A THEORETICAL FRAMEWORK FOR CLOUD COMPUTING ADOPTION BY SMALL AND MEDIUM-SIZED ENTERPRISES

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ABSTRACT
Cloud Computing (CC) has recently become a hot issue in today’s competitive market place. Many prior researches in Information Systems (IS) discipline have investigated significant factors influencing the adoption of new technologies or service solutions. However, due to the novelty of CC, adoption of CC especially in the Small and Medium-Sized Enterprises (SMEs) seems to be one of the less explored and examined topics in the IS domains. Most literature on CC have widely focused on areas such as CC architecture, potential applications, CC costs and benefits and on technological aspects of CC adoption. However, because of the socio-technical aspects of CC, cloud services are usually deployed in a heterogeneous network where numerous human and non-human actors are equally important in the process of technology adoption. IS adoption and diffusion theories show that technology, organization and environment (TOE) as the major elements in every heterogeneous network including SMEs, cannot be fully integrated in the current adoption theories. Thus, there is a critical need to explore in-depth other theories and accordingly propose a new comprehensive and integrated theoretical framework for CC in general and particularly in SMEs. Thus, this research aims to explore the potential of adopting CC in SMEs and propose a new theoretical framework for the adoption of CC by SMEs in the heterogeneous network. The TOE framework and Actor Network Theory (ANT) will be adopted and adapted in this study. Qualitative data through conducting in-depth interviews will be collected from three Malaysia SMEs selected as the case study. Cross Case analysis accompanying enrolling literature will be used to uncover constructs, a set of determinants influencing CC adoption by SMEs and to generate hypothesis. To support the possible findings of the qualitative study, a quantitative study through conducting a survey will also be used to supplement and test the findings. For analysis, partial least squares (PLS), a variance-based structural equation modeling (SEM) tool will be used to test the research model in view of PLS‘ ability to operationalize a latent construct either formatively or reflectively. The expected outcome of this research is a theoretical CC adoption framework for both SMEs and CC service providers. Findings from this research will help the Malaysia SMEs to integrate the research framework in their current business model and to support both Malaysia SMEs and CC services providers’ policies and concerns. The outcome of this research will also present a conceptual foundation for future researches on adoption of CC by the Malaysia SMEs and other SMEs globally.