Unraveling the Trade Potential of BRIC: A Comprehensive Analysis of Global Value Chains and Intra-BRIC Trade in Value-Added

Topic: Input-Output Theory and Methodology
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(1) Research Question:
The research question revolves around understanding the characteristics and dynamics of the world input-output network (WION) and its implications for global trade, mainly focusing on the participation of emerging economies such as the BRIC countries (Brazil, Russia, India, and China). Additionally, the research aims to analyze the evolution of trade patterns, value-added trade, and trade intensity among these countries within global economic integration.
(2) Method Used:
The method employed in the research involves analyzing the WION using the available World Input-Output Database (WIOD). The analysis includes examining global network properties, subgraph structures, and dynamics of the WION using network analysis techniques such as community detection. Additionally, traditional input-output analysis methods like the Laumas and eigenvector methods are compared with network-based measures like PageRank centrality and community coreness to identify key industries.
(3) Data Used:
The primary data source used is the World Input-Output Database (WIOD), which provides comprehensive input-output tables covering various countries and industries. Other data sources, such as trade statistics, GDP data, and industry-specific data, may complement the analysis.
(4) Novelty of the Research:
The novelty of the research lies in its comprehensive analysis of the WION and its implications for global trade, with a specific focus on the participation of emerging economies like the BRIC countries. The research provides new insights into global trade patterns' structural characteristics, dynamics, and evolution by employing network analysis techniques and comparing traditional input-output analysis methods. Additionally, the research contributes to understanding the role of value-added trade, trade intensity, and technological specialization in shaping trade relations among countries within the WION framework.