

## Chapter 4.23

# Business Models in Open Source Software Value Creation

**Marko Seppänen**

*Tampere University of Technology, Finland*

**Nina Helander**

*Tampere University of Technology, Finland*

**Saku Mäkinen**

*Tampere University of Technology, Finland*

### ABSTRACT

This chapter explores how the use of a business model enables value creation in the open source software (OSS) environment. We argue that this value can be attained by analyzing the value creation logic and the elements of potential business models emerging in the OSS environment, since profitable business is all about creating value and capturing it properly. Open source (OS) offers one possibility for firms that are continuously finding new opportunities to organize their business activities and increase the amount of value they appropriate according to their capabilities. Furthermore, the concept of a business model

is considered a tool for exploring new business ideas and capturing the essential elements of each alternative. We propose that a general business model is also applicable in the context of OSS, and we provide a list of questions that may help managers deal with OSS in their businesses.

### INTRODUCTION

Firms have recognized an increasing need to improve their abilities to change the way their business operations are organized. Thus, they assess new business opportunities and evaluate them in terms of whether they would suit the

firm's business portfolio. A business model is considered a tool for exploring new business ideas and capturing the essential elements of each alternative. It is a construct for mediating technologies' development and economic value creation; in other words, it is an abstract representation of the business logic of a company. OS is a phenomenon that almost every company has encountered in the last couple of years. Obviously, it offers opportunities for the creation of new business, and thus, exploring the types of alternatives it may offer for value creation is a subject of growing interest.

We begin the chapter with a brief discussion of value creation and business models, which are applied and analyzed in the special context of the OSS environment. We argue that a general business model typical of proprietary software business is also applicable in the context of OSS. However, the elements of such a business model appear and are implemented in the OSS context in a different way than in the proprietary software business. One reason for this is that the value created in an OSS project often cannot be owned by single companies. This argument of the differences between OSS and proprietary software business forms the starting point of our analysis and is taken into account throughout the chapter.

The objective of this chapter is to explore how use of a business model enables value creation within the OSS environment. We argue that this value can be attained by analyzing the value creation logic and the elements of potential business models emerging in the OSS environment, since profitable business is all about creating value and capturing it properly. Firms are continuously finding new opportunities to organize their business activities and increase the amount of value they appropriate according to their capabilities. OS may offer one possibility for this.

## **BACKGROUND**

### **Differences between Business Based on Proprietary and Open Source Software**

In our examination, we have distinguished the three most salient points separating proprietary and OS software as (1) OS and licenses, (2) networks and their actors, and (3) the customer. The main differences emerge from the openness of source code and licenses. OS code enables anyone to further develop the original code, and the license ensures that the will of the original developer holds. With proprietary software, the source code is not available, and typical licenses restrict utilization of the source code to only the commercial supplier of the software. Woods and Guliani (2005) stated, "The most important difference between software created by the OS communities and commercial software sold by vendors is that OSS is published under licenses that ensure that the source code is available to everyone to inspect, change, download, and explore as they wish. This is the essential meaning of open source: the source code ... can be obtained and improved by anyone with the right skills."

The openness and availability of the source code further mean that the value in OS projects is created for the network, not for individual companies or other entities or individuals. As it is, the business models of the companies involved in OSS projects must be linked to the business models of other network actors and perhaps include components outside the network. Thus, management of network relationships has a key role in OS business operations (Dahlander & Magnusson, 2005).

The idea is that by openly sharing the software code with others, each actor can do the part it does best and the cooperative effort's outcome is characterized by high quality. Additionally, when all actors have had the opportunity to do those

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