

**UNIVERSITI TEKNOLOGI MARA**

**A CONSTRUCTION MANAGER'S  
TECHNICAL KNOWLEDGE  
COMPETENCY MODEL FOR THE  
MALAYSIAN CONSTRUCTION  
INDUSTRY**

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## ABSTRACT

Malaysian construction industry (MCI) is regarded as one of the significant industry that drives the country forward. Although having recorded 7.4% of positive growth in 2016, the progression of MCI was hampered by a considerable number of recurring problems such as delays, wastages, cost overruns, and disputes. Consequently, contractors' faults are to be blamed, through their incompetent construction manager (CM) to deliver construction projects. Even though there are provisions of education and training for CM, continuous critiques on its ineffectiveness were reported. Eventually, it was observed that lack of term of reference on the technical knowledge competency for CM is became the major setback. Therefore, the research aims to establish generic technical knowledge competency model for CM through three objectives that were outlined by the research, namely; (1) to identify the generic technical knowledge competency of Malaysia's construction managers, (2) to analyse the importance of the generic technical knowledge competency of construction managers towards categories and grades of Malaysia's contractors, and (3) to analyse the corroboration level of the existing CM education and training offered compared to the generic technical knowledge competency. Pragmatic mixed methods research was selected by employing qualitative and quantitative approaches. In short, multi-layered thematic (MLT) analysis was embedded into literature analysis to maintain reliability, before proceeded to validity as in semi-structured interviews towards related academicians and practitioners in construction. Later, to analyse, validate and generalise the findings to the masses, questionnaire surveys were distributed to contractors around the peninsular of Malaysia. The findings from the critical quantitative analysis identified that construction manager requires vast numbers of generic technical competency which further grouped into several levels. It is then simplified into sixteen broad variables; (1) managing staff, (2) materials, (3) labour, (4) plants, (5) subcontractors, (6) safety, (7) money, (8) quality, (9) time, (10) environment, (11) administration, (12) pre-construction, (13) closeout and handover, (14) responsibility to other parties, (15) computer literacy, and (16) administration of construction contract. Additionally, all technical competencies are observed to be significant, notwithstanding contractors' categories and grades, except for Lean Construction. Last but not least, by corroborating the technical competency for construction managers towards other related competency documents, there is solid evidence that the former have substantial edges among its counterparts. Finally, the identified technical competency for Malaysia's construction managers is believed to be exhaustive and holistic in singling out the appropriate technical knowledge and skills, and bring about numerous advantage towards technically competent Malaysia's construction managers. The above conclusion is also has been supported by the research's final validation through open-ended interviews towards several distinguished individuals.

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