Chapter 8
Role of Cloud Systems as Enabler of Global Competitive Advantages

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ABSTRACT

The goal of cloud systems is to provide easy, scalable access to computing resources and IT services. However, the ability of the cloud system to transfer knowledge to assist the innovator should also be a key objective of cloud system deployment. This chapter presents an approach for assessment of cloud systems for innovation on the basis of the system’s abilities to differentiate between the various types of knowledge. In this regard, the chapter also proposes a number of success factors for deployment of cloud systems for innovation in a global setting.

INTRODUCTION

The intensity of growing competition fuelled by the strength of the rising globalization is presenting firms with further challenge and renewed pressure to innovate. Innovation could be pursued at one or all of the three innovation levels; namely: a) product innovation including creation of new products and/or modification to existing products; b) innovation in providing service to customers and c) innovation in the managerial aspects of the firm including changes of the firm’s structure, policies and or procedures (Soliman, 2012a).

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 (Soliman, 2011b), these are:
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- **Knowledge Transfer**: Identifying and transferring the necessary knowledge for the innovation (from external and internal sources of knowledge).
- **Scanning**: Scanning the transferred knowledge to exclude knowledge that is not directly relevant for the innovation.
- **Decision**: Regarding what to do with the scanned knowledge. That is to decide whether to adopt or reject the transferred knowledge with the view of weighing the advantages and the disadvantages of using that knowledge in its current form.
- **Implementation**: Employing the transferred knowledge depending on the situation and the usefulness of the knowledge for the innovation.
- **Confirmation**: Finalizing the decision to continue using the knowledge perhaps in its fullest potential. In this case, the knowledge may be referred to as innovation knowledge.

Knowledge may be defined as what makes personal, organizational, and societal intelligent behaviour possible (Spaeth, et al., 2010). Knowledge could be found in a number of different types and forms of artefacts that exist in the form of documents, files, papers, conversations, pictures, thoughts, software, databases, e-mail messages, and in any other form that are used to represent meaning and understanding of that knowledge (Haefliger, et al., 2008). In other words, knowledge artefacts flow throughout and between organisations and individuals in what is known as knowledge flows (Newman, 2004). Knowledge flows must be managed effectively to ensure that the basic objectives of organizations and individuals are attained to the greatest extent possible (Nonaka, et al., 2006). In this context, knowledge in modern organizations should be considered from the following five interrelated perspectives:

1. **Business Perspective**: In business perspective knowledge is required for the development of strategies, products and services, alliances, acquisitions, and creating new products or services. Therefore better knowledge is necessary for the benefit of the business. That is knowledge should be suitable, creditable and fit for the purpose.
2. **Management Perspective**: In management perspective knowledge is used in determining, organizing, directing, planning and controlling and staffing the organisational activities required achieving the desired business strategies and objectives. Therefore better knowledge is necessary for creating policies and practices needed to determine required knowledge related activities.
3. **Operational Perspective**: In management perspective knowledge is employed to determine the available knowledge needed to recruit, train and build Human Resources (HR) further. This also requires better and suitable knowledge for operational purposes.
4. **Learning Perspectives**: In learning perspective knowledge is the basis ingredient that is necessary for organisational learning (Soliman, 2011a). The concept of Learning Organisation originally purposed by Senge (1990) and widely used and recognised as a necessary competitive advantage for organisation (Soliman, 2011a, 2011b, 2011c) require knowledge to facilitate the learning organisation activities proposed by (Garvin, 1993) such as problem solving, experimentation, learning from past experience, learning from others and for transferring knowledge to and from the learning organisation. Accordingly, knowledge for learning must also be suitable and must add value to learning for the organisation and for the individuals involved in the learning organisation activities (Al-Qawabah, 2012).