

# Embedded Interdependence and Mutual Value Creation in Green Value Chains

Jacklyne Hanna

## Abstract

This paper investigates how high-growth scaleups create and sustain value in green value chains involving micro-suppliers, and how these dynamics differ from corporate-led models described in existing literature. While Global Value Chain (GVC) research has extensively analyzed governance and upgrading in multinational-dominated chains, it has largely overlooked entrepreneurial high-growth firms as lead firms coordinating decentralized micro-suppliers. Building on debates around GVC governance, upgrading, inclusive business, and sustainability, the paper introduces the concept of embedded interdependence—a condition in which micro-supplier productivity is structurally tied to firm growth.

The empirical analysis draws on four qualitative case studies of Egyptian scaleups operating in agribusiness and circular economy sectors: VeryNile, EgyMag, Mycelium, and Dajin. Primary data come from semi-structured interviews with founders, complemented by company documents and secondary sources, and are analyzed using a deductive–inductive coding strategy informed by five dimensions: structural embeddedness, value creation mechanisms, upgrading trajectories, sustainability integration, and value distribution.

The findings show that when supplier integration is growth-critical, upgrading and sustainability become incentive-aligned, generating cumulative, though asymmetric, value creation dynamics that differ from compliance-driven corporate models. The study identifies three configurations of embedded interdependence—mission-embedded, circular-productivity, and finance-embedded—and clarifies boundary conditions where inclusion remains peripheral. The paper contributes to GVC governance and high-growth firm literatures by theorizing scaleups as lead firms in green value chains and outlining implications for policy and practice in emerging economies.