OCCUPATIONAL SAFETY AND HEALTH MANAGEMENT SYSTEM (OSHMS): PERCEPTION AND SAFETY SATISFACTION AMONG EMPLOYEES IN CERTIFIED ORGANISATIONS IN KLANG VALLEY

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ABSTRACT

Occupational Safety and Health Management System (OSHMS) is a set of interrelated or interacting elements to establish and implement Occupational Safety and Health (OSH) policy and objectives, and to achieve those objectives. Aims of this study are to assess the employee's perception and level of safety satisfaction of OSHMS among certified organization in Klang Valley. Three hundred respondents were involved in data collection. A self-administered questionnaire is used in this study based on OSHMS elements; Policy, Organising, Planning & Implementation, Evaluation and Action for Improvement. Data was analyzed using "Statistical Package for Social Science" (SPSS) software. The findings revealed higher employee's perception on OSHMS is evaluation (4.1533 ± 0.5620) and action for improvement (4.0442 ± 0.5331). Followed by policy (3.927 ± 0.4559), organising (3.7855 ± 0.4752 and planning & implementation (3.3308 ± 0.3601). The findings revealed higher level safety satisfaction on OSHMS is evaluation (3.7693 ± 0.4900) and action for improvement (3.6783 ± 0.6419). Followed by organising (3.5080 ± 0.3560), policy (3.3156 ± 0.4251), and planning & implementation (3.2561 ± 0.4135). For the safety satisfaction part, the employer needs to look up policy & planning and implementation elements. Based on findings showed in this study, it can be concluded that to prevent the occurrence of accident or injury at the workplace, implementing OSHMS could improve OSH performance as well as promoting safety culture in workplace.

Keywords: Malaysian Standard (MS) 1722:2011, Occupational Safety and Health Management System, Safety Feedback, Safety Perception and Safety Satisfaction

ACKNOWLEDGEMENT

1.0 INTRODUCTION

Occupational Safety and Health Management System (OSHMS) is a set of interrelated or interacting elements to establish and implement Occupational Safety and Health (OSH) policy and objectives, and to achieve those objectives. OSHMS is part of the organisation's overall management system used to manage OSH risks. A management system includes organisational structure, planning activities (including for example, risk assessment and the setting of objectives), responsibilities, practices, procedures, processes and resources. (Malaysian Standard, 2011).

Occupational Safety and Health Act 1994 (OSHA) came into force providing protection on safety and health for work activities in all economic sectors including public services and statutory authorities, except those subjected to Merchant Shipping Ordinance and the armed forces. Under Section 15 (1) and (2) Occupational Safety and Health Act 1994, employers have a duty to ensure, as far as practicable, that employees are not exposed to any hazard at the workplace (OSHA, 1994).

The International Labour Organisation (ILO) highlighted that implementing an OHS management system is a way to improve the safety culture in organizations and at the same time comply with OHS regulations (Dias, 2005). The setting up of a safety and health management system through continuous improvement in the workplace has been seen as one means to improve working conditions and to satisfy legal compliance.

The greatest problem in safety is the difficulty of measuring an organization's OHS performance (Petersen, 2000). Previously, numbers of the accident were the primary means of evaluating the effectiveness of a company's safety program. However, in recent years, audits are commonly used to gauge the effectiveness of safety programs. Another measure of safety system effectiveness is through perception surveys. Using perception surveys, Petersen (2000) identified that "high achievement" organizations had a high degree of supportive relationships which use the principles of group decision-making and the supervisor plays a significant role in realizing this success. In addition, safety excellence happens when supervisors, managers, and executives are made accountable for the safety performance of the group that they manage or supervise (Petersen, 2000).

By establishing an OH&S management system, it will drop or minimize risk to employees and other interested parties who may be exposed to OH&S risks associated with its activities.

2.0 LITERATURE REVIEW

2. 1 Occupational Safety and Health Act 1994 (OSHA 1994)

OSHA 1994 aimed to promote safety and health awareness as well as safety practices. The establishment of OSHA 1994 is based on the philosophy of self-regulation (Rampal and Mohd Nizam, 2006) with the aims to (OSHA, 1994): secure the safety, health and welfare of persons at work against risk, protect persons at a place of work other than persons at work against risks to safety or health, promote an occupational environment for persons at work which is adapted to their physiological and psychological needs, provide the means whereby the associated occupational safety and legislations may be progressively replaced by a system of regulations and approved industry codes of practice.

2.2   Occupational Safety and Health Management System

According to Mori and Takebayashi (2002), Occupational Safety and Health Management System (OSHMS) can be an effective tool for risk-based activities. There must be a management system to control risk especially in Occupational Safety and Health (OSH) related activities. Implementing OSHMS could improve OSH performance as well as promoting safety culture in the workplace.

The elements of OSH Management System are policy, organizing, planning, and implementation, measuring performance, audit, and review. As increasing need for a systematic approach in OSH, many countries including Asian Countries have adopted similar concepts of OSHMS. A proper procedure is needed for an effective use of OSHMS (Kogi, 2002).

2.3 Occupational Safety and Health Management Master Plan 2016 – 2020

Occupational Safety and Health Master Plan 2016 - 2020 (OSHMP 2016-2020) which developed by Department of Occupational Safety and Health (DOSH) is a strategy and program for the promotion of occupational safety and Health in Malaysia which focus on preventive culture. Among preventive culture outline in OSHMP is Occupational Safety and Health Management System which act as a business plan. Implementation of an effective OSH management system could have an impact on the reduction of industrial accidents at the same time is able to reduce the number of accident claims. The decline in the number of accident and claims in terms of an insurance claim and medical expenses leads to long-term business efficiency (OSHMP 2016-2020, 2016 and Work safe, 2016).

2.4   OSHMS towards Safety Culture

Effective Occupational Safety and Health Management System implemented by the organization would lead to the development of safety culture as well as reducing accidental rate (Azimah, 2010). Safety culture is the product of values, perception, and competencies which determine the commitment of organizations safety and health culture (Gadd, 2002).

2.5   Employees' Perception towards Organization Safety Culture

Employees' perception towards safety culture indicates a critical factor in how they perceive the organization safety and healthy environment. Much of the study on safety culture shows a positive relationship between employee's perception and its safety culture. According to O' Toole (2002), show that a positive employee's perception does have an impact on the reduction of injuries and accidents. On many factors such as management commitment to safety; education and knowledge; safety supervisory process; employee involvement and commitment; drugs and alcohol; emergency response and off-the-job safety that have been tested by the researcher to show a positive perception towards its safety culture, the researcher found that management commitment and leadership to safety has the highest point to influence employees perception of the safety and health management system.

2.6   Safety Satisfaction

Job satisfaction can be defined as how a person feels about what they have done with their work whether positive or negative feeling and it is a combination of psychological, physiological as well as environmental circumstances and it is usually related to an individual's behaviour (Aziri, 2011). Elements that affect an individual's job satisfaction include job performance, job factors, perceptions, rewards and commitment to the organization.

3.0 METHOD

A cross-sectional study design was implemented throughout this research. In this design, the employees in certified OSHMS organization have been selected. This study carried out among 63 certified OSHMS organization in Klang Valley which cover Kuala Lumpur and Selangor.

Research instruments used in this study were a self-report questionnaire. This questionnaire consists of three parts; Part A, B and C. The items of this questionnaire were self-develop and refer to MS 1722 element. Part A is the socio-demographic characteristics and the variables are gender, nation, religion, citizen, age, work experience, marriage status, education background, company's MS 1722 accreditation period, and company's industrial classification. Part B is the safety perception, while Part C is the safety satisfaction. Part B and Part C, respondents was answered each question using five Point Likert-Scales. The scale was range from 1-5:

Table 1 Stage Ranking Score in Likert Scale

Section	Scale				
	1	**2**	**3**	**4**	**5**
B	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
C	Strongly Not Satisfied	Not Satisfied	Neutral	Satisfied	Strongly Satisfied

Referring to Table 2, the questionnaire developed is valid and consistent because of the value of Cronbach's Alpha; r is above 0.8 and approaches to 1.00. This indicates that respondents have the same understanding and consistency of the statements that represent each of these parts.

Table 2 Reliability Analysis for each Component

No.	Part	Cronbach's Alpha (r)
1	Perception study	0.865
2	Safety satisfaction	0.822

Analyse the data obtained two parts;

i.   Demography - data which include the demographic information of the respondents.

ii. Safety perception and safety satisfaction of respondents was interpret using the mean of each elements and a 3 level scale using percentage (Ashari & Mahmood in Rosliza et al., 2015).

Table 2 Percentage Score

No	Percentage	Rating
1	73.6 % – 100%	Good
2	46.8 %- 73.5 %	Moderate
3	0 % - 46.7 %	Poor

Sources : (Ashari & Mahmood in Rosliza et al., 2015).

4.0 RESULTS AND DISCUSSION

4.1 Demography

Table 4 Data socio-demographic

Characteristics	Mean (SD)	n (%)	Characteristics	Mean (SD)	n (%)
Gender			**Educational Background**		
Male		180 (60%)	Degree/Master/PhD		122 (41%)
Female		120 (40%)	Certificate/ Diploma		122 (41%)
			SPM/STPM		41 (41%)
Ethic			UPSR/PMR		15 (5%)
Malay		259 (86%)			
Chinese		26 (59%)	**Accreditation Duration**		
India		9 (3%)	0-3 years		129 (43%)
Others		6 (2%)	4-6 years		129 (43%)
			7-9 years		41 (13.7%)
Religion			More than 10 years		1 (0.3%)
Islam		264 (88%)			
Hindu		8 (3%)	**Industry**		
Buddha		25 (8%)	Manufacturing		32 (17%)
Others		3 (1%)	Construction		166 (55%)
			Facility, electric, gas, water,& cleaning services		20 (7%)
Citizenship			Wholesale trade and retail		3 (1%)
Malaysia		291 (97%)	Finance, insurance, estate and property business services		26 (8%)
Others		9 (3%)	Transport, storage and communication		10 (3%)
			Civil service and statutory authorities		23 (7%)
Age	2.18 ±0.905				
20-29 years		73 (24%)	**Work Experience**	2.86±1.095	38 (13%)
30-39 years		126 (42%)	Less than 2 years		72 (24%)
40-49 years		74 (25%)	2-5 years		55 (18%)
50 years and above		27 (9%)	6-9 years		135 (45%)
			10 years and above		38 (13%)
Marriage Status					
Married		222 (74%)			
Divorced		8 (3%)			
Single		70 (23%)			

N= 300

4. 2 Assessment the employee's perception on OSH Management System

Table 5 Employee perception

Element	Mean (SD)	% (Rating)
Policy	3.9272 ± 0.4559	75.8 (Good)
Organizing	3.7855 ± 0.4752	75.7 (Good)
Planning & Implementation	3.3308 ± 0.3601	67.5 (Moderate)
Evaluation	4.1533 ± 0.5620	83.1 (Good)
Action for Improvement	4.0442 ± 0.5331	80.9 (Good)

Table 5 shows that the value of mean, standard deviation and rating for Policy, Planning & Implementation, Organising, Evaluation and Action for improvement. The findings revealed higher employee's perception on OSHMS is evaluation (4.1533 ± 0.5620) and action for improvement (4.0442 ± 0.5331). Followed by policy (3.927 ± 0.4559), organising (3.7855 ± 0.4752 and planning & implementation (3.3308 ± 0.3601). The highest of employee perception toward MS1722 element is evaluation part. Evaluation consists of performances monitoring and measurement, incident investigation, audit and management review.

In OSH Management System, planning and implementation consist of initial review; organization's objectives; hazard identification, risk assessment and risk control (HIRARC); and emergency prevention, preparedness and response (ERP). Therefore, this shows that organizations need to improve and enhance the way on how they plan and implement MS 1722 in their company which should include a clear organization's OSH objectives, a detail of organization's strategies to achieve OSH objectives and established specific hazard identification tools and technique for a better implementation of OSH Management System.

4. 3 Level of Satisfaction on OSH Management System

Table 6 Safety Satisfaction

Element	Mean (SD)	% (Rating)
Policy	3.3156 ± 0.4251	68.7 (Moderate)
Organizing	3.5080 ± 0.3560	72.4 (Moderate)
Planning & Implementation	3.2561 ± 0.4135	63.2 (Moderate)
Evaluation	3.7693 ± 0.4900	75.4 (Good)
Action for Improvement	3.6783 ± 0.6419	73.6 (Good)

Table 6 shows that the value of mean, standard deviation and rating for Policy, Planning & Implementation, Organising, Evaluation and Action for improvement. The findings revealed higher level safety satisfaction on OSHMS is evaluation (3.7693 ± 0.4900) and action for improvement (3.6783 ± 0.6419). Followed by organising (3.5080 ± 0.3560), policy (3.3156 ± 0.4251), and planning & implementation (3.2561 ± 0.4135). For the safety satisfaction part, the employer needs to look up policy & planning and implementation elements.

5.0 RECOMMENDATION

Finding from this research have important practical implications for the management to make improvements on every aspect basically in terms of employee's safety perception and safety satisfaction because these elements do have an effect on employee's job performance. A positive job performance will benefit both individuals as well as the organization. Employee's perception and satisfaction on the other hand, would be an important indicator to measure the effectiveness of OSH Management System implemented in the organization as well as creating a positive safety culture. Employee safety perception influenced by how an organization applies their safety culture. When there is a positive safety culture, it leads to positive safety perception and therefore could influences an employee's safety satisfaction.

To have an effective OSH Management System, many aspects need to be considered, including OSH policy, management and employee commitment, OSH training provided to employees, a systematic and understandable of OSH documentation, implementing hazard identification, risk assessment and risk control (HIRARC), a systematic audit process and emergency response plan (ERP).

6.0   CONCLUSION

OSH Management System needs comprehensive management tools, which include policies, organizational, elements, implementation of control and performance monitoring and system audits. These elements, therefore, should be a measure to find out the effectiveness of the implementation of Management System itself. This study revealed that overall employee's safety perception and safety satisfaction is good, however, there are some improvements needed to be taken into account.

Based on findings showed in this study, it can be concluded that to prevent the occurrence of accident or injury at the workplace, implementing OSHMS could improve OSH performance as well as promoting safety culture in workplace.

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