Chapter 83
An Approach for Assessment of the Success of Cloud Systems Usage in Innovation

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ABSTRACT

This chapter demonstrates an approach for assessment of the success of cloud systems usage in innovation on the basis of system abilities to differentiate between the various knowledge characteristics required for the innovation. The chapter also discusses the various success factors of cloud system for global innovation. The aim of this research is to demonstrate how cloud computing impacts in an organisation. This research also identifies the contributions of cloud computing to a modern organisation. Furthermore, several challenges which providers of Cloud System services are facing are presented. Problems in the process of implementation of cloud computing are found out which need to be settled in order to improve the efficiency and effectiveness of organisational innovation.

INTRODUCTION

Innovation offers promise of dramatic improvements in productivity performance and is quickly becoming a vital component of competition. Soliman (2011) proposed a model of the innovation chain which is centred on the transfer knowledge from both internal and external organisational sources.

Although learning has become one of innovation imperatives (Soliman, 2011) still there is no published research that points to how to transfer knowledge and what tools would be required to conduct the knowledge transfer. Given that the learning organisation concept that requires the innovative organisation to ensure efficient and effective transfer of appropriate innovation knowledge, it would be imperative for an organisation to study and understand the important factors that could ensure the efficient transfer of innovation knowledge (Soliman, 2013a). The transfer of innovation knowledge could be facilitated by implementation of new technology tools such as cloud systems.

It widely accepted that the intensity of growing competition fuelled by the strength of rising

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globalization will continue to increase pressure on firms to be more innovative. Innovation may occur at any or all the three widely known innovation levels; namely:

1. Innovation in products including creation of new products and/or modification to existing products;
2. Innovation in the service to customers including supply chains and other service providers; and
3. Innovation in the managerial aspects of the firm undertaking the innovation including innovative firm structure, strategies, policies and procedures of the firm (Soliman, 2013b).

It should be noted that a number of authors have pointed to the link between innovation and learning. Most recently, (Soliman, 2013a, 2013b, 2012a, 2012b and 2011) argued that innovation is partly based on learning which in turn is dependent on knowledge and as such there are five stages of the Innovation Knowledge Transfer Process:

- **Knowledge Transfer**: Identifying and transferring the necessary knowledge for the innovation (externally and internally).
- **Knowledge Scanning**: Scanning the transferred knowledge to exclude knowledge that is not relevant for the innovation.
- **Decision on What Knowledge to Transfer**: Regarding the scanned innovation knowledge in order to decide whether to adopt or reject the transferred innovation Knowledge with the view of weighing the advantages and the disadvantages of using that knowledge in its current form.
- **Implementation of Appropriate Knowledge Transfer Methods**: Employing the innovation knowledge is to some extent is dependent on the situation and the usefulness of the innovation knowledge.
- **Confirmation about the Success of the Knowledge Transferred**: Finalizes their decision to continue using the innovation knowledge and how to use its fullest potential.

Notwithstanding the type of innovation, the innovative firm need to rapidly innovate effectively and efficiently while sourcing and managing resources globally in the current high competitive business environments (Soliman, 2013a, 2013b). The inherent complexity of managing innovation becomes a serious challenge even for the most experienced innovation leaders (Soliman, 2011, 2010). This implies, getting the right knowledge in the right innovation process at the right timewill be challenging for many innovation leaders (Soliman, 2011 and 2010).

The use of cloud systems for delivering explicit type of knowledge over the Internet has been on the increase in particular in innovation settings. A cloud system for innovation has distinct characteristics that differentiate it from traditional internet services. These distinct characteristics are due to significant innovations in virtualization of distributed computing systems. In addition it is noted that the improved access to high-speed Internet has accelerated the innovative firm’s interest in the implementation of cloud systems.

In general, the main goal of cloud systems is to provide easy, scalable access to computing resources and Information Technology (IT) services at affordable cost to most SME users. However, the specific aims of cloud systems application in innovation settings could also include assisting the innovator in assessing the knowledge transferred through the innovation chain (Soliman, 2011). This means cloud systems could be used in the delivery of innovation knowledge in an effective and efficient way.

Technology is continuously changing through sharing and effective production of data. In order to uphold this information organisation embraced