Chapter 16
Value Creation in Mobile Operating Systems

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ABSTRACT

Mobile OS embedded in mobile devices, such as smartphones, enables users to receive ever more mobility, flexibility and convenience. Value creation of mobile OS, regarded as the interaction between the business owners and users, not only bears the responsibility to create value for users, but also needs to achieve business owner's economic success. Various business models are created for the purpose of analyzing and improving value creation on behalf of both users and the value creators. One generic model of Osterwalder, Pigneur & Tucci (2005) is to explore the value creation by mobile OS. This chapter covers the general content and the objective of mobile OS as well as the specific design principles and value creation of two significant examples from Apple iPhone OS and Android OS.

INTRODUCTION

With the convergence of internet and mobile technologies, the consumer market is moving towards information mobility and open access. This means opportunities for innovation and marketing. With maturing development in functions and features of mobile phones, the market is now leaning towards the trend of smartphones, which has gained significant popularity and user conversion in the last 3 years (Schmidt et al., 2008). Product design aside, computing capabilities of mobile devices are now of considerable market and consumer interest. This has invariably resulted in a highly competitive environment among smartphones with different operating systems. The basis of smartphones is designed to achieve a range of informational objectives and personal productivity. It is a driving force for mobile / virtual offices and innovation as well as a consolidated platform for a wide range

of high-end mobile phones. Nevertheless, there is a requirement of radical improvement for all mobile operating systems and software platforms to strive towards in this new Internet age. The objective of this chapter is to explore the value framework created by mobile operating systems, in terms of value creation and provision, using a generic business model of Osterwalder, Pigneur and Tucci (2005). The argument is that value can be obtained by analyzing value creation logic and profitable business can be transformed from potential business model. Mobile operating system firms are continuously pioneering approaches in the value framework. It is the ability to generate true value creation that eventually leads to their business success.

BACKGROUND

Conventional methods of connection, entertainment, and information exchange among people and sources have been radically reformed by the personal computers, Web 2.0 and advancement in mobile technologies, among which mobile operating system is the most significant one. A mobile system is a computer system which is able to be accessed regardless of time or location constraints. Mobility is the major concern of it (Speckmann, 2008). There are high demand for information mobility and network access on-the-go. In a bid to meet mobile accessibility, smartphones, like miniature computers running on complete mobile operating systems are invented. This is one of the key drivers that enable mobile OS to create value for its users. Keeney (1992) mentioned that value is the principle for evaluating the consequences of action, inaction or decision. Value proposition of mobile OS is the net value related to the benefits and costs associated with the adaptation and adoption of the mobile OS. Value creation in mobile OS is the strategy to improve the customer-driven interface and user satisfaction, and this is currently achieved through OS such as Symbian OS,

Blackberry OS, iPhone OS, Windows Mobile OS, Android, Palm Web OS, and Samsung Beta etc.

While considering the features of mobile OS, the market in which they are used should be taken into account. This chapter focuses on the usage of mobile OS in smartphone market. Among all the above mobile OS used by different smartphone manufacturers, they share the key features as follows:

1. **Mobility:** The mobile OS should be able to work normally as it is carried everywhere with the mobile phones.
2. **Connection:** Mobile OS on smartphones enables to connect to the wireless network, local computer and other devices.
3. **Innovation:** Mobile OS is derived from computer operating systems at first. Developers of mobile OS are striving for breakthrough innovation to make it "local" to smartphones.
4. **Open:** Mobile OS is working based on a open platform to inactivate the applications, which is developed by independent technology and software vendors (Morris, 2007).

PERSPECTIVE ON VALUE CREATION AND IMPACT ON BUSINESS

Value creation can be regarded as the interaction between business and customers. Value can be perceived in terms of monetary and non-monetary standards. On the other hand, value is also regarded as the trade-off between benefits and sacrifices. Appropriate assignment and creation of value rewards the provider not only in terms of profit, but also in forms of competence, market leadership and social reputation. The monetary benefits of larger market volume and economic profit are directly related to value creation function. While non-monetary benefits consist of reputation, manufacturer power and sustainable development in the long run. These are indirectly related to the value framework. Moreover, regardless of the

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