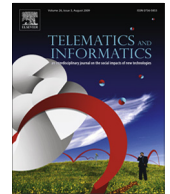




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Analyzing the effects of technological, organizational and competition factors on Web knowledge exchange in SMEs



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ABSTRACT

Internet technologies are increasingly being used within all knowledge management processes, including knowledge acquisition, knowledge exchange and knowledge use. Although technological issues are key drivers for Internet technologies adoption and use, organizational and environmental aspects have been found to be equally important. This paper extends previous studies on the use of Internet technologies and knowledge management by analyzing factors affecting Web knowledge exchange in small and medium-sized enterprises (SMEs). More specifically, by drawing on the technology–organization–environment framework, a model to examine how distinct contextual factors influence Web knowledge exchange in SMEs is developed. The hypotheses are tested by using structural equation modelling on a large sample of Spanish SMEs from different industries. Results suggest that IT expertise and commitment-based human resource practices positively affect Web knowledge exchange, with the latter being the strongest factor in our proposed model. In contrast, a negative relationship is found between competition and Web knowledge exchange.

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1. Introduction

With the advent of the Internet and open standards technologies and the associated reduction of communication costs, firms are migrating toward the Internet platform (Zhu et al., 2006) and cloud computing environments (Colomo-Palacios et al., 2012; Hsu et al., 2014). As a consequence, effective adoption and use of Internet technologies have become management concerns (Soto-Acosta and Meroño-Cerdan, 2008; Meroño-Cerdan et al., 2008b).

The characteristics of rapid search, access, retrieval and exchange of information make Internet technology suitable for collaboration and knowledge exchange between organizational members (Lucio-Nieto et al., 2012). One of the main characteristics of the Internet-based digital platform is that it is founded on the democratization of knowledge, so it facilitates the appearance of natural flows of collaboration and knowledge which, in turn, may favour creativity and innovation (Lucio-Nieto et al., 2012; Pérez-López and Alegre, 2012; Soto-Acosta et al., 2011). Thus, it is important to understand the key factors that facilitate and motivate the use of Internet technologies for knowledge exchange within firms. Competitive pressure has been defined in various studies as a key determinant of firm's readiness to accept new technology (Bayo-Moriones and Lera-Lopez, 2007; Sila, 2013; Teo et al., 2006). At the same time, the literature considers that technological factors are important

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