Factors Affecting the Continuous Use of Cloud Computing Services from Expert's Perspective

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Abstract—This research aims at validating the vital factors that affecting the continuous use of cloud computing services through literature review and experts’ evaluation. These factors are factors that have an effect on the decision makers to forge ahead in the use of cloud computing services in their various organizations. Semi-structured interviews using email were carried out with twenty-three experts (nine IT practitioners and fourteen academics) in order to realize the identified objective. Based on the expert’s perspectives, the followings factors; cost reduction, top manager’s support, relative advantage, compatibility, perceived trust, complexity competitive pressure, perceived security and privacy, IT readiness and government support have the greatest ten are the ten noteworthy factors which have effect on the decision makers to further the use of cloud computing services. The findings of this study will be the building block in developing a conceptual model for the continuous intention to use of cloud computing services in small and medium enterprises (SMEs) in Malaysia.

Keywords—Factors affecting cloud computing adoption; Cloud computing services; Continuous intention to use cloud computing services, Small and medium enterprises, Experts’ perspective.

I. INTRODUCTION

Information and Communication Technology (ICT) played an important role in the global economy in recent years. ICT products and services are progressively integrated into daily tasks of public and private sector enterprises worldwide [1]. The identification of the power of these technologies to drive effectiveness, reduce costs, spur international expansion, and enhance adaptability in a highly competitive and rapidly changing global business environment are the drivers that propel this trend toward technological innovation in business [2]. One of the most important innovations in the history of ICT is cloud computing [3]. Furthermore, cloud computing has become the distinctive mode to provide ICT services to organizations and individuals [1, 4]. Cloud computing services can, therefore, be defined as the phenomenon in which information management, computing, and storage are done on computing services owing to the benefits of flexibility, pay-as-you-go, and reduced hardware investment is the SMEs sector [11, 13]. Besides, as SMEs would have highest benefit from having a faster time to market and improved access to highly scalable technologies with no upfront capital investment, cloud computing then makes more sense for SMEs [8]. The implementation of cloud computing services by SMEs can facilitate them to contend with large enterprises through the adaptive, responsive, and borderless capacities of the cloud [14, 15]. Cloud computing offers opportunities to SMEs to acquire advanced and flexible IT services at a moderately reasonable cost [14]. By incrementally embracing and using ICT innovations which includes cloud computing services, SMEs can possibly gain competitive advantages, including increasing access to global markets [16]. SMEs need to enrich their performance by implementing the suitable technology to survive due to the recent unsettled business market which is