

Digital Capabilities and Technology Capabilities and Family Business Performance: A Partial Least Squares Structural Equation Modelling and Necessary Condition Analysis

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Abstract

The purpose of this article is to investigate the level of necessity of two conditions, digital capabilities, and technological capabilities for family business performance, after the first wave of the COVID-19 pandemic, in Portugal. The authors proposed and empirically tested a research model based on longitudinal data from the World Bank's Enterprise Surveys 2019 and World Bank's Enterprise Surveys 2020 follow-up on Covid-19, which included 479 Portuguese family firms. The effect of digital and technological capabilities is explored from the perspectives of both sufficiency logic and necessity logic by applying the combined use of partial least squares structural equation modeling (PLS-SEM) and necessary condition analysis (NCA). The results reveal that digital capabilities and technological capabilities have positive effects on family firm performance, which indicate that these conditions exhibit different levels of necessity for the occurrence of these firm performance. Further, firm size affects performance, but industry types do not. The findings suggest that firms should pay attention not only to the net effects but also to the levels of necessity of digital and technological capabilities for their target performance. Our research provides a methodological paradigm for the combined use of PLS-SEM and NCA in family businesses research, by identifying the necessary and sufficient effects of digital and technological capabilities on firm performance. Finally, some promising avenues for future research and implications for managers and policymakers are suggested based on these findings.

Keywords: digital capabilities, technological capabilities, family business, firm performance, PLS-SEM, NCA