Chapter 4
Analyzing French and Italian iPhone 4S Mobile Cloud Customer Satisfaction Presented by Organizational Sustainability Modeling

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ABSTRACT

This chapter explains the use of Organizational Sustainability Modeling (OSM), a model to evaluate the status of risk and return for Cloud Computing including Mobile Cloud, where the customer satisfaction rate is an important indicator. The authors describe how to use OSM to collect and analyze French and Italian 2011 data, in which the iPhone 4S Cloud service is used as the representation for Mobile Cloud industry. OSM data analysis shows that French and Italian data have declined customer satisfaction, being affected by the economic downturn. There are medium-high uncontrolled risks and good data consistencies in both countries. The use of 3D Visualization helps further data analysis and interpretation. Comparisons between French and Italian data are presented, and rationale for their similarities and differences are explained in detail. Additionally, OSM and other similar methods are compared. Due to the capabilities to support both quantitative and qualitative approaches with support from real case studies, OSM is a better method to analyze customer satisfaction in Mobile Cloud.

1. INTRODUCTION

Since the development of Cloud Computing in the industry, more organizations have adopted Cloud Computing for a variety of projects and services, including backup, experiments, web hosting, word processing, email, mobile services and highly specialized applications (Dinh et al., 2011; Marston et al., 2011; Chang et al., 2013 a). There are different types of reasons for adopting Cloud Computing. Some foresee business opportunities; some regard Cloud Computing as a

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platform to integrate their IT infrastructure; some use Cloud as a resource to develop applications which can be shared and reused. All the reasons mentioned above are the drivers for organizations to adopt Cloud Computing (Rochwerger et al., 2009; Marston et al., 2011). In all different types of Cloud adoption, there are industries that have more competition due to fast-growing areas in the global market and the user community. One such an area is Mobile Cloud, which is a fast-growing area due to the rise of smart phones, better infrastructures (such as 4G), better services and better applications (apps) available to a large number of users (Dinh et al., 2011; Qiang et al, 2012). Similarly, price wars between different smart phones, between different mobile service carriers and between different mobile apps have become more intense. For example, an iPhone 4S phone 8GB could be purchased with £20 per month for a two-year contract in 2014. In 2011, this would have cost £45 per month plus the additional fees to own the smart phones. Some researchers argue that the drop in price may not be accompanied by maintenance of quality of service. However, the 4G network has been more established and more mature than in 2011 and most users do not feel there is a huge difference between their service quality in 2011 and 2014. The Mobile phone and service industry is a competitive area. However, there is insufficient quantitative research investigating the Mobile Cloud service industry such as customer satisfaction, profitability or the business models. Although there are qualitative research projects in this area, they do not fully address the requirements and challenges in Mobile Cloud industry. We argue that concrete quantitative data and evidence must be fully demonstrated in support of any existing hypotheses. Additionally, innovative techniques for analyzing the user data is important to understand the consumer behavior, since users may change their habits and behaviours over shorter periods of time than other industries (Idongesit and Skouby, 2014). For example, some apps which were popular a few years ago could face a challenge to survive if they did not update and evolve their services. One example is the Chinese version of Farmville, which had millions of users in 2009. They did not change their games and services for four years. They experienced a large decline in users due to other apps available, which could be free and could work on all different mobile operating systems. In 2013, the company filed a statement of bankruptcy.

Customer satisfaction is an important indicator for the service industry, since it offers evaluations to the services on offer and it provides valuable information for investors to decide the scale and amount of investment. If a company does not perform well in their customer satisfaction, there are consequences. First, customers may leave and join other service providers. Second, if there is a decline, depending on the scale of decline in maintaining existing number of customers, the company may experience financial difficulties due to reduced revenues and fewer investors willing to put in more funds. There are studies about direct relationship between maintaining customer satisfaction and profitability. Both Heskett and Schlesinger (1994) and Hallowell (1994) demonstrate the direct positive relationship between the improved customer satisfaction and profitability. Statistical data and empirical evidence presented by both groups of researchers assert that the loyal customers contribute to the profitability of the service industry. Although the short-term relationship cannot be easily identified, maintaining high customer satisfaction and profitability are related in the long-term. If a company struggles to maintain an acceptable level of customer satisfaction, they may experience a decline of existing customers with reduced revenue and poor corporate reputation. This will not help the company to be profitable in the long term, since they may lose out to competitors with similar services.

Cloud computing promises to revolutionize the provision of major computing services, bringing with it benefits for all types of users. These benefits vary from simplified administration for