



# An investigation of the effect of electronic business on financial performance of Spanish manufacturing SMEs



Simona Popa<sup>a,\*</sup>, Pedro Soto-Acosta<sup>a</sup>, Daniel Perez-Gonzalez<sup>b</sup>

<sup>a</sup> Department of Management and Finance, University of Murcia, Campus de Espinardo, 30100, Espinardo, Murcia, Spain

<sup>b</sup> Department of Business Administration, University of Cantabria, Avda. de Los Castros S/N, 39005 Santander, Cantabria, Spain

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## ABSTRACT

This paper aims to fill research gaps in the existing literature on the effect of electronic business on financial firm performance within the specific context of manufacturing Small and Medium Enterprises (SMEs). More specifically, this research analyzes not only the direct effects of e-business on firm performance but also the mediating effect of organizational innovation the relationship. Building on the knowledge and resource-based views, the proposed research model and its associated hypotheses are tested by using partial least squares (PLS) structural equation modeling on a dataset of Spanish manufacturing SMEs. Results suggest that electronic business has a direct effect on financial performance and is positively associated to organizational innovation. In addition, results show that the relationship between electronic business and financial performance is mediated by organizational innovation.

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## 1. Introduction

Economic globalization is having a profound impact across all industries worldwide. However, the process of globalization is not uniform, and there are large differences in the extent to which industries are being integrated into a single global market. In this context, economic globalization is putting increasing pressure upon manufacturing companies, specially manufacturing Small and Medium Enterprises (SMEs) which must today compete globally (Raymond et al., 2005; Soto-Acosta et al., 2015). In this context, brought by the advent and development of Internet technologies, among other factors, manufacturing companies are adopting e-business technologies to increase productivity and quality, lower operating costs, and respond faster to customers' and business partners' needs (Jardim-Goncalves et al., 2012). As a result, effective adoption and use of e-business technologies have become major management concerns (Popa et al., 2016; Soto-Acosta and Meroño-Cerdan, 2008).

Furthermore, the majority of the existing e-business literature still relies on studies conducted in large companies, to a great extent, with very few recent studies analyzing SMEs (e.g. Chan et al., 2012; Chong et al., 2009; Lopez-Nicolas and Soto-Acosta, 2010). Moreover, although the literature suggests that actual technology use is an important link to

business value and that such link has been found to be especially lacking in SMEs (Devaraj and Kohli, 2003), it is even less common to find studies analyzing e-business use in manufacturing SMEs (Raymond et al., 2005; Soto-Acosta et al., 2015). In addition, much of the existing research focuses on a single view of e-business, how these technologies support specific business processes (Gu et al., 2012; Palacios-Marqués et al., 2015; Soto-Acosta et al., 2014), with very few studies examining the use of e-business along the whole value chain in manufacturing SMEs (Soto-Acosta et al., 2015). However, according to the conceptual e-business frameworks, this is the level of adoption and integration of e-business that produces the best opportunities for business value creation (Martin and Matlay, 2001; Teo and Pian, 2004). Another issue is that most of the investigation on e-business adoption/use has focused on high e-business intensity countries (e.g. USA, Canada and Scandinavian countries) (Kongaut and Bohlin, 2016). However, the international growth of e-business has shown the need to extend this research to other less studied countries of the South Europe (Spain, Portugal, Greece...), with potential for growth but different cultures (Hernández et al., 2010).

Equally important is to analyze the effects of e-business use on the performance of SMEs. Firm performance in the e-business literature has been fundamentally measured by using subjective measures (Devaraj et al., 2007; Lucia-Palacios et al., 2014; Soto-Acosta and Meroño-Cerdan, 2008; Soto-Acosta et al., 2015; Tallon et al., 2000), with few works employing objective measures (Loukis et al., 2013; Meroño-Cerdan and Soto-Acosta, 2005, 2007; Zhu, 2004). In addition,

\* Corresponding author.

E-mail addresses: sp.popa@um.es (S. Popa), psoto@um.es (P. Soto-Acosta), daniel.perez@unican.es (D. Perez-Gonzalez).