



## Competencies required of project managers at the design phase of mass house building projects

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**Abstract:** Contemporary management researchers argue that competency-based measures are the only viable means for refocusing project managers (PMs) on what it takes to achieve managerial excellence towards engendering their professional development in a modern competitive work environment. Subsequently, a study has identified the need to establish and match the competency profiles of PMs to the project lifecycle in Mass House Building projects (MHBPs), to help improve managerial performance on these projects from inception to completion. Drawing on the well acclaimed task-contextual organizational theory of job performance, 110 structured questionnaires containing design related behavioural competencies were delivered to Property Developers in Ghana to establish their consensus on what they consider to be the core competencies that PMs must possess at the design phase of MHBPs. The data was then subjected to multiple regression analysis (stepwise method) towards isolating the relevant competencies. The findings suggest that from the perspective of senior managers (specifically managing directors of housing development companies in Ghana), they expect PMs to possess the following competencies towards ensuring effective design management at the design phase of the lifecycle of MHBPs: *job-knowledge of mass contract packaging; job knowledge of performance characteristics of materials for design of MHBPs; technical quality of strategies for managing the design process; job knowledge of thermal comfort assessment and provisions in the design of MHBPs and then job knowledge of relevant design codes, legislation and regulation for MHBPs.* The paper provides an important empirical impetus to a foundation paper which has already established competencies for the construction phase of the lifecycle of MHBPs. It is therefore important that PMs focus their attention on these findings towards improving their managerial and professional development for effective design management of MHBPs.

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### 1. Introduction

In recent times, there has been considerable interest towards understanding and delineating the competency profiles of project managers (PMs) in many industries including the construction sector (cf. Heffmann and Flood, 2000; Brophy and Kiely, 2002; Dainty et al., 2004, 2005a, 2005b; Pereira and Carvalho, 2009). There is also a growing need that it is high time that all PMBOKS on competencies align themselves to specific project types and also

the project lifecycle (Omidvar et al., 2011). Within this context, attempts at understanding and delineating the competency profiles of PMs in Mass House Building Projects (MHBPs) have attracted considerable attention, especially in the context of developing countries (Ahadzie et al., 2008). To this extent, a multidimensional competency-based conceptual framework focusing on the project lifecycle of MHBPs, namely; conception, planning, design, tender, construction and operational phases was developed (Ahadzie et al., 2009). The research went on to confirm the competency profiles required by PMs at the construction phase and has since been reviewed for industrial application (Ahadzie et al., 2009; Manaana, 2013). This research seeking to identify the core competencies of PM's at the design phase of MHBPs is a sequel and aligns very much with the need to match PMs

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