

Chapter 5

Understanding Knowledge Absorption for Inbound Open Innovation Practices: How Do Knowledge Antecedents Influence the Process?

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ABSTRACT

The successful integration of internal and external knowledge is crucial for the success of inbound open innovation processes. Yet, to date, our understanding of how different kinds of knowledge characteristics affect the knowledge absorption process in inbound open innovation is still rather fragmented. In this chapter, the authors provide an overview of how different aspects of knowledge (i.e., internal and external knowledge antecedents: prior knowledge, internal and external knowledge structure, knowledge source, types of knowledge, and knowledge environment) related to knowledge absorption in the inbound open innovation process. In the discussion, the authors highlight how far different knowledge characteristics either help or hinder knowledge absorption and, thereby, the potential success of inbound open innovation practices. Moreover, they point towards areas that promise to be fruitful for future research exploring the link between aspects of knowledge and absorptive capacity in the context of inbound open innovation.

INTRODUCTION

Innovation and knowledge¹ in an organization are strongly interlinked; one cannot think of one without the other, especially in an open innovation (OI) context. In this respect, the literature suggests that inbound open innovation activities (i.e., searching for and bringing external knowledge into the firm) and absorptive capacity (i.e., the capacity to absorb innovation-related external knowledge) are necessarily interconnected (e.g., Vanhaverbeke, Cloudt & Van de Vrande, 2008). Indeed, there are some empirical studies which have addressed the link between these two concepts (e.g., Escribano, Fosfuri & Tribo, 2008; Grimpe & Sofka, 2008; Pedrosa, Valling & Boyd, 2013; Clausen, 2013) and a number of conceptual papers have provided systematic reviews of absorptive capacity (AC) (e.g., Lane, Koka & Pathak, 2006; Volberda, Foss & Lyles, 2010). Yet, to date, our understanding of how different kinds of knowledge antecedents influence the knowledge absorption process for inbound open innovation output is still rather fragmented.

Traditionally, innovation (i.e., the doing of new things or the doing of things that are already being done in a new way) has been considered in a closed innovation paradigm whereby an organization innovates with its own resources in its internal R&D department (Schumpeter, 1947). In contrast to closed innovation, open innovation assumes that firm boundaries are porous and permeable, and knowledge flows easily across firm boundaries (Chesbrough, 2003). The term “open innovation (OI)”, originally coined by Chesbrough in 2003 in his seminal article “The Era of Open Innovation” has typically been defined as “the use of purposive inflows and outflows of knowledge to accelerate internal innovation, and expand the markets for external use of innovation, respectively” (Chesbrough, 2006:1). Further research (Gassmann & Enkel, 2004; see also West & Bogers, 2013 for a review) has identified three distinct OI processes in terms of the direction of the primary knowledge flows: inbound OI (outside-in), outbound OI (inside-out) and coupled processes.

To date, research on OI has considered the direction, nature and conditions underlying these knowledge flows and has proposed various kinds of interactions between different kinds of actors (Bogers et al., 2017). Indeed, this perspective suggests that knowledge and its management are crucial for our understanding of OI, given that knowledge needs to be managed not only for the innovation process itself but also for the innovation output. Specifically, for inbound OI (still one of the most prevalent forms of OI), the innovation process itself will require new external knowledge to be combined with existing internal knowledge in order to deliver on the promised innovation output. Therefore, to avoid the prevalent problems surrounding knowledge absorption in inbound OI (Zobel, 2017) and to reap the potential benefits of inbound OI, it is crucial for organizations to understand how different aspects of knowledge, such as prior knowledge, knowledge source, may influence AC and, thereby, the success of inbound OI practices.

In this chapter, we seek to provide an overview of how different aspects of knowledge (i.e., internal and external knowledge antecedents: prior knowledge, internal and external knowledge structure, knowledge source, types of knowledge, and knowledge environment) relate to AC in the inbound open innovation process. In this respect, we highlight in how far different characteristics of knowledge antecedents either help or hinder AC and, thereby, the potential success of inbound OI practices. Moreover, we point towards areas that promise to be fruitful for future research exploring the link between aspects of knowledge and absorptive capacity in the context of inbound OI.

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