Chapter 37
The Role of Value Facilitation Regarding Cloud Service Provider Profitability in the Cloud Ecosystem

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ABSTRACT

With the increasing maturity of cloud technologies and the growing demand from customers, the cloud computing ecosystem has been expanding continuously with both incumbents and new entrants, whereby it has become more distributed and less transparent. For cloud service providers previously focusing on growth strategies, it is now necessary to shift the attention to providing service efficiently, as well as profitably. Based on 14 explorative interviews with cloud service experts, the relationship between cloud service provider profitability and value facilitation, which stands for the capability to build up resources in advance of future customer engagements, is investigated. The results indicate a positive relationship between cloud service profitability and value facilitation and deliver valuable insights for both researchers and practitioners. In particular, guidelines on how to design profitable cloud service offerings are discussed.

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INTRODUCTION

A cloud service represents an example for the shift from selling products to providing integrated combinations of products and services that deliver value in use (Floerecke, Wolfenstetter, & Krcmar, 2015; Sultan, 2014). The vision of cloud computing is IT becoming commoditized and thus delivered in a manner similar to traditional utilities like water, gas, electricity and telephony (Buyya, Yeo, Venugopal, Broberg, & Brandic, 2009). Although the underlying technology of cloud-based IT solutions is not new, it is a new IT operations model that combines a set of existing technologies and concepts such as virtualization, autonomic computing, grid computing and utility-based pricing (Zhang, Cheng, & Boutaba, 2010). This new technology mix-based operations model has radically changed the way IT resources are offered and consumed (Marston, Li, Bandyopadhyay, Zhang, & Ghalsasi, 2011).

Due to this fact, cloud service providers face major challenges (Böhm, Leimeister, Riedl, & Krcmar, 2009). Firstly, they generally require profound expertise with regard to both technical infrastructure concepts and to the development and management of service-oriented business models (Iyer & Henderson, 2012). In practice, it can be observed that both established IT vendors and start-ups in the field of cloud computing have particular difficulties to design suitable business models. That is why they are still experimenting with a variety of business models in order to achieve a sustainable and profitable position in the cloud ecosystem (Clohessy, Acton, Morgan, & Conboy, 2016). Additionally, a clear understanding of the customer business needs is a mandatory prerequisite to design a service allowing customers to easily integrate it in their existing business processes (Böhm, Koleva, Leimeister, Riedl, & Krcmar, 2010).

As cloud providers frequently act as system integrators and resellers bundling offerings from multiple providers, the classical distinction between customers and providers is blurring (Floerecke & Lehner, 2016). This is caused by the multi-layered architecture of cloud services (Infrastructure-as-a-Service, Platform-as-a-Service, Software-as-a-Service) and the special cloud computing characteristic on-demand self-service (Floerecke & Lehner, 2016). From the end customer's point of view, the traditional model of a single provider one-stop provision of IT outsourcing is, thus, replaced by a web of different vendors (Böhm, M., Leimeister, S., Riedl, C., & Krcmar, H., 2009). Hence, end customers commonly do not even know which component of a service package is provided by which specific actor (Floerecke & Lehner, 2016). However, for providers, it is an enormous challenge to ensure interoperability between several cloud services offered by different providers due to missing global interface standards in the ecosystem (Fischer, R., Janiesch, C., Strach, J., Bieber, N., Zink, W., & Tai, S., 2013).

Furthermore, a cloud service has to feature special characteristics such as self-service, pay-as-you-go pricing and convenience to scale the service according to consumers' needs that distinguish it from traditional concepts like on-premise IT or hosting (Clohessy, T., Acton, T., Morgan, L., & Conboy, K., 2016). One main driver for customers to adopt cloud services is certainly the expectation of cost savings in comparison to traditional IT services designed for one individual customer (Oliveira, Thomas, & Espadanal, 2014). However, in practice, this is not always achievable within a permanent cloud operation in all conceivable service scenarios. In general, the benefits associated with cloud computing such as flexibility, scalability and cost reduction are mainly realized on the customer's side, while the risks involved are shifted to the provider (Floerecke, Herzfeldt, & Krcmar, 2012). This high-risk situation also comes as a result of the current high performance and availability guarantees within the service level agreements that cloud providers have to offer in order to attract customers.

As a result of all these above-mentioned factors, cloud service providers face a strong price competition and are continuously threatened by new market entrants. These dynamic market conditions have led