Clusters as spaces for global integration

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Introduction

Clusters are geographically concentrated and interlinked agglomerations of specialized firms in a particular domain. Historically, clusters represented a primary form of organization for the spread of global capitalism. Multinationals operating in new markets channeled their investment in circumscribed geographies, to maximize the efficiency of their extractive activities in frontier locations (Fitzgerald 2016).

Social sciences research extensively examined the topic of localized industrial agglomeration: business and strategy scholars scrutinized how economic concentration impacted national competitiveness and firm strategies (Porter 1998b); economic geographers investigated how agglomeration forwards innovation and regional development (Storper and Walker 1989). Finally, sociologists and historians analyzed knowledge generation and exchange across cluster companies as well as the relationship between clustering and the institutional environment (Becattini 2004; Piore and Sabel 1984). However, these contributions over-emphized the impact of local dynamics over external influences. When considering non-local elements of cluster development, such as imported knowledge and technology, the literature studied how they were absorbed and repackaged to yield local competitiveness. Consequently, critics accused cluster scholarship of suffering from “self-containment” and a “local obsession” (Declercq 2019), while ignoring the role of transnational linkages. Despite several attempts to solve this theoretical puzzle, this research did not explicitly address clusters’ impact on international business and globalization (Bathelt and Glückler 2014). By contrast, this chapter reviews the – so far partially under-researched – topic of longstanding clusters in developing countries, to explain how multinationals organized their activities at the global level. Given the limited infrastructure in emerging markets, multinational enterprises (MNEs) clustered their activities around service and port locations. This fostered knowledge dissemination and increased specialization, but also eased local exploitation and fast asset mobilization in times of political instability (Giacomin 2018).

This chapter first examines the major contributions at the core of cluster theory and argues for a new understanding of clusters as enabling the expansion of global capitalism. The next section reviews the multidisciplinary literature on industrial agglomeration and pinpoints the major contentions raised in the theoretical debate on clusters. The third section discusses clusters’
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contribution to globalization through global value chains (GVCs) and historical approaches. The fourth section includes two historical cases showing how MNEs’ activities and investment in the form of, or within existing, clusters facilitated the internationalization of developing economies. The final section concludes by stressing clusters’ role in the making of global business.

Industrial concentration as a foundation of cluster scholarship

Alfred Marshall’s *Principles of Economics* (1920) is the standard reference for the study of industrial concentration. As the first to discuss the advantages of economic concentration, Marshall coined the expression “industrial districts” after observing the high density of specialized productions by small and medium-sized enterprises (SMEs) in selected UK regions, such as Lancashire cotton, Staffordshire pottery, and Sheffield cutlery. The companies co-locating in these industrial areas benefited from cost savings (i.e., lower input prices) and higher specialization. These advantages, later named “agglomeration economies,” were understood as exogenous to each individual firm in the area, but endogenous to the group of companies there. Marshall identified a triad of sources for these positive externalities: a skilled labor pool; local non-traded inputs; and information spillovers due to proximity (McCann 2009).

In the post-war period, Marshall’s theory re-emerged to explain the performance of new organizational forms surfacing in Europe as alternatives to the declining Fordist model (Piore and Sabel 1984; Trigilia 2002: 197–210). The concept of industrial district was adopted to define regionally concentrated systems of production based on highly specialized family-owned SMEs.

New industrial districts, learning regions, and self-containment

Since the 1980s, Marshall’s ideas have inspired important contributions in several fields of the social sciences, defining the phenomenon in different ways: (neo-Marshallian) “industrial districts” (Bellandi et al. 2009), “learning regions,” milieux innovateurs (Aydalot 1986; Scott 1985), and “clusters” (Porter 1998a; Karlsson 2008).

Economic historians and sociologists developed the neo-Marshallian district tradition, seeking to explain the growth of sectorial groups of SMEs in northeastern and central Italy – the so-called “Third Italy” – after the 1970s (Becattini 2004; Brusco 1990; Piore and Sabel 1984). In these neo-Marshallian districts, production occurs in dense industrial networks via an “extended division of labor between small and medium-sized firms specialized in distinct phases or complementary activities within a common industrial sector” (Zeitlin 2008: 223). Following Granovetter’s (1985) concept of “social embeddedness,” firms within these districts become more flexible by cooperating via trust and shared culture. This favors the rapid circulation of knowledge in non-codified (tacit) forms through informal, often face-to-face, exchange. Business historians joined this discussion by examining the long-term relationships between firms and districts’ institutions (Zeitlin 2008: 222–224). Major influences included North’s neo-institutionalism, examining how institutions drive economic change (North 1999); and the Varieties of Capitalism approach (Hall and Soskice 2001), studying systematic institutional differences (i.e., corporate governance, labor relations, financing, and innovation) across the industrialized world. Among them, Wilson and Popp (2003; Popp 2003) studied the business structures and culture in the pottery district of North Staffordshire. Carnevali (2004) researched how industrial associations impacted the cohesiveness of the Birmingham jewelry district. Parsons and Rose (2005) scrutinized the evolution of skills and technology in the Lancashire cotton district as outdoor trade expanded after the 1960s. Scranton (1997) investigated the US
manufacturing districts, challenging the Chandlerian paradigm based on large corporations. Colli (1999) reinterpreted the Italian district tradition through archival material to describe the entrepreneurial elements underpinning the district; while Spadavecchia (2005a, 2005b) analyzed the sources of financing, innovation, and knowledge transfer among Italian SMEs. Lescure (2002) examined the development of financial institutions in French districts. Similarly, Hashino and Kurosawa (2013) worked on the linkages between firms, government, and trade associations for the promotion of districts in Japan.

Meanwhile, geographers developed their own interpretation, overcoming the district to introduce more malleable concepts such as “new industrial spaces” (Scott 1985; Storper and Walker 1989), milieux innovateurs (Crevoisier 2004; Maillat 1998), and “learning regions” (Lundvall 1995). This scholarship, also named “New Economic Geography,” shared the district literature’s focus on path dependency and social embeddedness, but differed in scope, questions, and methods. In terms of level of analysis, it shifted the focus to larger territories and interpreted Marshall’s “information spillovers” as regional learning dynamics and technological trajectories (Mackinnon et al. 2002). As for methods, while the empirically rich district studies threatened the analytical power of the underlying agglomeration theory (Zeitlin 2008), economic geographers’ theory-driven analyses often lacked empirical depth (Mackinnon et al. 2002). As a common weakness, both scholarships overstate the local economic outcomes and only indirectly recognize the advantages of industrial concentration for international business. As partial exceptions, some studies engaged in comparative analyses, though within the same country. Saxenian’s (1996) ethnography of firms in the two tech-regions of Silicon Valley and Boston Route 128 identified local institutions as the major discriminant in their divergent performance. Historians Amdam and Bjarnar (2015) explained the opposite outcomes of two Norwegian clusters since the 1990s as resulting from differing strategic actions and attitudes toward internationalization. Perez-Aleman (2005) studied the emergence of two Chilean agricultural clusters emanating from the collaboration between the state, local actors, and multinationals. Overall, the reviewed literature showed that economic concentration generated specialization, local growth, and increased trade flows. However it seldom considered external sources of cluster development, and, if so, it did only to explain local competitiveness, rather than global connectivity. Thus, while indirectly suggesting that clustering enables internationalization, this scholarship did not explicitly acknowledge its role in the expansion of global capitalism.

From districts to clusters: the problem of the cluster in context

Michael Porter (1998b) famously revisited the Marshallian idea of economic concentration in the domain of business strategy to understand its impact on countries’ competitiveness. Porter overcame the industrial district model based on systems of SMEs and coined the “cluster” concept. In Porter’s most recent definition, clusters “are geographic concentrations of industries related by knowledge, skills, inputs, demand and/or other linkages” (Delgado et al. 2016: 1). As clusters include organizations of different sizes and types (Porter and Ketels 2009), industrial districts qualified as a type of cluster, comprising SMEs in light manufacturing industries (Declercq 2019: 15; Porter and Ketels 2009: 181). Further, drawing from the theory of comparative advantage, Porter interpreted the existence of specialized industrial locations as competitive tools for nations to succeed in the international markets. Thus, Porter conceived clusters the result of the interplay among different local elements: firm strategy and industry structure, supporting industries, demand conditions, environmental conditions, and government regulation — the so-called “diamond” (Porter 1998b; Rugman 2005). Although Porter popularized the debate on industrial concentration and introduced it into the fields of international business
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and strategy, his framework was criticized for being a “fuzzy” branding exercise, lacking analytical depth (Markusen 1999; Martin and Sunley 2003).

However, following the “cluster vogue,” geographers outlined a “knowledge-based” cluster theory (Maskell 2001; Maskell and Kebir 2005) and an “evolutionary approach” to clusters (Bre-snahen et al. 2001; Trippl and Todtling 2008). This work applies a bottom-up perspective and focuses on the exchange of knowledge across cluster institutions (Wolfe and Gertler 2004: 1077). Clusters advance through a balanced interplay of tacit and codified knowledge, which members access via an integrated system of “local buzz” and “global pipelines” (Bathelt et al. 2004). The “buzz” identifies the Marshallian externalities resulting from proximity, constant comparison, and monitoring among firms. “Pipelines” are institutional arrangements channeling knowledge available elsewhere into the cluster (Maskell et al. 2007), requiring “a shared institutional context for joint problem solving, learning and knowledge creation” (Bathelt et al. 2004: 43).

This diverse scholarship synthetized the findings of previous studies on agglomeration and explicitly connected them with the concept of international competitiveness. However, it did not as yet offer a comprehensive solution to the problem of location specificity – or “tunnel vision” (Declercq 2019). By presenting clusters as the result of comparative advantage, Porter’s theory over-emphasized local dynamics relative to external linkages. Neither did the knowledge-based approach explicitly consider contextual contingencies, or external shocks, impacting the cluster’s working, its evolution, or its role within the broader global economy. Conversely, both theories considered clusters as unique entities that can absorb external input, but are hardly reproducible away from their location of origin, thus underplaying the value of comparative analyses of clusters across distant locations. While Martin and Sunley argued that Porter’s clusters are “self-contained entities abstract from the rest of the economic landscape” (2003: 17), Zeitlin observed that “the self-contained character of the districts has been overstated,” calling for more research on the “relationship between districts and the wider world” (2008: 219). Finally, MacKinnon and colleagues (2002: 293) stated that economic geographers “underemphasize the importance of wider extra-local networks and structures.”

Paul Krugman (1998) partially solved this problem by analyzing the endogenous effects of industrial concentration, applying mainstream economics to understand how geography impacts growth dynamics (Fujita et al. 1999). Krugman interpreted Marshall’s agglomeration economies as the result of increasing returns to scale generated by proximity. This perspective enhanced the role of trade in industrial development, stressing that (several) inputs used in clusters’ specialized production can be imported into a specific location from elsewhere. Indeed, while boosting national competitiveness via comparative advantage, clusters also reinforce international business. Recent economic geography work attempted to overcome location specificity and local–global duality by pinpointing the relational aspect of spatial interaction. Some promising studies investigated non-durable trans-local institutions, such as trade fairs, conventions, and conferences as “temporary clusters,” where actors working in different locations exchange specialized knowledge (Maskell 2014; Henn and Bathelt 2015).

Clusters beyond location: MNEs, developing economies, and global integration

The previous section concluded that much of the available scholarship on industrial agglomeration suffered from “tunnel vision” (Declercq 2019: 11). Cluster studies overlooked the sources of cluster connectivity and the influence of non-local sources of growth, such as: foreign investment; imported inputs; dispersed sources of knowledge; market-driven standards and requirements; and other organizational forms, e.g. business groups (Colpan and Cuervo-Cazurra in this volume), similar distant clusters, GVCs, and global cities. The reason is twofold. First, most
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studies on economic agglomeration analyze industrialized countries, characterized by homogeneous availability of inputs, solid institutions, low trade barriers, and political stability. Second, cluster theory traditionally studied clusters to fathom relationships among localized (or local) firms, instead of examining their relevance for MNEs’ strategies and transnational operations. Conversely, in the case of clusters in less-developed economies, sources of growth were rarely only location-specific, and more frequently depended on factors imported from other locations or even located elsewhere (Barton 2014). As these locations often lacked efficient institutional apparatus and extended infrastructure, non-local resources, such as foreign capital, specialized knowledge, and inputs, clustered around selected locations, in order to facilitate local extraction directed to international trade. Thus, examining the activities of MNEs and transnational entrepreneurs across different clusters in emerging economies illustrates how clustering traditionally supported the making of global business.

The GVC approach and clustering in less-developed countries

“Poor countries lack well-developed clusters” (Porter 1998a: 86), mostly because of structural deficiencies in their business environment. These are also defined “institutional voids,” or missing intermediaries and poor institutions, impairing the smooth functioning of capitalist systems (Khanna and Palepu 2010). Because of the lack of widespread infrastructure in peripheral areas in developing economies, industrial activity tends to concentrate in selected locations, especially around capital and port cities (Fujita and Mori 1996; Jacobs et al. 2010). A rich literature in globalization and development studies recognized the importance of clustering for export-led development strategies and for the first stage of growth of local SMEs (Giuliani et al. 2005; Schmitz and Nadvi 1999; Dijk and Rabellotti 1997). Weijland (1999) showed that clusters of microenterprises sparked early development in Indonesia. Cramer (1999), studied the Mozambican cashew-nuts industry to understand whether sub-Saharan Africa can industrialize through primary commodities clusters.

Export-oriented clusters undergo (technological or sectorial) upgrading through insertion into broader production structures connecting specialized supplier locations across the globe, also theorized as global commodity chains or GVCs (Humphrey and Schmitz 2000; Bair 2016; Sturgeon et al. 2008). In the GVC view, “lead firms” – core actors (often multinationals) in cross-border business networks – control these chains and are crucial drivers behind successfully globalized clusters. They enforce control through coordination mechanisms that do not involve direct ownership of cluster firms or assets (Gereffi and Korzeniewicz 1994; Ponte and Sturgeon 2014), but rather consist of governance dynamics, i.e., the “coordination of economic activities through [inter-firm] non-market relationships” (Humphrey and Schmitz 2002: 4). The GVC approach overcame the problem of location specificity in two ways. First, it showed that cluster emergence and development could result from factors independent from the cluster location. Second, it conceptualized clusters as part of the broader global economic system. Since its inception in the late 1990s, the GVC framework sought to provide comprehensive theorization of chain governance, while documenting the diversity of mechanisms linking different nodes in the value chain (Ponte and Sturgeon 2014). However, the approach was accused of structuralism, as it argued that firms’ choices are determined by type of chain where they operate. Only recently the scholarship acknowledged the downsides of export-led development strategies in the developing world (Gereffi and Lee 2016; Lund-Thomsen et al. 2014). Industrial concentration often polarized resources at the social and geographical level, reducing host economies as mere suppliers of low-value added products to the developed world (Pyke and Lund-Thomsen 2016). This resulted from MNEs outcompeting local players, but also from institutional stickiness at the local level. For
example, Thomsen (2007) documented that in Vietnam, government authorities impacted the process of supplier selection for global buyers of garment and apparel.

**Clusters in global perspective: MNEs’ activity and cluster competition**

Despite presenting clusters as elements of global capitalism, the chain approach struggled to connect different levels of analysis and to acknowledge the agency of multinationals and transnational entrepreneurs. Conversely, the historical analysis of MNEs’ long-term strategies in developing countries helped solving the structuralism in existing accounts on clusters and GVCs. Business history (Jones 2000, 2005, 2013: 190–207) and international business (Wilkins 1970; Kindleberger 1969) research documented the role of MNEs in the formation of the global economy since the nineteenth century.

Geographically, global capitalism expanded following international trade between industrialized economies of the “core” (Western Europe, USA, and later Japan in the North) and a system of clustered activities in the “periphery” (developing economies in the South), supplying natural resources and agricultural commodities. Charles Jones (1987) introduced the notion of *cosmopolitan bourgeoisie* – thick networks of families and dense ethnically heterogeneous trading communities concentrating in port locations and hubs for global trade – to retrace the social structures behind the genesis and the expansion of the British Empire (Barton 2014) and the development of the First Global Economy (Fitzgerald 2016; Jones 2005; Bayly 2004). Geoffrey Jones analyzed in depth the activities of trading firms, their subsequent transformation into business groups, and their role in international commerce and in the financing of (clustered) infrastructure for primary production in less-developed countries (van Helten and Jones 1989; Jones and Wale 1999). In his *Capitals of Capital* (2010), Youssef Cassis studied the tentacular development of global finance, through a net of global cities, i.e., clusters of interconnected financial services supporting the activities of MNEs and local companies in regional economies (Jones and Gallagher–Kermstine 2014). McCann and Acs (2011) adopted an historical perspective to illustrate how MNEs (including financial institutions) directly impacted locations’ connectivity, being “the primary conduits via which global knowledge flows operate and the natural channels via which domestic firms can distribute their goods” (Aitken *et al.* 1997) during intense globalization. Goerzen *et al.* (2013) showed that MNEs are likelier to invest within existing clusters and global cities than in other locations due to their global interconnectedness, and proximity to advanced services and cosmopolitan networks. In some instances, MNEs contributed to the formation of clusters: several flower clusters emerged in Colombia, Ecuador, and Kenya out of Dutch investment (Porter *et al.* 2013). In other cases, MNEs invested into existing industrial poles to tap into specialized knowledge (Zeitlin 2008: 226). MNEs’ acquisitions supported the regeneration and internationalization of north Italy’s shoe district in Montebelluna, Veneto (Belussi 2003) and the biomedical equipment industry of Mirandola, Emilia (Biggiero and Sammarra 2003). Conversely, MNEs’ entry disrupted the collaborative and innovative dynamics in the mechanical engineering cluster of Jæren, Norway (Asheim and Herstad 2003).

Recent business history works emphasized the advantages of cross-fertilization, using theoretical models developed in geography to direct their historical analysis. In his study of the fur district in Saxony during the nineteenth century, Declercq (2019, 2015) scrutinized the relationship between GVCs and industrial districts, by retracing the long-term trans-border interaction among fur entrepreneurs. His study explored how lead firms responded to external competition by leveraging local collaboration and collective action. Similarly, Sebastian Henn (2012, 2013; Henn and Laureys, 2010) studied the global diamond-cutting industry between Antwerp and Gujarat, stressing how transnational entrepreneurs functioned as “human global
pipelines” across different cluster locations. After World War II, entrepreneurs from the Jainist community of Palanpuris in India managed to revive the declining Gujarat cluster by transferring knowledge, technology, and cutting-skills from the Antwerp cluster. Consequently, the Indian cluster directly competed with Antwerp, eroding Belgian diamond dominance in the United States. Finally, Cirer–Costa (2014) analyzed how Majorca’s tourism sector outcompeted similar Mediterranean holiday destinations, as major luxury hotels and shipping companies actively promoted internationalization and sought for broad social consensus among islanders.

These examples show that an historical approach to MNEs’ activities conceptualizes clusters as entities that are only partially entrenched at the local level, and can rather be moved and reproduced according to MNEs’ strategies. Long-term comparisons of similar clusters in different geographies therefore overcome location specificity and document cluster competition. Different cluster locations indeed specialized on the same or homogeneous product and compete at a global scale; thus, in the context of emerging markets, MNEs have the option to operate across multiple locations, while diversifying their political risk (Giacomin 2018).

In summary, business history showed that MNEs long preferred to structure their investment across different locations through clustering. In aggregate, global capitalism spread from the developed to the developing world, as MNEs shaped an institutional architecture based on clustered production activities and connected across value chains and global cities (McCann and Acs 2011). A closer look at MNEs’ operations in the developing world helps us examine the impact of clusters beyond their location and as organizational forms for the making of global business.

Clusters and global business: two cases from the developing world

The following subsections present two historical analyses of clusters in developing economies. The plantation (rubber and palm oil) cluster in Malaysia and Indonesia and the eco-tourism cluster in Costa Rica represent relevant examples of how MNEs fostered local growth via increased international exposure, by clustering their investment in foreign markets.

Despite differences in terms of region (Southeast Asia vs. Central America); industry (agriculture vs. services); size of cluster companies (big corporations vs. SMEs); historical period (colonial vs. postcolonial); and type of empirical material (archival sources and oral history), both cases show that clustered foreign direct investment (FDI) provided access to global markets and laid the foundations for long-term growth. Initially, a limited group of foreign companies recognized elements of exceptionality in the local environment, which appealed to global demand. Successively, these multinationals organized the import of locally unavailable inputs such as human resources, knowledge, and capital, while mobilizing native actors and existing resources to set up (or improve) the physical infrastructure and expand the scope of their activity in loco. Initially, these MNEs were also the ones to reap most benefits from clustering. Indeed, these clusters primarily emerged to serve the export markets, and eventually generated – positive and negative – spillovers for the local economy. Through the co-creation of new institutions, the resulting cluster organizations filled some of the existing institutional voids, and increased the competitiveness of these locations vis-à-vis potential competitors.

Rubber and palm oil plantation cluster in Southeast Asia (1900–1970)

The rubber cluster emerged in the colonial territories of British Malaya and Netherlands Indies in the early twentieth century. The need for tires in the bourgeoning automotive industry drove increasing demand for natural rubber. In the late nineteenth century the British businessman and adventurer Henry Wickham smuggled the rubber tree (*Hevea Brasiliensis*) from the Amazon, its
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native home, to colonial South Asia, a climatically similar but politically more stable environment (Wycherley 1968). In the same period, the colonial governments of both British Malaya and Netherlands Indies granted entrepreneurs and planters land concessions to launch estate ventures (Tate 1996). Public institutions such as the Botanic Gardens and Agricultural Departments attracted researchers (agronomists, botanists, biologists, and engineers) to support the development of plantations and the domestication of wild crops. In less than two decades, a dynamic community of European and ethnic Chinese planters transformed the pioneering rubber ventures in large-scale enterprises, leveraging the existing planting tradition (mostly on coffee and tobacco) and their contacts with trading houses and financiers in Singapore, the regional trading center. Simultaneously, a cosmopolitan bourgeoisie comprising Chinese, Indian, and Hadhrami Arab traders orchestrated the inflow of “coolies,” migrant labor from overpopulated areas of China, India, and eventually Java, to employ as low-skilled workers in the plantations (Irck 1982). From Singapore, European traders channeled foreign capital via London, to strengthen the transport and production infrastructure, and to connect local supply with global commodity markets.

A cluster organization based on estate companies, industrial associations, public and private research institutions, and specialized supporting services, quickly emerged around Singapore, establishing itself as the major global rubber supplier (Huff, 1993). Rubber became the core commodity for several major trading houses and plantation companies – Guthrie, H&C, Barlows, Boustead, Socfin, Harper&Gilfillan, among the most influential – formally represented by the London-based Rubber Growers’ Association (RGA). They vertically integrated by listing estate companies to fund acreage expansion, and by retaining shares of these ventures (Drabble 1973; Drabble and Drake 1981). When the price of rubber stabilized in the 1910s, a few of the largest companies came to control the bulk of the estates, acquiring smaller struggling ventures. Alongside industry associations, specialized institutions were created, such as the Rubber Research Institute and the Incorporated Planter Society along with outlets for knowledge dissemination such as the scientific magazine Planter (Giacomin 2018). In the 1920s, the spread of rubber estates in the region translated in lower entry barriers – access to seeds; technology; specialized knowledge on breeding, harvesting, and refining techniques; transport and service infrastructure. This enabled local smallholders to grow rubber as a family business in small plots adjacent to the large estates (Bauer 1948). Due to this rising Asian competition and increasingly volatile rubber prices, plantation companies such as Socfin and Guthrie introduced another imported crop in their estates, the West African oil palm (Elaeis Guineensis), as an alternative to rubber (Tate 1996; Martin 2003). The oil palm was sufficiently similar to the rubber tree to leverage the synergies of the existing rubber organizational structure, but, being a more capital-intensive crop, it shielded large estates from smallholders’ competition. Similarly to rubber, during the 1920s to 1930s, and after Japanese occupation, in the 1950s, the Southeast Asian cluster quickly established itself as the leading palm oil producer over the incumbent cluster in West Africa, where farmers still tapped wild palm grooves (Giacomin 2017). In the politically uncertain context of decolonization, MNEs looked to diversify their international exposure with regard to strategic raw materials. Unilever, the largest private palm oil buyer, holding extensive palm oil interest in West Africa since the 1910s, joined the Malaysian palm oil cluster through the acquisition of confiscated German estates in the Peninsula in the late 1940s (Giacomin 2018). In the 1950s and 1960s, the African and Asian clusters collaborated on R&D, but also competed for the supremacy as global palm oil exporters. While attempting to introduce plantations in West Africa following the Malaysian model, Unilever channeled specialized knowledge from its African facilities and promoted its circulation across Southeast Asia. Whereas, in order to counter the rising political risk due to communist guerrilla attacks, so-called
“Emergency,” in Malaya (1948–1960), some estate companies considered investing in Africa despite its poorer institutions and lack of plantations. Since the mid-1960s, the major (foreign) plantation companies cooperated with the newly formed Malaysian and Indonesian governments to develop palm oil smallholdings, which represented a powerful engine of rural growth for the region in the next two decades (Sutton 1989). The political turmoil in West Africa reversed this trend by driving skilled human resources and investment toward Southeast Asia, now increasingly stable. This led to the definitive decline of West Africa as palm oil exporter in the 1970s.

First, the plantation example shows that although Malaysia and Indonesia provided climatically and politically conducive environments, non-local resources were major drivers of cluster emergence and success. Indeed, the cluster organization surfaced as a result of the strategies and investment of foreign companies, making use of imported inputs such as financial capital, specialized knowledge, migrant labor, and non-native crops. Knowledge circulated freely within the cluster thanks to the tight business networks residing in Singapore, several specialized public institutions, and extensive collaboration among private actors. While both the rubber boom and the diversification toward palm oil created lavish fortunes for foreign and local entrepreneurs, the plantation cluster ensured steady provision of natural rubber and vegetable oils to the industrialized world. At the local level, the cluster organization contributed to the rise of smallholders, supporting rural development enduring until today (Henderson and Osborne 2000).

Second, the comparative analysis of the African and Asian clusters showed that MNEs used clusters to diversify their investment across emerging markets to counter political risk. During the Malayan Emergency, prominent MNEs like Barlows considered moving to Africa, whereas when political turbulence hit West Africa, Unilever diverted resources to Asia and started exiting Africa (Giacomin 2018: 36). So clusters may facilitate the making of global business, as concentrated resources can be replicated or easily mobilized. Studies on clusters have traditionally eschewed the topic of cluster competition, as the very definition of cluster assumes product specialization and specificity in terms of actors and institutions. However, the palm oil case illustrates that clusters can move and compete according to the strategies of MNEs operating within them. By competing to attract MNEs and to join GVC, cluster locations supported the spread of global capitalism. However, this process depended heavily on political stability in the recipient locations, and often translated in lopsided development. In fact, cluster competition between West Africa and Southeast Asia initially informed institutional convergence, but eventually reinforced geographical concentration. Today, Malaysia and Indonesia together account for over 80 percent of global palm oil production (FAO 2016).

Costa Rica eco-tourism cluster (1940–2000)

Jones and Spadafora’s (2017) analysis of the ecotourism cluster in Costa Rica also illustrates how clusters became preferred vehicles for international business in emerging economies. The authors use oral history to describe the creation and evolution of this cluster since the 1940s, which eventually made eco-tourism one of the largest revenue sources for the country. The cluster emerged as a successful case of making nature preservation commercially viable as a niche segment for global tourism. In the long run, the cluster transitioned into a mainstream tourism service provider and Costa Rica a major travel destination.

The basis story is one of co-creation by NGOs, the government, and private enterprise, sometimes acting together but mostly acting separately. A group of local and foreign (primarily American) institutions operating in the country since the 1940s, promoted the dissemination of scientific knowledge about Costa Rica’s biodiversity and educational programs on wildlife
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conservation. Among them, the National School of Agriculture in the University of Costa Rica; the Inter-American Institute of Agricultural Sciences (later known as CATIE); the US-funded NGOs Caribbean Conservation Corporation and Tropic Science Center; and the (mostly US-led) university consortium Organization for Tropical Studies. These institutions included several highly committed scientists and researchers, who attracted significant funding and organizational infrastructure for protecting the country’s biodiversity. These experts formed a transnational “epistemic community” (Cohendet et al. 2014), applying established research on environmental preservation into the country. Costa Rica became a sort of natural experiment as these “green” perspectives were popularized locally, propagating scientific knowledge, and boosting media coverage to raise global awareness.

These efforts produced positive spillovers in terms of both supply and demand for eco-tourism. In the 1980s, the government introduced a formal definition of biodiversity and created several national reserves and parks. This “environmental buzz” marketed the country’s rainforests and untouched wildlife as attractive travelling spots for Western tourists. Several “rainforest enthusiasts” from overseas relocated to Costa Rica, invested in properties within or nearby the national parks, and devoted themselves to nature preservation. Some of them launched small-scale ventures offering lodging and guided tours in protected areas – often employing biodiversity researchers as guides or part of their staff. The success of these pioneers and their focus on conservation attracted additional transnational entrepreneurs, quickly leading to the emergence of the eco-tourism cluster, a system of companies and institutions profiting from “sustainable tourism,” an appealing concept for environmentally minded international travelers. Thus, by concentrating their investment in the vicinity of natural reserves, foreign tour operators branded Costa Rica to global eco-tourists. Between the 1940s and the 1990s, the local government consciously supported the expansion of the tourism cluster. It invested in transport infrastructure, such as rail-lines, highways, and international airports. It also established the Costa Rica Tourism Institute and the national airline LACSA. As for regulation, it issued tax incentives for large-scale tourist ventures and legislation for environmental protection.

In terms of competition, as in Southeast Asia during decolonization, the political stability of Costa Rica relative to its neighboring locations like Guatemala or Nicaragua secured steady inflows of capital and visitors, strengthening the country’s reputation as a “natural paradise,” intact, and absolutely safe tourism destination.

Successively, the cluster institutional environment, originally serving the very specialized eco-tourism business, worked as the basis for the commercialization of mainstream tourism services. Both local and foreign entrepreneurs piggybacked on the successful image of Costa Rica as an untouched and exclusive travel destination, and built conventional tourism facilities across the country. While this increased the scale of Costa Rica’s tourism infrastructure, the strategy of branding the country as a “conservation temple” revealed a double-edged sword. It successfully created longstanding international demand for tourism, but mainstream tourism ventures ended up watering down the very concept of sustainability at the core of the cluster, by free-riding on the “green” national image (Jones and Spadafora 2017: 176).

In sum, the case of Costa Rica offers a further example of how clustering supported international business. Like in the plantation case, Costa Rica’s tourism flourished not only due to the country’s resource endowment, but, primarily following a concerted effort by the government, transnational and local entrepreneurs, natural conservation NGOs, and scientific institutions, to co-create the eco-tourism cluster. As an unintended outcome, local companies established mainstream tourism ventures by “free-riding” on the cluster organization and on the country’s “green” image.
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Concluding remarks

Starting with Marshall, industrial concentration has been a recurring theme in the social sciences. Several meta-studies applied bibliometric techniques to categorize cluster scholarship in different fields (Cruz and Teixeira 2010; Lazzeretti et al. 2014; Hervas-Oliver et al. 2015). While recognizing some degree of “contamination” across disciplines, these studies show that cluster research remained largely segregated, with similar lines of inquiry developing in parallel within different disciplines. However most literature studying clusters was accused of “self-containment.” By contrast, this chapter argued that clustering historically supported the expansion of global capitalism. MNEs traditionally structured their investment in colonial territories through clusters. During colonialism, emerging economies of the South became suppliers of raw materials for the industrialized North. Production clustered in specific locations due to geographical concentration of natural resources, limited infrastructure, and/or proximity to major service hubs, such as port cities. By concentrating FDIs in selected locations, MNEs maximized local exploitation and ensured easier mobilization in case of political turmoil. On the upside, the high degree of specialization and externalities due to proximity equipped these economies with the scale and capabilities to access the international markets. The long-term analysis of MNEs’ location strategies in the developing world shows clusters’ role as constitutive elements of the broader global economic system. In some cases, (colonial) MNEs propelled the emergence and expansion of these clusters, like in Costa Rica. In others, they tapped into existing clusters and integrated them into global value chains – i.e., MNEs leveraged local planting expertise to introduce foreign crops in Southeast Asia. Thus, MNEs provided these locations with linkages to access international demand and knowledge to increase specialization and competitiveness. In the long run, this allowed local companies to become MNEs in their own right. In both the Southeast Asia and Costa Rica cases, the cluster institutional framework responded to changes in demand and was repurposed for different products: palm oil in the former, and broader tourist packages in the latter. Further, both cases stress that knowledge circulation and political stability in the recipient locations are crucial for the making of global business. Government policy and public institutions supporting the production of specialized knowledge, FDI inflow, and MNEs’ activities supported cluster advancement.

Finally, the two cases illustrate the local impact of globalization. Clustering was a disruptive development force. The plantation activity in Southeast Asia enriched foreign companies at the expense of indentured coolies for a long time. Only after independence, the palm oil industry expanded to include local firms and smallholders, but then started damaging biodiversity through deforestation. Similarly, in Costa Rica, the cluster organization born to promote natural conservation, indirectly supported the introduction of commercial tourism in the country. While this ensured higher income for the local population, it also affected the environment and delegitimized eco-tourism. In sum, by reproducing global capitalism, clustering entailed both negative and positive outcomes for the recipient locations. Economic concentration translated in increased export competitiveness and lower prices for global consumers, but skewed geographical and social development at the local level.

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