# UNIVERSITI TEKNOLOGI MARA

# CONSTRUCTION PROJECT MANAGEMENT BODY OF KNOWLEDGE (CPMBOK) FRAMEWORK FOR THE MALAYSIAN CONSTRUCTION INDUSTRY

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#### **ABSTRACT**

Standardised project management frameworks significantly benefit the global construction industry. However, Malaysia's unique construction landscape necessitates adaptations to address local practices and cultural nuances. Existing bodies of knowledge (BOKs) frequently fail to adequately capture the challenges faced in Malaysia, as construction professionals have different interpretations of what construction project management entails. This has led to frequent project delays, cost overruns, and inconsistencies in project management practices. This research aimed to develop an improved, tailored Construction Project Management Body of Knowledge (CPMBOK) framework for Malaysia's construction industry to address these gaps and improve project outcomes. The objectives are to determine the essential duties, tasks, and activities that form the CPMBOK for Construction Project Managers (CPMs) in Malaysia; to develop a conceptual framework by synthesising these elements within the Malaysian context; to assess the framework's applicability in improving project management practices; and to validate its relevance and significance for the local industry. A qualitative approach was employed, commencing with a literature review to guide the development of a conceptual framework. Document analysis was conducted to further establish this framework. Subsequently, a funnel approach was used to refine the identified duties, tasks, and activities through two-stage focus group discussions with industry professionals recommended by the Construction Industry Development Board (CIDB). Data analysis employed systematic thematic analysis to determine the duties, tasks, and activities required of Construction Project Managers (CPMs) throughout the project lifecycle: conceptualisation, design, tendering, construction, and close-out. The resulting improved CPMBOK framework encompasses 25 duties, 49 tasks, and 110 key processes. It integrates three important elements: integrated regulatory compliance, culturally sensitive stakeholder management, and locally adapted risk assessment approaches. Evaluation of the improved CPMBOK framework within INTAN's training programmes revealed its effectiveness as a foundation for curriculum improvement and its practical value in addressing local project challenges, particularly in enhancing decision-making during the initial conceptualisation phase. The improved CPMBOK framework offers several key benefits: standardised project delivery methods, increased consideration of local contexts, and improved project implementation outcomes. This research contributes to the body of knowledge by conceptualising the interplay of project management activities within Malaysia's unique construction environment. It provides actionable guidelines for project managers, industry practitioners, and government agencies, and serves as a model for other developing nations facing similar challenges. While the study provides valuable insights, it is important to note that the findings are primarily based on qualitative data from focus group discussions, which may not fully represent the diverse perspectives within the Malaysian construction industry. Further research could expand the scope to include quantitative methods or a broader range of stakeholders to enhance the generalisability of the improved CPMBOK framework.

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# CHAPTER 1 INTRODUCTION

#### 1.1 Introduction

This chapter provides the background of the research and an overview of the overall framework of the thesis. It describes the background, research problem, aim, and objectives of the research, the scope of the research being investigated, the methodology adopted, and finally a summary of the overall research structure undertaken.

#### 1.2 Background of the Research

The construction industry plays a crucial role in the national economy, with global spending expected to rise from \$13 trillion in 2023 to \$22 trillion by 2040. However, despite its importance, the sector continues to face ongoing productivity challenges. From 2000 to 2022, construction productivity saw only a 10% increase, which is significantly lower than the 90% growth experienced in manufacturing during the same timeframe (Mischke et al., 2024). The industry is also confronted with persistent issues such as severe labour shortages, averaging 382,000 job openings each month, and a lack of investment in technology, with construction firms typically allocating less than 1% of their revenue to IT (Deloitte, 2024). Although the construction sector is projected to grow by approximately 70% by 2040, it risks a potential output shortfall of \$40 trillion if productivity does not improve significantly (Mischke et al., 2024). These global trends carry substantial implications for emerging economies, particularly in Southeast Asia, with Malaysia serving as a prominent example.

Within this global context, Malaysia's construction industry has shown remarkable resilience and growth in 2024. According to the Department of Statistics Malaysia [DoSM] (2024), the sector achieved a 20.2% surge in work done value to RM38.9 billion in the second quarter of 2024, driven primarily by civil engineering and residential buildings subsectors, which grew by 25.2% and 19.7% respectively. The private sector remains the