FACTORS AFFECTING THE ADOPTION OF CLOUD COMPUTING FOR NON-CORE BUSINESS ACTIVITIES - A CASE STUDY OF THE BFI SECTOR IN SRI LANKA

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Sri Lanka

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Thesis Submitted in Partial Fulfilment of the Requirements for the Degree of Master of Business Administration

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DECLARATION

I declare that this is my own work and this thesis does not incorporate without acknowledgement any material previously submitted for a Degree or Diploma in any other University or institute of higher learning and to the best of my knowledge and belief it does not contain any material previously published or written by another person except where the acknowledgement is made in the text.

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Supervisor (Dr. Chandana Gamage / Dr. Shahani Weerawarana)

ABSTRACT

From the dawn of the industrial revolution in the late 18th century organizations adopt technology to gain competitive advantage. The introduction of computers and information systems accelerated the momentum of technology acquisition, not only to gain competitive advantage but also as a bare necessity.

Information and communication technology has rapidly evolved from mainframes that was affordable to the large organizations to mini computers, personal computers networks, the internet and mobile computing that quenches the thirst of convenience that customers demand and support the employees who make it possible.

There are many proven models such as the Framework for Information Technology Adoption and Technology Organization Environment (TOE) Model that showcase the factors that come into play when an organization decides to invest or adopt a new technology.

Cloud computing solutions (specifically public clouds) entered this evolution of ICT changing the landscape of some of the basic norms organizations took for granted. Leapfrogging to today's cutting edge technology, rapid deployment, pay as you go are bold promises it makes. The risks of privacy, security, ownership, loss of control, territory restriction, regulatory and legal restriction that organizations were not familiar was introduced by this same technology.

Public cloud alone is predicted to be worth USD 131 billion in year 2013 by Gartner (Gartner Inc. 2013b), together with the industry's major players such as IBM, HP, Microsoft, Google and Amazon joining the cloud market (Fairlie 2011), (Forrester 2011) makes cloud computing an important technology, worthy of being researched into.

Does the proven models of technology adoption that worked for on premise ICT solutions also capable of factoring in these risks and benefits of cloud computing? Or does cloud computing call for the reengineering of these proven models to factor in these new evolutions?

While creating or reengineering these time tested models and frameworks demands much more resources than what is permitted, this research aims to begin the process using an Interpretive Qualitative study so as to bring to light the factors and theories that affect the adoption of cloud computing using Grounded Theory concepts.

The Banking, Finance and Insurance sector which is highly regulated, technology driven, highly confidential yet with large economic impact is selected so that the theories built will encompasses a wide range of possibilities. In depth interviews with some of the county's top CIOs provide the valuable input of information to the theory building process.

A rich literature review on cloud computing, the monetary impact of cloud computing, the state of cloud computing in Sri Lanka, the Banking Finance and Insurance the technology adoption models provide the researcher and the audience a wealth of information. The research design justifies in detail the selection of a qualitative explorative research, the interpretive epistemology, the in depth interview process over other tools that can be used, the hermeneutic nature and steps taken to preserve the validity of the interpretive nature of the research.

Grounded Theory based analysis of this research brings forth ten theories that are within the scope of the organization of which two are of the CIO, and three theories that come from the operating environment. The research provides recommendations on what would leverage the adoption process of cloud computing as seen from the angle of CIOs of the BFI sector toward cloud service providers, communications solutions providers, the regulators and the legal system. Future research is another important section that this research prescribes in order to understand more on the adoption of cloud computing from a management perspective.

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