

## Dissertation

# Impact Investing and Sustainable Global Value Chains: Enabling Small and Medium Enterprises Sustainability Strategies

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Improving the sustainability of SMEs in developing and emerging economies, which represent the vast majority of the population of MNCs' supplier networks, is fundamental to achieving the Sustainable Development Goals. However, SMEs often lack viable financing options to invest in their sustainability. Emergent impact investing seeking social, environmental, and financial returns aims to address this financing gap. How does impact investing influence sustainability in the global value chains of MNCs? Studying the nexus between impact investing and the strategies of SMEs in Latin America's coffee and forestry sectors, I provide new insights into how the modes of financing suppliers' production activities improve GVC sustainability.

## BIG QUESTION

How does impact investing – seeking social, environmental, and financial returns – influence the sustainability of global value chains in agro-industrial sectors?

## INTRODUCTION

Financing the production activities of small and medium-sized suppliers through investment products tailored to their sustainability needs is a crucial factor in achieving the Sustainable Development Goals (SDGs) in the global value chains (GVCs) of multinational corporations (MNCs). GVCs are the dominant form through which MNCs organize production, dispersing their economic activities across extended networks of suppliers (Gereffi, 2018). MNCs' suppliers, in turn, originate 11.4 times more carbon emissions than the MNCs' direct operations (CDP, 2022). About 95% of those suppliers are small and medium enterprises (SMEs) from developing and emerging economies (DEE) (Casanova & Miroux, 2022). Therefore, achieving the SDGs in GVCs requires enabling the growth and innovation of SME suppliers, not only the MNCs' direct operations. This requires sizeable financial investments, which are currently lacking. The United Nations estimates an annual investment gap of four trillion dollars to achieve the Sustainable Development Goals (SDGs) in DEEs (UNCTAD, 2023).

Existing research does not examine how the modes of financing suppliers' production activities influence the structure and sustainability of GVCs (Kano, Tsang, & Yeung, 2020). Studies of sustainability in GVCs have focused on the initiatives by which MNCs promoted SMEs' shift to production forms that comply with specific sustainable sourcing requirements addressing external pressures to conduct more responsible business operations. Many SMEs in DEEs innovated their production practices by accessing MNCs' more advanced knowledge and technologies, receiving technical support from buyers and local institutions, and collaborating with peers and local communities (Correioira & McDermott, 2020; Perez-Aleman, 2011). MNC-led initiatives stimulated sustainability innovation but also left many of the SME suppliers' economic, social, and environmental vulnerabilities unaddressed (Ponte, 2019). For example, the development and commercialization of 'sustainable' coffee and chocolate products entailed SME suppliers adopting greener production practices. Yet, while the new sustainable products revealed a commercial opportunity for MNCs and an improved revenue source for the suppliers, in many instances, it did not help SMEs to progress their adaptation to climate change, improve the resilience of their commercial channels, or counteract declining productivity. Consequently, suppliers in DEEs seek sustainability strategies that address unanswered vulnerabilities independent of what MNCs demand in the context of their supply relationships.

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**Table 1. Data Summary**

Data Source	Details
<b>SMEs Business Plans</b>	107 documents, for a total of 2143 pages.
<b>Impact Investments Applications</b>	107 loan application forms (428 pages), documenting the amount and type of capital required, activities to be funded, and justification of the financing needs.
	107 'Info sheets' with market data (512 pages), documenting commercial volumes, buyers, product types and prices, sustainability certifications, and regimes of production.
<b>Impact Investors' Reports</b>	23 investment reports (604 pages), detailing and motivating the success/failure outcomes of 311 loan negotiations.
<b>Semi-structured interviews</b>	48 interviews (119 hours) with impact investors, SMEs, and industry experts.

The crucial challenge to SME suppliers pursuing sustainability strategies is the lack of financing, which impact investing, a new financial innovation, promises to address. SMEs encounter significant barriers to implementing their sustainability strategies due to a lack of long-term funding at reasonable repayment rates, especially in agro-industrial sectors (UNCTAD, 2023). Impact investors are emergent players in GVCs that promise to fill the financing gap by creating financial returns and measurable positive social and environmental outcomes through investments in DEE SMEs' growth and sustainability. Impact investing in agro-industrial sectors is on the rise. For example, the Council on Smallholder Agriculture Finance, an alliance of the leading impact investors targeting agricultural SMEs in DEE, reported \$756 million in sustainability-driven investments in 2021 (CSAF, 2022). However, we know little about how impact investing influences the sustainability of SMEs in agro-industrial GVCs.

## RESEARCH STRATEGY

The Latin American coffee and forestry sectors are among the largest and most established markets targeted by impact investors in agro-industrial sectors (CSAF, 2022). They are dominated by SMEs and feature a long history of private, public, and multi-stakeholder initiatives to encourage shifts to more sustainable and responsible production practices. They thus represent an ideal setting to examine the interplay of impact investing and DEE SMEs' sustainability strategies in GVCs.

I investigate such a context thanks to an extensive set of original data documenting the interactions between 107 SMEs and 21 international impact investors. I count on four sources of original data, including the SMEs' business plans, their impact investment applications, the impact investors' reports illustrating the outcomes and feedback to the applications, and original interviews with members of the SMEs, the impact investors, and industry experts (Table 1). This body of data details the SMEs' commercial and financial status and goals, positioning in the GVCs, sustainability issues, iterations with impact investors, and the rationale for each investment application's outcome.

My analytical approach applies qualitative methods and descriptive statistics to make sense of the nexus between

SMEs' strategies and impact investing. I began the analysis by identifying how existing financing channels influence each SME's strategy implementation. I compared traditional financing SMEs access in GVCs with the conditions under which impact investors grant their loans. I then captured the challenges that investors and SMEs encounter to match their supply and demand of impact financing and their actions to overcome them. Analyzing the resulting evidence led to a conceptual model tracing the barriers to impact investing deployment, proposing an approach to address such barriers, and theorizing the nexus between impact financing and SMEs' sustainability.

## FINANCING OF PRODUCTION AND SMES SUSTAINABILITY IN GVCs

I find that SME suppliers in GVCs traditionally fund their production activities through "GVC financing" they receive from MNCs, traders, input suppliers, and commercial banks. GVC financing consists of seasonal loans and pre-harvest credit through formal or informal agreements that only cover planting and harvesting operations. It comes as credit the MNC leverages to secure the following season's yield in exchange for repayment at an agreed-upon moment. GVC financing does not fund infrastructural and long-term investments for sustainability and features exceptionally high interest rates for credit repayment at an average annual rate of 32% within 6 to 12 months. The high cost and limited scope of these financing options hinder the SMEs' ability to invest in independently defined sustainability projects, such as biodiversity improvements and renewable energy sources.

In contrast to GVC financing, impact investing constitutes an alternative financing source for SMEs' sustainability improvement efforts. I find that impact investors supply SMEs with short-term working capital to fund harvesting and long-term investments such as tree and plantation renovation, processing machinery, and infrastructure. Remarkably, impact loans feature lower repayment rates than GVC financing, with yearly interest rates averaging between 8 and 12%, with repayment terms up to 72 months and larger loan amounts. Thanks to the more advantageous repayment conditions, SMEs experience lower chances of defaulting on the loan. Moreover, impact investments are

better suited to address the SMEs' sustainability priorities, entailing long-term infrastructural and capacity-building interventions. Impact-investing products co-driven by social and environmental criteria converge with the suppliers' competitiveness and sustainability agendas.

However, a critical gap exists between what impact investors require and the SME suppliers' competencies and structural features. The SMEs often lack the financial and managerial processes to access impact investing loans. For example, many SMEs struggle to prepare sound business plans to support financing requests. Also important, impact investors limit their risk of financing small-sized agro-industrial operations in rural areas by targeting SMEs that already show established and scalable commercial operations centered around sustainable products sold on export markets. Such a requirement tends to exclude from the impact investing market the SMEs still at the onset of their journey to develop sustainable products and integrate into GVCs.

Surprisingly, additional gaps hindering the deployment of impact investments also originate on the impact investor's side of the market. For example, impact investors often show a limited understanding of agri-specific financial and production risks and the SMEs' financing needs related to their sustainable production. They tend to be highly specialized in single sectors, such as coffee, lacking the expertise to fund SMEs in other industries. Sometimes, they struggle to identify and connect to potential investees, as they do not have a presence in remote rural areas. Impact investors often lack structured approaches adjusted to the local and sectoral trade and production needs.

My analysis indicates that a close and coordinated collaboration between the impact investors and the SMEs can fill many of these gaps. The impact investors and SMEs in my sample worked to capture the competence-based gaps affecting the ability to deploy impact loans. They then co-identified relevant actors owning the technical expertise required to build missing skills and know-how. They leveraged such expertise by mobilizing technical assistance from local industry associations, mid-level officers in domestic public institutions and research centers, and international NGOs and development agencies. The emergent collaborative network enabled the creation of new competencies functional for matching the supply and demand of impact investing, which improved the chances of individual SMEs accessing impact investments.

Access to impact investments provides SMEs with crucial funding for implementing sustainability strategies and shifting to greener and value-added forms of production in GVCs. Such initiatives would remain unfunded in the absence of impact investors. Impact investors thus represent an essential factor in pursuing more sustainability in GVCs. They enable SMEs' participation and value-capture in markets for sustainable products. Importantly, MNCs do not take an active role in this context. They do not assist impact investors and SMEs in overcoming challenges to match financing supply and demand. Still, MNCs remain fundamental to the process of mobilizing impact financing. They provide a market for the sustainable products SMEs develop

through the impact investors' funding, therefore ensuring the viability of impact financing.

## IMPLICATIONS

These findings originate important implications for policymakers, development agencies, MNCs, and impact investors operating in agro-industrial GVCs ([Table 2](#)).

### INSIGHTS FOR MNCs: RETHINKING SUPPLIERS' FINANCING TO ACHIEVE THE SDGS IN GVCs

Traditional GVC financing, through which MNCs fund the production activities of their suppliers, is ill-equipped to facilitate supplier-level innovation advancing the SDGs agenda. In contrast, impact investing shows the potential to fund suppliers' projects to shift to more sustainable forms of production and tackle existing vulnerabilities. Impact investing aligns with the SMEs' internal sustainability goals and rising external pressures to comply with sustainability requirements and regulations.

To progress in their commitment to the SDGs agenda, MNCs orchestrating agro-industrial GVCs should consider restructuring GVC financing to reflect their suppliers' sustainability priorities and the increasing costs of sustainability compliance. Developing less profitable trade financing products associated with shared sustainability goals could boost MNCs' medium- and long-term capacity to improve the social and environmental performance of their GVCs by enabling supplier-level SDG-related innovation. MNCs could consider partnering with impact investors to develop new sustainability-centered funding solutions for their GVC operations. Those solutions should be designed and deployed in connection to scalable commercial alliances in which MNCs, suppliers, service providers, support institutions, and impact investors collaborate to generate sustainability-oriented market and investment opportunities.

### INSIGHTS FOR POLICYMAKERS AND DEVELOPMENT AGENCIES: CONNECTING POLICY SUPPORT TO SMEs' FINANCING NEEDS

During the last two decades, DEE governments and international development agencies pursued policies promoting SMEs' integration in GVCs by stimulating firm-level innovation to meet the product requirements of global markets (De Marchi & Alford, 2022). These approaches often did not translate into improved livelihoods and positive social and environmental firm-level innovation (Gereffi, 2018; Ponte, 2019). Consistent with these views, my research highlights that, despite integration into GVCs, many SMEs still require sizable investments into their sustainability priorities.

Consequently, DEE policymakers and development agencies should improve their focus on fostering SME suppliers' access to impact investing through more holistic capacity building. My research demonstrates that SME suppliers need specific know-how to access strategic investments in sustainability. Future SME-targeted efforts should flank technical assistance in production with programs that connect SMEs to local and global networks of technical assis-

**Table 2. Practical Implications for MNCs, Policymakers, and Impact Investors**

Actor	Entrenched Problem	New Insight	Managerial Implications
<b>MNCs</b>	MNCs' financing of suppliers' activities does not address many economic, social, and environmental vulnerabilities affecting participation in GVCs.	Impact investing pairing sustainability and financial returns unleashes SME suppliers' sustainability strategies and their contribution to the SDGs in GVCs.	Rethinking GVC financing to address suppliers' sustainability priorities is crucial in achieving the SDGs in GVCs.
<b>Policymakers &amp; Development Agencies</b>	Policy support stimulates SMEs' integration in GVCs by emphasizing production capabilities matching MNCs' requirements without guaranteeing associated improvements in SMEs' sustainability and growth.	SMEs must create new managerial capabilities crucial to access strategic investments into the sustainability of their production.	Connecting policy support and technical assistance to SMEs' financing needs related to sustainability innovation enables policies' contribution to the SDGs.
<b>Impact Investors</b>	Impact investors confront high levels of risk in agro-industrial GVCs in DEEs. They reduce the risk by targeting well-established exporting SMEs, limiting the scope for impact generation and market expansion.	Impact investors, SMEs, policymakers, and GVC actors can collaborate to address the mutual lack of competencies that hinder the matching of supply and demand of impact investments.	Creating GVC partnerships helps co-create missing financial, productive, and commercial SME-level competencies and leverages existing policy and sustainable market initiatives, allowing for de-risking investments.

tance providers to create managerial and financial capacity to meet the impact investors' requirements. Therefore, policymakers need to increasingly engage in the role of network facilitators and coordinators, creating and nurturing knowledge-sharing spaces and mechanisms that cut across borders, sectors, and industries to enable SMEs access to investments in their sustainability.

#### INSIGHTS FOR IMPACT INVESTORS: SCALING-UP PARTNERSHIPS ALONG THE GVCS TO DE-RISK INVESTMENTS

Impact investors confront high levels of risk inherent to agro-industrial sectors, DEE contexts, and small and medium-sized investees. They reduce such risks by targeting investment-ready SMEs with the required commercial and financial capacity, and find it challenging to invest in riskier SMEs with a limited size, profitability, sustainability performance, and managerial capacity. While some investors have the in-house capacity to provide technical assistance to help SMEs develop better financial skills, they lack the resources to support the SMEs in other areas, such as product development, managerial training, and market intelligence. It is thus difficult for impact investors alone to target a larger set of SMEs and expand the impact finance market.

Impact investors must increase the scope and depth of their collaboration and partnerships with suppliers, service providers, MNCs, and policymakers to de-risk SMEs in

agro-industrial GVCs and grow the number of investees they target. For example, collaboration with local industry associations and public extension services can help identify potential investees in DEE and connect to existing capacity-building programs that assist SMEs in developing skills relevant to financial risk mitigation. Structured partnerships with GVC-oriented policy initiatives targeting the supplier networks of MNCs can provide a platform to establish a shared investment pipeline comprising SMEs that are on the path to growing their revenues and sustainability performance.

#### ABOUT THE AUTHOR

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