Motivation toward financial incentive goals on construction projects

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A B S T R A C T

Construction industry observers tout the use of financial incentives as promoters of motivation and commitment on projects. Yet, little empirical evidence exists concerning their effectiveness. What are the drivers of motivation on construction projects? The reasons that construction project participants are motivated to pursue voluntary incentive goals are examined through four Australian case studies. The results demonstrate the critical role played by project relationships and equitable contract conditions in promoting the effectiveness of financial incentives. In the context of a construction project, this study finds financial incentives to be less important to motivation and performance than relationship enhancement initiatives. This finding is unexpected and has implications for the design of project procurement strategies. These results suggest that if project clients ignore the importance of relationship quality between participants, the impact of any financial incentive will be compromised.

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1. Introduction

Construction projects shape the built environment in which people live and work. The built environment is typically a country’s most important asset, both economically and socially. For advanced countries around 95% of people work in the built environment, where they generate around 80% of GDP (Newton et al., 2009). The performance of construction projects and the whole-of-life management of constructed assets influences a country’s productivity, competitiveness, living quality and ecological sustainability (Newton et al., 2009). Yet many countries face significant challenges with the performance of construction projects and constructed assets (Manseau and Seaden, 2001).

The use of financial incentives in construction projects is seen as a key means of improving built environment outcomes. Financial incentives are typically used on construction projects to invigorate motivation towards above business-as-usual (BAU) goals and provide the contractor with the opportunity for higher profit margins if exceptional performance is achieved. BAU includes the mandatory minimum requirements that are to be delivered under the construction contract. Voluntary goals are higher-order goals set by the client above minimum BAU requirements. Financial incentives aim to increase the efficiency and effectiveness of projects by stimulating the motivation to work harder and smarter in pursuit of such goals (Sliwka, 2003). There are three main types of financial incentives used on construction contracts (Bower et al., 2002):

1. Share of savings incentives, where cost savings are shared between the client and the contractor based on an agreed formula;
2. Schedule incentives, where a premium is offered to the contractor for the early completion of the project; and
3. Technical performance bonuses for meeting performance targets, other than cost and schedule. A performance bonus arrangement can be applied to a wide range of performance areas such as quality and functionality.

The complexity of the construction product supply chain is one of the major challenges in applying financial incentives to motivate project teams. Construction projects emerge in fragments (Mitropoulos and Tatum, 2000). Disjointed relationships between contracting parties, misalignment of objectives, and risk-averse behaviors characterize construction projects (Rahman and Kumaraswamy, 2004). Similarly, adversarial business environments in the construction industry are a major barrier to continued growth and the diffusion of new innovation (Andersen et al., 2004). Thus, not only are financial incentives necessary to enhance motivation at personal and organizational levels, but also to promote unified motivation across highly interdependent and contractually fragmented project teams. The teams comprise diverse actors such as contractors, designers and suppliers brought together on a one-off basis, with little scope to build cohesive team relationships over time.

The difficulty in assessing performance in highly interdependent teams compounds the challenge as individual output may be almost indistinguishable from group output (Howard et al., 2002). Thus, team-based financial incentives suit construction projects with high levels of sequential and mutual task interdependence. The unique multi-firm production model that construction projects use shapes this interdependence.
The research proposition is that the above factors create a unique environment for the application of financial incentives. The construction project environment varies to that dealt with by the extensive literature on financial incentives in the context of individual psychological processes (e.g., Adams, 1963; Bandura, 1986; Deci, 1971) or the work motivation of employees at organization level (e.g., Hackman and Oldham, 1980; Katzell and Thompson, 1990; Locke and Latham, 2004). The research described here adds an important new dimension to such literature.

Both academics and business commentators consistently argue that performance incentives can improve project outcomes for the principal (client) and their agents (contractors and consultants) (Bower et al., 2002; Howard et al., 1997). For example, Australian construction industry reports claim that procurement approaches containing equitable incentive mechanisms applied across the entire project team can improve both project and industry performance (Kenley et al., 2000; AEGIS, 1998; APCC, 1997). A more recent study indicates that Australian construction clients have the necessary competence to develop such strategies (Manley, 2006), if they have appropriate information.

Despite the heralded benefits of financial incentives, until now little construction-specific information has been available to project managers on how to effectively implement them. Although previous work indicates the importance of client competence and team-based incentives, no detailed investigation has been conducted on how such changes might be implemented to yield maximum advantage. Industry clients across Australia remain skeptical about the usefulness of financial incentives and lack of understanding of what determines their effectiveness (Rose, 2008). Indeed, little empirical research has investigated the impact of incentives on motivation and performance in the context of construction projects; Bresnen and Marshall (2000) being a key exception. Bresnen and Marshall note that the connection between incentive systems and performance is often portrayed too simplistically in the literature. They suggest the need for further investigation into the organizational and inter-organization dynamics around incentives in the construction context.

This paper responds to that call and examines the factors that drive motivation to achieve voluntary incentive goals on construction projects, hereafter referred to as motivation drivers, based on four large-scale Australian construction projects that include financial incentives in their contractual arrangements. The results suggest that without a detailed understanding of the context in which financial incentives are applied, they can have a detrimental effect on motivation towards voluntary project goals. In particular, the results indicate that if construction clients focus on building effective project team relationships, then financial incentives will have a more positive impact on motivation.

2. Conceptual framework

Review of construction and general management contributions (Rose, 2008) suggests that to assess the impact of financial incentive on motivation in a project environment, consideration must be given to both potential extrinsic (external) and intrinsic (internal) drivers of motivation. Therefore, a big picture approach must be taken to identify and explore the various drivers within the project that promote or discourage motivation to determine the value of financial incentives in driving motivation and thus, performance. The unit of analysis is the construction project, which encompasses the project structure, team and dynamics. Given the lack of research into the impact of incentives on motivation and performance in construction (Bresnen and Marshall, 2000), the present article develops a conceptual framework, based on theoretical evidence, to explore the research question: ‘What are the drivers of motivation on construction projects?’

Fig. 1 outlines the role of motivation on construction projects and shows that motivation is a mediating variable between core project activities and project performance. Core project activities give rise to various motivation drivers that influence the motivation of project participants. Five core activities are conceptualized and motivation is seen to impact performance through four key indicators. The current paper describes the drivers of this motivation, about which little is currently known in the context of a construction project. This is the gap in the literature addressed here.

Mullins (1996) argues that performance is a product of motivation, ability and the environment. Similarly, Howard et al. (1997) argues that a construction contractor’s (agent’s) output (or performance) is a function of factors within their control (ability and motivation) and external factors outside their control (environment). Although participant ability and factors external to the project (e.g. market prices) influence performance outcomes, these factors are beyond the scope of the research and are not shown in Fig. 1.

The framework shown in Fig. 1 is based on insights from organizational management theory (Van Herpen et al., 2005; Moers, 2000; Gibbons, 1998), psychological motivational theory (Locke and Latham, 2002; Colquitt, 2001; Hollenbeck and Klein, 1987; Bies and Moag, 1986), and economic agency and reciprocity theory (Fehr and
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