

The Awareness Level of the Safety and Health of the Operational Level

Roshanira Che Mohd Nor¹, Nur Atiqah Rochin Demong²

¹Faculty of Business and Management, Universiti Teknologi MARA Shah Alam, Selangor 40450, Malaysia

²Faculty of Business and Management, Universiti Teknologi MARA Puncak Alam, Selangor 40450, Malaysia

¹roshanira@tm.com.my

²rochin@puncakalam.utim.edu.my

Abstract

Providing a safe and healthy workplace is one of the most effective strategies in for holding down the cost of doing construction business. It was a part of the overall management system to facilitate the management of the occupational health and safety risk that are associated with the business of the organization. Factors affected the awareness level inclusive of safety and health conditions, dangerous working area, long wait care and services and lack of emergency communication were the contributed factors to the awareness level for the operational level. According to TM Report (2016) 122 total cases of incident happened at Telekom Malaysia Berhad as compared to year 2015 only 86 cases. Thus, the main objective of this study was to determine the relationship between safety and health factors and the awareness level among operational workers. The determination of this research was to increase the awareness level among the operational level workers who committing to safety and health environment.

Keywords: Awareness Level, Safety And Health Issues, Operational Level, Occupational Health And Safety

1. INTRODUCTION

Providing a safe and healthy workplace is one of the most effective strategies for holding down the cost of doing construction business. Accidents cause not only delays in operations and project deliverables but also directly and indirectly incurred costs (Ahmadon Bakri et al, 2006). Therefore as required by the Occupational Safety and Health Act 1994 (OSHA), it is mandatory for all construction companies to provide a safe and conducive working environment for their workers and subcontractors at construction and fabrication sites.

According to Government of Alberta (2008), OSHA made the overview of best practices in the healthcare industry by highlighted general health and safety issues in the healthcare environment by considering on the current challenges that impacted on the healthcare industry, legislated roles and responsibilities for all workforce parties and OSH management systems to help create and maintain safe and healthy work environments. The best practices, tools, forms and list or resources were provided to assist in meeting or exceeding the minimum requirements in the healthcare industry.

Occupational Health and Safety (OSHA) act introduced at United Kingdom on 1974 to ensure the safety of the employee at work at high standards of health and safety in the workplace in order to do the work activities. OSHA was introduced at Malaysia on 1994, to ensure the safety, health and welfare at work of all his employees and visitors, formulate safety and health and extra protection for the disable. According to Yankson Esi (2012), health and safety mean the conditions or factors that affect the well-being of employees, temporary workers, contractors, personnel, visitors and any other person at the workplaces. It was a part of the overall management system to facilitate the management of the occupational health and safety risk that are associated with the business of the organization. This includes the organization structure, planning activities, responsibilities, practices, procedures, processes, and resources for developing, implementing, achieving, reviewing and managing the organization's health and safety policy.

Agreeing to Khdair (2011), safety and health at work is a tough and complex, looks firm and more challenging to attain. The term "safety program", probably reflects the safety and health regulations and procedures for management and controls the fire extinguishers or ladders. This was only partly true. A safety program was a procedure on how to comply with OSHA regulations. According to Kwon (2010), a safety program is a set of policies and work practices, and performing specifically designed by the organizations. It addresses not only the safety and health regulations and ways to reduce the exposure to hazards in work areas, but also organizes and makes the systematic a performance driven framework for continued focus and improvement on safety and health.

Based on the research studies from Tinney (2015) the researcher found that injuries can gave negative impact to the ability on the quality of the workers in the perspective of work and give the alternative to the workers work in safe conditions. According to Chelius (2009) decided that the roles and responsible of workers were important and significant to ensure the safety and health of the employee. Every company should encourage all the workers works in good condition to prevent injury and illness and workers compensation. It shows that both employee and employer must control the preventive effort to improve their safety at workplace. The total of an accident happened at the workplace gave excellent impact to the level of awareness.

Based on this research, the factors affected by the awareness level such as safety and health conditions, dangerous working area, long wait care and services and lack of emergency communication were the contributed factors that giving the to the awareness level for the operational level working in avoid any accident at workplace.

In Malaysia, the regulation on occupational safety and health embedded into two acts, Factory and Machinery Act (FMA,1967) and Occupational Safety and Health (OSHA) that enforced by Department of Occupational Safety and Health (DOSH). Within large companies, the evolution towards improvement of OSH practices was apparent with many of them voluntarily implement various types of OSH management system (Baba, 2012). According to TM Report (2016) 122 total cases of incident happened at Telekom Malaysia (TM) Berhad as compared with year 2015 only 86 cases. It showed that awareness and perception of safety and health low. When workers aware of the health and safety risks in their workplace,

they can address health and safety concerns and follow safe work practices. Information about workers' current and changing awareness of health and safety hazards, risk perception and safe work practices can help to understand where to focus prevention strategies (Safe Work Australia: September 2014). The purpose of this study is to analyze the influencing factors on awareness level towards health and safety among operational workers.

2. LITERATURE REVIEW

According to the DOSH (2010), the development of safety and health at workplace can be categorized into five eras; (1) Steam Boiler Safety Era took place prior to 1914 (2) Machinery Safety Era took place from 1914 until 1952 where Machinery Enactment 1913 replaced the various steam boiler enactments of Allied Malay States on 1st January 1914 (3) Industrial Safety Era took place from 1953 until 1969. In 1953, the Machinery Ordinance 1953 was enacted to replace all previous legislations.

The overview of inclusive Occupational Safety and Health Act (OSHA) 1994 was in response to the need to cover or protect a wider employee base and newer hazards introduced in the worksites. For the industrialized countries such as Japan had enacted such legislation in 1972, United Kingdom 1974 (the Health and Safety at Work Act, 1974), the United State of America in 1970 (the Occupational Health & Safety Act 1970) and in Sweden and Norway, the Act was called Internal Control Regulation, emphasizing on self-regulation and duties of employer and workers. The concern on safety and health made to rest on those who generate the risks and those who work with the risk.

Mc Quinton et. al, (2012), said that classify the workplace hazard whereby rules and normalise these hazards and ensure compliance through enforcement. The OSHA shows their roles and responsible to the agency by following the act in order to protect workers' health and safety. All company must carry out the element of safety and issue a penalty to the workers who did not follow the rules and regulations at work.

The current practices at works success of company to provide any programme to ensure the awareness of the staff had and can build to get the workers which in stability of conditions. It gave the high of support to performance at work without any injuries, hurts and worst. TM regularly organizes the campaign occupational safety and health at its headquarters. In creating a safer work environment, training provided for those who are directly involved in high risk jobs for example operational workers who involved in High Speed Broadband (HSBB) project.

Rosli (2008), concluded in her case study that although there were not so much differences if compared between safety management system in conventional civil construction industry and in oil and gas construction industry, but in terms of safety discipline and implementation aspects, it were more 'tight and stringent' in the oil and gas construction industry.

Based the article News released by TM (2015), Telekom Malaysia signed the Memorandum of Agreement (MoA) with National of Occupational Safety and Health (NIOSH) which saw the collaborating research projects towards enhancing the safety and health of TM employees at the workplace. Tan Sri Zamzamairani on his speaker that happy and glad to once again

collaborate with NIOSH in enhancing TM employees' well-being, particularly in terms of safety and health surrounding their workplace. Occupational Safety & Health Act (OSHA) 1994 which clearly specifies that employers are responsible to establish and maintain a safe work environment. So this collaboration reflects our undivided commitment towards ensuring occupational safety for our greatest asset, our employees.

Awareness on safety was more important things on the job to keep you from being hurt and more importantly to keep you from hurting or killing someone else. The factors that effect of the awareness level includes safety and health conditions, working areas, communication and care and service were the factors that gave the workers at every company especially TM had been aware of their safety and health once they are at workplace or worksite activities. Retrieved from News Release (2016) on safety and health, the campaign, which was embarked by the Company earlier this year, conducted at all States nationwide, with TM Negeri Sembilan as the fourth state after its kick-off early this year. It was hoped that the campaign increased the awareness amongst TM employees to be more responsible not only of their own safety at the workplace, but also the safety of the working environment and TM assets from any hazard which may affect their other colleagues. By referring to the model and conceptual by Nickole 2012), specified that the factors that effect on awareness level give the good performance in their roles and responsible for taking care of the risk of injuries and illness.

Referred on the model concept by Lee (2012) showed the framework of the awareness which were focusing on the security risk and human factor. Adapted framework of the model Lee (2012)

presented about the safety and health factors that affected on the awareness view. Based on Hallowell (2013), consensus analysis performed on the ratings obtained indicated the presence of reasonable agreement between the experts and that inferences could be made based on the mean ranks computed. Based on the analysis the pre-job safety meeting quality measurement tool emerged as being the most effective strategy to improve hazard recognition. Other studies emphasized the importance of quality safety meetings for improved hazard communication and awareness.

Conceptual Framework

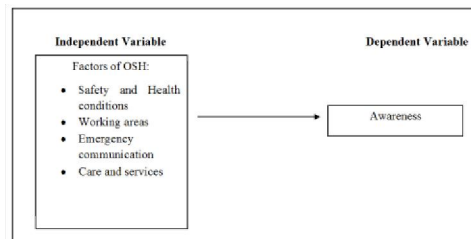


Fig. 1 Factor affected of awareness level on safety and health.

3. METHODOLOGY

The research design used for this research is correlational research with descriptive studies. The sampling technique used census sampling. Karen Kaplan (2014), a *census* is a study of every unit, everyone or everything, in a population. It is known as a complete enumeration, which means a complete count. The sampling frame for this study was from Human Resource of Customer Experience Department Level 5, Menara Telekom Malaysia Jalan Pantai Baru, Bangsar, Kuala Lumpur. The total of a population for this study was 135 operational level workers involved from three units which were CEMT, G&W and Top Unit. The questionnaire used as an

instrument for data collection to see the feedback from an operational level about their awareness. A set of the questionnaire distributed to each respondent for each unit.

The questionnaire consists of 3 sections where sections A consists of demographic background which includes gender, age, marital status, level education, occupation status, and monthly income. For section B, consists of involved the factors affected safety and health among operational level at Telekom Malaysia (TM) Berhad. Section C

consists of several questions about the awareness level among operational level about safety and health at Telekom Malaysia (TM) Berhad. Table 1 shows the reliability statistics for influencing factors and awareness level. Cronbach's alphas for influencing factors, which comprise of safety and health condition, dangerous working area, lack of communication and long wait of care, were in the range of 0.61 and 0.74. Meanwhile, the Cronbach's alpha for Awareness level was 0.69.

Table 3.1 Reliability statistics for each dimension in a construct
Cronbach's Alpha scores for influencing independent variables and dependent variables (n=135)

Section	Scales	No of Scale items	Reliability Coefficient
B	INDEPENDENT VARIABLE		
	Safety & health condition	5	0.68
	Dangerous working area	5	0.61
	Lack of comm.	6	0.74
	Long wait of care	4	0.63
C	DEPENDENT VARIABLE		
	Awareness	8	0.69

Reliability analyses were conducted for all dimensions under investigations for both independent and dependent variables. It was found that all dimensions had a Cronbach's alpha of above 0.7. According to Salkind (2006) and Hair et al. (2011), a Cronbach's alpha of above 0.7 is considered as excellent. Table 1 displays the summary of the reliability statistics for all dimensions under investigation. Items needed to be recoded were done accordingly. As a result, the values of Cronbach's alphas for this study were reliable and valid.

4. FINDINGS

Result of correlation analysis is as shown in Table 4.1. The correlation of the factors affected with awareness were not significant where the result of the safety and health condition relate with awareness ($r = .208$; $p > .05$), working area ($r = .196$; $p > .05$), care and services ($r = 0.116$; $p > .05$) and communication ($r = -.098$, $p > .05$). Referred on mean showed that the top scores comes from long wait and care 4.23, followed by safety and health condition 4.22, lack communication 4.15, and dangerous working area was the lower 3.70.

Table 4.1

Correlation between Factors affected and awareness (n=135)

No	Variables	Mean	Std. Deviation	1	2	3	4
1	safety & health condition	4.23	0.27304				
2	Working area	3.70	0.24661	.331**			
3	care and services	4.23	0.28286	0.126	.334**		
4	communication	4.15	0.24472	-0.116	-0.084	.210*	
5	awareness	4.16	0.17121	.208*	.196*	0.116	-0.098

Table 4.2

	awareness	safety	working area	care services	comm.
awareness		.008	.011	.128	.090
safety	.008		.000	.090	.073
working area	.011	.000		.166	.000
care and service	.128	.090	.166		.007
comm.	.090	.073	.000	.007	

Table 4.2 represent, there were no significant because the correlation was not significant at the 0.01 level.

Regression Analysis

This part of hypothesis testing was examined the most influenced factors safety and health towards awareness level. From the result based on table 4.3 show that the

most influenced factor towards awareness level was safety (Beta = .151), followed by dangerous (Beta = .131), lack of communication (Beta= 0.78) and long wait (Beta= -.088).

Table 4.3

	Unstandardized Coefficients		Standardized Coefficients	
	B	Std. Error	Beta	Sig.
(Constant)	3.527	.398		.000
safety	.095	.056	.151	.096
working area	.079	.066	.113	.236
care and service	-.061	.062	-.088	.323
comm.	.047	.056	.078	.405

Table 4.4 Regression analysis

Model Summary^b	
R	.267 ^a
R Square	.071
Adjusted R Square	.071
Std. Error of the Estimate	.16751
Significance F Value	0.46 ^b
Durbin-Watson	1.885

Table 4.4 showed the regression analysis which value $R = 0.267$, $R^2 = 0.071$, It

showed 92.9% was presented by other factors affected which not yet discovered.

5. CONCLUSIONS

Based on the analysis, correlation of the factors affected with awareness were not significant where the result of the safety and health condition relate with awareness ($r = .208$; $p > .05$), working area ($r = .196$; $p > .05$), care and services ($r = 0.116$; $p > .05$) and communication ($r = -.098$, $p > .05$). The factors affected result overall ($p > .05$), not significant at 0.05 level. From multiple regression analysed show that the most influenced factors was safety. Safety and health condition was the higher (0.151), followed by dangerous working area (0.131), lack of communication was (0.78) and the last factor which (-0.88). The highly correlated variables indicate significant relationship among the, which considered in explaining the factors affected with awareness.

As a conclusion from the research studies awareness level about safety and health among operational level workers, I can conclude from all the studies that, the combination of management and employee commitment must tough in ensuring the

safety and health of the workers be the first and being the class of awareness. The best guideline and practices must be given to the workers and the campaign about to take care of safety and health must give more attention and always reminds the workers how to care their safety and health when at workplace or worksite. From the campaign by offer the prizes also influence the workers to show how their commitment to making their body fit and always in good condition and always aware of any injuries and illness that happened to them and cost and affect once an accident at workplace happened to them. A reducing number of the accident at organization shows their high of awareness from their workers. So every company must ensure to maintain their performance avoiding any hazard that happened at their organizations.

6. RECOMMENDATIONS FOR FUTURE RESEARCH

Based on finding result on this research, the relationship factors of the studies need to go more details and search another factor which relate with the awareness level of the

operational level. The strong relationship may give the influenced factor to improving the awareness level of the workers where people at workplace aware if the factors which gives the bottomless impact to them. The research about safety and health at Telekom Malaysia may thus if more unit involved to help the awareness by answer the faithfully of questionnaire. This is because the influence respondent will give the best influence result for the future research to ensure safety and health guarantee and awareness level can be determine

REFERENCES

- Ahmadon Bakri, Rosli Mohd Zin, Mohd Saidin Misnan and Abdul Hakim (2006), Occupational Safety and Health (OSH) Management Systems
- Baba Md Deros,(2012) Conformity to Occupational Safety and Health Regulation in Small and Medium Enterprises
- Kwon, H. M., Kang S. K., (2010). Safety at work.
- Hair, J. F., Black, W. C., Babin, B. J., and Anderson, R. E. (2011). Multivariate data analysis (7thed.). *Beijing: China Machine Press*
- Lee, H.T., (2012). Awareness Model, founder of coaching-Journey.com
- Hallowell, M.R. (2013). Safety risk management for electrical transmission and distribution construction, *Safety Science*, 51(1), 118-126.
doi:10.1016/j.ssci.2012.06.011
- Chelius, J. R., (2009). Role of worker's compensation in developing safer workplaces.
- Khdaier W. A., Subramanim C. and Shamsudin M. S. (2011) Improving Safety Performance by Understanding Relationship between Management Practices and Leadership Behavior in the Oil and Gas Industry in Iraq: A Proposed Model. College Of Business, Universiti Utara Malaysia, 06010 Uum Sintok. International Conference on Management and Artificial Intelligence IPEDR vol.6 pp. 85-93
- Karen Kaplan (2014), Samples of prescription drugs costly to patients. OSH Malaysia :Retrieved from website DOSH Malaysia
- Occupational Health and Safety Assessment Series - OHSAS 18001 : 2007
- Safe Work Australia: (2014) Australian Work Health And Safety Strategy 2012–2022
- Nickole, C.W., (2015). OSHA issues new guidelines on workplace violence prevention for healthcare.
- Mc Quiston, T. H., Zakoes R. C., Loomis, D., (2012). The case of stronger OSHA enforcement: evidence from evaluation research.
- Tinney, R. (2015). The true cost of workplace injuries.
- Rosli (2008), Best Practices in Safety Management for Conventional Civil Construction Industry in Malaysia
- Salkind, N.J. (2006). Exploring Research, 6th ed. Upper Saddle River, N. J.: *Prentice Hall*
- OSH Malaysia :Retrieved from website DOSH Malaysia
- Yankson Esi,(2012), The effect of the health and safety standards on productivity in Ghana Rubber Estates limited.