



Support Systems and Technological Capabilities in Digital Transformation According to the Nature of the Company

Reynier Israel Ramirez Molina¹ , Ricardo Romario Antequera Amaris¹  ,
Diego Alberto Baez Palencia¹ , Nelson David Lay Raby² ,
and Lydia López Barraza³ 

¹ Universidad de la Costa, Barranquilla, Colombia
{rramirez13, ranteque2, dbaez}@cuc.edu.co

² Universidad Andres Bello, Viña del Mar, Chile
nelson.lay@unab.cl

³ Universidad Autónoma de Occidente, Culiacán, Mexico
lydia.lopez@udo.mx

Abstract. The evolution of markets has encouraged the use of technologies in different areas; in business and industry, their use has increased since these tools and technologies allow efficient management of resources and generate better products and services; in this sense, the technological capacities allow a correct use of the different elements and technology resources to be able to carry out productive, commercial and management processes, as well as the use of tools such as the support system. This research evaluates the effect of technological capabilities in operations and information technology capabilities in business support systems on the company's digital transformation. Four categorical regression models are estimated, controlling for economic activity, for a sample of companies from different industries. The findings show an influence of capabilities on the propensity for digital transformation and a moderation effect due to economic activity. Information technology capabilities influence service companies, while the digital transformation of manufacturing organizations depends on the technological capabilities in operation with a more significant effect. It is concluded that the development of technological skills, both in operation and in support, serve as inducers of digital business models. However, their adoption will depend on the nature of the firm. Changes in the technological support capabilities further underpin the probability of more extraordinary digital transformation in service, opposite for those who operate the production of tangibles.

Keywords: Support systems · Technological capabilities · Digital transformation

1 Introduction

The constant evolution of the markets has led organizations to join forces in innovating to offer products and services with more novel characteristics, leading to the generation