

Driving improvements within the design phase of construction projects: the implementation of lean design management



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Although on-time completion is a key success factor for most construction projects in the UK, it is public knowledge that construction projects often finish late. Research suggests that issues during the design phase are a root cause for construction projects in the UK finishing late. Issues such as the late completion of design and inadequate design can delay the subsequent phases of a construction project, and lead to overall project delay.

Over the last decade, a significant amount of research has been undertaken on lean design management (LDM). Previous studies suggest that the implementation of LDM can help overcome common problems faced during the design phase and improve the design management process.

If, as research suggests, LDM has the potential to improve the design management phase, it is important to understand to what extent the

principles of LDM have been adopted within industry. This led to the research question ‘what are the perceptions of LDM within industry, and what are the main challenges and barriers to implementing LDM practices?’ Understanding this is a crucial step in ensuring learning from research is applied within industry to drive improvements.

To answer this research question, a qualitative research methodology was deployed in the form of semi-structured interviews. Design professionals working for both consultants and contractors were selected as the main sample, supplemented with construction planners due to the focus LDM has on planning and control.

The findings suggest that although the term ‘lean design management’ is not commonly known within industry, the key practices associated with LDM are being implemented, and are considered among best practice. The interviews also identified several challenges to implementing key LDM practices, such as not having a standardised approach to client requirement management, and traditional procurement routes and contracts restrict the value construction projects get from early contractor involvement.

The study recommends a focus on increasing the awareness of LDM and the potential benefits it can bring within industry, as well as further focus on unlocking the challenges to implementing key LDM practices identified. This should increase the implementation of LDM within industry and release its full potential, which in turn will improve the chances of construction projects in the UK finishing on time.