Value Creation of Platform Mediated Networks in the Mobile Industry

David López-Berzosa, Business Administration, University of León, Veganzana Campus, León, Spain

Gloria Sánchez-González, Business Administration, University of León, Veganzana Campus, León, Spain

Carmen De Pablos Heredero, Business Administration, Social Sciences Faculty, Rey Juan Carlos University, Madrid, Spain

ABSTRACT

This paper analyzes emerging models of governance in platform-mediated networks subject to winner-takes-all competition regimes. The results show how modularity, an important attribute in technological systems, plays an important role in competition dynamics. The study is applied to the mobile networks industry, a highly dynamic and technology intensive sector, ideally suited to conduct research on competition under strong network effects. Based on the information coming from an important firm in this sector, the paper finds that proprietary technological platforms require a large set of external contributors to ensure sustainable rates of development and innovation. The authors’ results also suggest that, contrary to established theory, firms may opt for proprietary platforms rather than shared governance models and, nonetheless, they are able to successfully compete against the established ones.

Keywords: Competition Dynamics, Mobile Industry, Modularity, Open Innovation, Technological Platforms, Two-Sided Networks, Value Creation

1. INTRODUCTION

The application of information and communication technologies and the economic globalization offer firms the opportunity to develop new knowledge and increase the possibilities of accessing and spreading this knowledge through learning processes that generate new capabilities. These circumstances have promoted a change in the economic paradigm that offers a new perspective of innovation (Cooke, 2001). In this sense, the concept of open innovation first proposed by Von Hippel (1986, 2006) and Chesbrough (2007) refers to an emerging paradigm in which firms innovate relying on both internal and external firm resources.

DeJong et al. (2008) define open innovation as the purposed usage of internal and external flows of knowledge to accelerate internal innovation and expand markets for the external
In this vein, the concept of Open Innovation departs from previous innovation modes in which oftentimes existing processes at the firm erect barriers to external knowledge thereby reducing absorptive capacity (Chesbrough, 2002).

In this context, relevant research into innovation by users (von Hippel, 2006) concludes that users have played a prominent role in product development, not only in traditional industries such as textile or chemistry, but more recently in software or semiconductor industry. Moreover, there exists empirical evidence of the relationship between user’s involvement in product development and market’s acceptance (Franke, 2003). User’s willing to take part into product improvements or the development of new concepts, have important characteristics as far as companies are concerned: They are currently experiencing needs which shall be later requested by regular consumers while, usually they are also capable of providing solutions to their own needs thereby conducting innovations by themselves.

There exists a great amount of literature documenting how companies have engaged with this kind of users, termed Lead Users (Thomke, 2002; von Hippel, 2002; Lakhani, 2003; Jepennsen, 2006). Prior studies have discussed the process of attracting, motivating and organizing users through communities that donate complementary goods and services (e.g., Lakhani & von Hippel, 2003; Jeppesen & Frederiksen, 2006; West & Gallagher, 2006).

According to recent developments in strategic management, firms competing in sectors which are technology intensive and face strong network effects often compete based on a common framework of technical standards or interoperable technologies (Eisenmann, 2011). Firms operating in these frameworks may opt for two different modes of governance: a) a shared model in which knowledge and technologies are agreed ex-ante and shared between participants or, b) a proprietary model in which the platform remains under the firm’s control. Established theory predicts that shared model arrangements will dominate in contexts characterized by winner-takes-all market dynamics and the lack of decisive competitive advantages. However, recent examples in the industry, most prominently in the Internet and mobile business, are challenging previous assumptions. Clear examples of this paradox are the huge, and unexpected, successes of Google and Apple which, in spite of any clear market or technological advantage over their rivals, have gained large market shares in the mobile business. Moreover they have managed to do so opting for proprietary models.

The objective of this article consists of analyzing how firms competing in the mobile telecommunication industry are adopting new organizational arrangements in which external parties play a critical role as an important factor to compete in markets subject to technological uncertainty and winner-takes-all dynamics. For this purpose, platform-mediated networks serve as the theoretical framework upon which to understand competition dynamics and organizational structures (Eisenmann, 2011). This body of knowledge is adequate in contexts where strong network effects and systemic technologies are significant, as is the case of mobile telecommunication services.

Based on a real case, we study the way Ericsson is adapting its own internal structures and technology to compete in contexts of markets characterized by network effects, winner-takes-all syndrome and technological uncertainty. Following an Open Mode of innovation, the company involves external users in the early stages of innovation processes in order to explore new solutions better adapted to users’ preferences and expectations. This new mode of collaborations posits some challenges either technical, organizational or knowledge-management related among others.

The research approach adopted in this paper is of qualitative nature due to several reasons. Firstly, focusing on a specific case study provides a richer context to understand how firms and internal business units react to external stimuli. Secondly, the research case method constitutes a good approximation to the phenomenon analyzed, especially in ex-
Adoption of Portals Using Activity Theory

[www.igi-global.com/chapter/adoption-portals-using-activity-theory/17841?camid=4v1a](www.igi-global.com/chapter/adoption-portals-using-activity-theory/17841?camid=4v1a)