## IMPLEMENTATION AND MANAGEMENT PRACTICES OF THE OCCUPATIONAL SAFETY AND HEALTH ACT (OSHA) IN THE MANUFACTURING INDUSTRIES



UNIVERSITI TEKNIKAL MALAYSIA MELAKA

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Faculty of Technology Management and Technopreneurship
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## SUPERVISOR AND PANEL DECLARATION/APPROVAL

"I hereby declared that I/We had read this report and this report are adequate in terms of scope and quality which fulfil the requirement for the award of Bachelor of Technology Management (Technology Innovation) with Honors."

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# IMPLEMENTATION AND MANAGEMENT PRACTICES OF THE OCCUPATIONAL SAFETY AND HEALTH ACT (OSHA) IN THE MANUFACTURING INDUSTRIES

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JANUARY 2023

#### i

## **DECLARATION**

"I hereby admit that this is my own work except for summary of except of which I had mentioned the source."

Signature:

Name: FATIN NUR HIDAYAH BINTI MOHD RADZUWAN

Date : 5 30/1/2023

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## **DEDICATION**

Every difficult task necessitates making efforts on one's own, seeking advice and direction from others, and drawing strength both from God and one's parents. My humble efforts. I thus dedicate this to Almighty God, esteemed Professors, parents, my supportive siblings, friends, and seniors who acted as a source of direction, support, and expertise for the researcher during the process of finishing this report. Thank you.



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In conclusion, I would want to express my gratitude to the close friends who have consistently rooted for me, cheered me on, and prayed for me, saying that you have been by my side throughout the process of finishing this capstone project for the senior year.

#### **ABSTRACT**

In recent years, there has been an increase in workplace incidents, which obviously has a negative impact on management as well as workers in manufacturing industries. This quantitative study identified the factors that influence worker workplace safety. The population for this study was chosen by the researcher from the production department. To finish this study, the researcher created a set of questionnaires as the research instrument for data collection. The questionnaire was divided into two parts: Part A and Part B. Part A contains the demographic factors, while Part B contains the variables used in this study. OSHA Implementation, Safety Training, Workplace Environment, and Factor Influences Accident were the variables. The sample method used was stratified random sampling based on Krejcie and Morgan's table. The Statistical Package for the Social Sciences (SPSS) version 23 was used to analyse the findings. The instrument was then examined using SPSS for reliability and correlation analyses. According to the findings of the study, three independent variables influenced workplace safety among Malaysian industrial workers. Furthermore, this study presents management and workers with a few suggestions and perspectives on how to reduce or eliminate workplace occurrences.

#### **ABSTRAK**

Dalam beberapa tahun kebelakangan ini, terdapat peningkatan dalam insiden di tempat kerja, yang jelas memberi kesan negatif kepada pengurusan serta pekerja dalam industri pembuatan. Kajian kuantitatif ini mengenal pasti faktor-faktor yang mempengaruhi keselamatan tempat kerja pekerja. Populasi untuk kajian ini dipilih oleh penyelidik dari bahagian pengeluaran. Bagi menyelesaikan kajian ini, pengkaji telah mencipta satu set soal selidik sebagai instrumen kajian untuk pengumpulan data. Soal selidik dibahagikan kepada dua bahagian: Bahagian A dan Bahagian B. Bahagian A mengandungi faktor demografi, manakala Bahagian B mengandungi pembolehubah yang digunakan dalam kajian ini. Pelaksanaan OSHA, Latihan Keselamatan, Persekitaran Tempat Kerja dan Faktor-faktor yang Mempengaruhi Kemalangan adalah pembolehubah. Kaedah persampelan yang digunakan ialah persampelan rawak berstrata berdasarkan jadual Krejcie dan Morgan. Pakej Statistik untuk Sains Sosial (SPSS) versi 23 digunakan untuk menganalisis dapatan. Instrumen tersebut kemudiannya diperiksa menggunakan SPSS untuk analisis kebolehpercayaan dan korelasi. Menurut dapatan kajian, tiga pembolehubah tidak bersandar mempengaruhi keselamatan tempat kerja dalam kalangan pekerja industri Malaysia. Tambahan pula, kajian ini membentangkan pihak pengurusan dan pekerja dengan beberapa cadangan dan perspektif tentang cara mengurangkan atau menghapuskan kejadian di tempat kerja.

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## **CHAPTER 1**

## **INTRODUCTION**



Research background, relevant description of the problem currently faced, the objective is discussed in this chapter along with the research question for this report.

## 1.1 Background of Study

To comprehend the safety culture in Malaysia's industrial sectors, it is necessary to first define the term "manufacturing sector." Manufacturing activity is defined as "the melding, changing, attempting to make, completing, adorning, or otherwise treating or adapting any article or substances with a perspective to its use, sale, transfer, delivery, or disposal" by the Industrial Co-ordination Act 1975 (ICA), and includes part assembly and hip repairing but excludes any activity normally associated with retail or wholesale commerce. Manufacturing companies with RM2.5

million in shareholder capital or 75 or more filled paid employees must apply for a production licence, that has to be granted by the Ministry of International Trade and Industry (MITI). MIDA is the primary government organisation in charge of promoting Malaysia's service and manufacturing sectors. MIDA aids enterprises that want to invest in the industrial and service sectors, as well as making their ambitions a reality. MIDA offers a wide range of services, including offering information on investment opportunities and assisting industries looking for joint venture partners. Basic metal products, electronics manufacturing services, electrical and electronic, food processing, engineering supporting, medical devices, petrochemical and polymer, machinery and equipment, pharmaceuticals, rubber products, textiles and apparel, and wood-based industries are the twelve industries classified by MIDA.

In terms of safety and health, industrialised and underdeveloped nations have different goals, according to Rantanen, Lehtinen, and Savolainen (2004). Stress, ageing employees, the right of workers to know, chemicals, ergonomic, workplace safety and wellness monitoring solutions, and health services are all high considerations in developed countries. Priorities in industrially developing countries include agriculture, hazardous occupations such as construction and mining, substantial hazard control, small businesses, the informal sector, workplace illness reporting and safety, health, and child labour. As a result, a good safety management system combined with the execution of workplace safety and health regulations will assist companies in promoting workplace safety and health. Awareness of the significance of major role safety and health rules in all types of occupations has begun to grow in most Asian countries. According to Soehod & Laxman (2007), Malaysia is the first Asian country to pass comprehensive occupational safety and health legislation. Occupational safety and health are covered under the Occupational Safety and Health Act of 1994 (OSHA) in both the private and public sectors.

The fundamental purpose of this Act is to ensure that employers provide employees with safe working conditions. It advocates for a workplace free of hazards such as harmful chemicals exposure, excessive noise levels, mechanical hazards, heat or cold stress, or unhygienic conditions. Apart from OSH, 'safety culture' is also an

essential factor in decreasing workplace risks and accidents. The Chernobyl disaster in 1986 gave rise to the term "safety culture" (Ostrom, Wilhemsen & Kaplan, 1993). The International Atomic Energy Agency (IAEA) coined this word (Gad & Collins, 2002). 'Safety culture,' according to Guldenmund (2000), is defined as those components of an organization's culture that influence attitudes and behaviour related to raising or lowering risk.

Because of its nature, Malaysia's manufacturing sector is one of the most dangerous. Factory workers, according to Hong, Ramayah, and Subramaniam (2018), require a basic grasp of workplace safety to be aware of potential hazards. Furthermore, Hong et al. (2018) discovered that workers' awareness is passed down from generation to generation. As a result, it also transmits risky behaviours and harmful situations that become customary and eventually become part of the company culture. Manufacturers must take advantage of their employees' knowledge and experience to compete in the current business climate, given the tendency toward worldwide legal standards. As a result, issues such as human resources, workplace safety, and occupational safety and health cannot be avoided (Phusavat et al., 2017).



In the manufacturing industries, workplace accidents are unavoidable, and they can cost a significant amount of money each year (Noor Aina Amirah, 2013). To avoid workplace accidents, all Malaysian enterprises should now be subjected to Occupational Safety and Health Practices (OSHP), as workplace accidents can impair corporate operations all over the world (Hamid, 2015). Occupational Health and Safety Practices (OSHP) are strategies, policies, actions, and procedures that a company can use to keep its employees safe (Vinodkumar, 2010). Manufacturing safety and health practises may reduce the likelihood of an accident occurring (Hamid, 2015). Accidents can be avoided by raising information with employees, industry, and the rest of the public. Employees may be influenced to improve workplace safety performance by a company's OSHA. Furthermore, installing a strong OSHP in the workplace would reduce the number of accidents while also delivering other advantages to the organisation (Yueng-Hsiang Huang, 2006).

#### 1.2 Problem Statement

Occupational Safety and Health Act (OSHA) aims to safeguard employees in the workplace against accidents, injuries, and hazardous material exposure, particularly in the manufacturing sector. Because incidents or accidents at work can happen at any moment, employers must take responsibility and ensure that they take the appropriate precautions to limit the risk of incidents or accidents while also providing a safe work environment. According to National Occupational Accident Statistics 2020, occupational accident rates in 2020, including the categories of fatalities and events, the reasons of the accident, the industry, and the states, will be available. These assertions are based on data from the Department of Occupational Safety and Health (DOSH) of the Ministry of Human Resources and the Social Security Organization (SOCSO). Manufacturing had the most occupational accidents in 2020, with 10,303 incidents, followed by service with 8,008, construction with 3,958 incidents, and wholesale and retail trade with 3,429.

Workplace accidents, injuries, diseases, and infections remain a serious concern in the industrial sector (Paivi Hamalainen, 2006). People in Malaysia continue to underestimate the significance of worker safety and well-being in the manufacturing industry. They are not unaware of the need of safety awareness. Several studies have found that businesses pay minimal or no attention towards their employees' safety and health. (Adebiyi, 2009). Nowadays, safety culture is a critical aspect in evaluating an organization's overall execution safety performance. The success or failure of a company is largely determined by its safety culture. Among the other factors that contribute to great safety performance is the function of safety culture. There are various types of manufacturing industries in Malaysia. Textiles, petrochemicals, automobiles, plastics, wood-based products, electronics, and many other industries exist. Because most workplace accidents are caused by unsafe actions, it is critical that individuals have a positive attitude when exhibiting safety behaviours. In this context, safety culture directs workers toward an appreciation of the importance of a safe working environment.

Nowadays, we frequently hear about accidents occurring in manufacturing companies (Gillespie, 2016). Accidents at work have a detrimental impact on countries and businesses in terms of loss of life, property, and damages (Yom, 2011). Poor or unwillingness to act on Occupational Safety and Health Practices (OSHP) in various companies will always result in an accident (Yusof, 2008). As a result, we may conclude that OSHA in the manufacturing industries is critical in preventing and eliminating workplace accidents and injuries (Said, 2015). Through their coherence and participation, safety culture organisations foster worker connection, trust, and involvement. They emphasise the importance of safety to one another and foster communication through teamwork. Furthermore, safety culture offers them with information on safety procedures in the organisation as well as the opportunity to share ideas and beliefs that help workers achieve organizational safety. Furthermore, it encourages employee participation in spreading safety information and developing communication networks and safety initiatives. It maintains a primary focus on the interior authoritative safety standard. Working in conjunction with health and safety trends.

Workplace accidents can be prevented if employees and employers are more aware of their surroundings and practise safe behaviour (Christian, Wallace, Bradley, & Burke, 2009). Furthermore, good OSH implementation will contribute to the development of a healthy safety culture because OSHA implementation encourages businesses to adapt to workers' safety and workers to accept some duty for their own safety. The importance of a health and safety policy cannot be overstated in an economy marked by underdevelopment, poverty, violence, threats, sickness, corruption, and so on. As a result of the numerous jobs individuals participate in, mortality and fatality rates will be lowered, and life expectancy will rise. Reducing unfavorable trends, such as occupational illnesses and injuries, has a negative impact on employees, their families, and the country. Consider the negative ripple effect that will follow if a family's breadwinner is killed or injured on the job. These unfavorable consequences will have an impact on the country. Overall health index has improved. OHSA is another method of protecting the public's health.