	18	25	10
Trade	0	0	17
Transportation	39	31	56
Services	142	48	53
Agriculture, Forestry & Fishery	492	515	418
Construction	105	120	99
Mining & Quarry	6	4	23
Manufacturing	1572	1714	1649

(Source: Department of Occupational, Safety and Health, Malaysia.)

## 2.0 Literature Review

Occupational Safety and Health (OSH) is a cross-disciplinary area which is concerned with protecting the safety, health and welfare of people patronizing any organization. The goal of all occupational health and safety awareness programs is to foster a safe work environment (Ahmad, 2010). A recent study proposed that healthy workplace environment provides a

platform for employees to have a quality work life (SarinaMuhamad Noor & MohdAdli Abdullah, 2011) which leads into positive spillover effect. Moreover, Malaysian NIOSH chairman suggested that, "OSH awareness had been identified as a pre-condition for increased productivity". Therefore, employers should not consider OSH as a burden to the organization but instead as a catalyst for productivity and profitability.

Management must establish a proper platform for safety of the workers and committed to safety programs. This shape the safety climate in the organization (Nor Azimah et al., 2009). Moreover, conducting training programs that are tailored to the needs of the workers would have positive effects on workers' attitudes, work practices, and self-reported injury rates (William et al., 2010). Similarly, another study found that safety training and emergency preparedness among employees are able to increase the safety participation among employees (Lu & Yang, 2011). Furthermore, when management is committed and engaged in safety training program, workers' attitude towards safety is enhanced (William et al., 2010; Lu & Yang, 2011).

On top of that, management which provides safe workplaces such as proper office layout and comfort helps in improving employees' productivity (Haynes, 2008). This benefit the organization in the long run as the organization is perceived as safe workplace for all. Injuries are inevitable in the workplace. Hence, policies and procedures are developed at the national and organizational level to reduce the risks of any injuries. From time to time, the national policies and regulations on safety and health must be improved. A longitudinal study by Pavlic et al. (2011) in Slovenia suggested that all occupational injuries are reported. This provides a unified methodology of occupational injuries with quality information. This information will assist the professionals involved in planning, implementing and controlling the national policy and regional policies on safety and health at work (Pavlic et al., 2011; Nor Azimah et al., 2009). Furthermore, installing injury reporting policy by organizations also helps in promoting safety commitment. Organizations learn from incidents to develop safety policies and designing a better workplace for employees. The information derived from these incidents provides vital information for organization's safety policy.

In Malaysia, workers are being protected from risks coming from workplace by two Acts, namely Factory and Machinery 1967 (FMA 1967) and Occupational Safety and Health Act 1994 (OSHA 1994) (DOSH, 2012). Furthermore, regulations, guidelines and codes of practice have been drawn up to support both Acts (Rozlina, Awaluddin & Syed, 2011). Some organization enforced the practices of answering safety-related questions in the hiring and selection process (Lai, Liu & Ling, 2010). It is suggested that workers, and workers who are able to answer the safety-related questions are more safety conscious and are able to work safely with minimal supervision.

Based on the above review of literatures, this study aims to achieve the following:

1. To assess the level of staff's awareness towards workplace safety in higher educational institutions.
2. To determine the relationship of organizational environment, management commitment, staff's attitudes and policies in the organization with safety in the workplace.
3. To identify the most predictive power of each variable on the safety at workplace.

### 3.0 Methodology

This study utilized questionnaires adapted from Durrisyahet al., (2004). There are several sections in the questionnaire. Section A is on policies and procedures, Section B is on the office environment, Section C is on management commitment, Section D is on staff's attitudes, Section E is on safety at the workplace and Section F is on respondents' demographic information. There is a total of 39 items in the questionnaire. The reliability of the questionnaire ranges from 0.6-0.8 which indicates that they are appropriate for use (Nunnally, 1978). The mean value for all dimensions shows that most respondents agree with the statements offered in the questionnaire. Table 2.0 depicts the alpha value and mean for each of the sections.

Table 2.0: Reliability coefficients and mean value for major variables

<i>Variables</i>	<i>No of items</i>	<i>Cronbach alpha</i>	<i>Mean</i>
Policies & procedures	9	0.769	4.24
Office environment	6	0.615	3.78
Management commitment	8	0.817	4.23
Staffs attitudes	6	0.740	4.32
Safety at workplace	5	0.725	3.95

Notes: All items used 5 Likert scale (with 1= strongly disagree and 5= strongly agree)

This is a cross sectional study conducted among the staff of Higher Learning institutions (HLI). They are chosen as sample as they are part of the public sector and normally they are marginalized when safety and health issues are discussed. One of the universities in the northern part of Malaysia is chosen to represent the HLI. The selected institution consists of 756 full time employees. It offers various fields of study such as applied sciences, sport sciences, agro-technology, and business studies. Thus, the staffs are exposed to the office environment, laboratories, halls and other facilities provided by the institution. The sample size is 254. However, in order to ensure good feedback of the questionnaire, a total of 300 sets of questionnaire were distributed randomly using each person's mailbox. In cases where the staffs do not have a personal mailbox, the questionnaire was distributed directly to their department.

### 4.0 Results and Discussion

The study was conducted in 2011 at one of the Higher Learning Institutions in Malaysia. The response rate is 44% of sample size (113 staffs). Among those who participated, 68.1% is female, 53.1% has postgraduate education, and most (55.8%) of the respondents are in the range of 21-35 years old. Previous study by Siu, Phillips & Leung (2003) found that age has a significant influence towards safety issues. Older workers are reported to experience fewer accidents compared to younger workers as they are more exposed to the self-safety efficacy. Moreover, as the tenure increases, the workers are able to deliberate efficient method in accomplishing their tasks. Vast majority of respondents (35.4%) have been working for more than 16 years. Similar numbers have less than 16 years of working experience. It is hoped that these combination of experience would cancel off the negative consequences of

negative behavior towards health and safety. The details of the respondents' demographic factors are shown in Table 3.0.

Table 3.0: Demographics of respondents

Characteristics	Percentage (n=113)
Gender:	
Male	31.9
Female	68.1
Age:	
21-35	55.8
36-51	38.2
52 and above	6
Education:	
Postgraduate education	53.1
Bachelor degree	13.1
Diploma	10.6
Secondary School	18.6
Others	4.4
Working experience:	
Less than 5 years	35.4
6- 10 years	20.4
11-15 years	8.8
More than 16 years	35.4
Job Status:	
Academic	58.4
Non-academic	41.6

In order to achieve the researcher's objectives of investigating the relationship between variables, the data were analyzed using Pearson Moment correlations. The results show that there is a significant relationship between each of the variables with safety at workplace. However, the strength of the relationship is deferred. There is a moderate relationship between office environment ( $r=0.512$ ) and safety, and policies and procedures with safety ( $r=0.206$ ). Meanwhile, for the relationship between management commitment and safety, and attitude to safety, the strength is low at 0.447 and 0.274 respectively. All variables are also found to be significantly correlated with each other. The information is summarized in table 4.0.

Table 4.0: Inter-correlation of the major variables

	Safety at workplace	Office environment	Policies and procedures	Management commitment	Staffs attitudes
Safety at workplace	1.000				
Office environment	0.542**	1.000			
Policies and procedures	0.506**	.550**	1.000		
Management commitment	0.447**	.506**	.727**	1.000	
Staffs attitudes	0.274**	.279**	.560**	.658**	1.000

\*\*p < 0.01

Next, a multiple regression test was conducted in order to understand the predicted power of the factors that affect safety at workplace. Durbin Watson of 1.67 indicates that there is no multicollinearity among the variables. The result shows the adjusted  $r^2$  is 0.336, with a different weightage of the standardized coefficient. Among all, office environment, policies and procedures are significant with standardized coefficient of 0.252 and 0.360 respectively. Hence, office environment contributes 25% while policies and procedures contribute 36% in explaining the safety at workplace. Table 5.0 shows the result.

Table 5.0: The Multiple Regression Result

Variables	B	t-value	Sig.
Office environment	0.252	2.098	0.038**
Policies and Procedures	0.360	3.808	0.000**
Management Commitment	0.106	0.827	0.410
Staff's Attitude	0.037	0.037	0.721
** $p < 0.01$			
F value	15.190		
$r^2$	0.336		
Adjusted $r^2$	0.336		
Significant F change	0.721		

Similar findings were discovered by previous studies. However, in terms of factors that contribute to safety, each study discovers different variables. Some found that management support is the most important factor in safety program while others found that personal awareness is the most influential factor (Zubaidah et al., 2012).

Compared to this study, only office environment and policies explain safety at workplace. Individual awareness and management do not explain the safety situation in the studied institution. The result is supported by Nor Azimah et al., (2009) who found that the general view of the health and safety practices among employees in the health industry was fairly low. However, Lai, Liu & Ling (2010) suggest that employees who are safety-conscious appeared to be more aware of safety at the workplace. This situation minimizes injuries and promotes a safer working environment. In addition, previous scholars suggested few approaches that the management could use in addressing the safety issues, namely safety training (William et al., 2010; Lu & Yang, 2011), incentives (Lai, Liu & Ling, 2010), office environment (Haynes, 2008) and safety workshops (Williams, 1999). Moreover, safety education and training programs are identified as powerful tools to integrate the occupational health and safety into the human development process regardless of their profession. As for employees' attitudes, study by previous scholars found that attitudes could be influenced by safety culture thus, leading to better safety practices among employees (Saksvik & Nytro, 1996).

Previous researchers also found that safety policies and procedures help in inhibiting injuries at the workplace. The findings of this study showed that policies and procedures are significantly related to the safety at the workplace. Hence, the findings indicated that when

safety policies and procedures are introduced and explained to the employees, they perceived higher safety elements in the workplace. Saksvik & Nytro (1996) suggest that education on safety policies and regulations is important as it provides the internal mechanisms to continuously monitor the safety practices among employees. Papadopoulos et al. (2010) in their review reported that changes in working environment affect the number of occupational accidents. In this study, the result indicates that the office environment is significantly related to workplace safety. This result supports previous scholars where working hours, employment contracts, knowledge in handling works and work pressures can influence safety at workplace (Nor Azimah et al., 2009; Papadopoulos et al., 2010). A proper working environment does not only promote higher productivity level (Haynes, 2008), but it also promotes a safer workplace.

## 5.0 Conclusion

This study proposes that office environment, policies and procedures, management commitment and staff's attitude have a significant relationship with safety practices as perceived by the employees of Higher Learning Institutions. The staffs in the selected HLI viewed that the safety at the workplace is important and the establishment of policies and procedures, together with management commitment will further enhance safer working environment. Firms must understand that providing a safe workplace is one of the elements that lead into quality work life. People enjoy working in a safe work environment that enables them to stimulate creativity. Eventually, the situation leads into a permissible environment for lifelong learning.

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