



Occupational Safety and Health Administration (OSHA) Practices and OSHA Performance in Malaysian Automotive Industry

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Abstract: This paper addresses the issues of occupational safety and health administration practices (OSHAP) and the occupational safety and health administration performances (OSHAPM) that influence by the practices in Malaysian Automotive Industry. This paper also proposed structural relationship OSHAP and OSHAPM model. The implementation of OSHAP is widely believed that it can increase the OSHAPM in automotive industry. This paper discusses the OSHAP which are safety culture, employee involvement, employee attitude, leadership style, safety and health training and effective communication that may have an impact on OSHAPM which are safety and financial performances in the automotive industry. This study theoretically reviewed prior literatures on same problems in our Malaysian industry. Based on previous study, there are positive relationships between OSHA practices and OSHA performances major on safety and financial performances. The target was to reduce some problems in research.

Keywords: OSHAP; OSHAPM; Safety Performances; Financial Performances; Malaysian Automotive Industry.

1. Introduction

The history of the Malaysian automotive industry occurs when the Malaysian government developed a policy to promote an integrated automotive industry to strengthen its industrial base and decrease its dependency on the agricultural sector. The promotion have their own objective which are to established the limitation of imports, the reduction of expenses in foreign exchange, the creation of employment and the development of the industrial sector (MGCC- Market Watch 2011). The automotive industry actually supports a large number of Small and Medium Enterprises (SMEs) supplying components, subassemblies to the car manufacturers in Malaysia (Zadry, 2005).

Every industry that exists in Malaysia should involve in safety practices to reduce injuries in a manufacturing company. This issue have its own act follows by all management to avoid from case of employees make sue to their employer. The act that implemented in Malaysia for safety practices was named Occupational Safety and Health Administration Act 1994 (OSHA Act 1994), (NOISH Malaysia, 2008). Based on act, every company can improve their organisation performances by make a several factors of OSHA practices to be apply in organisation.

The purpose of this paper; (a) to identify the OSHA practices and OSHA performances measures for Malaysian Automotive industry and (b) to develop a research model of OSHA practices and OSHA performances measures for Malaysian Automotive industry. In this research, there are six OSHA practices that are considered such us (a) Safety Culture [SC], (b) Employee Attitude [AT], (c) Employee Involvement [EI], (d) Leadership Style [LD], Safety and Health Training [TR] and also (f) Effective Communication [EC]. This practices drive to improve the OSHA performances which are (a) Safety Performances [SP] and (b) Financial Performances [FP].

In this section, these papers briefly explain introduction of OSHA. The next section will review the literature on OSH practices and OSH

performances, also the research hypotheses. Then the researchers will continue with a proposed research model, methodology and the last section of conclusion with future research.

2. Literature Review

A. Occupational safety and health Practices (OSHAP)

This section will introduce about OSHAP elements that contribute to OSHAPM. There are several important elements include to achieve a better OSHAPM in an automotive industry. There are six element of it such as SC, AT, EI, LD, TR and EC. Occupational safety is a key element of social responsibility. Definition of safety is freedom from injury and danger, quality or insuring against hurt, danger of risk. The definition from New English Dictionary shows the same negative ideas, “exemption from hurt or injury mean freedom from harm and others”. Hence, the importance or target of safety is to reduce the accidents among employee at the workplace (Hussain, 2009).

According to Terry E. McSween (2003), unsecure work behaviour is referring to the result of (1) physical environment, (2) the social environment and (3) workers’ experience within these. Meanwhile, the safety triangle shows relationships between the unsecure work situation and injuries that influence safety condition in automotive industry. Safety not only focus on the bottom line workers but it also influence the top management, manager and staff to become more responsibility and accountability in their efforts to provide the safe environment.

Table 1 show the summary of definitions every element in OSHAP from previous study. Average journal started from the year of 2000 until current year which is 2012. This table founded that many research interested to study about safety culture and leadership style. Most of the paper combined the elements such as employee attitude, employee involvement, safety and health

training and effective communication in one element only which is safety culture. According to EU-OSHA, 2009 and Akpan et al., 2011, table 2 show the benefits of OSHAP. Its show the direct and indirect benefits in various aspects of the organization of occupational safety and health practices.

Table 1

The Definitions of Occupational Safety and Health Practices Elements

| Elements | Definitions | Authors |
|--------------------------|--|---|
| Safety Culture | A viable technique of controlling workforce beliefs, attitudes, and behaviours with regard to safety in organisation. | <i>Sukadarin et al. 2012</i> |
| | The shared and learned meaning, experiences and interpretation of work and safety, expressed partially symbolically and also with guide peoples. | <i>Ritcher and Koch 2004, Sukadarin et al. 2012</i> |
| | Included of shared values and beliefs that interact with an organization's structure and control systems to produce behavioural norms. | <i>Fitzgerald, 2005</i> |
| Employee Attitude | A behaviour which is done without the conscious mind and any regularly repeated behaviour that requires little and is learned rather than natural. | <i>Hussain, 2009</i> |
| | A complex combination of things that we tend to called it's as a personality, beliefs, | <i>Pickens, 2005</i> |

values, behaviours, and motivations and a mind-set to act in a particular way due to both an individual's experience and behaviour.

Attitudes describe a person's tendency to feel, think or behave in a positive or negative manner towards the object of the attitude.

*Arnold et al.
1995 and
Vakola M.and
Nikalaou I.
2005*

**Employee
Involvement**

A behavioural-oriented technique that involves individuals or group in the upward communication flow and decision making process within the organization.

Hussain, 2009

Various processes that are designed to engage support, understanding and optimum contribution of all employees in organization and commitment to the objectives.

Beatrice, 2011

It means every employee is regarded as a unique human being, not just a part in a machine and each employee is involved in helping the organization achieve its goals.

*Apostolou,
2000*

**Leadership
Style**

More than a micro-organisational phenomenon and it exceed direct relationships between leaders and

*Kaluza et al.
2012*

subordinates. It can occur in indirect as well as direct forms.

It includes the efforts of the management to reach both short-term and long-term objectives in organisation. *Gordon and Yukl 2006*

A process whereby an individual will influence a group of individuals to achieve a common goal. *Goffee and Jones 2007*

Safety and Health Training

One piece of the solution to perform safe work practices and act as a tool to motivate the employees to change their behaviour. *Shan, 2011*

A proactive safety measure to enable workers to handle unforeseen hazards. *Prakash, 2010*

Employee Involvement

A behavioural-oriented technique that involves individuals or group in the upward communication flow and decision making process within the organization. *Hussain, 2009*

Various processes that are designed to engage support, understanding and optimum contribution of all employees in organization and commitment to the objectives. *Beatrice, 2011*

Table 2
Benefits of Occupational Safety and Health Practice

| Direct Benefits | Indirect Benefits |
|---|--|
| ➤ Decrease insurance premiums | ➤ Decreased absenteeism |
| ➤ Decrease litigation costs | ➤ Decrease staff turnover |
| ➤ Decreased sick pays costs | ➤ Increase corporate image |
| ➤ Increased production/productivity rates | ➤ Increased chances of winning contracts |
| ➤ Decreased production and materials damage | ➤ Increased job satisfaction/morale |
| ➤ Reduced accidents production delays | |

B. Occupational Safety and Health Performances (OSHAPM)

According to Khdair *et al* (2011), safety at work is a difficult and complex phenomenon, and the subject of safety performance across the industries is hard and challenging to be achieved. It needs a lot of measures and policies to be applied. Moreover, safety performance is very complicated and sensitive concern of the organization to deal with, as it's the matter lives of people and resources, and who involved in the project towards success. The second reason for implementing the effective management of health and safety is about the financial costs of a crash (Bakri *et al*, 2006). Table 3 below shows us the list of authors that make a research on OSHA performances measurement.

Table 3
Research on OSHA Performances Measure

| Performance measures | Authors |
|------------------------------|--|
| Safety Performance | Ramroop et al. 2004; Bakri et al. 2006; Fitzgerald 2005; Hsu et al. 2012; Sukadarin et al. 2012; Muniz et al. 2009; Khdair et al. 2011; Wu et al. 2008; Hussain 2009 |
| Financial Performance | Ramroop et al.2004; Bakri et al. 2006; Muniz et al. 2009; Akpan et al. 2011; Wilsems, 2007 |

Safety performance has been defined as overall performance of the organization safety management system in safe operation (Wu, 2001). Their study highlight that domestic and foreign shows that safety and health performance is more related to the safety climate of organizational behaviour which combined with the scientific approach can significantly increase the safety and health performance.

Refer to the table 4, this study strongly agree that OSHA practices have a positive relationship between occupational safety and health performances. Several papers found that OSHA practices affect the safety performance only but this paper concludes that it possible effect both of safety and financial performances. Based on previous reviews, more researchers state that OSHA performances will increase with implementation of OSHA practices. It means the implementation of the OSHA practices assist in Malaysian automotive company to increase performances especially in OSHA performances.

Table 4
The Summary of Past-Related Research Based on Performances

| Organizational Performances Measure | Authors | Finding |
|--|--|--|
| Safety Performances | <i>Muniz et al. 2009</i> | A positive influence between safety management practices with safety performances |
| | <i>Khdaire et al. 2011</i> | A positive significant relationship between leadership style, management practices and workplace safety performance. |
| | <i>Vredenburgh, 2002 ; Ali et al. 2009</i> | Managerial practices have the similar view between safety performance and work place injuries as a significant linear relationship between the managerial practices and work place injuries. |
| Financial Performances | <i>Lee and Lee, 2007</i> | Human Resource Management practices help organizations to improve their business performance. |
| | <i>Muniz et al. 2009</i> | A positive influence between safety management practices with economic-financial performances |
| | <i>Bakri et al. 2006</i> | OSH management practices earn positive return and advantages on their health and safety investment. |

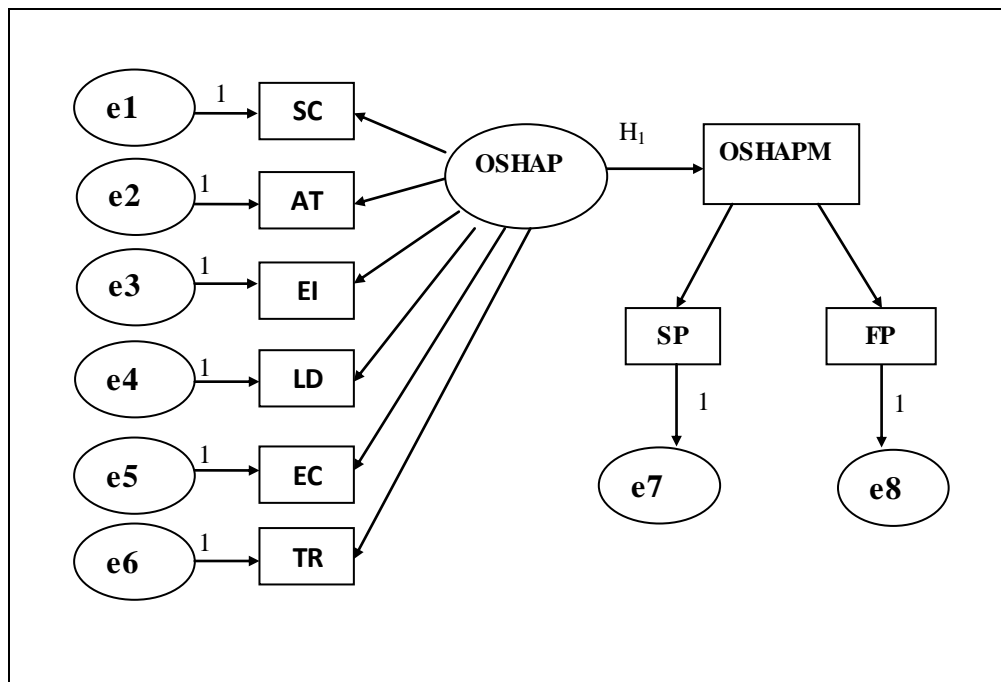
3. Research Hypotheses

Based on the literature review, to understand the relationship between OSH practices (SC, AT, EI, LD, EC and ST) and OSH performances (SP and FP), the following hypotheses were develop to be tested. These hypotheses will be tested based on numbering system H1. This style of hypotheses statement is chosen due to the nature of answering hypotheses using structural equation modelling (SEM) methods.

H₁: There is a positive and direct significant relationship between OSH practices and OSH Performance in Malaysian Automotive Industry.

4. A Proposed Research Model

Based on the literature review in section 2, there are many researchers explored about OSHA Practices and OSHA performances. The research aims at investigate the structural relationship between OSHA practices and OSHA performance in Malaysian automotive industry. Figure 1 presented a structural OSHA practices and OSHA performances model.



**Note:* OSHAP= Occupational safety and Health Administration Practices, SC=Safety Culture, AT=Employee Attitude, EI=Employee Involvement, LD=Leadership Style, EC=Effective Communication, TR=Safety and Health Training, SP=Safety Performance, FP=Financial Performance, OSHAPM= Occupational safety and Health Administration Performances

Figure 1: A Proposed Research Model

5. Methodology of The Study

In this study, sampling method by using structured questionnaire. The population of this study comprised in Malaysian automotive industry. Questionnaires will distribute to respondents from the listing of automotive industry obtained from Malaysian Automotive Component Parts Association (MACPMA), Proton Vendors Association (PVA), and Kelab Vendor Perodua. To analyze the data, two statistical techniques were adopted.

Structural Equation Modelling (SEM) techniques was utilize to perform the require statistical analysis of the data from the survey. Exploratory factor analysis, reliability analysis and confirmatory factor analysis to test for construct validity, reliability, and measurements loading were performed. Having analyzed the measurement model, the structural model was then tested and confirmed.

The statistical Package for the Social Sciences (SPSS) version 17 was used to analyze the preliminary data and provide descriptive analyses about thesis sample such as means, standard deviations, and frequencies. SEM using AMOS 6.0 will use to test the measurement model.

6. Conclusion With Future Research

Nowadays, safety and health practices become more important to all industry especially in manufacturing industry. This study theoretically reviewed prior literatures on same problems in our Malaysian industry. Based on previous study, there are positive relationships between OSHA practices

and OSHA performances major on safety and financial performances. The target was to reduce some problems in research. In next agenda, a survey is designed in order to conduct an empirical research for examining hypotheses on relationship between OSHAP and OSHAPM in the automotive industry in Malaysia.

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