

Chapter 5

Value Co-Creation in Cloud Services

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ABSTRACT

In recent years, there has been considerable interest in cloud services in academic literature. Most research in this area has focused on the technical aspects of designing and implementing cloud services, with few studies focusing on understanding the value of cloud services and the processes by which consumer and service providers engage each other to co-create these services. This chapter explains the co-creation processes, and, the role of consumer in the value co-creation process of cloud services. It incorporates extant marketing and information systems literature, industry reports, and practical experience reflections to highlight the significance of cloud services. The drivers of co-creation are explored with the description of co-creation processes and the underlying factors involved in value co-creation of cloud services. The chapter concludes by outlining the opportunities associated with the development of cloud services, noting future research directions and discussing academic and managerial implications.

INTRODUCTION

Over the past decades, organizations of different kinds and sizes have increasingly relied on information technology (IT) to improve their performance and remain competitive (Davenport, 1993). Various computing models have been put forward to help organizations leverage and utilize their IT resources and the recent emergence

of cloud computing is one of them. Simply put, cloud computing can be thought of as the use of the Internet to deliver and access computing resources (Zainuddin & Gonzalez, 2011). Cloud computing offers users unique capabilities that the traditional IT cannot offer and it is becoming a fast growing area in the computing sector (Buyya, Yeo, & Venugopal, 2008).

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Cloud computing represents a paradigm shift in computing in both concept and business model. A cloud on the Internet “hides all available resources and services” (Voas & Zhang, 2009) and, as long as users are connected to the Internet, they are able to access computing resources, which vary from data to infrastructure, from anywhere at anytime. Unlike traditional computing resources which are delivered to the consumer as tangible goods, cloud computing is delivered in digital form as a service. Cloud computing providers retain the property rights while consumers pay a fee to obtain the rights to access resources. This significant change in the IT provision model is a significant change in the relationship between consumers and providers. In the previous model, where computing resources are delivered as tangible goods consumers are offered one-size-fits-all products and have little influence on the product’s value which is determined in the market, and usually by the producer alone. In the cloud computing model consumers are allowed to pick and mix the computing resources needed to meet their local needs. The value is not pre-determined but defined and co-created by consumers and service providers through negotiation and interaction (Prahalad, 2004; Vargo & Lusch, 2004). In this sense, consumers are active participants in the production and delivery of cloud computing service and engage in the process of value co-creation (Ostrom, Bitner, Browns, & Burkhard, 2010; Vargo & Lusch, 2004).

This shift in emphasis from the proprietary production of goods to service co-creation and provision requires a better understanding of the services that are now being developed and offered (Alter, 2008). Nevertheless, in scholarship, little attention has been paid to the study of the new service offerings of cloud computing and even fewer studies have been dedicated to understanding how service providers, together with consumers, can co-create the value of cloud computing. This chapter aims to exploring how the value of cloud computing service can be co-created by customers

of the services and the implications of value co-creation for both consumers and service providers. The objectives of the chapter are the followings:

- Define the concept of cloud computing and identify different cloud services.
- Explain co-creation processes that are involved in the value co-creation of cloud services.
- Understand the role of consumers in value co-creation of cloud service.
- Describe new perspectives on using cloud services.

The chapter is organized as follows. The next section describes the current trends in the IT industry and the emergence of cloud computing. It also identifies and describes different types of cloud computing services. Following that the chapter discusses the concept of value co-creation and how it is being applied in cloud service provision. The chapter concludes with a discussion of the academic and practical implications for future research.

CLOUD COMPUTING

The concept of cloud computing and the applications of it have been widely discussed in recent years (Armbrust et al., 2010; Fenn & Raskino, 2008). Some critics argue that like many other computing concepts cloud computing is just another short-life buzzword invented and promoted by vendors to sell IT products and services (Geek, 2010). Nevertheless evidence shows that an increasing number of organizations are adopting cloud computing and their spending on cloud computing is estimated to reach US\$42 billion in 2012, a growth of about 27% from 2008 (IDC, 2008). Google trends (Figure 1) also shows that since 2008 the term ‘cloud computing’ has been frequently searched for on the Internet, while the number of searches on grid computing has been decreasing (Buyya et al., 2008).

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