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DIGITAL PLATFORMS AND CROSS-BORDER TRADE: WHICH CONDITIONS ARE NECESSARY AND WHICH COUNTRIES ARE EFFICIENT?

EDUARDO AVANCCI DIONISIO
UNIVERSIDADE ESTADUAL DE CAMPINAS (UNICAMP)

CRISTIANO MORINI
UNIVERSIDADE ESTADUAL DE CAMPINAS (UNICAMP)

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Introdução

The global expansion of digital intermediation platforms (DIPs) has enabled companies, small and medium-sized enterprises (SMEs), to more easily enter the international market. The digital infrastructure of DIPs has reduced obstacles to the international integration of SMEs; without this infrastructure, the international integration of these companies would be difficult or impossible. Despite the importance of digital infrastructure, physical infrastructure remains essential for enabling the delivery of physical goods.

Problema de Pesquisa e Objetivo

To answer these questions, the study has two main objectives. First, we aim to identify the essential conditions that contribute to export performance through digital intermediation platforms. Second, we aim to assess countries' export performance through digital intermediation platforms.

Fundamentação Teórica

Cross-border e-commerce (CBEC), enabled by Digital Intermediation Platforms (DIPs), has profoundly impacted traditional cross-border trade (TCBT) models. While the TCBT faces geographic and temporal obstacles and complex customs processes, the CBEC, particularly when operationalized in the DIP environment, has been able to eliminate or minimize these barriers. This occurs because DIPs act as matchmakers, that is, they connect different sides of a market, such as buyers and suppliers, regardless of geographic distance, time zone, and language barriers.

Metodologia

To identify the essential yet insufficient conditions for increasing exports via digital platforms, we utilized the Necessary Condition Analysis (NCA). NCA posits that certain factors are prerequisites for the occurrence of a specific phenomenon (output). If a necessary condition is absent or fails to meet a minimum threshold, the desired output cannot be achieved.
To perform an efficiency analysis we use data envelopment analysis (DEA). DEA provides a mathematical programming method of estimating best practice production frontiers and evaluating relative efficiency of different entities.

Análise dos Resultados

Our results show that exporting via digital platforms requires most of the conditions analyzed: investment in cloud computing, the country's production complexity, digitalization policies, investment in emerging technologies, and adequate physical infrastructure and performance. Regarding efficiency analysis, we found that most of the 95 countries analyzed are efficient; however, exporting countries such as South Korea and Singapore are inefficient.

Conclusão

In this research, we aim to determine which physical and digital infrastructure factors contribute to an increase in exports via digital platforms, and how countries organize their infrastructural resources to support cross-border e-commerce. To achieve this, we employed NCA and DEA using a sample of 95 nations. Our findings revealed that, except for the WEB variable, which concerns firms having a website, all other factors were considered essential for enhancing export value through DIPs.

Contribuição / Impacto

This study holds academic significance as it explores the impact of various contextual elements, such as digital and physical infrastructure, as well as foreign trade-related capabilities, on the export value enabled by digital platforms. It makes noteworthy contributions to the discourse on cross-border e-commerce, being one of the pioneering studies to integrate export data via DIPs with the logistics performance data of countries.

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