

A Model for the Uptake of E-business by Building Small and Medium Enterprises

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Abstract

The adoption of e-business by Small and Medium Enterprises (SMEs) in construction lags from other service and product businesses within the building sector. This paper develops a model to facilitate the uptake of electronic business, especially in relation to SMEs within the Australian construction sector. E-business is defined here as “the undertaking of business-related transactions, communications and information exchanges utilising electronic medium and environment”, the elicited model highlights significant changes needed including skills development, social, economic and cultural issues. The model highlights barriers for SMEs to migrate towards e-transactions, e-bidding, e-tendering and e-collaboration and provides learning and skills development components. The model is derived from case study fieldwork and is to inform diffusion and awareness models for best practice. Empirical techniques included ‘focus group’ interviews and one to one ‘interviews’. Data was transcribed and analysed using cluster analyses. Preliminary results reveal that current models for e-business adoption are not effective within the construction context as they have emerged from other service and product industries - such as retail or tourism. These generic models have largely ignored the nature of the construction industry, and some modifications appears to be required. This paper proposes an alternative adoption model which is more sensitive to the nature of the industry – particularly for e-business uptake in building SME's.

Keywords

E-business adoption, ICT maturity levels, technology uptake, innovation diffusion, Small and Medium Enterprise