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Quality standards and export activities: Do firm size and market destination matter?

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ABSTRACT

Using original data from French firms, this study explores the relationship between quality standards and four indicators of export activities: the logarithm of exports per employee, the logarithm of exports per employee destined for EU countries, the logarithm of exports per employee destined for non- EU countries, and the share of exports of total sales. The results indicate that the sign of the relationship between quality standards and export activities is positive and statistically significant for all four indicators, supporting the view that quality standards provide information on the general capability of a firm to meet the quality expectations of customers and thus make unobservable characteristics more public. Moreover, we examine whether the quality standards–export activities relationship is firm size dependent. The findings indicate that while quality standards improve the logarithm of exports per employee and the logarithm of exports per employee destined for non-EU countries for all categories of firm size, they do not influence logarithm of exports per employee destined for EU countries among large and small firms. Additionally, the effect is insignificant for the share of exports of total sales when we look at the medium size firms.

1. Introduction

The significant recognition of Quality Standards (QS) over the last several decades has emerged as a response to dramatic changes in the business environment following privatization, globalization and severe competition. Quality standards such as ISO 9000 certification imply changes in routines, processes and managers' and employees' roles that transform the complete organization (Mejia-Morelos, Grima, & Trepo, 2013). The premise of quality standards is based on improving an organization's efficiency through high-level coordination of its activities in a rationalized system of end-to-end processes, which includes every aspect of firm performance (Benner & Tushman, 2002). In this sense, changes imposed by quality standard implementation provide the necessary meta-framework to eliminate organizational failures and develop routines that stimulate various profitable improvements (Grolleau, Mzoughi, & Pekovic, 2012). The literature has paid particular attention to the relationships between quality standards and financial performance (e.g., Kaynak & Hartley, 2005), operational performance (e.g., Lo, Yeung, & Cheng, 2008), innovation performance (e.g., Pekovic & Galia, 2009) and customer satisfaction (e.g., Singh, 2008).

In spite of this burgeoning interest in quality standards, there has been very little research on the impact of quality standards on firm export activities, even though exports play a critical role in firm survival. We believe that adoption of quality standards could help firms to respond to new challenges and pressures imposed by market actors and regulation in the context of firm export activities. In this sense, the rationale for positive link could be based on the fact that if the quality level of firms is unobservable, quality standards can provide

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information on the general capability of a firm to meet the quality expectations of customers (especially those located aboard) and thus make unobservable characteristics more public (e.g., Grolleau et al., 2012; Pekovic, 2010). Moreover, the International Trade Center (2005) highlights the important role of quality standards for export competitiveness. As indicated by Yeung and Mok (2005), international standards (such as the ISO 9000 standard) help to prevent unnecessary barriers to international trade. In order to explore this important issue, we empirically examine if the quality standards are positively associated with higher exports. We use two databases named Organizational Changes and Computerization survey (COI, 2006) and the Annual Firm Survey (EAE, 2007). Employing these two databases allows us to work on a larger representative sample of French firms and so control for a very detailed set of firm characteristics and features in order to properly isolate the effects of the quality standards on different forms of firm export activities- such as the logarithm of exports per employee, the logarithm of exports per employee destined for EU countries, the logarithm of exports per employee destined for non-EU countries, and the share of exports of total sales- to address reverse-causality issues and to correct for the potential selection bias. Moreover, the few studies (e.g., Volpe Martincus, Castresana, & Castagnino, 2010; Potoski & Prakash, 2009) that have carried out the analysis are mainly focused on the impact of quality standards on exports regardless of firm size, or only focus on large firms, and so almost completely neglect the role of quality standards in small and medium firms. Nevertheless, the strategies employed by the small and medium enterprises (SMEs) to enter international markets may be quite different from those employed by the larger firms (Ogbuehi & Longfellow, 1994). Therefore, examining the impact of quality standards in SMEs contributes to the debate about whether new management practices (such as quality standards) tested in large firms can be beneficial to small and medium firms because SMEs should not be considered as a smaller model of large firms. Actually, adoption of quality standards in SMEs presents a deep transformational process that implies defining and specifying concrete objectives, functions, and work methods (Mejia-Morelos et al., 2013). However, since the financial and human resources constraints are usually a strong argument against implementation of management practices in small and medium firms, establishing a positive link between quality standards and export activities could have significant practical implications, especially if we consider that SMEs present more than 95% of enterprises in the OECD nations. Moreover, SMEs account for almost 60% of private sector employment, make a large contribution to innovation and support regional development and social cohesion (OECD, 2005).[1] For instance, SMEs represent 99.8% of the French firm population.[2] Furthermore, in the global environment, SMEs are aware that they cannot operate only in their local markets. In addition, working on French firms is appealing since the French trade balance showed a growing trade deficit in 2006 (Koenig, Mayneris, & Poncet, 2010). Therefore, the demand for policies that encourage exports underlines the need for further empirical analyses that explain the nature of the relationships between quality standards, export activities and firm size. In this sense, further understanding could provide policy-makers with consistent clues. Consequently, the objective in this study is to examine whether the impact of quality standards on different forms of firm export activities is related to firm size in the specific context of France.

In the next section, we introduce a conceptual model of the link between quality standards and firm export activities and introduce our hypotheses. The third section describes the data and model, the fourth section reports the results, and a final section offers some concluding remarks and suggestions for practice.

2. Research background and hypotheses

2.1. Quality standards and export activities

In the export market there are information imperfections about quality that cause consumers to practice discrimination against imports from certain countries or organizations (Kumar Das & Bandyopadhyay, 2003). This information asymmetry about quality attributes is generally more important when agents evolve in different institutional environments (distinguished on geographical, cultural and linguistic bases) (King, Lenox, & Terlaak, 2005) or when the quality level of firms stays unobservable for customers. The initial introduction of quality standards aims at harmonizing diverse regulatory environments by creating uniform standards and by sharing product safety regulations (Anderson, Daly, & Johnson, 1999). Furthermore, policy-makers have used the ISO 9000 standard to define minimum quality standards in situations where the probability of market failure has made regulatory intervention appropriate (Anderson et al., 1999). From a signaling perspective, quality standards can provide information on the general capability of a firm to meet the quality expectations of customers and thus make unobservable characteristics more public (Pekovic, 2010; Grolleau, Mzoughi, & Pekovic, 2007; Spence, 1973). Since buyers face high transaction costs in identifying quality exporters, quality standards could help to reduce information costs and thereby make it easier to conclude transactions or to establish inter-firm buyer–seller relationships (Volpe Martincus et al., 2010; Potoski & Prakash, 2009; Clougherty & Grajek, 2008; Terlaak & King, 2006). Therefore, internationally recognized certification such as the ISO 9000 standard may play a strong role in signaling unobservable characteristics and generating customer trust (Pekovic, 2010). In other words, as indicated by Withers and Ebrahimpour (2000) ISO 9000 certification has positive impacts on the dimensions of quality from which a firm improves its 'public signals'. In addition, quality standards can alleviate problems of information asymmetries due to its common-language and conflict-setting properties (Spickernell, 1986; Clougherty & Grajek, 2008; Terlaak & King, 2006; Guler, Guillen, & Macpherson, 2002). Moreover, several papers confirm empirically the positive relationship between quality standards and firm export activities. For instance, using a unique firm-level dataset for Argentina over the period 1998–2006, Volpe Martincus et al. (2010) find that ISO 9000 certification is associated with increased exports along the extensive margin — primarily in terms of destination countries. Based on analyses of a panel of 140 countries from 1994 to 2004, Potoski and Prakash (2009)

[1] OECD SME and Entrepreneurship Outlook 2005 Edition.
[2] http://www.insee.fr

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