

UNIVERSITI TEKNOLOGI MARA

**A FRAMEWORK OF
IMPROVEMENT FOR PUBLIC
SAFETY PRACTICES AT
TRANSPORTATION
CONSTRUCTION SITES IN
CONGESTED URBAN AREAS**

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ABSTRACT

Since the 1980s, Malaysia's construction industry has been a critical driver of economic growth, contributing significantly to employment and national development. However, the rapid expansion of construction activities particularly in congested urban areas has led to increased safety risks. Construction projects are often under pressure to meet tight deadlines which resulting in compact work schedules that increase the likelihood of accidents. These risks not only endanger workers but also pose significant threats to the surrounding public and environment. Therefore, this study focuses on improving public safety practices by developing a comprehensive Public Safety Practices Framework (PSP-F) tailored to construction sites in urban environments. To achieve the aim, this study comes with few objectives; 1) to identify public safety practices criteria in construction sites in congested urban areas, 2) to determine current public safety practices in construction sites in congested urban areas, 3) to ascertain the improvement of public safety practices in construction sites at congested urban areas, and 4) to develop Public Safety Practices Framework (PSP-F) at construction sites in congested urban areas. Through a qualitative research design, semi-structured interviews were conducted to gather insights from professionals in the construction industry. The study focused on improving essential public safety criteria, evaluating the effectiveness of current practices, and pinpointing areas where improvements are immediately needed. The result of this research is the development of the PSP-F which is a structured framework that improves safety measures by promoting improvement strategies. The framework advocates for stronger monitoring, improved accountability, and better compliance across all levels of construction site operations. By implementing this framework, construction industry can improve public safety, protect surrounding public communities, and contribute to safer urban development.

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CHAPTER 1

INTRODUCTION

1.1 Research Title

A Framework of Improvement for Public Safety Practices at Transportation Construction Sites in Congested Urban Areas.

1.2 Introduction

This chapter explains the background of this research followed by four (4) stated problem statements, research aim and objectives, and research questions. The methods of the research are greatly briefed in this chapter completed with the flowcharts and diagrams. The scope and limitation of this study is also contained in this chapter as well as the significance of this study.

1.3 Research Background

In Malaysia, ever since the 1980s, the growth of construction industry has contributed to the great economic value in terms Malaysia's of employment and developmental plans. Companies in the construction industry are more often targeted for projects to be completed on time which will lead to compact work schedules and make daily construction site operations riskier. On top of that, the construction building design itself involves architectural, structural, electrical, and mechanical works exposed to hazards in workplace and leading to high likelihood of accidents which is affected to public citizens too (Gharamanzadeh, 2014). According to study conducted by Khan, Liew and Ghazali (2014), Malaysian economy must perform efficiently and to play effective role in making true the dream of developed nation status. The construction sector has been playing a significant role in aggregate economy of the country in term of its contribution to revenue generation, capital formation and employment creation which ultimately support the gross domestic product (GDP) and the socio-economic development of Malaysia. Considering the substantial role of construction sector in economic development of Malaysia, it is necessary for Malaysia government to give attention and focus on construction sector for qualifying the title of developed nation.