An analysis of the factors affecting the adoption of cloud consumer relationship management in the machinery industry in Taiwan

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ABSTRACT
In recent years, cloud computing services have developed rapidly and are being widely used, but most applications focus on consumers. However, a few successful cases of enterprise application systems have been constructed and adopted by companies. To understand the factors that affect the adoption by a company of cloud Customer Relationship Management (CRM), which is an enterprise application system, this study used a Technology Organization Environment Framework (TOE) as a theoretical framework, reviewed related literature on the relevant factors affecting the adoption of a cloud service, and then constructed a three-level hierarchical table of the factors. A pairwise comparison questionnaire was then designed and issued to top managers of firms in the machinery industry in Taiwan that have adopted cloud CRM. A fuzzy analytical hierarchy process (FAHP) was then used to calculate the weights of the factors, based on the returned questionnaires. The results show that enterprises in the machinery industry gave priority to the factor, 'support of senior managers', followed by the factors 'organizational policies' and 'system information security'. Some implications of the findings are discussed, which can serve as a guide for the successful adoption of cloud CRM in machinery industry if firms allocate their resources appropriately to these important factors. These results can also be used by the service providers of cloud CRM to devise effective marketing strategies.

Keywords: cloud computing, cloud services, customer relationship management, machinery industry, fuzzy an...