Key Security and Privacy Related Factors Influencing the Use of Cloud Computing in SMEs

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ABSTRACT

Cloud computing-enabled solutions are widely used in various areas such as business, government, medical, education and entertainment. Indeed, cloud computing can deliver the most advanced software applications, hardware resources, and other services to both large organisations and small and medium-sized enterprises (SMEs). Even though, there are many advantages of using cloud computing, SMEs are slow in accepting cloud computing due to security and privacy related concerns. Additionally, the growing recognition of the importance of security and privacy has caused some concerns for organisations about the use of cloud computing. Therefore, the purpose of this study is to examine and identify the security and privacy related factors that influence the use of cloud computing by SMEs. The structured literature review has determined key eight security and privacy related factors linked to technical, social, organisational and environmental construct relation to SMEs. Based on the literature review analysis, an integrated framework was inspired by three theoretical frameworks, namely Technology-organization-environment (TOE) framework, Human organisation and technology-fit (HOT-fit) framework and Institutional theory. The conceptual model is presented in this paper in relation to the use of cloud computing among SMEs. The model presented in the paper provides viewpoints from which to identify the security and privacy related factors affecting the use of cloud computing by SMEs.

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