Chapter 79
The Attitudes of Chinese Organizations Towards Cloud Computing:
An Exploratory Study

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ABSTRACT

Cloud Computing become a significant factor in E-commerce and E-business processes and will reduce negative IT impacts on the environment without compromising the needs of future generations. This chapter aim to examine the attitudes of Chinese Organizations towards Cloud Computing adoption. This chapter provides an answer to the question: "What are the advantages and disadvantages of Cloud Computing adoption in Chinese organizations?" The answer was sought by means of an online survey of (N=121) respondents. The survey results revealed the Chinese position regarding the cloud movement, its strengths and weaknesses, the threats posed by Cloud Computing in China, and the specific advantages and disadvantages of this new technology that Chinese organizations and research communities should embrace for the realization of future cloud systems.

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INTRODUCTION

Information Communication Technology products and services are used via several organizations and individuals to enhance their performance and productivity. However, this technology brings several negative impacts to the environment from e-waste, energy consumption and carbon emissions. To reduce this impact, organizations and various stakeholders should tackle this problem and impact by using a smart technology such as cloud computing. Cloud Computing is an Internet-based computing service that provides on-demand computing power, in addition to being cheaper, and requiring low maintenance and fewer Information Technology (IT) staff. However, this technology can pose several risks in terms of security, privacy and legality. The study presented in this chapter was intended to assess, via an online survey, the strengths and weaknesses of Cloud Computing performance in Chinese organizations.

The preliminary analyses of collected data indicated that, for the majority of those surveyed, Cloud Computing technology is simply recognized and known, but 78% of the survey participants were unaware of whether or not their organizations are using cloud computing. From the responses to the final question in section one of the surveys it became evident that those who already know about 'cloud computing', albeit to a limited extent, regard such technology as being scalable, flexible, sustainable, green and decreases operating expenses, however, cloud computing adoption by Chinese organizations still is risky and vulnerable. A factor analysis tool was adopted to examine the survey outcomes, and the Cronbach's Alpha was .953, indicating excellent internal consistency of the scale items. Also, the survey outcomes confirmed that cloud computing usage in China increased various benefits, although some of the participants in the Chinese organizations voiced their concern regarding the level of risk and security associated with cloud computing

Finally, this chapter examines the level of awareness of Chinese organizations' – public and private – about cloud computing. This chapter is organized as follows: 1) Introduction; 2) Cloud Computing; 3) Advantages and Disadvantages of Cloud Computing; 4)Cloud Computing in Chinese Organizations; 5) Research Method and Question; 6) Participants 7) Results; 8) Discussion; 9) Limitation; 10) Conclusion.

CLOUD COMPUTING

Cloud Computing is reviewed from different aspects and this research focuses particularly on the attitude of Chinese organizations towards cloud computing. Thus, in the real world, cloud service providers can use the results to identify the requirements and concerns of potential Cloud Computing users in China in order to provide better cloud service. An actual example of the use of Cloud Computing is the cloud-based navigation service. Cloud Computing can be used to identify the state of traffic in urban road networks (Liu, Ma, Sun, & Dan, 2010). Traffic jams are now becoming a serious problem in China, according to China Daily (2012), with the number of registered cars in Beijing – the capital city of China – having passed five million in 2012. With the help of cloud computing, the dynamic traffic data can be received, analysed in the cloud-based server and sent to the GPS terminal or the end users. According to Ye (2011), the total output value of satellite navigation industry in China was 50 billion Yuan in 2010 (approximately equal to $7.7 billion Australian Dollar), and it will reach 265 billion Yuan (roughly $40.8 billion AUD) by the year of 2015; there will be 130 million satellite navigation terminals and 350 million end users at that time. The Cloud Computing industry will grow more quickly with

Advanced Brain Tumor Detection System
Monica S. Kumar, Swathi K. Bhatand Vaishali R. Thakare (2020). *International Journal of Fog Computing (pp. 31-45).*
www.irma-international.org/article/advanced-brain-tumor-detection-system/266475