An Integrated Proactive Knowledge Management Model for Enhancing Engineering Services

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Abstract

More and more construction organizations have adopted Knowledge Management (KM) to enhance their engineering services. However, most of the traditional KM methods suffer from their "reactive mode" of problem solving. To cope with this problem, a newly developed model, the Integrated Proactive Knowledge Management Model (IPKMM), is proposed in this paper. A leading engineering consulting firm in Taiwanwas selected as a case study to implement the proposedmodel. The systemimplementation of IPKMM, the Integrated Proactive Knowledge Management System (IPKMS), is verified with real world cases. A novel Business Intelligence Index (BII) is also proposed in this paper to evaluate the relative competitiveness of different KM models. It is confirmed from the case study that IPKMM can significantly improve the efficiency of problem-solving and the competitiveness of an engineering consulting firm in the service market. This study demonstrates that IPKMMhas great potential in enhancing emergent problem-solving for engineering consultants.

Keyword：Engineering consulting, Knowledge management, Proactive problem-solving, Business intelligence