The study of TAM2 on ERP system

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Abstract

TAM2 (Technology Acceptance Model 2) has become a major analytical tool for information technology which establishes the model of causal relationship between variables by structural equation modeling. However, some technology is highly complicated, not all respondents have thorough comprehension. Certain variables are not compatible with assumption of independence, and causal relationship cannot be analyzed accurately if mass samplings are difficult to obtain, resulting in mistaken conclusions. And score quantification through traditional investigation asks respondents to make a choice from limited wordings in order to stress maximum attribution without considering the fuzzy thinking of humans, resulting in an imprecise summary. Fuzzy DEMATEL considers the fuzziness of human thinking and the influences of inconformity between variables. Respondents may completely understand the technology, but may not adequately express it through limitations of mass sampling. This study adopts Fuzzy DEMATEL to calculate the causal relationship and level of mutual effect, building on TAM2 by applying the ERP(Enterprise Resource Planning)system, providing administrator references to improve promotion of new technology to solve complicated and difficult problems in practice.

Keyword：Technology Acceptance Model (TAM), Decision Making Trial and Evaluation Laboratory (DEMATEL), Fuzzy Theory, Enterprise Resource Planning system (ERP System)