

Quality certification and firm performance. The mediation of human capital

Quality
certification
and firm
performance

Juan Miguel Gallego and Luis H. Gutiérrez Ramírez
Facultad de Economía, Universidad del Rosario, Bogotá, Colombia

Received 12 January 2021

Revised 14 June 2021

8 July 2021

Accepted 10 July 2021

Abstract

Purpose – This paper investigates the impact of adopting quality management standards like ISO9001 on a firm's performance and the mediator role of human capabilities within firms in this relationship. The article analyses this mediator effect in the context of an emerging economy that set a policy reform aimed at increase ISO adoption and with a large share of informal labour markets.

Design/methodology/approach – This study implements a quantitative approach, applying a Difference in Differences-DiD model with a Propensity Score Matching on fixed effect panel data analysis of a sample of certified and non-certified firms using firm-level data obtained from the national statistics office of Colombia. This methodology allows having comparable groups before the policy implementation. It reduces differences in observable characteristics and controls for parallel trends in primary outcomes before the policy reform.

Findings – The research findings suggest that after Colombian policy reform of the quality system (2006), firms that adopted ISO 9001 certification increased innovation (5.2%), labour productivity (4.6%), sales (5.7%) and wages (4.9%). Furthermore, it shows that the share of permanent workers is an essential mediator in adopting quality programs. Adopters firms with a large percentage of temporary workers weaken their initial investment in quality infrastructure.

Research limitations/implications – This research does not consider one key aspect. This is the lack of information about the organizational culture inside Colombian organizations that is related to a successful implementation of Quality Management standards like ISO 9001. However, it does not affect the conclusion about the mediation effect of human capital in the relationship between ISO 9001 and firm performance.

Practical implications – The study covered all the Colombian manufacturing firms with ten or more employees. It provides critical insight for managers to value implementing ISO 9001 certification and appropriately put attention to enhancing their firms' human capital in emerging economies. Also, a policy implication of the paper is that governmental efforts to strengthen quality infrastructure in emerging economies should also include steps to increase a firm's investment in human capital.

Originality/value – This study provides further support for government policies to strengthen firms' incentives to adopt modern management practices. The strong effects of implementing these management practices on sales, productivity and innovation have been identified. Furthermore, the investments in quality infrastructure must be accompanied by investment in human capital and workforce stability.

Keywords Permanent workers, Labour productivity, Value-added, Innovation, Informality, Quality management system

Paper type Research paper

1. Introduction

The number of valid certifications of the two most commonly ISO international standards, the ISO9001 and the ISO14001, amounted to about 1.2 million in 2018 ([International Organization for Standardization, 2018](#)). This figure shows the need for domestic firms worldwide but mainly in emerging economies to signal the high quality of their products or services ([Anderson et al., 1999](#)). However, implementing ISO 9001 certifications entails high costs to companies for documentation of operating procedures, training, initial assessment, internal



Authors thank Colombia Científica-“Alianza EFT” Research Program, with code 60185 and contract # FP44842-220-2018 funded by The World Bank through the call Scientific Ecosystems, managed by the Colombian Ministry of Science, Technology and Innovation. The authors also thank the Inter-American Development Bank for financial support under the contract ID OC#7000001919.

International Journal of
Productivity and Performance
Management
© Emerald Publishing Limited
1741-0401
DOI 10.1108/IJPPM-12-2020-0643