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A Study of
Restricting the Multi-layers Subcontracting Practice
To Improve the Safety Performance of the
Hong Kong Construction Industry

By

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Declaration of Originality

The following work has been completed by the author as coursework research project report in the Master of Applied Science (Safety Management) at the University of Western Sydney, Hawkesbury in conjunction with The Hong Kong Polytechnic University under the supervision of Mr. Francis Wong.

I hereby declare that this submission is my own work and that, to the best of my knowledge and belief, it contains no material that has previously published or written by another person nor material which to a substantial extent has been accepted for the award of any other degree or diploma of a University or other institute of higher learning, except where due acknowledgement has been made in the text.

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Abstract

The Hong Kong Construction industry has a very poor safety record. The multi-layers subcontracting practice has blamed as one of the major causes of such poor safety performance. Some people suggested to have legislation to restrict the multi-layers subcontracting practice in order to improve the safety performance of the construction industry. However, restriction might bring with it a great impact, which might not be welcomed and supported by the construction industry. A research was conducted to explore the feasibility of restricting the multi-layers subcontracting practice within the Hong Kong construction industry.

The research firstly provided an overview of the current subcontracting status and followed by the perception of the industry regarding to the multi-layers subcontracting practice. The research found that principal contractors actually did not have appropriate control over the subcontractors. A lot of time the subcontractors would just go ahead and do the work without prior approval from their principal contractors. The multi-layers subcontracting practice has proved to have correlation with the safety performance. It was considered that reduction of the subcontracting levels could improve the safety performance, but legislate against the multi-layers subcontracting would not be the best solution for improving the safety performance, neither was it supported by the construction contractors at large.

The research concluded that it has inappropriate to restrict the multi-layers subcontracting practice of the Hong Kong construction industry. The research finally provided recommendations for alternative measures for improving the safety performance in three concerned areas, which were categorized as strengthen the control of subcontractors, legislation and enforcement as well as technological

changes. It is expected that the safety performance of the Hong Kong construction industry could be improved in consideration of the proposed alternative measures and reduction of excessive subcontracting.

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Chapter 1 : Background

1.1 Definitions

For the purpose of this research the follow definitions are applied:

Principal Contractor :-

Defined by the Hong Kong Government (1998) that the contractor that have direct contract relationship with the developer or his representatives, who is wholly responsible and execute and complete the contract work.

Subcontractor :-

Defined by the Hong Kong Government (1998) that any merchants, tradesmen, firms, partners and the like executing any part of the works and/or carrying out any part of design of the works or supplying materials or services for the works who have been employed by the principal contractor. However, any parties solely responsible for materials supply will not be defined as subcontractor in this research.

Multi-layers subcontracting practice :-

Defined by Carter (1995) as:

- Bringing on site specialist skills or trades not supplied by the principal contractor.
- Successive subletting of a subcontract through a number of layers.

Accident Rate :-

Definition : Number of Accidents per 1,000 workers.

The equation :

Accident Rate =

Total number of accidents / Average number of workers per day x 1,000

1.2 Introduction

Hong Kong is a world class city. In 1998, the number of persons engaged in industrial activities constituted about 28 percent of Hong Kong's working population. However, the industrial sector recorded 43,034 loss-time industrial accidents in 1998 representing 68 percent of all worked-related loss-time injuries. Of these, 19,588 loss-time accidents or 45.5 percent happened in construction industry. This accounted for an accident rate of 248 per thousand workers. Next came the catering industry that had an accident rate of 74 per thousand workers against the industrial average of 64.7 per thousand (Cheung, 2000).

According to the accident statistic from the Labour Department (1998), the safety record of construction industry was poor and much worse than other industries in Hong Kong. The reasons of the poor safety record may correlate with many factors such as complexity of the work or system, high-risk nature of works, management style, lack of safety concern or knowledge, safety commitment and personal behavior (Stranks 1994). Surprisingly the multi-layers subcontracting practice is unique to the Hong Kong construction industry and has been the most common practice being used with long history. When a principal contractor secured a project from a developer, usually it would break down the project activity into different trades or work nature and then sublet each category to individual subcontractors with the lowest bid (Lee 1991). These subcontractors would normally further subcontract their work without the consent of their principal contractor to several smaller firms in order to minimizing manpower and equipment cost and time pressure. Lai (cited in Lee 1991) reported that the number of subcontractors in one construction site might ranged from 17 to 54, the structure and size of them were vary, some can have as few as one or two employees only.

Some scholars and Government officials criticized that the multi-layers subcontracting practice was the source of poor safety record of the Hong Kong construction industry. The problems of the multi-layers subcontracting practice have long been an issue and a controversial subject in the industry. In the recently, many people including the President of the Construction Health and Safety Group UK (Linehan 2000a), the Chairman of the Hong Kong Housing Authority (Wong 2000a), the Executive Director of the Construction Industry Training Authority (Tong 2000) and the Vice-Chairman of the Hong Kong Construction Industry Employees General Union (Choy 2000), all suggested to have legislation for restricting the subcontracting practice in the construction industry for better safety performance.

Although restriction of the subcontracting practice may improve safety performance of the Hong Kong construction industry, it would be extremely difficult to push it forward in the workplace due to the traditional work practice, management and economic problems. Both of the Secretary for Works of the Hong Kong Works Bureau (Lee 1999a) and the Lecturer of the Real Estate and Construction Department of the Hong Kong University (So 2000) disagreed to restrict the multi-layers subcontracting practice. They considered that the subcontracting practice has great market values for the industry, which ought not be interfered by the legislation. The best evidence they referred to was the antiquity of the subcontracting practice with the industry in Hong Kong. It is suggested that a research is worthwhile to explore whether restriction of the multi-layers subcontracting practice is practicable and acceptable by the industry.

1.3 Aim

This research aims to explore the practicability and acceptability of restriction of the multi-layers subcontracting practice in the Hong Kong construction industry.

1.4 Objectives

- To review the current status of the multi-layers subcontracting practice in the construction industry.
- To determine the correlation between safety performance and the multi-layers subcontracting practice.
- To explore the perception of the industry towards the multi-layers subcontracting practice.

1.5 Hypothesis

1. The multi-layers subcontracting practice is correlate with safety performance.
2. Legislation to restrict the multi-layers subcontracting practice will not welcome and support by the construction industry at large.

1.6 Limitation of the Research

The subcontracting practice actually affecting of safety, quality and productivity, however this research would mainly focus on the safety concerns only.