INTI INTERNATIONAL UNIVERSITY

MASTER OF BUSINESS ADMINISTRATION

Personal Protective Equipment Use and Employee's Safety Behaviour of Manufacturing Companies in Shah Alam, Malaysia

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ABSTRACT

Risk factors and the accidents type are vary according to the sector and business scale. Work place injuries are increased and become a serious issues in manufacturing companies in Malaysia. The ignorance and reduction of safety behaviour and least knowledge on personal protective equipment (PPE) caused high accident rate among employees in manufacturing companies. Despite this, few studies have analysed on safety behaviours in manufacturing companies in Malaysia. The current study aims to investigate the influence of safety factors that governed the safety behaviours among manufacturing companies employees. The number of employees involved with work place accidents and the level of awareness on the matter concerning safety were also identified. Research method involved a self-administered questionnaire with factors related to personal protective equipment usage (PPE) to acquire information on employee's safety behaviours. The survey was performed with manufacturing companies in Shah Alam, Malaysia. Five selected manufacturing companies distributed with 250 questionnaire. A total of 192 valid questionnaire were returned and used for data analysis. SPSS and smart-PLS3 used to analyse the data. These findings indicates that safety supervision, training and compliance having significant relationship with safety behaviours. The safety training having negative coefficient with safety motivation. Whereby, safety knowledge and safety motivation having a strong mediation effects. Moreover, working experience do influence on employee's safety awareness and safety behaviours towards using PPE. As a conclusion, the manufacturing companies employees were possess high safety behaviours. Overall, all the safety factors positively influenced employees on the PPE usage and highly contribute towards safety behaviours. Hence, improved training modules and plans should designed to ensure employees are actively involved and motivated.

Key Words: *Personal Protective Equipment (PPE), Safety Behaviour, Safety Supervision, Safety Training, Safety Compliance, Safety Knowledge, Safety Motivation*

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Declaration

"I hereby declare that this thesis is my own work and effort,

Information from other sources has been acknowledge and specified"

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ABBREVIATIONS

ALT	Authentic Leadership Theory
AVE	Average Variance Extracted
BNM	Bank Negara Malaysia
DOSH	Department of Occupational Safety and Health
DV	Dependent Variable
GDP	Dross Domestic Products
IV	Independent Variable
OSHA	Occupational Safety and Health Act
PPE	Personal Protective Equipment
SB	Safety Behaviour
SCT	Social Cognitive Theory
SC	Safety Compliance
SET	Social Exchange Theory
SK	Safety Knowledge
SM	Safety Motivation
SS	Safety Supervision
ST	Safety Training
VAF	Variance Accounted for
VIF	Variance Inflation Factor

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CHAPTER 1

INTRODUCTION

1.0 Chapter Overview

This chapter provides a basic introduction about this study. First, a background to manufacturing accidents rates id provided, including a brief overview of manufacturing industry's contribution towards country's economic. Next, the justification and scope of this research presented, followed by the research question and objectives.

1.1 Research Background

Social Security Organization (SOCSO) reported in their Yearly record 2010, total accidents reported due to work environment in Malaysia has increased to 57,639 cases compared to 55,186 cases in year 2009. The work place safety justifications had declined for the time 2000-2009 (SOCSO, 2010). Manufacturing companies are deals with machineries and the machinery accidents represents at 61.78%. Regardless this, the work place accident rate had increased from 1.04% in 2009 to 1.06% in 2010. In year 2009, Deputy of Human Resources, Malaysia added the fatality ratio was 211 for each 100,000 workforces (SOCSO, 2010).

1.2 Safety issues in manufacturing companies in Malaysia

Manufacturing recorded the highest (31%) number of work place accidents, ilustrated in Figure 1 (SOCSO, 2010). An International Labour Organization (2016), stating the number of workplace accidents involved minor and fatal injuries are increased. Workplace acidents in manufacturing industries claimed to reduced gradually from year 1993 to 2008. However, the number of acccidents incresead during the adverse expansion of the manufacturing industries with new employees, machineries and equipments (Said, et al., 2012).In Malaysia,

manufacturing sector seems to be major contributor and important backbone to countries economic by providing large pool of employment opportunity (Said, et al., 2012). Workplace injuries and accidents become a serious issues among employees, which also impact an organization productivity and profits, whereby indirectly impact the country's economic (Zakaria, et al., 2012, Australian Government : Business, 2016 and Chen, et al., 2016). Manufacturing sector in Malaysia, records higher accident rate than other sectors, please refer to Table 1 (Kumar, et al., 2012 and Said, et al., 2012). Figure 2, showing Malaysia's gross domestic product (GDP) decreases from the period 2005-2009, manufacturing portion of GDP has fallen by 4 percent due to work place injuries, indicating that Malaysia is losing its competitiveness in terms of production (The Malaysian Developmentalist, 2011).

Whereby, Said et al. (2012), stating in the long run the GDP of manufacturing companies in Malaysia increase from 12.2 percent in 1970 to 30.1 percent in 2010. The monthly statistical bulletin of Central Bank of Malaysia (BNM), stated the growth of GDP was 3.1% from year 2003 to 2007, whereby the GDP at contact price of manufacturing products from 2003 to 2007 recorded as RM152, 262 million (Kumar, et al., 2012). An International Labor Organization (2013) reported number of occupational diseases increases rapidly due to illiteracy of employee's safety behaviour, shown in Figure 3.

According to industial study, manufactruing sectors recorded the highest rate of fatal and non fatal work place accidents with the total of 1469 and 128 employees respectively (Nee A, 2014). Moreover, work place injuries indirectly increase the manufacturing production cost and impact the companies reputation (Hee, 2014). The latest report from department of occupational safety and health (DOSH) stated as of december 2016 the number of workplace accidents reduced by 6.3% with 388 cases compared to same period last year with 414 cases (Borneo Post Online, 2016). Moreover, some organization lacking of safety awareness, ignore the workplace accidents when the foreign employees injured. This could causes negative image to a country and the impact on the labour supply from foreign countries (Tan, 2016).

Sectors	1994	1997	2000	2003	2006	2008
Agriculture, Forestry and Fishing	27,268	24,390	13,293	8,796	5,739	3,962
Mining and Quarrying	1,406	763	643	736	541	368
Manufacturing	68,281	37,829	42,915	33,901	27,066	19,041
Electricity, Gas, Water and Sanitary Services	588	372	592	513	515	524
Construction	4,536	3,648	4,966	5,113	4,500	3,814
Trading	9,173	9,248	15,472	13,576	11,783	11,342
Transportation	4,437	3,276	4,800	4,142	3,653	3,305
Financial Institution	592	367	7,293	6,195	5,386	718
Real Estates, Renting and Business Services	2,830	3,731	6,581	5,617	4,832	4,405
Total[1]	125,506	89,049	98,281	81,003	68,008	56,095

Table 1: Industrial accidents report by Sectors in Malaysia, 1994-2008

Source: Said, et al. (2012)

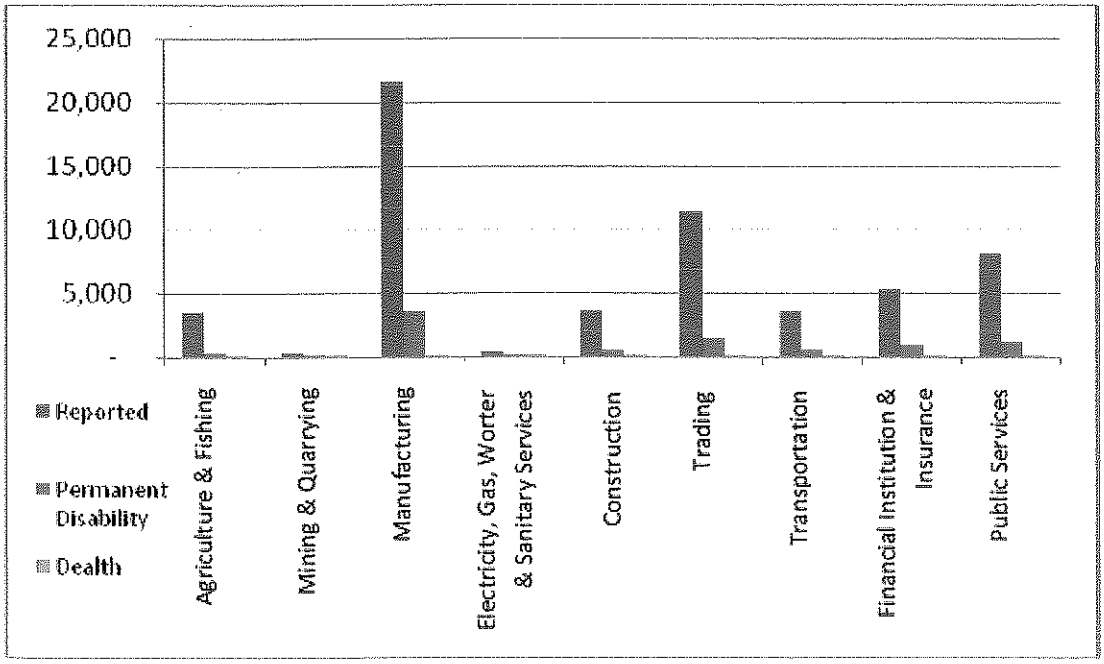

Figure 1: Work place accidents reported, 2008

Source: SOCSO (2010)

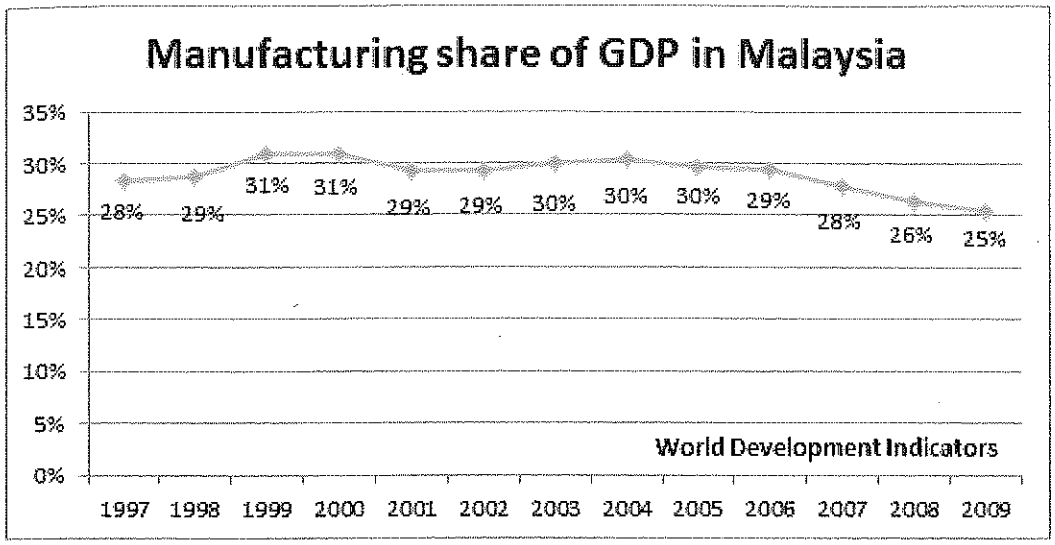

Figure 2: Decreases of manufacturing production

Source : The Malaysian Developmentalist (2011)

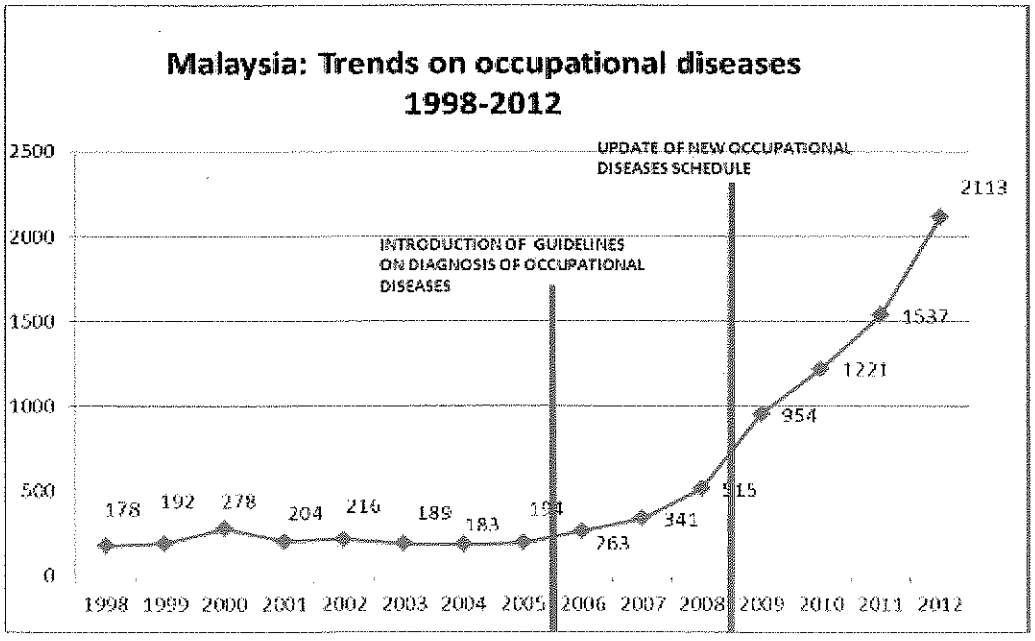

Figure 3: Increases of occupational disease

(Source: International Labor Organization, 2013)

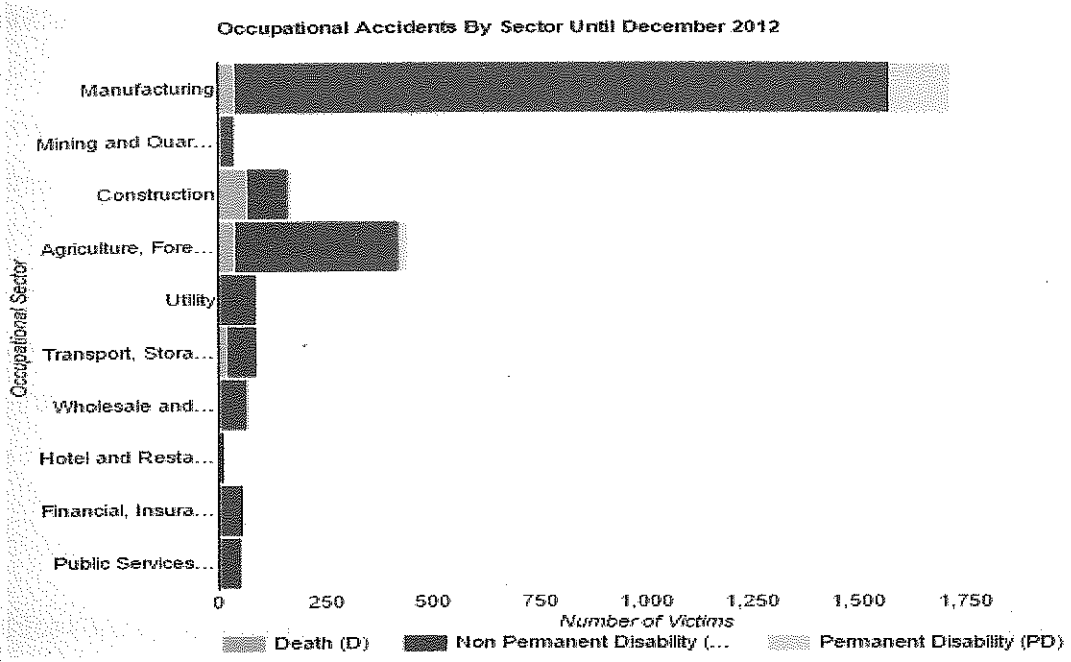

Figure 4: Occupational Accidents Statistics 2012

(Sources: Ministry of Human Resources, 2016)

1.3 Problem statements

Work place injuries reported for manufacturing companies respectively higher than other sectors, means an employees from manufacturing sectors exposed to higher risk (Said, et al., 2012). In 2013, occupational safety and health (OSH) Act 1994 reported manufacturing sector in Malaysia have higher work place injuries with 1655 incidents compared to other sectors (Hee, 2014). An issue arises when employees do not understand the safety regulations and do not adhere to the safety procedures. Employees claim, wearing a personal protection equipment delays their work and consume more time to complete the given task (Valtez, 2015).

According to Ministry of Human Resources (2016), manufacturing sector reported higher rate of occupational accidents in Malaysia (refer to Figure 4). This happened when employee have limited exposures towards importance of safety equipment usage and the consequences to their health. Most of the managements are concentrating on productivity and profits than safety work