

COST OF COMPLIANCE WITH SAFETY AND HEALTH REQUIREMENTS IN
CONSTRUCTION SITE

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ABSTRACT

Malaysia's construction industry has been well growing, yet become one of the major contributors in its economic growth. Even so, it has been considered as a dangerous job since the number of accidents and fatalities are in alarming state despite of many safety regulations and legislation exercised. Lacking of compliance with the regulations and legislation can cause the standard of safety in construction industry be questioned hence may cause loses, delays, or termination of a construction project. It is critical for a contractor to comply with the regulations and legislations in order to reduce accident cases, and regain good standard for construction industry. There will be cost impose regarding to compliance with the safety requirements. This study has collected twenty (20) main elements which comprise of three to eleven sub-elements of safety and health requirements in construction site. The requirements were gained from thorough study of Occupational Safety and Health Act (OSHA) 1994, Factory and Machinery Act (FMA) 1967, and Building Operations and Work of Engineering Construction (BOWEC) Regulations 1986 as well as the revision and interview of safety and health officers. The study has successfully determined the level and cost of compliance with safety and health in construction site, hence four comparisons of level and cost of compliance have been made.

ABSTRAK

Industri pembinaan di Malaysia bukan sahaja semakin meningkat, malah menjadi salah satu penyumbang kepada pembangunan ekonomi negara. Walaupun begitu, ia dianggap sebagai pekerjaan yang berbahaya disebabkan bilangan kemalangan dan kematian yang membimbangkan di dalam industri ini meskipun terdapat banyak peraturan dan undang-undang keselamatan diperkenalkan. Ketidakpatuhan terhadap peraturan dan undang-undang ini boleh menyebabkan nilai aspek keselamatan dan kesihatan di dalam industri pembinaan dipersoal. Selain itu, ketidakpatuhan tersebut boleh juga menyebabkan kerugian, kelewatan, dan penamatan sesuatu projek binaan. Peranan kontraktor untuk mematuhi peraturan dan undang-undang adalah sangat kritikal bagi mengurangkan kes kemalangan di tapak bina dan membaik pulih nilai keselamatan dan kesihatan dalam industri pembinaan. Hasil kajian telah berjaya mengenal pasti 20 elemen utama aspek keselamatan dan kesihatan di tapak bina yang harus dipatuhi di setiap tapak projek. Setiap elemen ini pula merangkumi tiga hingga sebelas sub elemen yang wajib dipatuhi. Elemen-elemen keselamatan dan kesihatan ini telah diperolehi daripada Akta Keselamatan dan Kesihatan Pekerjaan 1994 (OSHA), Akta Kilang dan Mesin 1967 (FMA), BOWEC 1986 dan melalui perbincangan dengan Pegawai Keselamatan dan Kesihatan (SHO). Kajian ini juga telah berjaya mendapatkan maklumat mengenai tahap dan kos pematuhan undang-undang keselamatan, malah empat perbandingan telah dilakukan bagi data tahap pematuhan dan data kos pematuhan.

TABLE OF CONTENTS

CHAPTER	TITLE	PAGE
	TITLE	i
	DECLARATION	ii
	DEDICATION	iii
	ACKNOWLEDGEMENTS	iv
	ABSTRACT	v
	ABSTRAK	vi
	TABLE OF CONTENTS	vii
	LIST OF TABLES	xiv
	LIST OF FIGURES	xv
	LIST OF SYMBOLS AND ABBREVIATION	xxvi
	LIST OF APPENDIX	xxvii
1	INTRODUCTION	
	1.1 Background	1
	1.2 Problem Statement	2
	1.3 Aim and Objectives of the Study	3
	1.4 Scope of the Study	4
	1.5 Methodology	4
	1.6 Expected Findings	6
2	LITERATURE INTERVIEW	
	2.1 Introduction	7
	2.2 Accident in Construction	8

2.2.1	Causes of Accident	9
2.2.1.1	Direct Causes	10
2.2.1.2	Indirect Causes	11
2.2.1.3	Basic Causes	12
2.2.1.3.1	Lack of Attention to Personal Safety Protection by Worker	12
2.2.1.3.2	Lack of Attention to Safety Management by Main Contractor/ Project Managers	13
2.2.1.3.3	Insufficient Safety Training	13
2.2.1.3.4	Inadequate Setting of Safety Level	14
2.2.1.3.5	Tiredness of Workers	14
2.2.1.3.6	Poor Quality of Construction Materials and Equipments	14
2.2.2	Cost of Accident	15
2.2.2.1	The Cost of Accident to An Employee	16
2.2.2.2	The Cost of Accident to An Employer	16
2.2.3	Construction's Relationship to Safety	17
2.2.3.1	Hazards	18
2.2.3.2	Risk	19
2.2.3.3	Safety	19
2.2.3.4	Risk Management and Safety Program	20
2.2.3.5	Safety and Health Regulations in Malaysia	21
2.3	Accident Prevention	22
2.3.1	Introduction	22

2.3.2	Reasons for Preventing Accident	23
2.3.2.1	Legal Reasons for Accident Prevention	23
2.3.2.2	Humanitarian Reasons for Accident Prevention	24
2.3.2.3	Economic Reasons for Accident Prevention	25
2.3.3	Benefits of Accident Prevention	26
2.4	Accident Prevention Techniques	27
2.4.1	Hazards Identification, Evaluation, and Control	27
2.4.1.1	Hazards Identification	28
2.4.1.2	Hazards Evaluation and Assessment	31
2.4.1.3	Hazards Control	32
2.4.2	Fire, First Aid, and Emergency Procedures	34
2.4.2.1	Fire	34
2.4.2.2	First Aid	35
2.4.2.3	Emergency Procedures	36
2.4.3	Safety Training	38
2.4.4	Risk Management	39
2.4.4.1	Risk Management Techniques	39
2.4.4.2	Risk Avoidance	40
2.4.4.3	Risk Retention	41
2.4.4.4	Risk Transfer	41
2.4.4.5	Risk Reduction	42
2.5	Accident Investigation and Reporting	42
2.5.1	Introduction	42
2.5.2	Statutory Requirements	44
2.5.2.1	Notification of Accident, Dangerous Occurrence, Occupational Poisoning And Occupational Disease (NADOPOD)	44
2.5.2.2	Social Security Act	46
2.5.3	Accident Reporting	48
2.5.4	Accident Investigation	49

	2.5.4.1	Investigation Report	50
	2.5.4.2	Accident Investigation Checklist	51
2.6		Accident Costs	54
	2.6.1	Workplace Accidents and Its Costs	54
	2.6.2	Types of Accident Costs	55
	2.6.2.1	Direct Costs	56
	2.6.2.2	Indirect Costs	57
	2.6.2.3	Quality of Life Costs	59
	2.6.3	Accident Cost Diminution	60
2.7		Safety Enforcement and Regulations	62
	2.7.1	Introduction	62
	2.7.2	The Department of Occupational Safety and Health (DOSH)	63
	2.7.3	Enforcement	64
	2.7.3.1	Approval	64
	2.7.3.2	Registration	65
	2.7.3.3	Accreditation	65
	2.7.3.4	Inspection	65
	2.7.3.5	Investigation of Accident and Complaints	66
	2.7.4	Factories and Machineries Act (FMA) 1967	66
	2.7.5	Building Operations and Work of Engineering Construction (BOWEC) 1986	66
	2.7.6	Occupational Safety and Health Act (OSHA) 1994	67
	2.7.6.1	Introduction	67
	2.7.6.2	Objectives of OSHA 1994	69
	2.7.6.3	Salient Provisions under the OSHA 1994	70
	2.7.6.3.1	National Council for Occupational Safety and Health	70
	2.7.6.3.2	General Duties of Employers And Self-Employed Persons	71
	2.7.6.3.3	General Duties of Designers,	72

	Manufacturers, and Suppliers	
2.7.6.3.4	General Duties of Employees	74
2.7.6.3.5	Safety and Health Organizations	76
2.7.6.3.6	Notification of Accident, Dangerous Occurrence, Occupational Poisoning And Occupational Disease (NADOOPOD) and Inquiry	77
2.7.6.3.7	Prohibition against use of Plant and Substance	78
2.7.6.3.8	Industry Codes of Practice	79
2.7.6.3.9	Enforcement and Investigation	79
2.7.6.3.10	Liability for Offences	81
2.7.6.3.11	Appeals	82
2.7.6.3.12	Regulations	83
2.7.6.3.13	Miscellaneous	83

3 RESEARCH METHODOLOGY

3.1	Introduction	85
3.2	Conceptualization	86
3.3	Literature Review	87
3.4	Data Collection	87
3.4.1	Document Studies	88
3.4.2	Interview	88
3.4.3	Questionnaires Survey	89
3.5	Data Analysis	89
3.5.1	Likert Scaling Method	90
3.6	Conclusion and Recommendations	91

4 DATA ANALYSIS AND DISCUSSION

4.1	Safety and Health Requirements in Construction Site	92
4.2	Level of Compliance with Safety and Health	107

	Requirements in Construction Site	
4.2.1	Level of Compliance with Safety and Health Requirements in Construction Site in Selangor	107
4.2.2	Level of Compliance with Safety and Health Requirements in Construction Site in Terengganu	121
4.3	Cost of Compliance with Safety and Health Requirements in Construction Site	136
4.3.1	Cost of Compliance with Safety and Health Requirements in Construction Site in Selangor	136
4.3.2	Cost of Compliance with Safety and Health Requirements in Construction Site in Terengganu	151
4.4	Comparison of Level of Compliance with Safety and Health Requirements in Construction Site	167
4.4.1	Comparison of Level of Compliance with Safety Health Requirements in Construction Site in Selangor	167
4.4.2	Comparison of Level of Compliance with Safety Health Requirements in Construction Site in Terengganu	181
4.4.3	Comparison of Level of Compliance with Safety Health Requirements in Construction Site in Big Project	195
4.4.4	Comparison of Level of Compliance with Safety Health Requirements in Construction Site in Small Project	209
4.5	Comparison of Cost of Compliance with Safety and Health Requirements in Construction Site	224
4.4.1	Comparison of Cost of Compliance with Safety Health Requirements in Construction Site in Selangor	224
4.4.2	Comparison of Cost of Compliance with Safety Health Requirements in Construction Site in Terengganu	238
4.4.3	Comparison of Cost of Compliance with Safety	253

Health Requirements in Construction Site in
Big Project

4.4.4 Comparison of Cost of Compliance with Safety 268

Health Requirements in Construction Site in
Small Project

5	CONCLUSION AND RECOMMENDATION	
5.1	Conclusion based on Objective 1	285
5.2	Conclusion based on Objective 2	291
5.3	Conclusion based on Objective 3	292
5.4	Conclusion based on Objective 4	293
5.5	Conclusion based on Objective 5	294
5.6	Recommendations	294
	REFERENCES	295
	APPENDIX	299

CHAPTER 1

INTRODUCTION

1.1 Background of Study

It is undeniably that local construction industry has contributed so much in Malaysia's economic growth. Many upcoming projects have been planned for Ninth Malaysia Plan and large amount of money has been provided for that purpose. Despite of its contributions for economic sector, the number of accident and fatalities in construction site is upsetting. Furthermore, construction is generally one of the industries which fatal injuries happened most frequently and many researches and studies has shown that high percentage of fatal occupational injuries come from construction industry (Im et. al, 2009).

Extensive efforts have been taken in order to reduce the accident rates and further improve the image of the occupational safety and health (OSH) thus Malaysia has introduced the Malaysian Occupational Safety and Health Act (OSHA) in 1994. Despite so, these initiatives undertaken are still unsatisfactorily when each and every year the statistic data shows little improvement in the number of accidents and fatalities.

The construction activities need to be carried out in accordance to OSH best practice as it will affect many aspects of the construction stages when there is lost of working days due to industrial injuries and large significant financial loss. One solution that can improve the OSH effectiveness in construction site is through sufficient allocation and provision of OSH specification in all stages stipulated in the contract document.

1.2 Problem Statement

Statistics has shown that there is seemed to be no cure to accidents in local construction. The alarming number of fatalities in construction site shall not be taken lightly. According to statistics provided by DOSH as shown below, there are 907 death cases in construction site that was reported to SOCSO for year 1998 to 2006. In addition to that, there are 95 death cases were investigated by DOSH in 2007 and 72 cases in 2008

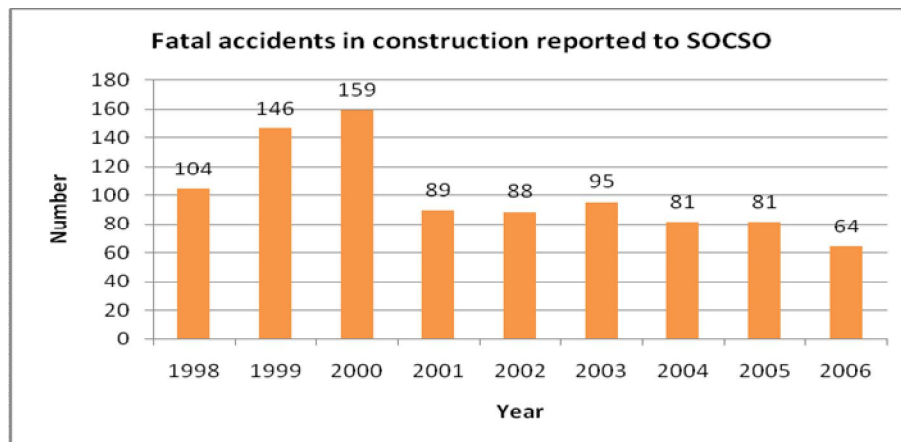


Figure 1.1: Statistic of Fatal Accidents in Construction

Source: SOCSO Annual Report

In a construction project, contractor must allocate certain amount of money regarding to safety requirements. However, the allocated amount was not fully used in construction practice. This is depends on the level of compliance with the safety and health requirements by the company. Insufficient capital towards compliance with the requirements is one of the causes of defective Occupational Safety and Health (OSH) management (Lin and Mills, 2001).

There is a need to improve the standard of safety and health in construction site. Contractors and clients play an important role to improve their OSH management. The level and cost of compliance with safety requirements in construction site is crucial to decrease accidents. Therefore, it is essential for the contractors and clients to drive a project towards safety by focusing on compliance with the safety and health requirements.

1.3 Aim and Objectives

The aim of this study is to determine the cost of compliance with safety and health requirements in construction site. So as to achieve the aim, the following objectives need to be completed:

- i. To study safety and health requirements in construction site.
- ii. To study the level of compliance with the safety and health requirements among contractors.
- iii. To determine the cost of compliance with the safety and health requirements.
- iv. To compare the level of compliance with safety and health requirements between Selangor and Terengganu.
- v. To compare the cost of compliance with the safety and health requirements between Selangor and Terengganu.

1.4 Scope and Limitations

The study will be conducted on Class A contractors in Selangor and Terengganu area.

1.5 Methodology

1.5.1 First stage: Identification of problems and scope of study

The first stage involved further understanding of research topic; consist of problem statement, aim and objectives, as well as scope and limitations of study. Literature reviews are done on previous studies, journals, statistics, books, Malaysian enacted acts, safety manuals, and newspaper.

1.5.2 Second stage: Data collections

Information and data is collected using the following methods:

- i. Documents study from collected resources.
- ii. Interviews will be held with safety and health officers in order to review collected data from document study and to consult in improving questionnaires. Besides that, the views of expert panels regarding the current practice of compliance in safety and health requirements may help in to conclude the result of the study.

- iii. Questionnaires will be distributed to Class A contractor regarding the level and cost of compliance with safety and health requirements in construction site.

1.5.3 Third stage: Results and data analysis

The results obtained will be presented in tables, graphs and charts. Likert Scaling method will be used to obtain level of compliance towards safety and health requirements.

1.5.4 Final stage: Conclusions and recommendations

The conclusions and recommendations will be based on the results obtained from the questionnaires.

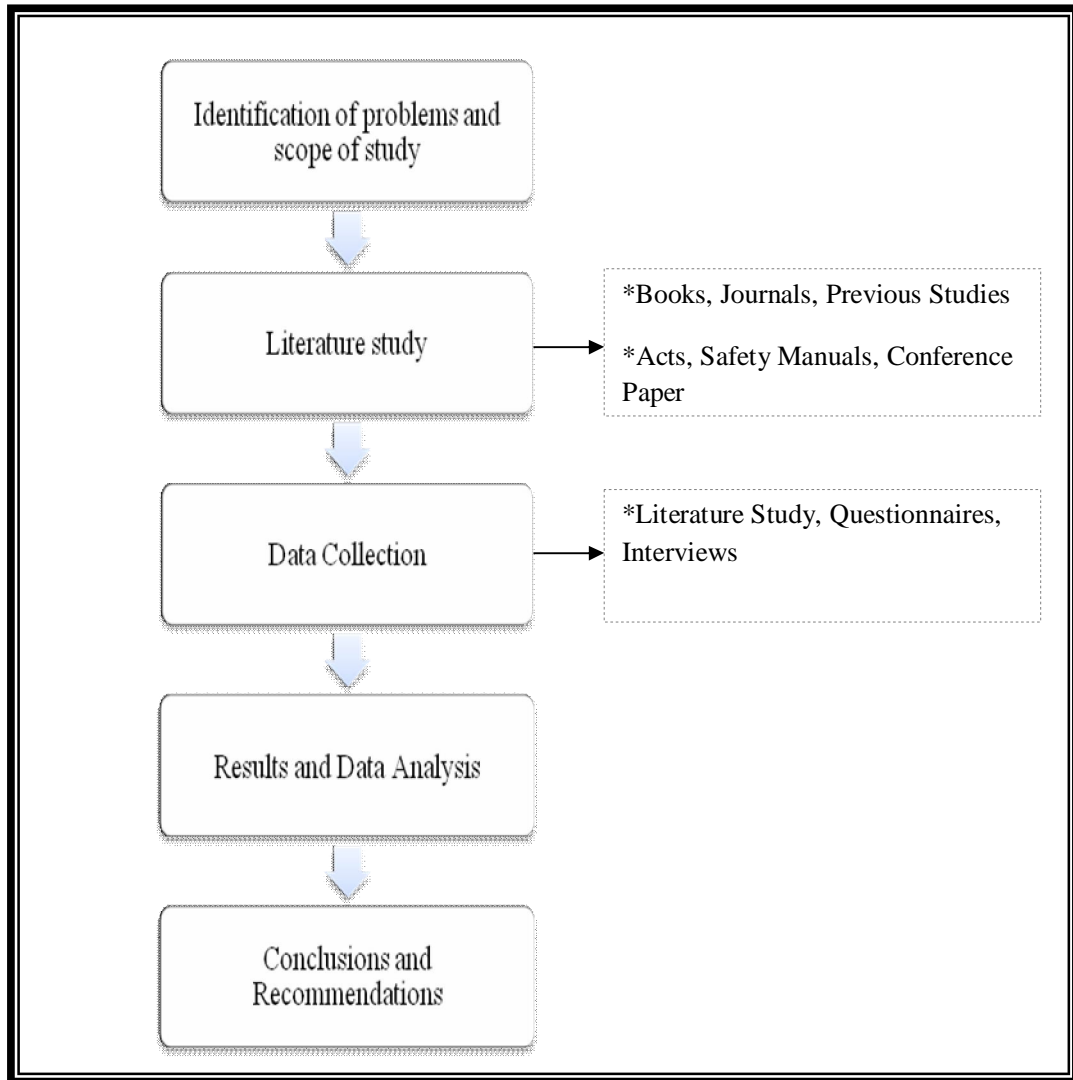


Figure 1.2: Flow chart of research methodology

1.6 Expected Findings

The safety and health requirement in construction site as set by legislative bodies will be identified. The level and cost of compliance with the safety and health requirement can be determined. The level and cost of compliance in Selangor will be more or less when compared to Terengganu.

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