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> NOPPADON JOKKAW : A STUDY OF APPLICATIONS OF THE INTERNET IN THE CONSTRUCTION INDUSTRY. THESIS ADVISOR : TANIT THONGTONG, Ph.D. 270 pp.

Efficient information access and communication are necessary for operating construction organizations nowadays. Although Internet technology, which is the largest computer network, supports these functions, these is no utilization of the technology in the construction sector. Thus, the objective of this research is to introduce various practical applications of Internet in construction industry.

The research was performed as follows : a) study basic knowledge and capabilities of Internet, b) study the operation processes in construction organizations included Academic and Research Organizations, commercial parties (i.e., contractors, designers, and construction management firms) and related construction professional associations, c) analyze, evaluate and select suitable techniques to apply Internet functions for operation processes in each organization, d) validate the proposed Internet applications using questionnaires and interview after implementing the applications in order to identify feasibility of Internet applications and their problems, e) compare the traditional operations with the Internet applications in terms of cost, time, and problems encountered.

The results of this research shows that Internet technology can be applied to construction organizations to improve various operations. The advantages of Internet applications can be mainly classified as follows : a) construction information remote accessing, b) constructions database center for sharing information together with a remote data accessing, c) information and data transferring between different sites, d) efficient internal and external communication within/between organizations. The applications also show an improvement of work efficiency in terms of time and cost. However, some limitations of uses of the applications can be founded such as, a) lack of persons who have knowledge of Internet, b) lack of English language skill, c) inadequacy of public communication network devices, and d) expansiveness of Internet services in Thailand.

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