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Extending the marshallian industrial districts framework: reframing types of multinationals

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Abstract:

Recently, scholars have begun to show a reorientation of the Marshallian Industrial District (MDI) framework towards addressing topics that were not central to the mainstream, such as multinationals and their different sub-lines of research. In this study, we reflect on multinationals and their challenge to the established MID boundaries. By reviewing literature, we elaborate on, integrate and discuss types and effects of multinationals in districts, highlighting a new type of actor that has recently become more prominent: multinational private equity funds in MIDs. We elaborate on different types of multinationals in MIDs, reviewing and integrating extant evidence about private equity funds as new established realities. The study proposes new sub-lines of inquiry to extend and strenghten the MID framework.

Keywords: Multinationals; industrial districts; innovation.

JEL Classification: O3; R1.

Ampliando el marco de los distritos industriales marshallianos: teorizando sobre tipos de multinacionales

Resumen:

Recientemente, los académicos han comenzado a mostrar una reorientación del marco del Distrito Industrial Marshalliano (MDI) hacia el tratamiento de temas que no eran centrales para la corriente principal, como las multinacionales y sus diferentes sublíneas de investigación. En este estudio reflexionamos sobre las multinacionales y su desafío a las fronteras establecidas y aceptadas de los MIDs. Al revisar la literatura, elaboramos, integramos y discutimos los tipos de multinacionales y sus efectos en los distritos, destacando un nuevo tipo de actor que recientemente se ha vuelto más importante: los fondos financieros multinacionales de capital privado en los MID. Desarrollamos diferentes tipos de multinacionales en MID, revisando e integrando la evidencia existente sobre los fondos financieros de capital privado como nuevas realidades establecidas. El estudio propone nuevas sublíneas de investigación para ampliar y fortalecer el marco MID.

Palabras clave: Multinacionales; distritos industriales; innovación.
Clasificación JEL: O3; R1.

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1. Introduction

Over more than four decades, the MID (Marshallian Industrial District) phenomenon has spawned an expansive body of literature that explicates local endogenous development led by specialized and geographically concentrated networks of SMEs (Small and Medium Size enterprises) that form industrial districts, referring to a socio-economic complex innovation system (e.g. Becattini, 1990; Brusco, 1982; Piore and Sabel, 1984; Bellandi, 1996; Boix and Galletto, 2009; Hervas-Oliver et al., 2008; Belussi and Hervas-Oliver, 2017). SMEs are pervasive in the ID literature (e.g. Becattini, 1990; Asheim, 1996). These SMEs are mostly family firms strongly embedded in the local business ecosystem and its institutional environment (e.g. Pittino et al., 2021).

The idea of MIDs (e.g. coopearation and competition, SMEs, flexible specialization, family firms embedded in the territory, etc.,), however, has radically changed. At the beginning of 2024, while writing this article, new announcements of acquisitons have been reported by newspapers[1] in a used-to-be traditional IDs, the Castellon ceramic tile district, a canonical Marshallian entity. To the extent that around six groups concentrated two-thirds of the ceramic tile production and just two groups control the key innovation engine of the district in the auxiliary (chemestry for ceramic tile decoration) local industry. And not only because of the active presence of multinationals and a wave of concentration and group formation, already reported by scholars (see Cainelli et al., 2006; Mariotti et al., 2014), but the strong presence of a new *rara avis* in the MID landscape: private equity funds (PEFs) or financial firms[2] with short term goals. Its analysis, and a deeper understanding of different types of multinationals in MIDs, are the main goals of this present study. Methodologically, we review and integrate extant literature about these sub-lines of research around the intersection of multinationals in MIDs.

The concept of IDs has impacted on both managerial scholars and economic geographers, also influencing other related (regional) economic literatures working on Regional Innovation Systems (Cooke, 1992), Global Value Chains (e.g. Bathelt et al., 2004; Ponte et al., 2023) or innovation policies (e.g. Tödtling and Trippl, 2005), among many others. Drawing theoretical elements from these innovation systems literatures, the MID framework has evolved as a separate yet related body of literature intersecting different sublines of inquiry (e.g. networks, brokerage, social capital, agglomerations life cycle, multinationals, etc.) around the idea of fostering innovation amongst local (SME) firms. In fact, the main tenet of the MID is to consider that a socio-economic phenomenon, based on agglomerations of SMEs around an industry or industries of specialization, fosters (local/regional) growth, development and trade, supporting innovation effectively at SMEs that show limited resources and capabilities due to their size constraints.

The core argument of the MID concept is that the innovation capacity of SMEs is leveraged by *localization economies* based on (systemic and interactive) social and economic inter-firm and inter-personal intensive interactions. Local advantages, built upon local highly-skilled and specialized labor, suppliers and knowledge spill-overs, support a local and systemic innovation engine where SMEs can be conjointly competitive by overcoming their intrinsic (assumed) poor capabilities due to their size. The local competition and cooperation theme, along with an efficient local division of labor, facilitates local firm innovation and local endogenous development without the need to be driven by large foreign multinationals. The large family of clusters/IDs scholars[3] has shaped this literature in recent decades from different perspectives, intersecting micro-level and meso-level approaches and converging around the topic of innovation.

[1] https://www.elperiodicodelazulejo.es/industria/pamesa-concreta-en-agosto-la-compra-de-una-nueva-empresa-HF1531283 https://castellonaldia.elmundo.es/economia/ceramica/grupo-lamosa-compra-baldocer-por-al-menos-425-millones-de-euros-BH17017071

[2] McGrath & Nerkar (2023) for understanding PEFs or Hervas-Oliver et al., 2023a for understanding PEFs in IDs.

[3] (not ordered, nor exhaustive) Bellandi, Camagni, De Marchi, Di Maria, Bettiol, Grandinetti, Trippl, Giuliani, Morrison, Grillitsch, Asheim, Belso, Molina-Morales, Boix, Hervas-Oliver, Sedita, Belussi, Lazzeretti, Capone, Caloffi, De Propris, among many more, along with more classical and seminal authors such as Brusco, Becattini, Aydalot, Sforzi, Dei Ottati and many others.

In recent years, however, the MID framework has been challenged from different perspectives and extended by a large number of empirical studies that have also pointed out different elements and actors with a central character not previously considered so important in the literature: the growing presence and importance of multinationals collocated in districts (see Sedita et al., 2013; Belussi and De Propris, 2013; Belussi, 2018; Hervas-Oliver et al., 2020). The goal of this STUDY is to analyze and discuss the sub-line of inquiry of multinationals in clusters and industrial districts, and how the topic of multinationals challenges different aspects of the MID framework. Our main rationale is to update the understanding of multinationals in MIDs, addressing especially a new actor, not previoulsy central in MIDs, and its effects on districts: PEFs.

2. Extending the framework: multinationals in industrial districts

Amin and Thrift (1993) analyzed the importance of MIDs in global production *filieres*, signalling the importance of globalization and the challenges and opportunities for MIDs. In recent years, several scholars have shown that multinationals in MIDs are gaining importance, shaping districts from many different perspectives, imposing new tensions on the model and showing both positive and negative points of the relationship between multinationals of any kind and innovation of local firms (see Hervas-Oliver et al., 2020; Belussi et al., 2017; Belussi, 2015; Hervas-Oliver, 2015). The separation of *foreign vs home-grown multinationals* (e.g. Hervas-Oliver and Albors-Garrigos, 2008a; Sedita et al., 2013; Belussi and De Propris, 2013[4]) started to point to the necessity to look at local firms differently, some of them capable of transiting from SMEs to medium-size firms with extensive international activity and even investing and developing operations across borders. Interestingly, this started to separate the traditional foreign multinationals, less embedded in districts and not always aligning their interests with local ones from those deeply embedded, organically grown and usually leaders and technology gatekeepers of local value chains. The idea is basically that there are leading firms orchestrating local networks of SMEs (see Lorenzoni and Lipparini, 1999). These firms are the ones supplying knowledge to local networks and conducting R&D that is then diffused and spill over to the local SMEs. These multinationals acting as technology gatekeepers and leading firms[5] perform a multi-embeddedness process through internationalization of activities, facilitating the focal MID access to *Global Value Chains* (see De Marchi et al., 2017; Elola et al., 2013). In addition, these multinationals bring home new ideas but also diffuse local knowledge in other international settings (see Hervas-Oliver and Boix, 2013). Despite the usefulness of the topic of leading firms and home-grown multinationals, the Marshallian framework has not extensively researched on the phenomenon of multinationals, as pointed out in Belussi (2018) and Hervas-Oliver et al. (2020). Put differently, we have extensive but fragmented literature on this sub-line of inquiry, preventing integration and consolidation as part of the MID framework. These multinationals, of different nature, are usually positioned in the IDs Mark 3 generation. Bellandi and De Propris (2015) analyze the three generations of IDs, that is, the evolution of the idea and nature of industrial districts from Marshall's conceptualisation to today's realities and theorisations of the concept as model of industrial organization and development. In particular, after the Mark 1 (in brief, a kind of artisan model from the industrial revolution) and Mark 2 (in short, focused on flexible specialization and mass production), the ID Mark 3 is charcterized by local fims developing trans-local external economies and adapting to global forces and global value chains (GVCs) (e.g. Bellandi and Caloffi, 2008; Hervas-Oliver and Boix, 2013), the presence of medium and large sized companies, even large home-grown multinationals and foreign multinationals, both interacting with local SMEs. Also, in IDs Mark 3 it is evidenced the existence of groups of firms within IDs. The latter is particularly emphasized when they claim that "*…emergence of …groups within IDs, with the latter growing in number in the most successful IDs*" (Bellandi and De Propris, 2015, page 83). Also, in IDs Mark 3 there are more knowledge intensive activities being developed as design and marketing, not only manufacturing, higher intensity of R&D and even links to the university system for accessing science-based knowledge to innovate. All these new factors co-exist with the learning-by-doing, sticky tacit knowledge and the usual

[4] Pocket multinationals

[5] Local supporting organizations can also be technology gatekeepers.

ones associated to IDs (such as presence of SMEs, high social capital, cooperation and competition, intensity of manufacturing activities and flexible specialization, labor mobility, etc.). Evidence about how intense they are from Mark 2, however, is scarce.

Accounting for multinational firms in districts, however, refers not only to home-grown ones but foreign multinationals. De Marchi et al. (2018:41) show how in different Italian districts, such as Riviera del Brenta (Veneto, Italy), foreign multinationals exert an influence on the focal local setting by concentrating production and even acquiring local firms. As shown, some local companies that specialized in the production of high-end shoes gradually gave up their own brands to produce for global brands such as Prada and Armani. The net effect, hovewer, is said to be positive, that is, advantages outperform disadvantages due to the integration in Global Value Chains that facilitates district openness. Similarly, Hervas-Oliver et al. (2022) show how ZARA's position in the Vinalopo Footwear District (Alicante, Spain) spills-over knowedge (innovation, design, marketing, trends, etc.). The company is said to perform *labor poaching*, however, by nurturing its own capabilities with technicians from advanced local firms. Overall, the net effects are also said to be positive, as the district became a global hub for footwear design and manufacturing, despite the largest share of ZARA production offshored to different countries such as India or China. The presence of the global multinational in the district, however, shapes the local rules of the game and brings new institutions more based on formal rules. Without ruling out the existence of the trust or social norms characteristics of industrial districts, the study by Belso-Martínez et al. (2018) of ZARA in the district points out that the latter mostly hold for local (SME) firms' interactions. Networking (subcontracting) with the global brand, however, is mostly done by other formal (institutions') rules. These studies open different questions to be solved. As a matter of fact, we need answers to new questions not previously accounted for understanding multinatinals: Does it mean that we have one district with different institutions? Are trust and other socially-thick intensive characteristics accountable for those foreign multinationals? Are institutions in districts different between home-grown and foreign multinationals' relationships with local SMEs?

From a different perspective and district, Hervas-Oliver et al. (2023a) show how since 2012 the Castellon ceramic tile district in Spain, a canonical Marshallian industrial district, is radically shaped by a wave of massive acquisitions of local firms that have dramatically transformed the competitive arena: while in 2002 the largest local market share owned by a district firm was 5%, in 2022 just six (equity-linked) groups concentrated 62% of local ceramic tile production. As above mentioned, while acquisitions and the concentration of production and local business groups formation are not new (e.g. Cainelli et al., 2006), private equity firms (investment funds) in districts are quite new and controversial. While there are local groups acquiring local firms, the different type of foreign (multinational) companies involved in the acquisiton process is really interesting: local groups, foreign multinationals and private equity funds. The latter is the least known one. Usually, the district literature shows different districts where foreign companies acquire local firms targeting specific knowledge or technical skills, as in Riviera del Brenta (e.g. De Marchi et al., 2018). In the Castellon case, however, as Hervas-Oliver et al. (2023b) show, private equity funds (PEFs), that is, venture capital, target local companies to (buy out) gain some percentage of ownership and control and later sell them off for profit. These financially-oriented companies are driven by a buy-and-sell strategy to maximize profits in the short term. While productive multinationals (service-oriented ones, such as global distributors or manufacturing ones) might bring new capabilities, international networks, knowledge and synergies, those financially-oriented companies' purpose is just to buy cheap and sell higher. Put differently, these new types of (financial) multinationals are not bringing access to international networks, knowledge or providing access to GVCs.

2.1. Understanding better PEFs

Private Equity Funds (PEF) has sparked a growing interest in the academic world (McGrath & Nerkar, 2023) and shows an impressive growth in most industries and nations (Bernstein, Lerner, Sorensen, & Stromberg, 2017). A key activity of PEFs is to make acquisitions by buying companies. These acquired companies are then restructured, both operationally and financially, in order to generate financial returns before the fund exits the investment by selling the company (Appelbaum and Batt 2014). Regarding the positive effects on target (acquired) companies, as recently documented in some work

(Gompers et al. 2016), PEF investors place great emphasis on both their ability to select promising companies and their ability to add value through financial, governance and operational engineering. Sometimes, investors often operate in the industry they know, so their expertise can be used directly and more effectively to enhance and improve the company's processes. They also bring to the company a wide range of contacts and managerial practices that can give it an advantage over its competitors. Some studies suggest that their influence leads to increased profits for companies in the long run (Chesini & Giaretta, 2013). Finance is showed as a key benefit for target firms, helping small and medium-sized enterprises to access finance for expansion, and supporting underperforming firms to generate good returns for investors (Appelbaum and Batt, 2014, p. 268). On the negative side, there is a particularly important element that affects the companies themselves in which this type of capital enters. According to some studies, strategies in pursuit of high returns make PEF-owned firms more prone to bankruptcy, with the social costs that this entails (Batt and Morgan 2020, Morgan and Nasir 2021).

2.2. PEFs in IDs?

In this chain of thought, what is the value added to the local district by these financial companies? PEFs are reported to improve local firms by reducing costs, achieving synergies or introducing more professional managerial systems, even forming new bigger groups to achieve synergies, increase their size and improve finance (Hervas-Oliver et al., 2023a). Their main goal, however, is to sell them off as soon as possible.

As evidenced in Hervas-Oliver et al. (2023b), Carlyle Group is a world-class private equity fund, the sixth largest by capital raised, according to PEI300 ranking (see here https://www.privateequityinternational.com/pei-300/#pei-300-full-ranking). This company is active in three (financial) business segments: global private equity, global credit and global investment solutions. Its main strategy is to invest in evaluating in-depth focal target companies to find opportunities to create value for its investors. Carlyle then helps the company to grow and perform better while constantly looking for premium valuation for its acquisitions in order to sell them. The focal case in point, the Castellon ceramic tile district, is a global hub for ceramic tile (chemical) decoration capabilities, as the world-class companies feeding the different clusters worldwide are most of them indigenous to Castellon (see Hervas-Oliver and Albors-Garrigos, 2007; 2008b). These companies were 20 in 2010; in 2023, only two groups (Carlyle and Torrecid) account for 90% of the district's (chemical) decoration product exports (inks and frits for ceramic tile decoration). While Torrecid is still a private (organically grown and locally embedded) company, with a long tradition in the district, the PEF Carlyle clustered the other big competitors in the ceramic tile decoration auxiliary industry by acquiring Altadia.

The story is as follows. In 2017, Lone Star (an American PEF) acquired Ferro, Esmalglass, Itaca and Fritta (four out of the top leading chemical firms in the district) forming Younexa group, that is, around 60% of the (chemical products for ceramic tile decoration) sales in the district. Lone Star renamed renamed the group as Altadia in 2021 and sold it off in 2022 to Carlyle, making a profit of 775 Million Euro in just under five years. As a result, the local fierce competition for decoration of ceramic tiles that constituted an essential element of the local innovation engine turned into a duopoly *de facto* (see Hervas-Oliver et al., 2023b) by Torrecid and Carlyle. Is this new duopoly the kind of specialized suppliers that feed the local SMEs that we know from the MID framework? Is this duopoly good or bad for the focal local district?

In the two districts analyzed, Vinalopo footwear in Alicante and Castellon ceramic tiles, the composition of family-run local SMEs are now a minority, at least in terms of sales. While the former is only one big global multinational (ZARA), the latter is characterized by different multinationals, including PEFs. Riviera del Brenta followed suit and the presence of large (multinationals) brands shapes the local production system. As shown in these cases, those PEFs and foreign multinationals, attracted by excellent localization economies, transformed the district entirely, with uncertain outcomes for the long term. In this chain of thought, non-exhaustive different new research lines show up to accommodate these new actors in the MID framework:

- Are these foreign (PEFs) multinationals bringing new institutions (trust, loyalty, etc.,) to the focal local setting?

- Can we keep counting on the canonical idea of the sense of belonging when firm ownership is not local anymore?
- Is this financial, rather than productive, approach brought by PEFs beneficial for the district?
- How does the entrance of foreign firms affect cooperation and networking in local settings?

We need to incorporate these new realities into the MID framework, through theorizing and gathering empirical evidence, researching whether the fundamentals of trust, loyalty and other socially-driven elements that are characteristics of the MID *corpore*, still exist, are becoming no longer applicable to present boundary conditions. While inter-personal ties are not necessarily affected, we do not know about inter-firm cooperation between the new larger productive groups and local SMEs. The same applies for the new financially-oriented ones orchestrated by venture capital. In the light of this discussion, we have more open questions than answers.

3. Dicussion and conclusions

Since its development in the late 70s and early 80s (e.g. Brusco, 1982; Becattini, 1979), the MID, and its sister *mileux innovateur* (e.g. Aydalot, 1986), have evolved into an idiosyncratic framework for elucidating the existence of enduring product and innovation disparities across territories and successful cases of endogenous local development under the premise of cooperation and competition, social ties and the articulation of innovation engines that support SME innovation. This study takes stock of the emerging body of work on multinationals in MIDs and identifies a number of unresolved issues that demand further research. We centre on one broad theme in the MID framework tht is multinationals, and summarize our argument with the following points reflected in the unanswered questions that might shape future research agendas:

- Do manufactuing-based multinationals bring different institutions into IDs?
- Are trust and other socially-thick intensive characteristics of IDs accountable for those foreign multinationals?
- Are institutions in districts different between home-grown and foreign multinationals' relationships with local SMEs?
- Are PEF multinationals bringing new institutions (trust, loyalty, etc.,) to the focal local setting?
- How does ownership infuence IDs?
- Can we keep counting on the canonical idea of the *sense of belonging* when firm ownership is not local anymore?
- Is this financial, rather than productive, approach brought by PEFs positive or negative for the district?
- How does the entrance of foreign firms affect cooperation and networking in local settings?

As conclusions, we point out the following ideas. First, we contend that future research needs to pay close attention to the *effects* that multinationals exert on clusters. While positive effects are reported (e.g. new knowledge, access to international networks, etc.), negative ones are also evidenced (labor poaching, distortion of local institutions, asymmetric relationships with local SMEs, etc.). We need to explore further specific elements of the MID framework and their possible change from the pressure exerted by collocated multinationals. In addition, the integration of different yet related sublines of inquiry seems important, such as GVCs (see Carmineet et al., 2024 in this issue).

Second, extensive research is needed to map and analyze the effect that private equity funds, a new kind of actor, might bring to the MID framework. While their positive economic rationale for target local firms (e.g. cost reduction, synergies based on larger groups, access to finance, etc.,) is also acknowledged (see Hervas-Oliver et al., 2023b), negative impacts are also shown (e.g. formation of concentrations that might distort competition, short-term visions or distorting some canonical characteristics based on local institutions – like sense of belonging, trust or cooperation – among others).

Third, we propose that future work should delve into the above topics by extending investigations across other industrial districts not reviewed in this present study in order to aggregate more evidence to fill in the MID framework, avoiding fragmentation.

Lastly, we want to urge the necessity to cross-fertilize literature that brings insights important yet under-researched in the MID framework. For instance, as we are now facing the challenge of PEFs and other types of multinationals, new strands of literature from those topics need to be incorporated into the MID perspective (see Hervas-Oliver et al., 2020) in order to enrich the MID framework. Thus, multinational business analysis from the International Business literature, family-owned firms vs venture capital acquired (target) firms from the family business literature, among many other topics that might intersect the MID framework, should be incorportaed to undestand how they shape the MID constructs (for instance, see Li et al., 2018). As a matter of facts, it seems that the nature of *ownership* in MIDs drives different type of networking, evidencing that family firms (vs non-family ones) develop local embeddedness and networking differently (e.g. Pucci et al., 2020). As regards family firms (Gomez-Mejia et al., 2007), they are said to be the cornerstone of MIDs (e.g. Cucculelli & Storai, 2015; Pucci et al., 2020) but their research in MID literature is almost neglected. In addition, *familiness* (intangible aspects linked to non-financial goals, such as family business preservation) of MID firms is not explicitly highlighted enough in the MID literature. This omission, however, is compensated by implicitly assuming that MID literature consideration that local SMEs are mostly family-run business that present a deep attachment to the territory by social and family ties. We posit that analyzing the potential impact of PEFs on MIDs, can be achieved through understanding the relationship between PEFs and family firms, assuming that family firms are typical actors in IDs. Albeit we lack of evidence about family firms in MIDs (e.g. Pucci et al., 2020 can be an exception), we can first understand family firms and then theorize about PEF effects on family firms by adding the socio-economic layer.

Arguably, the research directions proposed in this study encompass a non-exhaustive selection of research questions within the multinational sub-line of inquiry. We believe that the MID framework and its scholar conversation need to evolve and adapt to new specific realities observed in territories. It seems that what started as an endogenous local development where SMEs could compete is gradually transforming into a hybrid and multinational-based version of itself, where the type of ownership matters much more than we thought. These challenges need to be listed in our research agenda, showing the new directions that deserve attention for old and new scholars.

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