

# On the path towards open innovation: assessing the role of knowledge management capability and environmental dynamism in SMEs

Isabel Martinez-Conesa, Pedro Soto-Acosta and Elias George Carayannis

## Abstract

**Purpose** – This study aims to shed light on the internal and external antecedents of open innovation (OI) in the context of small- and medium-sized enterprises (SMEs), with a special focus on the role of knowledge management (KM) capability. The paper develops and tests an integrative research model which assesses the effect of internal factors on KM capability; the impact of organizational and external factors, namely, KM capability and environmental dynamism, on OI; and whether environmental dynamism moderates the relationship between KM capability and OI.

**Design/methodology/approach** – Drawing on the knowledge-based view and the social exchange and the contingency theories, this paper develops an integrative research model which analyzes several relations between organizational antecedents of KM capability and its effect on OI by using covariance-based structural equation modeling on a data set of Spanish SMEs.

**Findings** – Results confirm that information technology-supported operations and commitment-based human resource practices have a positive and significant influence on KM capability. In contrast, results do not find support for the relationship between interdepartmental connectedness and KM capability, whereas both KM capability and environmental dynamism have a direct influence on OI.

**Originality/value** – This paper adds to existing research on OI, as it is the first study that addresses the critical role of KM capability for the implementation of OI.

**Keywords** Information technology, Knowledge management capability, Open innovation, Environmental dynamism, Human resource management practices

**Paper type** Research paper

Isabel Martinez-Conesa is Professor at the Department of Financial Economics and Accounting, University of Murcia, Murcia, Spain. Pedro Soto-Acosta is Professor at the Department of Management and Finance, University of Murcia, Murcia, Spain. Elias George Carayannis is Professor at the Department of Information Systems Technology Management, The George Washington University, Washington, DC, USA.

## 1. Introduction

An increasing number of firms are nowadays relying more on external information and research collaborations to innovate and gain competitive advantages, including small- and medium-sized enterprises (SMEs) which must currently compete globally (Soto-Acosta *et al.*, 2017). Firms are building collaboration networks with external partners to access and benefit from their new technologies, skills and expertise (Ahuja, 2000; Huggins and Thompson, 2015; Lavie, 2006; Messeni Petruzzelli *et al.*, 2007, 2009). This emergent trend toward opening the innovation process has been firstly identified by Chesbrough (2003) as “open innovation” (OI). OI permits firms to explore outside knowledge and to externally exploit existing internal resources to gain competitive advantages (Drechsler and Natter, 2012; Popa *et al.*, 2017). In the specific context of SMEs, purposive inflows and outflows of knowledge are even more relevant for sustainable competitiveness because they face more severe resource constraints (Dahlander and Gann, 2010; Spithoven *et al.*, 2013). At the same time, SMEs have advantages over large firms in that they are more likely to benefit

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