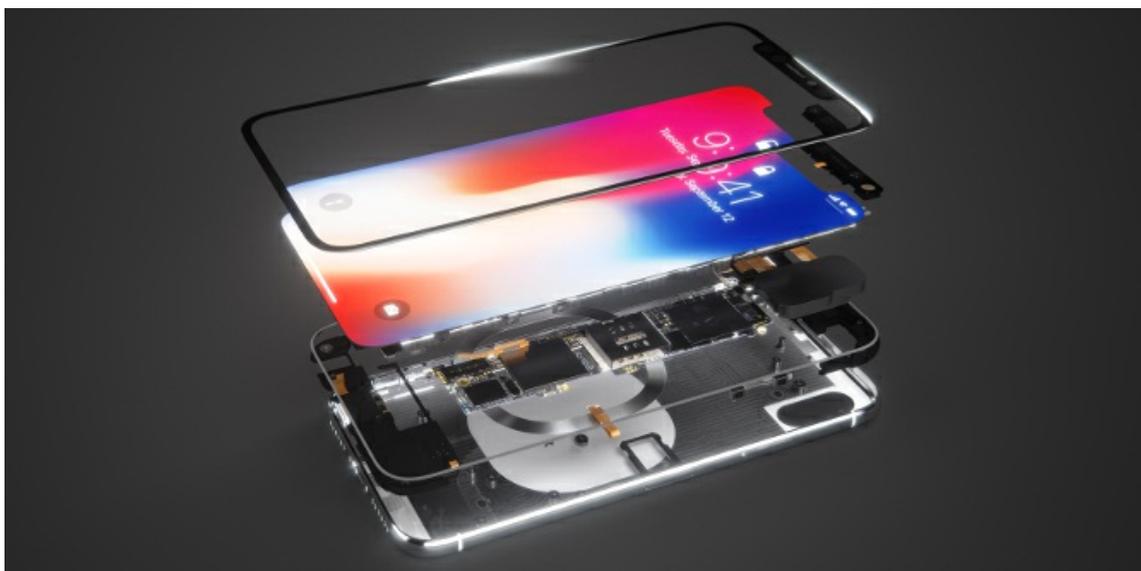


Recent innovations in Costa Rican development show the value of Global Value Chain analysis



By allowing an understanding of where, how, and by whom economic, social, and environmental value is created and distributed, Global Value Chain research can help to address key development and competitiveness issues, write [Gary Gereffi](#) and [Karina Fernández-Stark](#) (Duke University Global Value Chain Centre).

The global economy is increasingly structured around global value chains (GVCs). The evolution of GVCs has significant implications for global trade, production and employment and how developing country firms, producers and workers integrate into the global economy. This is particularly the case in sectors such as commodities, apparel, electronics, tourism, and business service outsourcing.



The many producers behind Apple's iconic iPhone are distributed all over the world (crop of [Martin Hajek](#), [CC BY-NC-ND 2.0](#))

GVCs link firms, workers and consumers around the world and often provide a stepping-stone for firms and workers in developing countries to participate in the global economy. For many countries, especially low-income countries, the ability to effectively insert themselves into GVCs is a vital condition for development.

This supposes an ability to access GVCs, to compete successfully, and to “capture the gains” in terms of national economic development, capacity-building, and generating more and better jobs to reduce unemployment and poverty. Thus, it is not only a matter of whether to participate in the global economy, but how to do so gainfully.

The benefits of Global Value Chain analysis

A GVC framework allows one to understand how global industries are organised by examining the structure and dynamics of different actors involved in a given industry.

In the very complex industry interactions of today's globalised economy, the GVC methodology is a useful tool to trace the shifting patterns of global production, link geographically dispersed activities and actors within a single industry, and determine the roles they play in developed and developing countries alike.

The GVC framework focuses on the sequences of value-added activities within an industry, from conception to production, end use and beyond. It examines the job descriptions, technologies, standards, regulations, products, processes, and markets in specific industries and places, thus providing a holistic view of global industries both from the top down and the bottom up.

The comprehensive nature of the GVC framework allows policymakers to answer questions regarding development issues that have not been addressed by previous paradigms. Additionally, it provides a means to explain the changed global-local dynamics that have emerged within the past 20 years. As policymakers and researchers alike have come to understand the pros and cons of the spread of globalisation, the framework has gained importance in tackling new industry realities.

This includes topics such as the role of emerging economies like China, India and Brazil as new drivers of global value chains, the importance of international product and process certifications as preconditions of competitive success for export-oriented economies, the rise of demand-driven workforce development initiatives as integral to dynamic economic upgrading, and the proliferation of private regulations and standards, while also proving useful in the examination of social and environmental development concerns.



Costa Rica has adopted a GVC approach to better understand its medical export sector ([García Cordero, CC BY-SA 2.0](#))

The case of Costa Rica

Prior to 2013, Costa Rica wanted to improve and consolidate its information inputs to assess how it was faring in different global value chains. In order to better understand which policy actions to pursue, Costa Rica adopted a GVC approach on four industries: Medical Devices, Electronics, Aerospace, and Offshore Services. These value chains were selected because of their importance to Costa Rica. The project was a collaboration between Costa Rica, the Duke University Global Value Chains Center, COMEX, CINDE, and PROCOMER.

By using the GVC lens, the following actions were taken:

1. Promotion agency

The example of Ireland's experience in upgrading and strengthening linkages with domestic firms in the medical-devices industry was used to provide a frame of reference on how to think through Costa Rica's positioning and value proposition in the MedTech sector. This led to CINDE revising and reformulating its promotional approach towards the Life Sciences sector, which has led Costa Rica to become the second largest exporter of medical devices in Latin America by amount. Medical devices became the country's number one industrial export product in 2016.

2. Competitiveness and innovation

Costa Rica's Institution for Science, Technology and Communication promoted a more purpose-based innovation system as part of a broader country strategy focused on supporting a knowledge-based economy. The institute created the Presidential Council on Competitiveness and Innovation to bring together the government and private sector to discuss innovation. The Council monitors the advancement of initiatives that improve human capital and its capacity for innovation, which were key themes highlighted in the GVC studies.

3. Human capital

The "Enhancing the Potential to Develop Human Resources of Companies in Costa Rica's Free Zones" programme was introduced. This programme allows the government to assist companies in free-trade zones in training employees (or potential employees) in skills that have been identified as gaps. The committee includes COMEX, the Ministry of Labour, the National Training Institute (INA), CINDE, PROCOMER, and the private sector. The group agreed on a streamlined process for companies to apply and take part in the training programme. This initiative was introduced as a pilot programme in 2016 to one specific company and will be rolled out to an unlimited number of companies in the future.

4. Workforce development

CINDE strengthened its International Strategic Academic Alliance Programme (ISAA) as a means of addressing the theme of talent-development upgrading highlighted in the reports. Through this programme, CINDE has been able to develop specific complementary curricula in medical devices and services through alliances with foreign partners including Rice University, University of Wisconsin, and Georgia Tech. CINDE promoted an alliance between University of Minnesota and Costa Rica's Technical Institute which led to the opening of the first Master's Degree Programme in Medical Device Engineering in Latin America. This alliance's key focus areas are engineering, quality assurance, cyber security and big data, business intelligence, and microbiology, among other disciplines.

In sum, a global value chain approach provides key understanding of global industries, leading to the creation of new programmes and policies to promote economic development. Such an approach, as attested by the Costa Rican experience, equips stakeholders with the language and tools to understand globalisation and its economic impacts.

Notes:

- The views expressed here are of the authors and do not reflect the position of the Centre or of the LSE
- This post was originally published by the [LSE Global Investments and Local Development blog](#) and draws on the authors' own [Global Value Chain Analysis: A Primer \(2nd Edition\)](#), as well as a recent article on the [Duke University Global Value Chains Center blog](#)
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Gary Gereffi – *Duke University Global Value Chain Centre*

Gary Gereffi is Professor of Sociology at Duke University and Director of the Duke University GVC Center. He received his Ph.D. in Sociology from Yale University. His research areas of interest are the sociology of development, international competitiveness, environmental and social sustainability, economic sociology, political economy, Latin America, and East Asia.



Karina Fernández-Stark – *Duke University Global Value Chain Centre*

Karina Fernández-Stark is a Senior Research Analyst at the Duke GVC Center. She has led several research projects related to economic development and competitiveness in Latin America and other regions of the world. She has consulted for the African Development Bank, Economic Commission for Latin America and the Caribbean, Inter-American Development Bank, OECD, UNCTAD, and the World Bank, amongst others.