

THE RELATIONSHIP BETWEEN EMPLOYEES' SAFETY AND HEALTH ON
POTENTIAL HAZARD WITH REDUCE ACCIDENT AT WORKPLACE: A CASE STUDY
IN SYNTRONIXS ASIA SDN. BHD. MELAKA.

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This report is partial fulfilment of Bachelor Technology Management
(innovation) with Honour

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DECLARATION

“This report is product of my own work expect the citation for each of which i have mentioned the sources.”

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ABSTRACT

Now day safety and health is become importance element that need to take care and control at all level organization. Further, safety and health environment it becomes yield to improve the productivity, quality, finance and welfare of all community in organization. Released or not people in community is easily to exposure with the hazard relate with safety and health element. Across the country, millions of employee are navigate a path through for fulfil field works. Company is the place to produce and manufacture of output it also relationship with employee cooperation. Whether the company is at rural or urban, small or large and private or public management team will face safety and health point in order to provide the best and convenience places to all the community. This study is examine one of processor factory with is Sytronixs Asia Sdn. Bhd. Melaka. This study takes point of safety and health of employee will examine element such as characteristic environment, building and physical. In this study employee of this factory will be the respondent and the outcome from them be the evidence of this problem. The outcome for how far potential hazard was affected their quality safety and health. Recommendation of this study will discuss later on it will depend on the analysis.

ABSTRACT

Sekarang keselamatan dan kesihatan hari ini menjadi elemen penting yang perlu menjaga dan kawalan di semua organisasi peringkat. Selanjutnya, keselamatan dan kesihatan persekitaran ia menjadi tunduk kepada meningkatkan produktiviti, kualiti, kewangan dan kebajikan semua masyarakat dalam organisasi. Dilepaskan atau tidak orang dalam masyarakat mudah terdedah dengan bahaya yang berkaitan dengan keselamatan dan elemen kesihatan. Di seluruh negara, berjuta-juta pekerja adalah mengemudi jalan yang melalui untuk memenuhi kerja-kerja lapangan. Syarikat adalah tempat untuk menghasilkan dan pembuatan output ia juga hubungan dengan kerjasama pekerja. Sama ada syarikat itu di pihak pengurusan bandar atau luar bandar, kecil atau besar dan swasta atau awam akan menghadapi keselamatan dan segi kesihatan untuk memberikan yang terbaik dan kemudahan tempat-tempat untuk semua masyarakat. Kajian ini bertujuan mengkaji salah satu daripada kilang pemproses dengan adalah Sytronixs Asia Sdn. Bhd. Melaka. Kajian ini mengambil sudut keselamatan dan kesihatan pekerja akan mengkaji elemen seperti alam sekitar ciri, bangunan dan fizikal. Dalam kajian ini pekerja kilang ini akan menjadi responden dan hasil itu daripada mereka keterangan masalah ini. Hasil untuk bahaya yang berpotensi sejauh terjejas keselamatan kualiti dan kesihatan mereka. Cadangan kajian ini akan membincangkan kemudian ia akan bergantung kepada analisis

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Chapter 1: Introduction

1.0 Introduction

Factory produces process of chip for electronic is more too get high demand from electronic factory. Electronic device is growing rapidly in the world and offer variance chip in order to fulfil the demand of existing electronic device. Further, relate with ambition Dato Dr. Mahadir Muhammad as the third Prime Minister of Malaysian to achieve modern country status by 2020. However, the safety of employee especially at production line is sometime not along and parallel match with modern technology.

Health and safety should not be taken as small element. Basic hazard such as physical hazard, ergonomic hazard, work organization hazard, safety hazard, biological hazard, chemical and dust hazard. Every accident that occurs mostly resulting from lack of practice act in 1994 which have been established and some action while, Implementation of the Act 1994 indirectly can improve productivity, profits and losses resulting from the settlement of reduce insurance. The National Quality Forum's serious reportable events and recommendations of safe practices for healthcare organizations and the National Committee for Quality Assurance's (NCQA) quality measures (called the Healthcare Effectiveness Data and Information Set, or HEDIS) for managed care properly.

Risk and quality managers recognize that by collaborating to address overlapping issues and functions, they are more efficient in addressing shared interests and better able to focus on their distinct functions.

1.1 Background of the study

The purpose of this study is to examine the safety and health environment at Syntronixs Asia Sdn. Bhd. It will focus on OSH Act 1994 (Act 514). This study will discuss how the safety and healthy element will account the highest value of quality environment at this company.

Occupational safety and health (OSH) is the act that control basic human right relate with the situation, work place, safety, in the right time to prevent accident, injuries and illness. However, it concern about basic human right in case to protect individual from hazard and accident in environment life and to improve the quality of environmental life without fatal accident.

OSH had established specific standards in order to maintenance the safety and healthy environment to prevent injuries or illness. OSH act are acceptance among the world because of many agency and government are take importance about the human right of the individual.

Implementation of the Safety and Health in the Institutions of Higher Learning (IHL) is a smart step in ensuring the safety of staff and students continue to secure well as the steps to take in exposure in Occupational Safety and Health Act 1991 (Act 514)". (Universiti Malaysia Sabah, Arkid Buletin, 2013).

(Western Sydney university; hazard identification, risk assessment, and control procedure, 2015). Hazards are anything condition, situation, practice, behaviour, that has potential to cause harm include injuries, death, environment, property, and equipment damage.

There have few normal hazard that easy happen with is ergonomic hazard, physical hazard, safety hazard, biological hazard, and chemical hazard. However, every single accident that occurs is mostly result from a lack of practice act in 1994. Meanwhile, which have been established and some action while, Implementation of the Act 1994 indirectly can improve productivity, profits and losses.

"Therefore, the management has the responsibility to protect staff and other people who are in the institution, with measures to manage the risk of accidents in the development of this institution in order to damage caused by an accident at work can be controlled," (Tan Sri Lee Lam Thye, 2015), Institute of Occupational Safety and Health (NIOSH) chairman.

However, Tan Sri Lee Lam Thye said that OSH act 1994 (Act 514) provide framework to motivate individual about safety and health highest achievement at workplace. Further, it can ignite developing country achievement. Other than that, if organization team did not implement this act it may cause an accident relate with staff, student, contactor and citizen.

Definition of health in view of World Health Organization (WHO) is a state of complete physical, mental and social well-being and not merely the absence of disease or infirm it.

1.2 Problem statement

Quality of safety and health at Syntronixs Asia Sdn. Bhn. still at unsatisfied stage All employee need to improve the high exposure of risk and threat. This factory are located at kawasanperindustrianbatuberendammelaka and the neighbourhood with busy community with a lots of business, resident of student University Teknikal Malaysia Melaka (UTeM) hostel and current community business food and restaurant.

Relate with regulation under OSH Act 1996. The regulations implement European council directive 92/58/EEC on minimum requirements for the provision of safety sign at work. They require employers to provide safety sign where other method, properly considered, cannot deal satisfactorily with certain risks and where the use of a sign can further reduce that risk.

Current problem at Syntronixs Asia Sdn. Bhd. is lower of safety practise on physical and ergonomic hazard. Further, it will cover situation in classes and environment factory. On the overview, it seems that environment factoryis exposing to wiring, slip floor and lighting.

1.3 Research objectives

The focus of this study is to examine the safety and health element at this factory relate with the occupational safety and health act 1994 (Act 514). With the following objectives:

- a) To examine most potential hazard at Syntronixs Asia Sdn. Bhd.
- b) To investigating hazard effect to reduce accident.
- c) To examine current strategic planning in safety and health employee relate with four potential hazards.

1.4 Research questions

Research question for this study as the below:

- a) What is potential hazard at Syntronixs Asia Sdn. Bhd.
- b) How far hazard effect to increase accident.
- c) How far current strategic planning in safety and health employee relate with four potential hazards.

1.5 Scope and limitation

Scope of this study is focus on safety and health element on employee and professional at Sytronixs Asia Sdn. Bhn.

Limitation is new foreigner employee may not to understand the both language such as Bahasa Melayu and English. Further, they may not be aware conditions of poor safety element in factory because their still new with the environment. Management team of factory may not provide best collaboration because they too busy and have limited time to make discussion about study.

1.6 Assumption from the study

From this study it is assumed that this factory will improve quality environment with up to date more facility and safety practise at city campus area relate of variance of community employee working. Match with OSHA standard and rule. Syntronixs Asia Sdn. Bhd. will be more ahead compare to another factory in exposure about Occupational Safety and Healthy Act 1994. Further, will always get credibility trusted from the customer.

However, much pleasure with this study it will defence society of all employee. Further, for the employee will get feel satisfied of factory environment. Especially case relate with the hazard at production line.

1.7 Summary

The study need narrative of basic information about research relates with factory of processor electronic chip for electronic device, employee, relevant Act and OSH for general knowledge of audience. Further, it just shows a view of what this study all about. However, basic knowledge stills not enough evidence to prove the problem all about. The detail discussion will cover by the next chapter.

Chapter 2: Literature Review

2.0 Introduction

This chapter will continuous to discuss about safety and health in workplace environment. Further, it is more exposure of new knowledge relates with previous research in country or at oversees research. Although, with new exposure can make audient clearly about of focus research all about. Besides that, it was the way to achieve and strong evidence backup on three research objective researcher.

2.1 Occupational Safety and Health Administration (OSHA)

2.1.1 Occupational Safety and Health Act 1994

The Occupational Safety and Health Act (OSHA) 1994 - Act 415 is the registrations used around the world. These acts are existing act from act plant and machinery Act 1967. However, this act focused on safety of workers in terms of reference contraction and manufacturing as well as general mining act. Act 1994 was enacted to protect the safety and health of workers at work.

OSH Act 1994 is the act that covers of safety and health scope. Further, this act is available to all workplace in order to provide safety environment to every

single workers. The long-term goal of this act is to ensure safety and health being a culture at workplace and organizations.

Be half of that, all action preventive and safety and health program need to do it in order to realise of safety and health culture among employer and employees Malaysian. Be responsibility employer with employees with relate each other in case to make the mission OSH act 1994 are success. Section 15 (b) OSH Act 1994 said that the employer need to consider everything process, features, equipment and activity is follow the specification of safety and health. However, the employees need to insure that their activity not exposure with risk of safety and health. Further, the employees can make report if the employer not provides aspect of safety and health in activity work.

The OSHA is control potential hazard on employee such as on ergonomics, physical, mental and social loading, the structure of the work environment, occupational hygiene, the safety of machinery, eliminating the risk of accidents, as well as on the obligations of other people who influence safety at work.

2.1.2 Policy of OSH

Policy of the Department of Occupational Safety and Health is to provide a safe and healthy work environment for all its employees and protect them from risk by its activities.

Further, to make it success Department of Occupational Safety and Health need to provide general knowledge to employees in case of when risk are happen and what action that need to do it. Furthermore, general knowledge such as relevant information, training of preventive action, features and safety process in order to be well prepared about the risk of safety and health.

To make investigation about previous record of accident and risk analysis that be a critical part that exposure and in order to focus on action to eliminate, reduce, control, and improvement the action. OSH Act more to reduce the numbers of accident, fatal or non-fatal.

Further, OSH act policy tries the best to provide the good facilities for safety and health among the employees. Otherwise, OSH always make check up about the valid abilities and improvement of policy in ensure the recent policy will cover of safety and health scope.

2.2 Signage hazard

2.2.1 Definition of signage hazard

All safety signage is legislated by the health and safety (safety sign and signals) regulations 1996. Safety sign is a sign that providing importance of specific information about safety or health at workplace in order to give some instruction to workers and people around that area by representing a signboard, a colour, an illuminated sign or acoustic signal and a verbal communication or hand signal.

Signage standard are doing actually to provide visually orientate statement especially to student, faculty, staff and visitor to the university. Further, to provide a design of framework that establishes consistent aesthetic and quality from building to building.

2.2.2 Principle of Signage

Potential hazard will happen anyway but it depends on how the community at that area react and make an action to solve it. However, effectiveness and smart signage will minimise the risk. Effectiveness and smart signage is when in sign board having visual and text together, in order to maximum audience understanding about the risk and potential risk with the preventive action. Further according to Moscardo et al., (2004) the sign board need to have a short and normal word in order the workers easy to understand. However, research about safety label and sign had conducted at 1990s, through seminal study that reviewing key variables in the warning process Rogers et al., (2000).

Views of signage are also importance in order to represent safety and health information. According to Williams., (2007) and Noyes., (2007) the good safety sign on sign board is have difference shape, size and colour in order to make group of notice in order to attracts audient attention at that time. However, variety of notice will make audience be clearer with the knowledge. But according to Roger et al., (2000) the notice need to be separated with general knowledge surrounding information. It is because to ensure people not confusing and the increase of safety sign board function as guard to prevent risk.

According to Moscardo et al., (2004) signage safety sign board need to put at near with the location in order to easily remind the workers about the risk. Other than that, it helps to give fresh remind to the workers with preventive action. Almost the sign of fire will show image and colour with red in order to give remind that the object will easily exploded and serious order to worker to be more carefully. It relate with Matthews et al., (2014 and Roger et al., (2000) safety sign need to show a graphic visual demonstration of the hazard. Furthermore, the word including signal words such as danger, warning will increase demoting the level of hazard (Hellier et al., 2007; Wogalter., JarradandSimson., 1995).

Professional, student and visitor is come from variance age it is importance to provide safety sign with large size font to make sure easily to read. According to Signal words should be larger than text, and in colour can be read comfortable viewing distance (Braun & Clayton silver.,1995., Morgan., 2014).

Safety sign is more to self-explanatory with mean that from the view it makes workers to explanatory the meaning. So, when used some unfamiliar word, it is importance to distinct clearly of any unfamiliar sign. Further, the employees will aware with the risk by following warning or instruction given by the sign.

Relate by regulation 161 is information and instruction for employees of section 9 and 10 of act.

- a) *“Provide info to the employers employees or both as regards measures to be taken concerning safety or health sign used at work, especially sign incorporating words and the general and specific behaviour to be adopted in relation to those sign”.*
- b) *“Give employers employees suitable instruction, in particular in the form of specific direction concerning the safety or health signs used at work, which must include the meaning of sign”.*

Other than that, safety sign signboard has two parts such as permanent and occasional signs. However, for the permanent signboard is more to sign of fire-fighting, falling and traffic equipment. It is because the risk for the element is permanent. Occasional sign is more to illuminated sign and hand signal.

Safety sign colour is the instruction of risk by colour it will segmentation of risk group with the specific colour in order to increase workers understanding about the specific risk. In these regulations signs incorporating certain colour have specific meaning and function.

Table 2.1: safety sign colour sources by imperial college London., (2013).

No.	Colour	Meaning or purpose	Instruction and information
1	Red	Prohibition sign Danger alarm	Dangerous behaviour, stop, shutdown, emergency cut-out devices, evacuate
2	Yellow or amber	Warning sign	Be careful, take precautions, examine
3	Blue	Mandatory sign	Specific behaviour or action, wear protection equipment
4	Green	Emergency escape First-aid sign	Doors: exits, escape routes, equipment and facilities

Table 1 show the safety sign colour for all hazard. This segregate of colour is specific and it makes easier to other individual person to make differentiate about the order in what kind of safety sign all about. It is importance a basic knowledge among employee and community of factory to know a little bit about the signage sign all about in order to ensure they can implement the concept properly.

2.2.3 Signage as way finding

Signage of risk is more to give the knowledge to the workers about the potential risk and remind about the preventive action to the workers but signage of way finding is as the tool of find and inform the specific place to people. However the principle elements of signage still same.