CORRELATION BETWEEN CONSTRUCTION PROCUREMENT METHODS AND LEAN PRINCIPLES

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Abstract
Different procurement methods have been developed and applied in the construction industry for improving performance. At the same time, novel management concepts have been adopted for performance improvement based on new production methodologies. The lean principle is one such methodology being applied in the construction industry. This paper proposes that with the right combination of objectives, principles and techniques, this can form the basis for a new project delivery system. The paper has as its objective the identification of an appropriate procurement method that incorporates lean principles. It reviews extant literature on the lean concept and its application in the construction industry, as well as construction procurement methods, and their individual characteristics. The study finds that partnership arrangements have a higher correlation with lean principles compared to other procurement methods because of the emphasis on collaboration and teamwork through construction partnerships.

Keywords
Lean construction, procurement methods, partnerships.

INTRODUCTION

The construction industry is often regarded as confrontational, risks averse and lacking vision and trust (Barrett, 2005). It is viewed as an uninformed supply chain operating under inappropriate contractual arrangements with poor communications and widespread organisational issues (McIntyre, 2005). Halpin (1990) suggested that high competition accounts for these peculiarities. McIntyre (2005) highlighted that commercial interests and competition absorb a huge proportion of construction industry’s intellect and professional energy. Consequently, the construction industry is characteristically backward. While other production sectors have modernized their practices, the construction industry still maintains its craft methods of operation, and continues to lag behind in productivity, quality and delivering value for money to its clientele (Alinaitwe, 2008).

In the recent past, there has been evidence of the construction industry adopting operational management methodologies such as value based management, business process re-engineering, concurrent engineering, total quality management (TQM), fast track concept, lean and relationship contracting (Cheng & Li, 2001; Howell & Ballard, 1997; Koskela, 2000). Most of these methodologies focus on productivity