

STUDY THE SAFETY BEHAVIOR IN SCAFFOLDING  
INDUSTRY

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STUDY THE SAFETY BEHAVIOR IN SCAFFOLDING INDUSTRY

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## DECLARATION

I declare that all the thesis work described in this dissertation is my own work (unless otherwise acknowledged in the text) and that none of the thesis work has been previously submitted for any academic Master programs. All sources of quoted information have been acknowledged through references

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## ABSTRACT

Occupational safety is often related with productivity, reputation and profit. Many factors that are attributed to workplace accidents and safety behaviour have received little attention in occupational safety studies instead unsafe behaviour of the employees at workplace is deemed to be the major cause for almost all accident cases in the industrial scope. More attention has been focused on the workers safety behaviour in compliance with the workplace safety than determining actual hazardous scope of work and finding effective measures to reduce fatality at workplace. We are astounded by the fact that, limited studies have been focused on scaffolding industry although this scope of work contributes quite high accidents in the construction industry. It is reported by the Social Security Organization of Malaysia that the most prevailing accidents in the construction field is the slip and fall type. This study will identified factors that affect employee's safety behaviour in scaffolding industry. Among the factors that will be discussed and analysed are safety policies, rules and procedures; safety communication and feedback, and finally safety training and PPE use training. The measurement tools that were adopted are from published work of previous researchers. The target respondents were the scaffold work related employees, currently working with the Shell Refinery at Port Dickson. A total of 120 respondents, choose at random had been distributed to the sample for the study consisting of four variables. Quantitative method using availability sampling used was applied in this research. The data gathered from the survey were analyzed using Statistical Package for Social Science (SPSS) version 11.0.1. The response to the survey were rated according to the Likert scale type with "1" indicated strongly disagree and "6" indicated strongly agree. The factors analysis indicated the numbers of factors extracted from this study was the same as those extracted from previous studies. This study showed that safety policies, rules and procedures; safety communication and feedback, and finally safety training and PPE use training was co-related to safety behavior in scaffolding industry.

**Keywords:** Safety behavior, Safety policy, Safety communication, Safety training, Scaffold

## ABSTRAK

Keselamatan pekerjaan sentiasa berkait rapat dengan produktiviti, reputasi dan keuntungan. Banyak factory yang menyumbang kepada kemalangan di tempat kerja dan tingkah laku keselamatan tidak menerima perhatian yang sewajarnya mengikut kajian keselamatan yang dilakukan sungguhpun tingkah laku yang tidak selamat menjadi penyumbang terbesar kepada kes-kes kemalangan yang berlaku dalam bidang industri. Malahan, lebih banyak perhatian telah ditumpukan kepada tingkah laku keselamatan pekerja dalam memastikan keselamatan di tempat kerja. Walaupun laporan Organisasi Keselamatan Sosial Malaysia menyatakan bahawa kerja-kerja memasang perancah menjadi penyumbang kemalangan yang agak tinggi dalam industri pembinaan khususnya kemalangan akibat tergelincir dan jatuh dari perancah, namun, tumpuan dan perhatian yang diberikan terhadap kajian industri perancah adalah terlalu rendah dan masih mempunyai ruang untuk penambahbaikan urusan tingkah laku keselamatan. Kajian ini dituju untuk mengenal pasti faktor-faktor yang menjejaskan kelakuan keselamatan pekerja dalam industri perancah. Antara faktor yang dibincang dan dianalisis adalah berkenaan keselamatan dasar, peraturan dan prosedur; komunikasi keselamatan dan maklum balas, dan latihan keselamatan dan latihan penggunaan PPE sebagai penyudah. Alat pengukur yang diguna dalam kajian ini adalah sama dengan alat pengukuran yang telah diterima pakai oleh kajian-kajian yang diterbitkan penyelidik sebelum ini. Sasaran responden terdiri daripada pekerja-pekerja yang secara tidak langsung terlibat dengan kerja-kerja pembinaan perancah di Shell Penapisan di Port Dickson. Seramai 120 orang responden dipilih secara rawak untuk sampel kajian yang merangkumi empat pemboleh ubah. Kaedah kuantitatif dan kaedah persampelan telah digunakan dalam kajian ini untuk memperolehi butiran yang lebih terperinci. Data yang dikumpul daripada kajian, dianalisis dengan menggunakan Pakej Statistik Untuk Sains Sosial (SPSS) versi 11.0.1. Respon atau reaksi kaji selidik dinilai mengikut jenis skala Likert dengan angka "1" menunjukkan amat tidak setuju manakala angka "6" menunjukkan sangat setuju. Analisis faktor menunjukkan bilangan faktor yang diekstrak daripada kajian ini adalah sama seperti yang diekstrak daripada kajian sebelumnya. Kajian ini menunjukkan keselamatan dasar, peraturan dan prosedur; komunikasi keselamatan dan maklum balas, dan latihan keselamatan dan latihan penggunaan PPE berkaitan dengan tingkah laku keselamatan dalam industri perancah.

Kata kunci : Keselamatan tingkah laku, dasar Keselamatan, komunikasi Keselamatan, latihan Keselamatan, Perancah

## **DEDICATION**

This thesis is dedicated to my parents Mr.Subramaniam and Mrs Mariammal who have supported me all the way since the beginning of my studies.

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## **CHAPTER ONE**

### **INTRODUCTION**

#### **1.0 Introduction**

This chapter focus specifically on the safety behaviour in multi level employees involved in the scaffolding industries especially in the oil and gas field. The factors and challenges faced by the scaffold industry in safety behaviour are explained in this chapter. This chapter provides accurate information about the objectives, pertinence of research and benefits which will be useful to the management of the organization to identify accidents that occurs due to the cause of safety behaviour. This chapter would also justify the main factors attributed to cause for unsafe behaviour among workers and management staff. The study of this research is certain to benefit all scaffolding organizations in their operational management as per their vision and mission.

Scaffolding is a temporary structure and temporary working platform used to support people and material in the construction or repair of buildings and other large structures. There are a few types of scaffold structure such as independent tower, bracket tower, scaffold tower supported by building, suspended scaffold and trestle scaffold (Factory and Machinery Act 1967-Building operation and works of engineering construction safety regulations). In Malaysia, scaffold used in almost all construction area such as high rise building, petrochemical industries and also in offshore works. All scaffolding erections

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