

IMPROVING SAFETY PERFORMANCE IN
CONSTRUCTIONS PROJECT IN MALAYSIA
(CASE STUDY : IN KUANTAN)

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B.ENG (HONS.) CIVIL ENGINEERING

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IRADATUL HANIS BINTI ABD HAMID

Thesis submitted in fulfilment of the requirements
for the award of the degree of
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SUPERVISOR'S DECLARATION

I hereby declare that I have checked this thesis and in my opinion, this thesis is adequate in terms of scope and quality for the award of the degree of Bachelor of Engineering (Hons.) Civil Engineering.

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STUDENT'S DECLARATION

I hereby declare that the work in this thesis is my own except for quotations and summaries which have been duly acknowledged. The thesis has not been accepted for any degree and is not concurrently submitted for award of other degree

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LIST OF ABBREVIATIONS

OSHA	Occupational Safety and Health Administration
OSH	Occupational Safety and Health
UK	United Kingdom

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ABSTRACT

In both developing countries, the construction industry is considered to be one of the most significant industries in terms of its impact on health and safety of the working population. Construction industry is both economically and socially important. However, the construction industry is also recognized to be the most hazardous. The objectives of this research are to investigate the safety performance in the construction sites. The data were collected from the contractor, consultant and developer by using questionnaire to evaluate the safety performance in construction sites. The questionnaires were distributed to respondents. The result show that there were still a lack of commitment from government, insurance company, the labour ministry, the developers, consultants and also the contractors to improving safety performance on the construction sites. The suggestion is to improve the safety performance on the construction sites. The government should follow up the safety performance by visiting the construction sites. The insurance company should be more active in visiting the construction sites. The developer should be more active toward safety by controlling, visiting the process in construction sites. The contractors have to train the workers and promote the safety culture and follow up the safety performance. The consultant should control all the tools in the construction sites to insure that those tools are safe.

Keywords: Safety performance, construction project, Kuantan.

ABSTRAK

Di semua negara-negara maju, industri pembinaan dianggap sebagai salah satu industri yang paling memberi kepentingan kepada industri dalam istilah kesihatan dan keselamatan dalam populasi perkerjaan. Industri pembinaan sangat penting terhadap ekonomi dan social. Walaubagaimanapun, indusri pembinaan juga dikenalpasti sebagai yang paling bahaya. Tujuan penyelidikan ini adalah untuk mengkaji prestasi keselamatan di dalam tapak bina. Data yang telah dikumpul daripada kontraktor, perunding, dan pemaju menggunakan borang soal selidik untuk membuat penilaian terhadap prestasi keselamatan di tapak pemninaan. Boring soal selidik diagihkan kepada responden. Keputusan kajian menunjukkan masih kekurangan komitmen dari kerajaan, syarikat insuran, kementerian buruh, pemaju, kontraktor dan perunding untuk menambah baik prestasi keselamatan di tapak pembinaan. Pihak kerajaan haruslah membuat susulan terhadap prestasi keselamatan dengan membuat lawatan ke tapak pembinaan. Pihak pemaju haruslah lebih aktif terhadap kawalan keselamatan dengan melawat tapak pembinaan. Pihak kontraktor harus memberi latihan kepada pekerja dan memberi menggalakkan terhadap budaya keselamatan dan membuat susulan terhadap prestasi keselamatan. Pihak perunding harus mengawal semua peralatan di tapak pembinaan untuk memastikan peralatan selamat digunakan.

Kata kunci: keselamatan kerja, projek pembinaan, Kuantan

CHAPTER 1

INTRODUCTION

1.1 INTRODUCTION

In the developed as well as developing part of the world, construction industry is considered to be one of the most significant industries in terms of its impact on safety and health of working population. Construction industry is unique compared to other industries and the main characteristic of a construction project is that it very complex and one of a kind. Each project has a different nature of work, located at different workplace, employ different personnel and parties with different numbers and higher turnover, and produce different type of products. These variables are sufficient to cause the existence of continuous hazard at workplace throughout project life cycle.

In modern years, there are expected to be more large scale projects which normally involve the usage of high-level automation method of construction and therefore, it becomes more complex processes. The complexities of construction activities and the nature of working environment which constantly change contribute to greater and constant risks occurring at construction site at all times. This scenario has made most people to view construction industry as a high risk working environment as compared to others. The construction industry remains one of the most dangerous industries in which to work (Carter and Smith, 2006).

The prevention of construction accidents usually entails predicting future accidents and their nature under circumstances. The making of such prediction is based on knowledge about the past accidents. The major causes of accidents in the construction industry are related to the unique nature of industry, human behavior,

difficult work-site conditions, and poor safety management which result in unsafe work methods and procedures.

Due to the fact that accident rates in construction are high when compared to other industries, all parties involve needs to be fully prepares to deal with accident that may happen, undertaking proper investigations and reporting procedures afterwards. Accident statistics represent not only terrible human tragedies but also substantial economic costs. This is because accidents cause of damage to plant equipment and the loss of productive work time until the normal site working rhythm and morale are restored. Accident can also cause work disruption and reduce the work rate (Enshassi, 2007).

Several industries are showing increasing interest in safety culture as a means of reducing accidents and impact of positive safety culture on safety outcomes such as on injuries, fatalities and other incidents. Cooper (2000) recognized many industries around the world are showing an interesting in the concept of safety culture as a means of reducing the potential for large-scale disasters, and accidents associated with routine tasks.

The safety culture approach to accident reduction in high risk industry emphasis the role played by social forces within an organization that act upon its members with respect to safety (Clarke, 1990). Safety culture is about employee's safe behavior and practices towards safety. Therefore, creating a culture of safety to be created an atmosphere in which employees are aware of the hazards in their workplace, are continually on guard against them (Ostrom et al., 1993), and avoid taking any unsafe actions.

Hazard has been defined as a real or potential situation that may cause unintentional injuries or deaths to people; or damage; or loss of an item or belongings. It can be conducted by evaluating all on-site hazard elements. Safety performance of each element can be measured by evaluating the correspondent on-site factors.

1.2 PROBLEM STATEMENT

The significant number of accidents in construction industry reported and investigated from 2004 until 2008 as show in Figure 1.2 is sufficient to indicate the presence and quality of ongoing safety culture. It is inarguable that there was a decrease in number of accidents reported to Labor Department and Social Security Organization (SOCSO) in those five years, but it was not that reliable to justify a positive safety culture by referring to the number of accidents reported, because accidents rates can be reduced for a number of reasons, such as not reporting the accidents in order to get the rewards offered by management.

In some cases, accidents might not be reported due to near miss. In addition to that, there is no indicator established to measure the level of safety culture at construction sites in Malaysia.

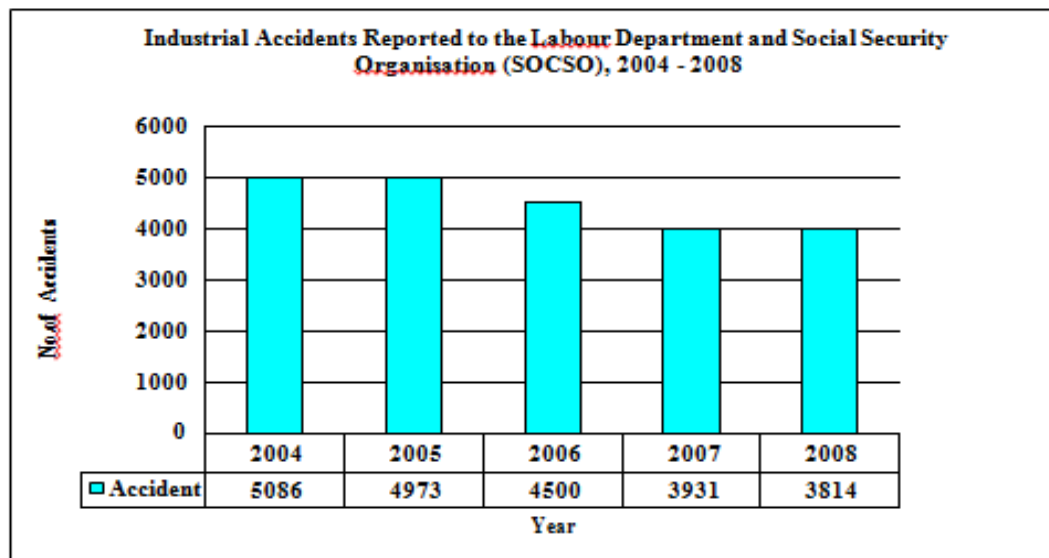


Figure 1.1: Construction Accidents Statistic, 2004 - 2008 (SOCSO Annual Report)

Developing a proactive safety culture may take long time and spend large sum of money for planning, investigating and implementing into each level within the organizations (Fung et al., 2005). However, in order to make the implementation of that safety culture more valuable, it is vital for the organization to setup the most appropriate safety culture that fit their situations.

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