EDITORIAL - INNOVATION IN CONSTRUCTION E-BUSINESS

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The construction industry is inherently cautious in the adoption of new technologies and innovation. This is reflected by the fact that it remains one of the lowest performing industries in integrating e-business to business processes (e-Business W@tch, 2006). On the other hand, construction industry is one which contributes significantly to economic growth with higher levels of employment generation represented by over 90% Micro and SME level organisations. The phenomena is global and makes it that much more important to achieve innovation in business processes through greater adoption of e-Business.

The use of e-Business within the construction industry has steadily grown over the last decade. However, despite the successes being widely publicized, it is perceived that progress is limited and constrained within the industry. Thus, there are still drivers to be harnessed and barriers to be overcome. The successes achieved in other industries could be transposed and implemented within the construction industry. Many models have been suggested to successfully implement, integrate and embed e-Business within the construction industry.

Adoption of e-Business is particularly affected by the culture of the project organisation and individual attitudes of project stakeholders. Brewer and Gajendran present the attitudinal, behavioural, and overall cultural analysis of e-business use in a project team by conducting a case study. They investigate the link between the individual attitude formation of key project personalities and their subsequent ICT decision-making behaviour, resulting in the formation of a differentiated project team culture, and sub-optimal BIM-enabled e-business. They conclude that individuals’ cultural traits are portable entities, partially evolved through personal experience, and partially developed out of interaction with others, and these traits will ‘infect’ the current project organisation in both positive and negative ways. It clearly shows that how organisational attitude is influenced by key stakeholders in decisions related to e-Business adoption.

Building Information Modelling (BIM) is seen as a technology that has the potential to fundamentally change the ways in which construction industry operates. Its impact on design and estimating activities are more immediate.
than others. Olatunji, examines the effect of BIM adoption on four organisational function models, namely; (1) matrix (2) networks (3) functional (4) divisional, taking the effect on the estimating function of construction organisations in to analysis. He colludes that the effect is greatest on matrix structure compared to functional structure model. The network structure model already have frameworks for interoperations and virtual enterprise, divisional structure seems to be challenged by slow market response to innovations of digital technologies and changes in existing market drivers in favour of the latest paradigm shifts in BIM.

An analysis of the use of e-procurement in the public and private sectors of the UK construction industry is provided by Eadie et al. They investigate the correlations between size, procurement spend and adoption of e-procurement in construction organisations comparing it with other industries. The study confirms that although there are greater similarities with other industries AEC industry is lagging behind other sectors in the adoption of e-procurement. It reports that that those who spent most and least on documentation were the most likely to have adopted e-procurement and smaller organisations are more vulnerable to high cost of software acting as a barrier in adoption.

Introduction of BIM applications in construction provide challenges in the legal implications it brings forward. Olatuji investigates the appropriateness of existing legal frameworks in the face of adoption of BIM for project delivery. He presents an six part taxonomy of legal limitations in BIM as means of this analysis and recommends further studies on methodologies for institutionalising deployment of digital innovations such that clients can buy-out project models with long-term indemnity rather than fragmented protocols which current legal instruments portend.

**REFERENCES**