

Information technology, knowledge management and environmental dynamism as drivers of innovation ambidexterity: a study in SMEs

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Abstract

Purpose – The purpose of this study is to assess the effect of technological, organizational and environmental factors on innovation ambidexterity and its influence on the performance of manufacturing small- and medium-sized enterprises (SMEs) as well as the moderating effect environmental dynamism on this relationship.

Design/methodology/approach – Drawing on the Technology–Organization–Environment theory and the Knowledge-Based View, this paper develops an integrative research model, which analyzes the network of relations using covariance-based structural equation modeling on a data set of 429 Spanish SMEs.

Findings – The results show that information technology capability, knowledge management capability and environmental dynamism are positively associated with innovation ambidexterity. In addition, environmental dynamism is found to strengthen the positive effect of innovation ambidexterity on firm performance.

Practical implications – The study findings support the idea that innovation can be developed in an ambidextrous manner within a single SME as long as the firm is capable of creating a suitable organizational context and giving a prompt response to changes in the business environment.

Originality/value – Although many studies have highlighted that being ambidextrous is more challenging for SMEs than for their larger counterparts, the vast majority of studies has been conducted in large companies. This paper extends prior literature by analyzing antecedents and outcomes of innovation ambidexterity in manufacturing SMEs.

Keywords IT capability, Firm performance, Innovation ambidexterity, Environmental dynamism, KM capability

Paper type Research paper

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1. Introduction

In the current economic context, featured by the competitive intensity and the acceleration of technological change, the innovative capacity of firms is considered to be crucial for current and future competitiveness (Messeni Petruzzelli *et al.*, 2015; Soto-Acosta *et al.*, 2017). The most successful firms are believed to be those who can balance explorative and exploitative innovation ambidextrously (Chang and Hughes, 2012). The notion of ambidexterity has increasingly come to dominate theories on organizational adaptation, organization design, organizational learning and technological innovation (Raisch and Birkinshaw, 2008). Although it was first introduced by Duncan (1976), it is March's (1991) article that is frequently cited as the catalyst for the current interest in the concept. March proposes that exploitation and exploration are two fundamentally different learning activities

Received 1 October 2017
Revised 30 December 2017
Accepted 7 January 2018