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FDI AND TECHNOLOGICAL ADVANCEMENT IN THE GLOBAL SOUTH

Perspectives on the emergence of Medellín
as an investment hub

Lucía Gómez



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ABSTRACT

Foreign direct investment (FDI) flows are increasingly global, diverse, and knowledge intensive. However, existing research predominantly focuses on those involving advanced and leading emerging economies and large multinational enterprises (MNEs), overlooking FDI flows to and from the more diverse economies of the Global South and the role of smaller MNEs, which also significantly impact technological advancement in the South. This oversight also limits the understanding of the range of contextual factors influencing FDI flows and MNE operations, as the Global South is effectively reduced to a few more technologically advanced and globally connected sites. While many aspects of the emergence of such *advanced sites* in cities with abundant pools of skilled labour are well researched, no established research field has systematically and comprehensively explored how technologically *less advanced and less resource-endowed cities*, on the whole, engage in the transformations that turn them into investment hubs.

This thesis aims to fill this gap by examining, first, what drives diverse FDI flows to emerging economies and, second, Medellín's rise as a destination for MNEs in the information and communication technology (ICT) sector. It employs mixed methods to link an analysis of macrolevel country attractiveness and local explorations of the impact of MNE activities and the role of global policy and planning trends in urban development efforts. It provides a multiple-perspective understanding of how cities in emerging economies can enter the global competition for FDI by creating conditions that attract knowledge-intensive MNE activities. Informed by Medellín's transformation, this study presents a conceptual model outlining general categories of strategic activity crucial to the evolution of emerging cities into investment hubs. The model enhances explanatory clarity regarding key elements of the process and offers a framework for exploring city-specific strategies fostering similar transformations in emerging economies.

KEYWORDS: FDI, MNE, technological advancement, emerging investment hub, location factors, knowledge creation, urban competitiveness, Global South, Medellín.

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TIIVISTELMÄ

Suorien ulkomaisten investointien virrat ovat yhä globaalimpia, monimuotoisempia ja tietointensiivisempiä. Niitä koskeva tutkimus on kuitenkin keskittynyt pääasiassa johtaviin talouksiin ja suurten monikansallisten yritysten investointeihin. Sen seurauksena vähemmälle huomiolle ovat jääneet globaalin etelän erilaiset taloudet sekä pienempien monikansallisten yritysten rooli näiden talouksien teknologisessa kehityksessä. Myös ymmärrys erilaisten kontekstuaalisten tekijöiden vaikutuksesta investointivirtoihin ja monikansallisten yritysten toimintaan on jäänyt vajavaiseksi. Globaali etelä näyttäytyy tutkimusalalla vain muutamana kehittyneenä, globaaleihin verkostoihin kytkeytyneenä kohteena. Näiden syntyä kaupungeissa, joissa on runsaasti osaavaa työvoimaa, tunnetaan monilta osin, mutta sitä, kuinka teknologisesti vähemmän edistyneet ja heikommin resursoitujen kaupunkien kokonaisuudessaan mahdollistavat investointikeskittymien synnyn, ei ole analysoitu systemaattisesti ja kattavasti.

Tämä tutkimus pyrkii täyttämään tämän tiedollisen aukon tarkastelemalla ensinnäkin, mitkä tekijät houkuttelevat erilaisia investointivirtoja nouseviin talouksiin, sekä toiseksi, miten Medellínin kaupunki on noussut tieto- ja viestintäteknologia-yritysten investointikohteeksi. Monimenetelmäisessä lähestymistavassa makrotason analyysi erilaisten maiden houkuttelevuudesta yhdistyy paikallistason tutkimukseen monikansallisten yritysten toiminnan vaikutuksista ja globaalien politiikka- ja suunnittelutrendien roolista kaupungin kehittämisessä. Se tuottaa eri näkökulmista ymmärrystä siitä, miten nousevien talouksien kaupungit voivat osallistua globaaliin kilpailuun investoinneista luomalla olosuhteita, jotka houkuttelevat yritysten tietointensiivisiä toimintoja. Medellínin muutosprosessin analyysin pohjalta syntyy käsitteellinen malli, joka tunnistaa keskeisiä strategisen toiminnan kategorioita globaalin etelän kaupunkien kehittyessä investointikeskittymiksi. Malli valaisee prosessin keskeisiä elementtejä ja tarjoaa viitekehysten samantyyppisiä nousevien talouksien kaupunkien muutosprosesseja edistävien strategioiden tutkimukseen.

ASIASANAT: suora ulkomainen investointi, monikansallinen yritys, teknologinen kehitys, kehittyvä investointikeskittymä, sijaintitekijät, tiedon luominen, kaupunkien kilpailukyky, globaali etelä, Medellín

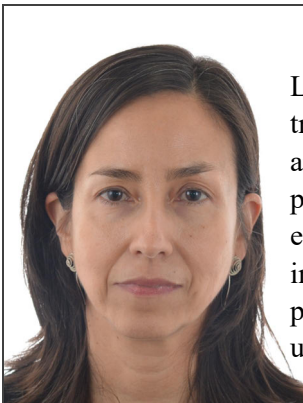
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08.08.2024

Lucía Gómez



Lucía is an economic geographer who studies global trends in foreign direct investments in the Global South and technological advancement in Medellín, Colombia, particularly ICT investments and their influence on urban economies. Her expertise includes research on urban innovation districts in various settings, serving as platforms for MNE entry and providing insights into urban development and innovation dynamics.

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List of Original Publications

This dissertation is based on the following original publications, which are referred to in the text by their Roman numerals:

- I Lucía Gómez, Päivi Oinas, and Ronald Sean Wall. Undercurrents in the world economy: Evolving global investment flows in the South. *The World Economy*, 2022; 45(6), 1830-1855.

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- II Lucía Gómez. MNEs and knowledge creation in Medellín's emerging ICT hub. *Geografiska Annaler: Series B, Human Geography*, 2023; 105(3), 248-266.

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- III Lucía Gómez and Päivi Oinas. Traveling planning concepts revisited: How they land and why it matters? *Urban Geography*, 2023; 44(9), 1973-1994.

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1 Introduction

This study investigates the emergence of investment hubs in the Global South, focusing in particular on the processes that drive knowledge-intensive foreign direct investment (FDI) flows towards less advanced locations. FDI is widely recognised as an essential source of knowledge, technology, and global connections that drive technological development and catching-up processes in host locations. In the wide range of countries that are often referred to as the Global South (“the South” hereafter¹), attracting the knowledge-intensive activities of multinational enterprises (MNEs) is considered beneficial for local or regional specialisation, upgrading, and renewal (e.g., Chaminade & Gómez 2016; Fromhold-Eisebith 2002; Lorenzen 2005). In global competition for FDI, the ability of locations to attract and benefit from advanced MNE operations is not straightforward. MNEs strategically invest and select locations that can leverage the knowledge intensity of their units (Mudambi 2008). Misalignment between location-specific factors and the knowledge-intensive activities of MNEs can deter FDI. Alternatively, there is the risk that FDI merely benefits MNEs, not host economies.

The logic behind MNEs’ decisions to locate in new environments and the benefits they gain from doing so have been extensively studied. Studies on MNE location have shown that specific attributes of target locations, such as industrial specialisation, resource availability, and level of economic development, shape FDI flows and MNE operations (cf. Cantwell & Janne 1999; Cantwell & Mudambi 2005; Coveri & Zanfei 2023; Narula & Dunning 2010). These studies have demonstrated that MNEs engage in a global search for environments with specific knowledge resources and international connections to advance their knowledge-intensive

¹ In this thesis, the term "Global South" is used to challenge prevailing Western-centric narratives in the analysis of global FDI. The aim is to explore the diverse circumstances of southern countries vis-à-vis those of the global North and promote a South–North understanding. The analysis acknowledges historical and ongoing power imbalances while also considering the evolving dynamics within global asymmetrical relationships. At the same time, it recognises that the use of "Global South", akin to terms like “developing” or “advanced” economies, oversimplifies reality by lumping diverse countries and regions with unique histories, cultures, and challenges.

operations, shedding light on the geographic distribution of such activities across advanced and emerging economies (cf. Castellani et al. 2022; Karna et al. 2013; Lorenzen 2005; Papanastassiou et al. 2020). Research has also elucidated the leading role of MNEs in coordinating global production activities, leveraging fragmented and networked economic activity to manage risks, generate and capture economic value, and foster innovation development across multiple locations within global value chains (GVCs) or production networks (GPNs; cf. Buckley 2011; Buckley & Strange 2015; Buckley et al. 2020; Crescenzi et al. 2022; Mudambi 2008; Yeung 2009).

Some effects of MNEs' location choices at the subnational scale are also well established, including their (aggregated) impact on the upgrading and specialisation of locations, as well as their influence on city-regional prosperity and inequality, as explored by economic geographers (e.g., Iammarino 2018; Lorenzen et al. 2020) and international business scholars (e.g., Buckley et al. 2020; Hu et al. 2021; Saittakari et al. 2023). Both disciplines also examine MNEs' role in the agglomeration of knowledge resources, shaping regional specialisation and clustering, and fostering the emergence of specialised hubs and high-tech industries. Additionally, they have investigated how MNEs' external networks influence regional systems of knowledge and capability creation (cf., Cantwell & Iammarino 1998; Karna et al. 2013; Lorenzen & Mudambi 2012; Mudambi & Santangelo 2016). In contrast, research on GPNs and GVCs questions whether integration into MNE-led global structures leads to knowledge transfer and technology upgrades for local stakeholders and locations (cf. De Marchi et al. 2018; Humphrey & Schmitz 2002; Kleibert & Mann 2020). Such studies suggest that imbalanced power structures may result in local actors engaging in low-value activities, limiting their access to new knowledge and opportunities for upgrading, possibly fostering dependency on simple market relations with MNEs (cf., De Marchi et al. 2018; Gereffi et al. 2005; Lee & Gereffi 2015; Pietrobelli & Rabellotti 2011, 2).

While existing research has provided insights into MNEs' global location decisions and their effects at the subnational scale, the literature lacks analyses on how new locations in the South *emerge* as loci of MNEs' knowledge-intensive operations. This omission is presumably due to the characteristic foci in existing lines of research. First, previous studies have commonly focused on locations that have already proven successful in attracting investments and knowledge-intensive MNE operations, typically global cities in advanced countries or specialised knowledge-intensive environments such as technological hubs or advanced industrial clusters (e.g., Castellani et al. 2022; Karna et al. 2013; Lorenzen & Mudambi 2012; Täube et al. 2019; Wang et al. 2010; Wang & Wu 2016). Such locations are relatively rare in the South. Alternatively, they tend to focus on resource-abundant locations for developing relatively low-value labour-intensive

activities within GPNs or GVCs (e.g., Fromhold-Eisebith 2002; Khan et al. 2015; Kleibert 2015; Kleibert & Mann 2020; Lee & Gereffi 2015). Southern locations that do not fit the knowledge-intensive or resource-abundant categories often remain overlooked.

Second, much of the research adheres to a firm-centric perspective, examining how investment flows benefit MNEs or other firms while overlooking broader development implications in host environments. Some studies regard host environments merely as complements to MNEs' strategic goals (e.g., Belderbos et al. 2020; Beugelsdijk & Mudambi 2013; Goerzen et al. 2013; Mudambi 2008) or as recipients of benefits or disadvantages created by MNE activities, typically measured quantitatively (e.g., Iammarino 2018; Lorenzen et al. 2020; Mudambi & Mudambi 2005). Others focus on examining MNEs' impact on locations' specialisation upgrades, which are particularly suitable for knowledge-intensive firms, but frequently neglect the role of the public sector in fostering urban development and competitiveness through urban policy and planning (cf. Bertelli 2021; Yigitcanlar et al. 2024, 2008). An exception to this trend is found in studies on GPNs, which consider the roles of both MNEs and host locations and often explore their strategic coupling. However, while urban and regional development are significant factors in these studies, their primary focus remains limited to locations favourable to MNEs' cost-saving strategies (cf. Kleibert 2014; Van & Asheim 2006; Yeung 2009).

The oversight in addressing these gaps in existing research has led to a limited exploration of both the diverse array of 1) host locations emerging as investment hubs and 2) the knowledge-intensive activities undertaken by MNEs. With respect to host locations, research on FDI in the South provides insights into the *emergence* of new destinations hosting knowledge-intensive MNE operations on the basis of a few unusually successful examples. However, such locations are rare in the South. Therefore, research should provide a more comprehensive and nuanced understanding of why and how initially less advanced locations manage to develop characteristics that attract MNEs' knowledge-intensive operations. These underexplored locations may harbour unique advantages that significantly influence MNEs' strategies and knowledge creation capabilities. They can thus determine and contribute to the types of knowledge-intensive activities MNEs undertake. This understanding should consider three key issues: the characteristics and overall development of such locations that draw in MNEs, the types of knowledge-intensive activities initiated by MNEs in those locations as a result, and the subsequent effects of these activities on locations' economic or technological advancement.

Thus, to understand the factors driving knowledge-intensive global FDI towards less advanced southern locations that are nevertheless emerging as investment hubs, it is crucial to redirect the focus from well-known advanced locations and specific types of MNE activities to explore the wealth of host locations and heterogeneous

activities of MNEs. Understanding the emergence of such investment hubs is vital in an international landscape marked by a significant surge in innovation-related and technology-driven FDI flows and dominated by information and communication technologies (ICTs). In 2022, one in every four greenfield investment projects announced was in ICTs (Financial Times 2023), underscoring the substantial growth in this sector across a wide range of countries, including those in the South (cf. Chaminade & Gómez 2016; Crescenzi et al. 2022; Mudambi 2008; UNCTAD 2015, 2022). These trends indicate that southern economies are becoming more interconnected, both among themselves and with other world regions, and that they are seeing an influx of MNEs engaged in knowledge-intensive activities. This evolution has brought external knowledge and skills to several southern cities, potentially bolstering local innovation capabilities and value creation (cf. Crescenzi et al. 2022). Consequently, certain cities are emerging as investment hubs for MNEs, with possibly substantial repercussions for their technological and economic advancement.

An analysis of why and how certain less advanced cities become attractive for MNEs' knowledge-intensive operations and the ensuing advantages is needed. I propose that such an analysis benefits from a comprehensive approach. In this study, macrolevel examination of country-scale attractiveness is connected with microlevel exploration of the impact of MNEs' local-scale activities, providing insights from multiple perspectives and disciplines. To grasp the interrelated and simultaneous processes associated with southbound FDI, this study examines the attractiveness of southern countries to global FDI flows. This examination accounts for the heterogeneity of southern countries at the macro level, considering their positions in the international division of labour and distinguishing between *semiperipheral* (or emerging) and *peripheral* countries (Van Hamme & Pion 2012), each characterised by distinctive location factors. Insights from international business studies focusing on MNE location decisions inform this examination.

At the local scale, the study examines the specific contextual circumstances and developments within an emerging economy. It shows how certain southern cities may evolve into investment hubs and explores the processes of knowledge generation and regional upgrading induced by MNE activity. The analysis draws on insights from innovation studies, international business studies, and economic geography. Finally, to understand the attractiveness of a city to diverse knowledge-intensive MNE activities, this study integrates approaches from urban planning and policy studies alongside economic geography. *This synthesis focuses on investments in emerging economies* to align analyses and insights obtained at the macrolevel on global dynamics with those obtained at the microlevel in an emerging country location.

The study comprises this synthesis and three articles (A-I–A-III). Table 1 summarises the overall structure of the study. It presents the framework of analysis for each article from the chosen perspectives discussed above, outlines the role of each article in answering specific subquestions (SQ1-SQ4) and their joint contribution to answering the overall research question (RQ). The subquestions in this synthesis differ from those in the individual articles, as the aim here is to contribute to answering the overall research question. This means that different aspects of the findings are emphasised in the synthesis and in the articles.

Table 1. Elements of the thesis.

PERSPECTIVE ON FDI ARTICLE INFORMATION	EMERGING ECONOMIES OF THE GLOBAL SOUTH	THE MNE	THE LOCAL HOST ECONOMY	LOCAL POLICY AND PLANNING	THE EMERGING INVESTMENT HUB
TITLE	A-I	A-II	A-II	A-III	Synthesis
BODY OF RESEARCH	Undercurrents in the world economy: evolving investment flows in the Global South	MNEs and knowledge creation in emerging ICT hub	creation in Medellín's emerging ICT hub	Traveling planning concepts revisited: how they land and why it matters	A multiperspective approach to the emergence of Medellín as an investment hub
AIM	FDI location	MNE strategy and local knowledge creation	Differentiating MNE strategies and their impact on local activities and knowledge use and creation	Policy and planning in contemporary knowledge economy & MNE location	FDI & knowledge-based development
RESEARCH QUESTION	Exploring emerging economies' role in global FDI flows and FDI competition	SQ2. How do different types of MNE source and create knowledge in an emerging investment hub?	SQ3. How do knowledge creation and capacity upgrading in a local host economy benefit from diverse MNEs?	Unveiling the relationship between processes of urban renewal, policy and planning, and FDI attraction	Unravelling how a less advanced city of the Global South evolves into a hub for knowledge-intensive activities by MNEs
CONTRIBUTION	SQ1. What attracts FDI to emerging economies in the Global South?	Unveils the potential for interactive knowledge creation by diverse types of MNEs in a new location		SQ4. How can policy and planning solutions facilitate an emerging city in the Global South entering global competition for FDI?	RQ. How can a southern city emerge as an investment hub?
	Reveals the versatile roles of southern economies in FDI flows from diverse origins			Identifies interrelated processes of local development and catch-up triggering MNE entry	Reveals cumulative processes in a local economy leading to FDI attraction

The multiperspective approach outlined in Table 1 enables a systematic analysis of various aspects related to southbound FDI. The *perspective of emerging economies of the South* provides insights into the macro context of global competition for FDI. It examines (a) the country scale factors influencing FDI flows from various origins, considering groups of countries at different levels of global economic integration, into emerging economies of the South. The *MNE unit* and the *local economy perspectives* focus on the interplay of MNEs within a specific emerging local economy that has recently evolved into an investment hub. These perspectives lead to analyses of (b) the types of MNEs, the knowledge intensity of their local activities, and their potential for knowledge creation, as well as (c) MNEs' local relations and their contribution to knowledge creation in the local economy. The *perspective of local policy and planning* investigates (d) the relationships among policy-induced urban development processes, variations in local conditions, and their influence on attracting MNEs' knowledge-intensive operations. This approach allows for providing complementary evidence of FDI in the South beyond what is typically presented in the literature and a nuanced understanding of the *emergence of an investment hub*.

The empirical research in the articles in this study includes quantitative analyses of global FDI flows to southern economies (A-I) and qualitative studies on the emerging investment hub of Medellín, Colombia (A-II and A-III). Medellín, a city pursuing a knowledge-based economic transformation, has attracted numerous MNE operations in the ICT sector. This success is particularly remarkable considering the city's recent past, marked by decades of organised drug trafficking, economic recession, fragmented development, inequality, violence, weak government institutions, and economic and social isolation (Sánchez Jabba 2013). In this context, A-II reveals the city's attractiveness to diverse MNEs and the links of their knowledge-intensive operations to the local economy, whereas A-III provides insights into the broad and lengthy policy and planning processes and contextual factors contributing to FDI attraction.

Building on the analyses in the individual articles, this synthesis aims to understand the emergence of investment hubs in less advanced cities of emerging economies of the South. It integrates diverse perspectives and disciplines, drawing insights from economic geography, international business studies, and urban policy and planning to generate a detailed understanding of this phenomenon. Medellín's development reveals how endogenous processes driving local and technological development have accumulated and ultimately increased the attractiveness of the city to MNEs, thus transforming it into an investment hub. Informed by the case of Medellín, this study proposes a conceptual model of investment hub emergence. This model provides general explanatory clarity on the categories of strategic activity

crucial for investment hub emergence and offers a framework to explore diverse city-specific strategies and dynamics in comparable contexts.

The findings of this synthesis contribute to filling a significant gap in the literature, as there is no established research field on this specific issue. By integrating current scholarly debates on the benefits and challenges associated with FDI flows and MNE activity in southern cities, this study takes steps towards defining what this field may encompass. Moreover, these findings can inform the formulation of economic development policies aimed at achieving broader development goals in specific types of southern contexts.

2 The emergence of investment hubs in the Global South: Five complementary perspectives

Five perspectives on FDI are examined in this synthesis—the first focusing on types of *flows of global FDI into emerging economies of the South*, the second on *MNEs' local knowledge creation*, the third on the *potential effects of MNEs* on knowledge creation in *local host economies*, the fourth on processes of adopting local *policy* and *planning* solutions with corollaries on MNE attraction and the fifth, on the *emergence of an investment hub*—each rest on distinct theoretical debates. This section identifies gaps in the literature regarding FDI and the knowledge-intensive activities of MNEs in the South, which motivated the individual studies in this synthesis. It then explains the approaches chosen to address these gaps (subsections 2.1-2.4). Furthermore, it elaborates on how integrating the knowledge from individual analyses from different perspectives contributes to proposing a model of the emergence of investment hubs in the South (subsection 2.5).

2.1 The emerging economies of the South

In examining FDI flows involving countries of the South, studies often fail to adequately consider the effects of the economic development level and position in the global economy of both the origin and destination countries. This oversight stands in contrast to the established understanding that a country's economic development level and position in the global economy significantly influence its competitive advantage in the distribution of FDI flows (cf. Blonigen 2005; Dezzani & Johansen 2012; Ramírez-Alesón & Fleta-Asín 2016; Van Hamme & Pion 2012).

Analyses of FDI targeting the South frequently focus on investments originating in advanced economies and do not differentiate among destination countries within the region, which vary in terms of their levels of development and structural positions (cf. Antonakakis & Tondl 2015; Belkhdja et al. 2017). Recent studies analysing FDI originating in emerging economies—a small yet powerful subset of southern countries that have garnered increasing scholarly interest (e.g., Amendolagine et al. 2018; Buckley et al. 2023; Buckley & Hashai 2014; Cuervo-Cazurra et al. 2015; Rabellotti 2014)—or comparing FDI flows from emerging and

advanced countries (cf. De Beule et al. 2014; Ozkan et al. 2022; Soumaré et al. 2016) are more sensitive to the structural disparities between the countries of origin and destination. The heightened focus on the level of development and structural position of countries in these analyses likely stems from the recognition that emerging economies often compete with FDI flows from advanced countries, making their characteristics worthy of examination.

Nevertheless, most existing studies on FDI flows in the South either fail to differentiate between types of countries or focus solely on emerging economies. This oversight results in a limited understanding of the diversity of FDI flows to and *within* the South, particularly overlooking flows involving less developed, peripheral countries. The lumping together of emerging and peripheral countries (e.g., Antonakakis & Tondl 2015) results not only in providing a poor understanding of the distribution of FDI flows in the South but also of the role and significance of different types of countries' advantages for investing MNEs. On the other hand, focusing solely on certain types of countries has led to FDI flows being frequently examined between the same regions or economic areas (e.g., Haakonsson et al. 2012; Jadhav 2012; Vogiatzoglou 2007). A prominent example is Asia, including China and India. As a result, some southern regions or countries are understandably overrepresented in the literature because of their weight in the global economy. In summary, the existing evidence on FDI flows in the South is fragmented, incomplete in terms of the southern countries considered, and does not provide a thorough systematic or nuanced understanding of southern countries' distinctive roles in different FDI flows in the world economy. Existing knowledge of FDI flows in the South remains incomplete at best.

A-I addresses these gaps in the literature by examining the types of flows into and within the South, as well as the diverse positions of countries in the world economy. It employs Van Hamme and Pion's (2012) core-periphery classification of countries, which is consistent with the world-systems approach and dependence theories. The classification reveals countries' positions in the international division of labour, accounting for power dynamics and economic relations among them. A-I analyses different southbound FDI flows, including those to and from southern countries in peripheral positions typically overlooked in FDI research. Additionally, it employs a more comprehensive set of location factors² than do previous studies on

² The data on location factors, extracted from Global Competitive Index by World Economic Forum encompasses a wide array of macro and microeconomic measures. These comprise institutional features, infrastructure quality, macroeconomic environment, health and education systems, market efficiency, labour market dynamics, financial market development, technological readiness, market size, business sophistication, and innovation capacity. Moreover, within each of these indicators, the index incorporates catalysts and risks ensuring a thorough assessment of countries' location factors.

FDI targeting the South (e.g., Antonakakis & Tondl 2015; Buckley & Hashai 2014; Cuervo-Cazurra et al. 2015; Ramírez-Alesón & Fleita-Asín 2016). This approach contrasts with other research strands that focus on selected factors influencing FDI flows in the South, such as investment risk (e.g., Van Wyk & Lal 2008) or aspects of proximity (e.g., Aleksynska & Havrylchuk 2013; Fiorini et al. 2021), leading to segmented analyses and providing partial explanations of FDI in the South. In contrast, A-I aims to provide a holistic analysis of FDI flows and country location advantages for MNEs in the South, revealing contemporary trends in the international division of labour, thereby enhancing the depth and nuance of the analysis.

A-I examines six types of FDI flows into the South, while this synthesis focuses specifically on the three types that target *emerging economies* (southern semiperipheries in A-I). These flows originate in (1) *advanced* economies (investments by advanced economy MNEs or AMNEs), (2) other *emerging* economies (investments by emerging economy MNEs or EMNEs), and (3) *peripheral* southern economies (investments by what A-I labels peripheral economy MNEs or PMNEs). Emerging economies play a pivotal role as intermediaries in the diffusion of technology and innovation between advanced and peripheral regions (Wallerstein 1979; Van Hamme & Pion 2012). A-I seeks to identify country-level determinants of the three types of FDI flows into emerging economies for 2006-2014 and explain the role of these emerging economies, or southern semiperipheries, in these flows.

A-I builds on the premise that the determinants of FDI location in the South align with MNEs' strategic motivations to internationalise. The strategic motivations are drawn from established literature (Dunning 1998; Dunning & Lundan 2008). This premise enables direct comparisons with existing studies on FDI location carried out in the same terms, facilitating a better understanding of the determinants of MNEs' international expansion in the region. For the synthesis, A-I provides insights into FDI attraction to the emerging economies of the South. A-I pins down the versatile roles these economies play in global FDI flows and makes it possible to address the subquestion: **SQ1**. *What attracts FDI to emerging economies of the Global South?*

2.2 The multinational enterprise

Understanding MNE knowledge creation in the South requires close observation of specific locations where their operations are prominent. Various strands of literature investigate the strategic organisation of corporate activities across locations, explicitly focusing on their connection to knowledge creation—an essential element for enhancing MNEs' competitiveness and innovation and ensuring long-term sustainability in the global market. These studies also examine how different

locations or location types influence MNEs' activities, relationships, and knowledge-creation processes (e.g., Lorenzen et al. 2020; Narula & Dunning 2010).

The international spread of MNEs' activities is a central concern in the international business literature and related disciplines such as economic geography and innovation studies. This literature examines how MNEs strategically engage with diverse locations. This concern has prompted the development and utilisation of analytical tools aimed at discerning the advantages pursued by MNEs across diverse locations. One such prominent and widely employed analytical tool is the distinction between types of MNEs' strategic motivations, which include *natural resource-seeking*, *efficiency-seeking*, *market-seeking*, and *strategic asset- and capability-seeking* (Dunning 1998; Dunning & Lundan 2008). These motivations are indicative of a progression in the engagement and specialisation of MNE activities in a given location, starting from seeking natural resources and culminating in seeking strategic assets or capabilities.

Activities driven by strategic asset-seeking motivations are considered to have significant knowledge-creating potential—studies on MNE knowledge creation and acquisition often concentrate on this group of activities—whereas resource-, market-, and efficiency-seeking activities are typically perceived as exploiting existing knowledge or producing standardised technologies (cf. Le Bas & Sierra 2002; Mudambi & Santangelo 2016). However, the basis for this distinction remains undisclosed or relies on indirect evidence and limited data from a few locations (Papanastassiou et al. 2020, 637). Further research and empirical evidence are needed to fully understand the implications of these distinctions for MNE actions and knowledge creation across different host locations.

MNEs' knowledge creation at the local scale has been a focal point in several literature strands. Research on innovation predominantly explores the globally advanced activities of MNEs, particularly in technologically advanced locations characterised by a high concentration of advanced activities associated with technology clusters or innovation hubs, typically found in advanced economies (for a comprehensive review, see Papanastassiou et al. 2020). A similar emphasis exists in studies focusing on innovation in emerging economies. Although such activities are less common, they are gradually increasing (cf. Chaminade & Gómez 2016; Coveri & Zanfei 2023; Papanastassiou et al. 2020). While a handful of such concentrations of MNEs' advanced activities exist in emerging economies of the South and have been extensively studied by economic geographers and international business scholars (e.g., Chaminade & Vang 2008; Fromhold-Eisebith 2002; Karna et al. 2013; Lorenzen & Mudambi 2012; Täube et al. 2019; Wang et al. 2010; Wang & Wu 2016; Zhao et al. 2020), there remains a significant gap in understanding MNE knowledge creation, particularly in terms of diverse activities of MNEs and locations within emerging economies of the South.

The local advantages MNEs may obtain for knowledge creation are a crucial area of research, particularly within the context of clusters and the networks within them. Clusters and external networks enable MNEs to access and enhance local knowledge resources, thus contributing to MNE value creation efforts. However, the extent to which MNEs can obtain these advantages depends on cluster dynamics and local engagement strategies. Advanced clusters, characterised by rich networks, global connectivity, and abundant resources, are ideal environments for fostering MNE knowledge generation (e.g., McCann & Acs 2011; Mudambi & Swift 2012). However, *emerging clusters*, such as those presumably found in locations emerging as investment hubs, may pose challenges to foreign firms related to institutional voids, inadequate infrastructure, and limited education and technological capabilities. Despite these challenges, emerging clusters may also present opportunities for MNEs through sufficient operational stability and policy support, valuable resources, including a cost-effective labour force, and new markets (Karna et al. 2013; Zhao et al. 2020).

Regarding to MNEs' local engagement strategies, the literature emphasises the importance of proximate knowledge-intensive external relationships within local environments for MNE knowledge creation (Andersson et al. 2002; Figueiredo 2011; Figueiredo et al. 2020). Studies have shown that MNEs tend to collaborate more frequently with local universities, research institutes, or global network partners than directly engage with local firms (cf. Papanastassiou et al. 2020, 639). However, empirical evidence on both the advantages of MNE engagement and emerging clusters in southern contexts remains scarce. It is drawn from a few studies on the local networks of a few large MNEs (e.g., Figueiredo 2011; Figueiredo et al. 2020) or from several studies in a few clusters. Therefore, there is a pressing need for more comprehensive research to understand how MNEs effectively navigate and leverage local advantages in southern contexts.

MNEs' knowledge creation in the South has also been examined in the literature on GVCs (cf., Humphrey & Schmitz 2002) and GPNs (e.g., Yeung 2009). This research underscores the importance of international knowledge exchange and accessing diverse knowledge sources through MNEs' expansive networks for learning and innovation (Pietrobelli & Rabellotti 2011; Lopez-Vega & Tell 2021). Central to the research in emerging economies is investigating how leading MNEs control cross-border production and value creation across different organisational and geographical contexts and their influence on MNE governance and knowledge creation strategies (Ambos et al. 2021; Yeung 2009, 203). These studies reveal the uneven distribution of MNEs' innovative activities across subsidiaries and regions in the South. Some MNEs establish innovation centres in a few well-chosen locations, leveraging local talent and expertise to customise innovations for diverse markets, but most locations in the South primarily function as cost-efficient sites with limited

opportunities for knowledge creation (Khan et al. 2015; Kleibert & Mann 2020). Although this literature provides insights into MNE knowledge creation in the South across various locations and activities compared with the reviewed literature strands, its focus on specific global industries, particularly labour-intensive manufacturing sectors, leaves gaps in understanding MNE knowledge creation in a wider array of technologically advanced industry sectors (cf. Lorenzen et al. 2020).

Thus, despite extensive inquiry into MNEs' knowledge creation, several gaps persist in understanding this phenomenon in the South. First, the conventional view of how MNEs' motivations, as outlined above, relate to their potential for knowledge creation suggests that only certain motivations drive the process. However, this view hinders a thorough exploration of the knowledge creation potential associated with other MNE motivations. Second, MNE knowledge creation in the South relies heavily on a few success stories from established advanced clusters and MNEs' external networks. The lack of diverse evidence and comparative studies from technologically less advanced environments attracting MNEs limits the understanding of how MNEs spread their knowledge-intensive activities, create knowledge, and the characteristics of these activities in those locations. Third, the focus on large, globally connected MNEs, mainly from developed economies of the global North, has neglected smaller MNEs operating in more limited value chains and networks. This oversight hampers the understanding of how diverse types of MNEs create knowledge in new-to-MNE institutional environments. There is limited investigation into the local advantages and relationships these MNEs leverage in emerging hubs, which could significantly influence their knowledge creation strategies.

A-II addresses these gaps in the literature concerning *MNE location strategies* and *knowledge creation* at the local scale. As highlighted, diverse locations provide unique advantages that can significantly influence MNE strategies (cf. Buckley & Casson 2020; Buckley & Munjal 2017; Tse et al. 2021), impacting knowledge creation and competitive advantages. Therefore, understanding how various types of MNEs engage in these processes becomes essential. To empirically explore how different MNEs leverage local host environments to create knowledge, A-II builds upon Dunning and Lundan's (2008) classification of MNE strategic motivations for internationalisation. Traditionally focused on manufacturing MNEs' internationalisation, this classification now serves as a lens for examining the characteristics of current FDI flows (Coveri & Zanfei 2023, 295). In technologically limited environments, MNE strategies increasingly combine approaches (market-seeking, efficiency-seeking and strategic asset-seeking) to enhance knowledge acquisition through subsidiaries (ibid.).

A-II explores the activities and local engagement of predominantly small MNEs driven by various strategic internationalisation motivations. The analysis aims to

enhance the understanding of how MNEs create knowledge within technologically less advanced environments that are emerging as investment hubs. The insights garnered from the local-scale examination in A-I challenge prevailing notions in the literature, often stemming from broader country-level analyses, a narrow range of environments, and a focus on specific MNE motivations, as discussed earlier. In this synthesis, A-II addresses the subquestion: **SQ2**. *How do different types of MNEs source and create knowledge in an emerging investment hub?*

2.3 The local host economy

Understanding the potential effects of MNEs on knowledge creation in local host economies calls for an examination of the characteristics of both the host economies and the MNEs involved, the types of local activities and the relationships between them and their specific roles in local upgrading. The local host economy perspective examines mutually beneficial engagement for knowledge creation between local stakeholders and MNEs.

Studies examining the effects of MNEs on local economies provide limited insights, often too general or limited in focus on particular aspects. Some offer broad insights into key aggregated economic indicators, such as income, employment, growth, inequality, and resilience, affected by the effectiveness of policies to attract MNEs (cf. Buckley et al. 2020; Iammarino 2018; Mudambi & Mudambi 2005; Tse et al. 2021). This broad approach limits the understanding of the effects of individual MNEs, activities, and relationships, as well as the types of upgrading they might facilitate. Other studies focus on specific aspects of local knowledge creation MNEs' influence, such as the number of patents; the development of specialised clusters; innovation systems; or strategic linkages (e.g., Asheim et al. 2006; Chaminade & Vang 2008; Figueiredo et al. 2020; Manning 2013). While these focused approaches provide insights into the specific impacts of MNEs on local knowledge creation, they do not consider diverse types of MNEs, operations, or study sites beyond the most advanced ones. Hence, they fail to capture diverse contextual interdependencies between locations and MNEs' operations and, therefore, fail to understand related attributes determining MNEs' eventual engagement or disengagement in local knowledge creation.

Research on GVCs and GPNs partially addresses these gaps by providing insights from low- and middle-income economies into the potential effects on knowledge creation, technological upgrades, and economic advances through their participation in MNE global corporate structures. GPN studies focus on regional development within the globalised world economy, examining local conditions, the roles of local actors, and interdependencies with MNEs that influence transitions to higher valued added activities, industry, institutions, and regional upgrades (cf., Dicken et al. 1994; Henderson et al. 2002, 457; Khan et al. 2015, 3; Yeung 2009,

211). While participation in GVN and GPN holds promise for benefiting local host economies, these benefits often remain unrealised owing to unfavourable governance structures, which are typically dominated by influential MNEs from more developed countries, and a lack of meaningful synergy between MNEs and local actors (cf., De Marchi et al. 2018; Gereffi et al. 2005; Lee & Gereffi 2015; Pietrobelli & Rabellotti 2011, 2). Local actors frequently find themselves limited to basic market interactions with MNEs (Humphrey & Schmitz 2002, 1017). Nevertheless, the restricted focus on certain MNE types in this literature limits the understanding of other types of MNE roles in local knowledge creation.

However, the notion of strategic coupling within the GPN framework is relevant for understanding the interplay between cities/regions and MNEs in fostering local knowledge creation and local upgrading. Government support for economic development (Barclay & Gray 2001; Fromhold-Eisebith 2002, 2157), institutional thickness, including supportive organisations such as universities, research and development (R&D) labs, and development agencies (Amin & Thrift, 1994), and an environment conducive to innovation and interactive learning (Vang & Asheim 2006), coupled with MNE presence, play crucial roles. Local actors strategically connect local assets to MNE activities, facilitating the integration of advanced MNE expertise and benefitting local firms and knowledge ecosystems (cf., Corredoira & McDermott 2014; Phelps & Wood 2006; Van Tuijl et al. 2012). Effective policies enhance local knowledge production and use by positioning economies as providers of opportunities for MNEs' knowledge strategies (Kotabe et al. 2000; Kunnanatt 2013; Pietrobelli & Rabellotti 2005; Van Tuijl et al. 2012). They influence critical factors such as human capital and local R&D, shaping MNE engagement with local stakeholders and collaborative efforts in knowledge creation and regional upgrading (Amin et al. 1994). However, the focus on locations abundant in knowledge resources, which is beneficial for efficiency-seeking strategies of influential MNEs (e.g., Fromhold-Eisebith 2002; Humphrey & Schmitz 2002; Kleibert 2015), leaves a significant gap in understanding MNE effects in less-endowed locations and the interplay of minor and less dominant MNE units. These MNEs may employ significant strategies in locations with fewer knowledge resources.

Furthermore, a deeper understanding of alternative learning and upgrading paths for these local economies is imperative. While some less developed regions engaged in MNE-led export-oriented, low-value-added production may experience positive impacts on learning and regional upgrading, as Fromhold-Eisebith (2002, 2170) suggested, critics argue that such engagement may neglect domestic markets, hindering capability development and knowledge diffusion in crucial market segments (Schware 1992). Instead, domestic-oriented production emerges as a more effective supporter of learning in less developed countries (cf., Fagerberg 1995). Kleibert's (2015; 2014, 258) analysis of MNE-led global structures in the

Philippines, which focused on offshore information-technology-enabled services, highlighted local challenges and limited opportunities, suggesting a risk of maintaining a dependent economy despite MNE engagement with local talent and education (Kleibert 2015, 31).

Moreover, research on the upgrading of local economies, as explored in studies on GVCs, GPNs, and cluster development in emerging economies, highlights the significant role of MNE agglomeration in advancing knowledge dissemination and fostering regional development through translocal networks. For example, studies focusing on the IT sector in India within the GPN framework have shown that MNEs operating in specific technology sectors can catalyse technological advancement, with the availability of a skilled labour force playing a crucial role (Fromhold-Eisebith 2002). Furthermore, research on advanced clusters such as Bangalore and Bollywood in India (cf. Karna et al. 2013; Lorenzen & Mudambi 2012; Täube et al. 2019) highlights the contribution of MNEs in bringing external advanced knowledge, leading to the accumulation of knowledge resources and local connections. Local stakeholders' absorption of (some) knowledge enhances their capabilities and facilitates catch-up processes within global networks (Chaminade & Vang 2008; Lorenzen & Mudambi 2012). However, existing studies often concentrate on the long-term development of technologically advanced clusters, neglecting alternative contexts and emerging global trends in local upgrading involving MNEs in cities transitioning into investment hubs.

Despite calls for further empirical research on the potential for regional upgrading through export-oriented, low-value-added investment by MNEs in less developed countries (Fromhold-Eisebith 2002, 2169), the local perspective in this synthesis goes beyond assuming the role of less developed economies of the South merely as suppliers to advanced economies. Instead, it recognises the heterogeneity of MNEs, their operations, and locations to provide valuable insights into the development prospects of an underresearched type of economy in the South.

A-II complements the discussion on MNEs' impact on local knowledge creation and upgrading by analysing the case of a southern local economy emerging as an investment hub. It addresses the gaps in the literature discussed above by exploring the potential for local knowledge and capability development through interactions between local stakeholders and MNEs driven by different strategic motivations. By focusing on the local host economy perspective, this study elucidates mutually beneficial interactions for knowledge creation. It contributes to a more nuanced understanding of diverse knowledge-creation processes within the host local economy, shaped by the intricate relationships between local stakeholders and MNEs. In this synthesis, A-II addresses the subquestion: **SQ3**. *How do knowledge creation and capacity upgrading in a local host economy benefit from diverse MNEs?*

2.4 Local policy and planning

Understanding the processes of adopting local policy and planning solutions is vital for grasping how southern cities advance high-quality, location-specific advantages, eventually leading to MNE attraction and their emergence as investment hubs. The local policy and planning perspective examines how cities in the South implement strategies to transition towards knowledge-based development, attract firms and investments, and leverage knowledge resources to drive economic development and improve socioeconomic conditions (cf. Pique et al. 2019; Yigitcanlar et al. 2008).

Despite improving conditions in the emerging economies of the South, many cities still lack sufficient local knowledge resources to compete effectively for and integrate strategic knowledge from MNEs' knowledge-intensive activities (e.g., Castellani et al. 2022). This limitation hampers their ability to develop high-tech industries, which rely on access to external business-specific knowledge and technologies that MNEs can provide or enhance (e.g., Lorenzen & Mudambi 2012; Patibandla & Petersen 2002; Täube et al. 2019). To address this challenge and improve their international standing and competitiveness, cities are increasingly implementing policy and planning measures that support knowledge-based development, aiming to become prosperous knowledge hubs (Blakely & Hu 2019; Knight 1995; Tse et al. 2021; Yigitcanlar et al. 2008; Yigitcanlar & Inkinen 2019).

Recent research has focused on the role of urban spaces in the contemporary knowledge economy, particularly in cultivating knowledge-intensive economic areas that foster innovation (e.g., Hutton 2004; Katz & Wagner 2014; Yigitcanlar 2010). Scholars in economic geography and urban studies have explored the global diffusion of policy and planning concepts at the source of creating such urban sites, which are instrumental in facilitating knowledge sharing, creation, and inclusive economic growth (cf., Katz & Wagner 2014; Yigitcanlar 2010). These concepts, often rooted in advanced economies, are widely regarded as advantageous for cities worldwide, leading to their adoption as global best practices disseminated through influential international networks of policy and planning.

However, when examining cities in the South, a growing body of literature has also raised significant criticisms regarding the widespread adoption of these concepts as "tools of neoliberal economic development" (Kayanan 2022, 50). The criticism centres on the disproportionate benefits these concepts tend to channel towards large corporations and real estate developers, exacerbating urban inequalities and gentrification (e.g., Arenas et al. 2020; Bertelli 2021; Goicoechea 2018). Moreover, despite their global endorsement as best practices to cultivate knowledge-intensive economic areas, they are perceived as contributing only marginally to local knowledge production (cf. Arenas et al. 2020; Bertelli 2021; Lederman 2020; Lederman & Whitney 2022). While these studies provide valuable insights into the challenges that knowledge-based development strategies face in the South, they

often lack in depth, unbiased examinations of their effectiveness or lack thereof in fostering knowledge-based development.

A-III explores the intricacies of implementing a widely embraced urban planning concept: the *innovation district* (cf. Kalliomäki et al. 2024; Kayanan 2022; Yigitcanlar et al. 2008; Yigitcanlar et al. 2024). This concept, aimed at bolstering urban competitiveness by nurturing the growth of tech and creative firms and their networks, has garnered significant attention from cities worldwide (Katz & Wagner 2014, 1–2). Despite the general acknowledgement of the importance of local knowledge resources for urban economic development, research on urban planning and policy mobility has inadequately assessed the efficacy of implementing and disseminating concepts such as the innovation district. Specifically, research has not been carried out to examine their effectiveness in actually stimulating the creation and enhancement of knowledge resources or their capacity to attract and engage MNEs. Although a handful of studies in Latin America briefly address this topic (e.g., Arenas et al. 2020; Goicoechea 2018), a significant research gap remains.

This oversight may be attributed to the prevalent focus in the literature on cities in advanced economies, where the innovation district concept originates and where knowledge resources and advanced firms are more prevalent. Consequently, attracting foreign MNEs might not be deemed critical for knowledge-based development or augmenting local knowledge resources or innovation. Conversely, in less-developed cities of the South, the contribution of even a single MNE can have a substantial impact. However, this issue has been largely overlooked in the literature—either because it remains unrealised or because of the prevailing perception that the overall presence of MNEs is detrimental, as discussed earlier.

Hence, a more thorough examination of the nuanced dynamics of MNE contributions in less-developed contexts merits closer consideration within the ongoing discussion on innovation districts. Existing studies on innovation districts have focused primarily on analysing human and economic relationships within delimited urban areas while neglecting their integration into broader policy agendas and overall socioeconomic development strategies for entire cities. Furthermore, research that centres on the implementation of knowledge-based and innovation policies tends to overlook the significant role of urban spaces as integral components of these strategies (cf., Borén et al. 2020; Dzudzek & Lindner 2015; Prince 2010), despite their interconnectedness. Therefore, exploring the implementation of planning ideas alongside the underlying local policies is crucial for understanding the local conditions that drive and advance measures supporting knowledge-based development. This approach can also reveal the implications for MNE entry into new locations in less developed contexts.

A-III addresses gaps in the literature on urban planning and policy by analysing the process of implementing the innovation district concept in a city transitioning

towards knowledge-based development and emerging as an investment hub. This local policy and planning perspective provides a more comprehensive understanding of the relationship between planning and policy solutions and MNE attraction. It also identifies the urban transformations required to accommodate technology-oriented MNE operations at a specific location. By doing so, this perspective addresses the subquestion: **SQ4.** *How can policy and planning solutions facilitate an emerging city in the Global South entering global competition for FDI?*

2.5 The emerging investment hub in the South

Previous sections have highlighted the limited depth of understanding across diverse literatures regarding various aspects of FDI and knowledge creation in the South. Despite extensive research on individual emerging economies, national-scale contexts, and established knowledge-intensive MNE sites in specific industries (e.g., Lorenzen & Mudambi 2012; Täube et al. 2019), the process by which, once isolated, less advanced cities transition into international investment hubs attractive to knowledge-intensive MNE activities remains poorly understood. This critical gap calls for a new perspective integrating insights from various angles to comprehensively grasp the diverse contextual factors driving this transformation and leading to the emergence of investment hubs in the South.

Understanding this transition requires thoroughly examining the conditions within emerging economies that shape FDI location decisions. This involves analysing the factors attracting FDI to these regions and understanding the roles these economies play in the international division of labour. Such insights are crucial as emerging economy cities become increasingly intertwined with diverse global dynamics.

Additionally, it is essential to investigate the types of MNEs entering less advanced cities of emerging economies and their potential for knowledge creation. This exploration can reveal how these cities serve as conducive environments for diverse types of MNEs, shedding light on the factors driving their transformation into international investment hubs. Furthermore, it allows a comprehensive examination of MNE location strategies aimed at knowledge creation, expanding upon the literature (e.g., Dunning 1998; Mudambi & Santangelo 2016) to better understand their application in less advanced contexts.

Expanding on the investigation of MNE types and their potential for knowledge creation, it is crucial to discern the advantages that the interplay between MNEs and local actors provides for local knowledge creation. This holistic understanding involves not only examining the activities between MNEs and local actors but also considering the development of the diverse contextual characteristics that influence the types of MNE attraction and local knowledge creation. Exploring these dynamics

provides deeper insights into the interactions between different types of MNEs and local actors and environments.

Moreover, it is necessary to obtain a nuanced understanding of the intricate relationships and mutual influence among concurrent developmental processes within a local economy and their impact on MNE attraction. This understanding surpasses the consideration of individual solutions, such as policy and planning ideas. A deeper examination of these dynamics is vital for comprehending the relevant urban changes influencing MNE attraction and understanding the evolving dynamics of globalisation (cf., Asheim et al. 2006; Coveri & Zanfei 2023).

Adopting this multifaceted approach seeks to comprehend how cities can succeed in global competition for FDI by creating conducive conditions that attract knowledge-intensive and technologically advanced MNE activities. Additionally, it explores the effects of these activities on enhancing the local knowledge environment while considering associated policy and planning efforts. In summary, the holistic approach in this synthesis aims to answer the overarching research question: **RQ.** *How can a southern city emerge as an investment hub?*

3 Data and methods

This thesis is based on a mixed-methods approach. The approach enables the integration of knowledge generated by analyses from several perspectives to explore diverse factors and processes at the global and local scales that contribute to attracting FDI and thereby elucidated the emergence of locations as investment hubs in the South. By considering multiple viewpoints and using diverse methodologies to explore different aspects of the same object of study, this dissertation provides insights into distinct dimensions of the phenomenon. Thus, the approach is well suited for studying the emergence of southern investment hubs, characterised as multidimensional processes in this synthesis.

3.1 The mixed methods approach

The mixed methods approach follows Freeman's (2020) notion of *collage* as a methodological framework that allows for the gathering of diverse types of knowledge on a topic, which, when combined, can provide a more nuanced and comprehensive understanding of a broad research topic. Table 2 summarises the perspectives on FDI and the research designs employed in the individual articles. It highlights the two types of research design, *intensive* and *extensive*, used in the articles the synthesis builds on. The categorisation of the research design in the individual articles follows Sayer (1992) and is based on the type of explanation each research design provides.

Table 2. Perspectives on FDI and research designs in the thesis.

PERSPECTIVE ON FDI	TYPES OF FDI FLOWS TO EMERGING ECONOMIES	BENEFITS FOR MNEs	BENEFITS FOR THE LOCAL HOST ECONOMY	FDI FACILITATION VIA LOCAL POLICY AND PLANNING	EMERGENCE OF FDI HUBS
ASPECTS OF THE RESEARCH DESIGN	A-I Extensive	A-II Intensive	A-II Intensive	A-III Intensive	Synthesis
RESEARCH METHOD	Quantitative analyses of southbound FDI flows 2004-2013	Exploratory qualitative case study of MNEs' local strategies and relations in Medellín	Qualitative case study of the landing of the innovation district concept in Medellín	Theoretical synthesis	
DATA AND DATA COLLECTION	Secondary data on greenfield FDI (fDiMarkets) and country-level indicators (Global Competitiveness Index)	Observations and interviews with MNE managers and local stakeholders	Observations and interviews with members of interest groups involved in implementing an innovation district	Based on the analysis and findings of the research articles (A-I – A-II)	
PURPOSE OF THE RESEARCH DESIGN	Investigation of global trends in FDI flows into the South, and comparison of types of FDI flows into emerging economies	Differentiation of MNEs' local strategies and their potential for knowledge creation in an emerging investment hub	Identification of relevant features of investment hub emergence	Establishment of the interrelation between simultaneously evolving processes contributing to investment hub emergence	

The extensive research design in A-I reveals significant groups of countries, common properties, and general patterns of FDI flows into emerging economies as determined by country factors. A-I provides statistically significant parameters and general explanations of the data. However, it cannot yield more substantial insights into the relevance of specific determinants or causalities among factors in attracting FDI. The intensive research design in A-II and A-III addresses this limitation. Both articles use qualitative research methods to gain a deeper understanding of FDI at the urban scale and the micro level of firms. A-II provides in-depth insights into the concrete activities of MNEs and their effects in a particular urban context, whereas A-III investigates the processes involved in creating location factors and reveals how those relate to broader processes contributing to the emergence of an FDI hub.

Hence, intensive research complements extensive research by providing detailed observations and contextual explanations (cf. Plakoyiannaki et al. 2019; Sayer 1992; Welch et al. 2011) for the general trends obtained in quantitative analyses. Intensive and extensive research designs are combined in this dissertation to understand the complex phenomenon of investment hub emergence in southern cities.

3.2 Quantitative analyses of FDI flows into emerging economies: Explanatory and descriptive models

The quantitative analyses conducted in A-I identify and describe the attributes and relationships of types of FDI flows into emerging economies of the South, providing a deeper understanding of diverse patterns and variations in global FDI flows into the South. The analyses differentiate, describe, visualise, and explain the FDI flows targeting emerging economies to reveal specific characteristics associated with them and to facilitate their comparison.

The analyses rely on secondary data from the fDiMarkets database (Financial Times 2015) for greenfield investment from 2003-2014 aggregated at the country level. However, the country location factors data, sourced from the Global Competitiveness Historical Dataset developed by the World Economic Forum (Porter et al. 2006), proved incompatible for the same period owing to inconsistencies resulting from a different methodology used in data compilation before 2006. The period 2006-2014, however, allows the identification of persistent factors explaining diverse FDI flows and their evolving patterns. Notably, it also aligns with crucial local-scale developments, especially in the case of Medellín, enhancing the relevance and significance of the quantitative analysis.

Although aggregating data at the country level poses a limitation for the purpose of analysing the emergence of *cities* as investment hubs, the lack of comparable data on location factors for all cities in the South receiving FDI prevents corresponding

analyses of global FDI at the scale of cities. Nevertheless, identifying the factors that attract different worldwide FDI flows into emerging economies of the South is relevant for explaining how cities need to compete for these investments. Research indicates that a significant portion of MNE units actively choose to locate in cities to mitigate the liability of foreignness by leveraging advantages from superior interconnectedness, the availability of producer services, cosmopolitanism, and contextual knowledge (cf. Asmussen et al. 2019; Belderbos et al. 2020; Goerzen et al., 2013). On the basis of such evidence, this study assumes that many factors determining the competition for global FDI among emerging countries can also be observed in locations at the subnational scale, especially those related to investments in more advanced knowledge-based activities.

This synthesis benefits from the identification and analysis of three types of FDI flows in A-I: top-down flows from advanced economies to emerging economies, intragroup flows between emerging economies, and bottom-up flows from peripheral to emerging economies. The FDI flow types follow Van Hamme and Pion's (2012) classification of countries according to their position in the world economy. Trend analyses of longitudinal FDI data show the changing (increasing or declining) importance of different flows over the selected period. Geographical information system (GIS) analyses were used to examine their geographical distribution. Econometric analyses identify the persisting country factors influencing the investment decisions of MNEs on the diverse FDI flows into emerging economies of the South. Comparative analyses examine the distinctive characteristics of FDI flows involving the emerging economies of the South, with a focus on understanding the differences and similarities between the flow types while considering the country groups involved.

For the purposes of the overall research question addressed in this synthesis, the empirical analyses in A-I provide a general understanding of the role that the emerging economies of the South play in the global FDI landscape. They elucidated their unique position and provide the background against which cities as investment hubs in emerging economies rise.

3.3 A qualitative case study on the types of MNEs in an emerging investment hub

The approach in A-II complements the quantitative analyses of FDI flows to emerging country economies conducted in A-I by exploring the phenomenon of MNEs entering a new operating environment in an emerging economy, specifically in the city of Medellín, Colombia. It enables tentative investigations of the causal relationships between different types of MNEs with given strategic motivations (Dunning 1998; Dunning & Lundan 2008) and their potential for interactive

knowledge creation in the new operating environment. The approach helps gather evidence of contextual factors contributing to knowledge creation in both MNEs, as foreign agents operating in a new environment, and the local economy, which was recently increasingly exposed to foreign economic agents.

By considering contextual factors, this approach can provide a nuanced understanding of the intricate dynamics between MNEs and knowledge creation within a local economy. The findings provide context-specific insights and a deeper understanding of MNEs' strategic motivations in a specific type of operating environment, their local activities, their engagement in the local economy, and their potential for knowledge creation. Additionally, the analysis contributes to a better understanding of how the findings from a local economy align with the current global-scale understanding of MNEs' strategic motivations and the potential for knowledge creation of their activities (cf. *ibid.*). This comparison assists in bridging the knowledge gap between the local context and global perspectives on MNEs' strategic motivations.

The primary data for the exploratory study consisted of semistructured interviews with representatives of technology firms in the ICT sector operating in Ruta-N, a relatively new innovation and business centre that opened in 2011 in Medellín. The case of Ruta-N in Medellín is suitable for studying the unfolding of MNE operations within a new environment, as it enables the observation of the various factors that enhance or inhibit knowledge-creation processes involving various types of MNEs and their activities in Medellín. These factors include the sources of local advantages for MNEs (such as location, local relations, and colocation) and the potential benefits to the local economy arising from MNEs' activities (including value creation, engagement with local actors, and establishment of translocal relations).

For the purpose of the synthesis, the approach taken in A-II facilitates an understanding of the factors contributing to Medellín's attractiveness to the knowledge-intensive activities of diverse MNEs and the influence of MNE activities on local technological advancement, shedding light on the characteristics of Medellín as an emerging investment hub. The qualitative contextualised explanatory approach (cf. Welch et al. 2011) employed in A-II helps provide theoretical interpretations that may apply to a wider range of phenomena (cf. Plakoyiannaki et al. 2019; Welch et al. 2011), that is, explaining the emergence of investment hubs in cities sharing characteristics with Medellín.

Additionally, the data from this case allow reflection on the changing dynamics of globalisation on FDI flows (cf. Asheim et al. 2006) and its impact on the evolving context where investment hubs in the South emerge. This helps avoid relying solely on potentially outdated data from established advanced technological hubs.

3.4 Causal approach to FDI facilitation: A qualitative case study

The process approach taken in A-III to examine the adoption of local policy and planning solutions for enhancing knowledge-based economic development adds depth and complexity to understanding the broader context for investment hub emergence. The approach enables the identification of the change process(es) induced by the implementation of policy and planning solutions as well as the underlying urban processes that both intentionally and unintentionally contribute to FDI attraction. Doing so allows for a plausible reconstruction of the structure of the local process of change (cf. Sayer 1992, 103).

The framework of analysis is applied to the case of the “landing” of the internationally “traveling” innovation district concept in Medellín. Primary data for the qualitative case study were collected through semistructured interviews with members of five interest groups involved in implementing the innovation district. A-III develops a conceptual framework that serves as the basis for conducting a causal analysis of policy and planning concepts in a particular location. This analysis facilitates a detailed examination of the mechanisms that drive the evolution of this process and reveals its interplay with simultaneously occurring processes in the location.

For the synthesis, the systematic approach to local policy and planning implementation in A-III helps develop plausible arguments about emerging relationships between diverse processes in the context (cf. Lukka 2014), which are fundamental to the city’s emergence as an investment hub. It also facilitates shedding light on the interplay between planning and policy implementation, local economic development, and FDI attraction.

4 Summary of the findings in the individual research articles

This section presents the findings from the individual research articles, which are organised around the four chosen perspectives to answer subquestions 1 to 4, as outlined in Table 1. The perspective of emerging economies of the South highlights the distinctive factors that make these economies attractive as recipients of diverse FDI flows. The MNE and local host economy perspectives highlight the potential impact of different MNE strategies on local activities, relationships, and knowledge creation in Medellín. The local policy and planning perspective scrutinises the urban processes triggering FDI attraction, what they entail, and how they occur in Medellín.

4.1 What attracts FDI to emerging economies of the Global South?

A-I develops a framework for differentiating types of southbound global FDI flows. It considers the position of countries in the world economy, differentiating between advanced countries of the North, and emerging and peripheral countries of the South. This framework enables a comprehensive and specific analysis of FDI flows into *emerging* economies, which are the particular focus of this synthesis. A-I reveals the geography, trends, and determinants of FDI flows from 2006-2014, providing an overview of the characteristics of the competition for FDI flows from diverse origins from the perspective of emerging economies in the South. Overall, A-I's findings contribute to a better understanding of the factors driving FDI flows to target emerging economies.

The empirical findings in A-I reveal the roles that emerging economies of the South play in FDI flows originating in the differently positioned country groups in the global economy, including investments by AMNEs, EMNEs, and PMNEs. Efficiency-enhancing factors, including those related to technology readiness and foreign and domestic market efficiency, predominantly feature in all three types of FDI flows.

Traditional top-down investments from AMNEs constitute the most voluminous flow into emerging economies, and among FDI flows into the South—unsurprisingly, AMNEs’ investments persistently dominate worldwide networks of FDI (cf. Wall & van der Knaap 2011; Van Hamme & Pion 2012). Emerging countries appear to be locations where AMNEs engage in relatively sophisticated activities, as indicated by the significance of technology absorption. Nevertheless, these countries continue to function as export platforms for AMNEs, as revealed by the significance of foreign market size. However, the low growth of this flow type, one of the lowest-targeting emerging economies, suggests that emerging countries are becoming more independent, specialised, or expensive, potentially slowing the export market opportunities for AMNEs.

Intragroup investments among emerging economies, by EMNEs, constitute the second-largest flow type to emerging economies and among all southbound FDI flows. Emerging economies serve a dual purpose, functioning as hubs for innovation activities, as evidenced by the significance of patent applications, and as export platforms for EMNEs, with the foreign market size factor emphasising their role in exports. These findings suggest that EMNEs develop knowledge or acquire strategic assets in a (n increasing) number of emerging economies rather than exclusively in advanced economies or in the most dynamic emerging countries, such as China and India, as commonly indicated in the literature (e.g., Coveri and Zanfei 2023). Creating knowledge assets in emerging economies requires complementary factors, including specific qualities in the labour market that reflect the availability of talent, including female participation. Additionally, it requires robust relationships between emerging economies, as evidenced by the volume and the highest growth rate of this flow type, mirroring characteristics seen among advanced global core economies (Wallerstein 1979; Van Hamme & Pion 2012). These findings imply that emerging economies might be evolving into production platforms for high-value-added products for EMNEs, whereas their role as low-cost production platforms for AMNEs might (at the same time) be diminishing.

Bottom-up investments by PMNEs, constituting the smallest volume among the flows into emerging economies, are a novel and still underresearched trend in FDI within the South. The literature on worldwide FDI flows has considered bottom-up flows from the South to advanced economies (cf. Amendolagine et al. 2018; Ozkan et al. 2022), but not this emerging bottom-up flow within the South. Unlike other FDI flows into emerging economies, this unique type is, among other factors, determined by the domestic market size (rather than the export market size) and the availability of the latest technologies. This may suggest that emerging economies can support PMNEs’ technological advancement, enabling them to operate in more developed markets alongside AMNEs and EMNEs. However, the varied characteristics and conditions across the peripheral countries in the data can

influence how PMNEs navigate and respond to potential institutional volatility in emerging economies. This complexity poses a business cost that might be particularly challenging for PMNEs (to overcome efficiently). This risk might be reflected in the slow growth rate of this flow type.

4.2 How do different types of MNEs source and create knowledge in an emerging investment hub?

The exploration of knowledge-intensive MNEs with diverse strategic motivations in the emerging investment hub of Medellín reveals various configurations of MNE–local economy relations and their potential for knowledge creation. A-II reported that in Medellín, the MNEs in the sample predominantly aim to create or enhance local knowledge resources critical to their specific strategic objectives. They achieve this by leveraging existing knowledge assets rather than engaging in collaborative knowledge creation.

In contrast to the traditional assumption in the literature that only strategic asset-seeking MNE motivations have significant knowledge creation potential (cf. Dunning & Lundan 2008; Narula & Dunning 2010), A-II observed that the potential for knowledge creation lies in the synergies between MNE activities and the unfolding of knowledge-based development in the local economy. Specifically, market-seeking MNEs, driven to Medellín by demand for their products and services resulting from knowledge-based development, engage in interactive local relationships with other stakeholders. These relationships lead to mutually beneficial *knowledge* and *capability creation*, enhancing the competitive advantages of MNEs.

A-II finds that public policy efforts supporting knowledge-intensive activities can benefit all MNE types in the sample, the majority of which are relatively small ICT units. This is achieved through the establishment of public organisations tasked with trans-local intermediation, the provision of advanced infrastructure, and the advancement of a stable business environment. However, the specific advantages MNEs derive locally, either from sourcing or creating knowledge, depend on their strategic motivations, influencing how they benefit from distinct location-specific advantages.

A-II thus provides nuanced results on how different types of MNEs source and create knowledge and develop distinctive context-sensitive relationships to benefit from operating in the emerging investment hub. *Resource-seeking* MNEs tap into the skilled labour pool, utilising this knowledge resource to strengthen the capacity of their service operations abroad. *Market-seeking* MNEs access specialised local knowledge through collaboration with local partners, adapting and expanding strategic knowledge to serve specific local market demands and comparable markets

elsewhere. *Efficiency-seeking* MNEs collaborate with local educational institutions to ensure a stable supply of specialised knowledge resources to support their global operations from this location. *Strategic asset-seeking* MNEs leverage the emerging local innovation ecosystem, seeking to influence its regulatory framework and dynamism to increase the production of local knowledge resources that can be integrated into MNE ecosystems and global operations. These diverse MNE strategies align with the unique opportunities and resources for knowledge development and capacity building that emerged in Medellín. They benefit from the advancement of the knowledge-based economy and the improved knowledge environment.

4.3 How do knowledge creation and capacity upgrading in a local host economy benefit from diverse MNEs?

While A-II's findings reveal nuanced effects of various MNEs' strategic motivations on knowledge creation and capacity upgrading in the local economy of the emerging investment hub, a general observation emerges: diverse types of MNEs collectively contribute to the ongoing development driven by the adoption of knowledge-based and proinnovation strategies in Medellín.

Specifically, the increased presence of diverse MNE types in Medellín contributes to local knowledge resource agglomeration and enhancement. Knowledge-intensive MNEs attract talent and other technological firms, and their core or supporting activities intentionally influence the development of specific local knowledge resources. Market-seeking MNEs play a more direct role than other types in advancing the emergent knowledge-based local economy. Their core activities contribute by introducing new-to-local-economy knowledge-based products and services, providing local partners access to advanced knowledge, technologies, and services, and engaging them in translocal knowledge production.

In contrast, the contributions of resource-seeking, efficiency-seeking and strategic asset-seeking MNEs in Medellín are more limited, showing only marginal engagement in the local economy and indirect contributions to knowledge and capacity creation. Strategic asset-seeking MNEs merely disseminate existing knowledge and technology, potentially enhancing industry standards and practices among local technology firms and talent. Efficiency-seeking MNEs engage with educational institutions to ensure the skill sets necessary for their operations and provide staff training in high-value activities within international teams. These activities influence labour market specialisation and upgrades, which are crucial in retaining MNEs and potentially enhancing regional advantages (cf., Fromhold-Eisebith 2002). However, their limited engagement in the local economy and the

restricted knowledge spillover potential of MNE-supporting activities contrast with findings in Bangalore (*ibid.*), indicating a less effective path for technological or local upgrading from these MNEs.

4.4 How can policy and planning solutions facilitate an emerging city in the Global South entering global competition for FDI?

A-III's process approach to the implementation of a policy and planning concept is critical for understanding the simultaneous and mutually reinforcing processes of urban development and integration into the global economy, which eventually lead to attracting MNEs.

The analysis of the process of adopting the innovation district planning concept in Medellín reveals key recurring activities, the overall structure of the process, and the mechanisms driving the establishment of the Medellín-specific version of the innovation district. Beginning with efforts to address diverse significant problems, such as unemployment, declining economic competitiveness, and urban decay in a prime area of the city, the innovation district concept is identified as a strategic solution. The process concludes with the local operationalisation of an innovation district, showcasing how externally originated concepts are adapted to new contexts, intertwined with other urban development agendas, and can influence FDI attraction.

A-III's novel framework systematically identifies mechanisms at two levels of analysis, revealing how activities in different dimensions generate higher-level mechanisms, giving rise to distinctive phases in the implementation process that are unique to the location. This analysis highlights the transition from initial problem identification to the establishment of the innovation district. The findings underscore the necessity of holistic urban development for cities to succeed in global competition for knowledge resources, including those of MNEs. Locally relevant policies and planning significantly contribute to creating an environment conducive to attracting FDI.

In Medellín, the decision to implement an innovation district was aligned with the city's aspiration to set in motion knowledge-based economic development. Its implementation, however, did not occur in isolation but was intertwined with other urban agendas related to entrepreneurship, education, social innovation, internationalisation, and science, technology, and innovation (STI). The integration of agendas helped to bring resources, form supportive coalitions, and establish legitimacy, all of which contributed to the advancement of the innovation district. The local efforts to implement the innovation district along with the broader development agenda in the city drew the attention of a prominent foreign MNE, which was the first to commit to the innovation district. The city's value proposition,

including strategic plans for an innovation district and a comprehensive transformation from an once secluded city to an internationally recognised social innovator, suited the MNE's expectations for its operating environment in Latin America.

A-III reveals an interrelation between MNE attraction and policy and planning implementation. In Medellín, the early entry of a prestigious MNE helps legitimise the innovation district and the city's chosen development path. It extends local support to the overall STI strategy, affords international prestige to the location, and attracts other technology firms. The fairly quick agglomeration of technological firms in the city contributes to the local economy's catching-up and attracting further MNEs.

5 Discussion

This section first discusses the significance of the empirical findings in this dissertation, offering both perspectives from individual studies and their combined insights for answering the overall research question posed in the synthesis. Second, it examines the theoretical implications of how general features in emerging economies, the specific characteristics of a city, and its comprehensive urban socioeconomic development affect its ability to attract FDI flows. Third, it addresses the practical implications of the findings, and fourth, it discusses their limitations and directions for future research.

5.1 Towards reinterpreting the empirical findings

This synthesis offers insights into the distinct stages of Medellín's emergence as an investment hub, as outlined in the four perspectives on FDI provided by the original research articles (A-I, A-II, A-III). The stages identified—*triggering conditions*, *process initiation*, and *gradual intensification*—are summarised in Figure 1. The figure highlights how each stage and perspective contributes to the analysis of the emergence of the investment hub, addressing the main research question.

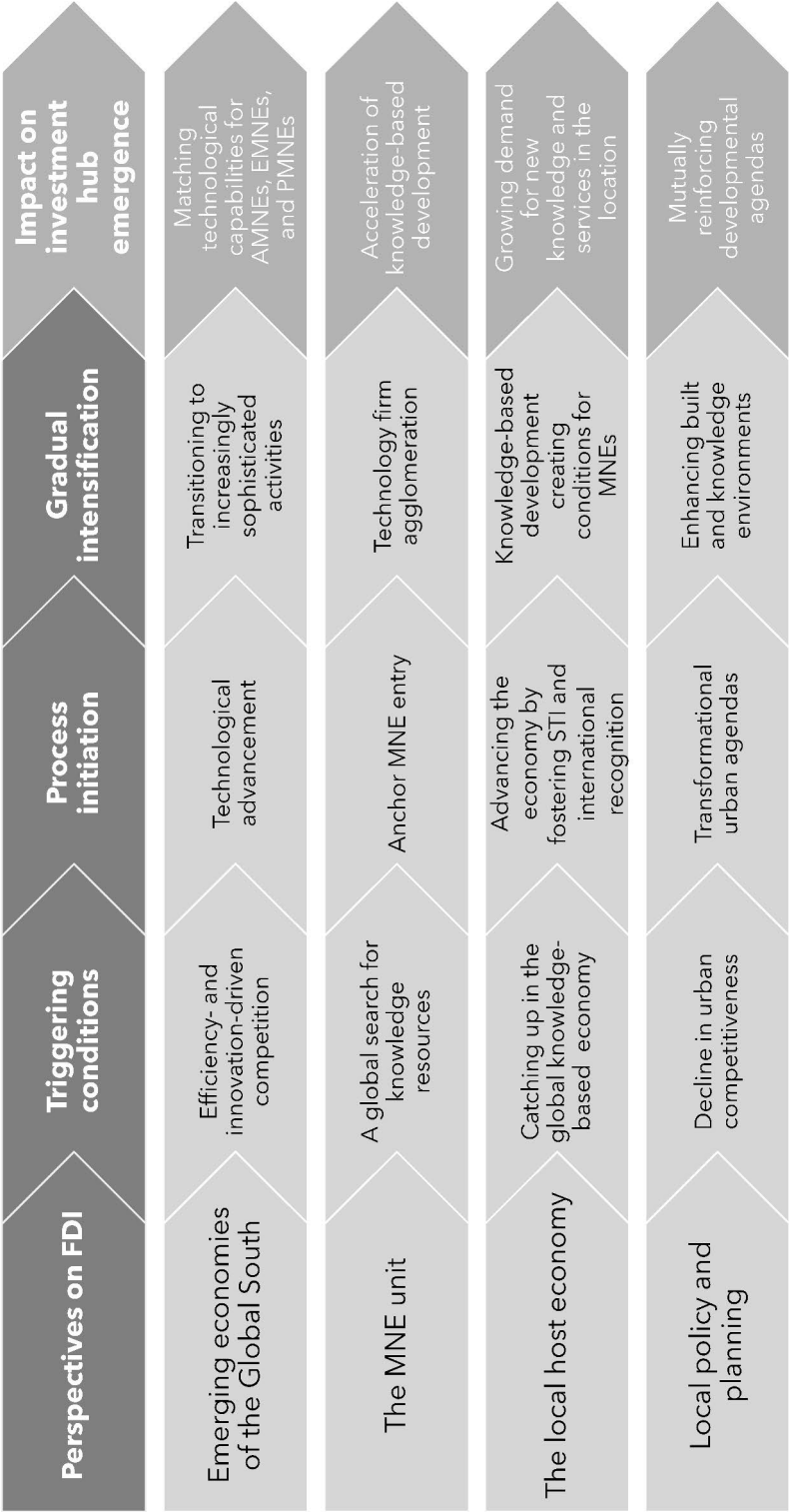


Figure 1. Perspectives on the emergence of Medellín as an investment hub arising from the analyses in this synthesis.

The figure displays relevant aspects of simultaneous and intensifying processes leading to the emergence of Medellín as an investment hub. Identifying the distinct processes at each stage enhances understanding both within and between each perspective studied, revealing their interplay and interconnectedness.

5.1.1 Southern emerging economies in global competition for FDI

The perspective of the emerging economies of the South in global FDI flows recognises the different positions of countries in the world economy. As indicated in section 2.1, it rejects the conventional core-centred view by exploring diverse FDI flows in addition to those from advanced economies, which has been a predominant concern in the literature on FDI in the South. It also addresses the characteristic failure in the literature to differentiate between types of southern countries and thereby enables an analysis of FDI flows from emerging or peripheral countries and of whether their position influences the FDI flow types in which they are involved.

By proposing three types of MNEs on the basis of the type of country of origin (AMNEs, EMNEs and PMNEs), this study broadens the understanding of FDI trends and provides insights into the factors that attract FDI to emerging economies of the South from economies at various levels of development. The research highlights a previously neglected source of FDI for emerging economies—those originating in the peripheral countries of the South by PMNEs. This source may become increasingly significant, as some peripheral economies will likely transform into emerging economies and thus become much more integrated in international economic exchanges. Additionally, it highlights the significant role of intragroup FDI flows between emerging economies and the growth of bottom-up flows from peripheral economies, both of which are rising empirical trends in FDI in the emerging economies of the South.

A-I demonstrates that emerging economies possess efficiency and innovation capabilities, enabling them to successfully compete for diverse global FDI, indicating their evolution into competitive players in the global market with significant potential to attract high-value investments. A-I confirms the general assumption that these economies serve multiple roles in the international division of labour, acting as intermediaries in the diffusion of technology and innovation between advanced and peripheral regions (cf., Wallerstein 1979; Van Hamme & Pion 2012). It also specifically highlights how the diffusion of technology and innovation is notably pronounced in relations between different semiperipheral/emerging economies, where innovation occurs when they invest in each other. The significance of technology and innovation diffusion among emerging

economies, often underemphasised in the literature, suggests that it is crucial for fostering regional innovation and economic growth in the South.

Emerging economies' diverse roles are evident in the investment strategies of various MNE types in that they seek to leverage the capabilities available in emerging economies. The systematic analysis of FDI flows revealed similarities and significant differences in the factors that attract FDI flows from different groups of countries to emerging economies. These nuanced differences provide insights into the strategic decisions of MNEs on the basis of their specific needs and objectives in emerging economies and highlight the relevant factors for attracting specific FDI flows. Technological readiness, a common attractor for the studied FDI flows, exemplifies these distinctions. It emerges not only as a baseline criterion for FDI attraction but also as a differentiator that can draw diverse types of investments. This suggests that enhancing technological infrastructure can have varied impacts on different types of foreign investors with specific characteristics and needs.

For AMNEs, emerging economies meet the required levels of technology absorption, indicating that they allow these investors to find technological capabilities matching their own to carry out routine yet high-standard activities. This compatibility can make emerging economies attractive destinations for fairly routine business operations for AMNEs, potentially increasing FDI inflow from advanced economies and helping to further integrate emerging markets into the global economy. Alternatively, if AMNEs perceive these markets as increasingly competitive for traditional low-cost efficiency-driven strategies, it could lead to a declining inflow of FDI involving AMNEs' routine activities.

For PMNEs, emerging economies serve as environments to source the latest technologies, suggesting that they enable them to catch up technologically and enhance their competitiveness in more developed markets. This trend can accelerate global technological diffusion and foster innovation ecosystems within emerging markets.

For EMNEs, emerging economies offer a level of sophistication that enables them to create original new knowledge and high-value-added products. These intraregional investments can drive substantial innovation and economic sophistication, challenging the traditional view that EMNEs primarily look to advanced economies as sources or enablers of technological advancement (e.g., Cuervo-Cazurra et al. 2015; Giuliani et al. 2016). Instead, it highlights that emerging economies themselves can serve as hubs of innovation and technological development.

A-I's findings underscore the versatility and growing importance of emerging economies in global FDI flows, highlighting the potential of South–South collaborations in generating high-value innovations for both EMNEs and PMNEs. Emerging economies can increasingly play multiple roles, acting as sites for

technological catch-up and sources of innovation. This multifaceted potential could enable them to influence global investment patterns, promoting a more diversified and balanced world economy.

The evidence on the level of sophistication of location factors available in emerging economies helps explain key trends in FDI flows into them. First, the lower growth rate of AMNE flows can be attributed to the provision of advanced factors, rendering emerging economies more expensive as export platforms for AMNEs' (intermediary) products. Second, economic integration is strengthened among emerging economies through mutual and potentially highly specialised FDI flows, a trend similar to that previously observed between core economies (cf., Wallerstein 1979; Van Hamme & Pion 2012). Finally, the rise of a novel trend, FDI flows from peripheral economies, indicates that emerging economies offer PMNEs a possible pathway for catching up and integrating into the world economy.

5.1.2 Knowledge sourcing and creation in the emerging investment hub

The MNE unit and the local host economy perspectives in A-II confirm local governments' vital role in creating strategic resources and facilitating MNE entry by providing access to those resources (cf. Albis et al. 2021; Fromhold-Eisebith 2002; Tse et al. 2021). In Medellín, public sector efforts to foster the transition to a knowledge-based economic model have led to the establishment of advanced infrastructure and innovation facilitation for technological firms. Support for technological firms has enhanced the local knowledge environment, creating favourable conditions for the entry of MNEs seeking resources, markets, efficiency, and strategic assets.

The rise of a local innovation ecosystem alongside the influx of technology firms, bolstered by knowledge-intensive operations by MNEs, has led to a surge in demand for new, externally available knowledge, products, and services within the economy. The growing presence of MNEs in the city has met this demand while further advancing knowledge-based development. This mutual reinforcement highlights the key role of government support in fostering economic development (cf., Barclay & Gray 2001). Local development policies play a dual role: they not only create opportunities within the local economy but also position economies as attractive destinations for MNEs. Embracing global economic trends such as knowledge-based development has amplified this effect, supporting the creation of strategic resources that facilitate local upgrading but also initiate and shape the interplay with MNEs. Effective synchronisation of local and global strategies can significantly enhance local knowledge production and utilisation. This, in turn, enables economies to align with and cater to the knowledge strategies of MNEs (cf.,

Kotabe et al. 2000; Kunnanatt 2013; Pietrobelli & Rabellotti 2005; Van Tuijl et al. 2012), thereby fostering a mutually beneficial environment for economic growth and innovation. The case of Medellín illustrates how proactive governmental interventions can drive innovation and growth in emerging hubs, shedding light on the dynamics between governance, local upgrading, and MNE trends in less-endowed/less-advanced cities.

The activities of MNEs in Medellín, as discussed in A-II, also elucidated previously unidentified trends in MNEs' pursuit of new markets and knowledge resources (cf. Narula & Dunning 2010; Øyna & Alon 2018). These trends indicate the appeal of improving knowledge environments evolving in emerging economies (cf. Tse et al. 2021). Unexpectedly, MNEs with all four strategic motivations entered the city. This challenges the conventional wisdom that MNE motivations undergo a linear progression in a place over time. In other words, it is generally reported in the literature on corporate internationalisation (cf. Dunning & Lundan 2008) and cluster emergence (e.g., Karna et al. 2013; Taube et al. 2019) that MNEs change gradually from resource-seeking at the stage of entry to strategic asset-seeking after operating in a location for a period. The observation in Medellín suggests that diverse strategic objectives can be pursued in emerging cities from the outset. Moreover, these findings indicate that MNEs' advanced strategic motivations (e.g., asset-seeking and knowledge-seeking) are not exclusive to technologically advanced locations, as predominantly reported in the literature (e.g., Awate et al. 2015; Figueiredo et al. 2020; Papanastassiou et al. 2020).

The perspectives of the MNE unit and the local host economy provide a nuanced understanding of how different types of MNEs engage in sourcing and creating knowledge, thereby contributing to knowledge creation in the city. The analysis of the knowledge-intensive activities of MNEs revealed that local knowledge resources are significant for all MNE types and that instances of knowledge creation are beneficial to both the MNE unit and the local economy. In essence, the findings in A-II indicate a correlation between the deepening of knowledge-based development and the city's attractiveness to MNEs. Furthermore, the city's growing reputation as an innovation hub, coupled with the overall presence of MNEs, has fostered the accumulation of talent and knowledge resources within the technology firm community, furthering the city's allure to MNEs.

Market-seeking MNEs uniquely contribute to the knowledge economy by directly fulfilling demand for new knowledge and services. They facilitate technology transfer and knowledge diffusion, which is beneficial for the market-seeking MNEs themselves and their local and international network partners. This alignment with the primary expectations of the local government when implementing policy and planning measures aiming to support knowledge-based

development underscores the significant role these MNEs can play in the local economy.

On the other hand, other MNE types prioritise securing local knowledge resources to bolster their global operations. These resources are vital for their strategies, prompting MNEs to actively influence resource upgrading, thereby strengthening their international pursuits. However, this singular focus primarily benefits the MNEs themselves, which raises concerns for the local economy. The technological activities of MNEs often exploit existing, often limited, local knowledge and public resources, such as skilled labour, advanced infrastructure, services, or innovation support. Instead, their contribution to local knowledge creation seems marginal and indirect. This disparity undermines the aim of local development policies at fostering knowledge creation and knowledge-based development. This observation underscores a fundamental misalignment between the strategic orientation of some MNE types (seeking resources, efficiency, and strategic assets) and the overarching objectives of local development policies in emerging hubs.

The identification of specific activities undertaken by MNEs with different strategic motivations and their role in knowledge creation in the context of Medellín reveals diverse strategies employed in the emerging investment hub and how they differ, even radically, from those typically analysed in more advanced (cf. Coveri & Zanfei 2023; Dunning & Lundan 2008) and better-endowed contexts (e.g., Fromhold-Eisebith 2002; Kleibert 2015). Understanding this distinction helps challenge prevailing assumptions that typically associate *knowledge creation* in host locations with strategic asset-seeking MNE activities and local learning, regional upgrading, and knowledge creation processes with efficiency-seeking MNE activities in low-income host economies (cf., Fromhold-Eisebith 2002).

Notably, A-II draws attention to the potential for the knowledge creation of market-seeking MNE activities, which are often disregarded in the literature (e.g., Mudambi & Santangelo 2016). Even if the sample is small, it is interesting that, in Medellín, these hold the most significant potential for knowledge creation, benefiting from synergies in meeting product and service demands within the local economy. This insight expands the general assumption that posits the fit between MNE strategies and location-specific factors is a determinant of the potential for local knowledge creation and diffusion (Narula & Dunning, 2010). In the case of the emerging investment hub, the potential for knowledge creation is influenced by the unfolding of knowledge-based development in the economy and the subsequent demand for the knowledge and services that market-seeking MNEs provide.

In emerging investment hubs, market-seeking MNEs could trigger cumulative upwards processes in the economy (cf. Myrdal 1968, 1847). As local conditions, including the knowledge environment, improve, the economy attracts FDI, gains

international attention, and gradually increases FDI flows, fostering further improvements. Such virtuous cycles can be mutually beneficial for MNEs and the local economy. The findings indicate that the potential contribution of different types of MNEs to local knowledge creation in emerging hubs depends on context-specific location factors that MNEs find advantageous. These factors, in turn, influence the synergies that local contexts can offer to MNE operations.

5.1.3 Entering global competition for FDI supported by policy and planning implementation

The local policy and planning perspective opens the discussion of how cities of the South can actively prepare to attract and benefit from the high-value activities of MNEs. The process analysis in A-III reveals the connection between unfolding processes related to knowledge-based economic development, albeit incipient, and a city's capacity to attract MNEs' technology-driven activities. It highlights the significance of two types of concurrent processes: those linked to urban socioeconomic transformation aiming to improve living conditions and those related to catching up with the global economy by adopting internationally circulating trends. On the basis of the analysis of the intricate processes involved in local policy and planning implementation relevant to FDI, A-III posits that understanding key elements and the interrelation of these processes is crucial for comprehending the degree of urban transformation necessary to attract FDI.

Centrally, A-III helps unveil how an emerging city of the South can enter global competition for FDI by implementing a planning concept. This finding shows that the features that enhance a city's attractiveness to MNEs go beyond specific support for technology firms, such as infrastructure or tailored public policies and services. They encompass broader urban transformations involving complex assemblages of local planning and policy practices, actors, and institutions related to the overall development of the city. The systematic analysis of the implementation of an innovation district in Medellín reveals the urban processes that preceded and/or progressed alongside the influx of MNEs to the city. These processes originated as policy and planning responses to address the city's declining competitiveness, widespread socioeconomic deterioration, and isolation and evolved into strategic urban agendas, catalysing major urban transformation. Together, these agendas not only help address immediate challenges but also set the stage, ultimately leading to the emergence of Medellín as an investment hub.

The transformations in Medellín started with a focus on what I term here *social healing*. The main concern was to address the socioeconomic exclusion faced by an urban population residing in marginalised informal settlements. The comprehensive approach to social healing included education and entrepreneurship programs

alongside essential public infrastructure and services. Notable examples of the latter include emblematic high-quality urban interventions within informal settlements such as schools, library parks, cable cars, and open-air electric stairs—commonly recognised as social innovations (cf. Brand & Dávila 2011; Dolan 2020). While these radical urban interventions did not eliminate poverty and inequality in the city (cf. Betancur & Brand 2021), they did create a stark contrast with the conditions prevalent in the extensive impoverished informal settlements. These interventions played a crucial role in shaping the image of Medellín as a progressive city. Substantial efforts to improve living conditions through social innovation had a cumulative effect, garnering international attention and establishing the city as a leading social innovator. After decades of turmoil in Medellín, efforts aimed at healing the highly segregated and unequal socioeconomic structure began to yield transformative outcomes across other spheres of activity.

The city's positive transformation and international recognition were further enhanced by strategic initiatives in city branding, marketing, and the promotion of international corporate tourism. The *internationalisation* agenda played a pivotal role in propelling Medellín's ongoing transformations. Through international corporate tourism, the city has a unique platform to showcase its progress in social conditions to influential political and business leaders. Social innovations, coupled with international recognition and awards, became integral to city branding and marketing strategies. These internationalisation efforts not only helped break through international isolation but also positioned Medellín prominently on the international scene. Now recognised as a leading social innovator with a progressive urban agenda, the city has found itself on an upwards development trajectory.

Simultaneously, policy and planning initiatives were strategically employed to address the lack of urban competitiveness and initiate Medellín's transition from a manufacturing economy to a *knowledge-based economy*. Among the initiatives, the implementation of an innovation district was vital. As discussed earlier, the progress observed in the other spheres of activity, facilitated by the support of broad-based urban coalitions, played a vital role in realising the innovation and business centre—the foundational complex within the innovation district. The centre, strategically aligned with the Science, Technology, and Innovation agenda, significantly enhanced Medellín's attractiveness to foreign firms. Between 2008 and 2017, the implementation of the innovation district reached an early stage and became the entry point for knowledge-intensive MNEs. Prior to this period, Medellín had a limited presence of foreign firms. For MNEs, collective achievements across diverse spheres of activity were indispensable in shaping Medellín's value proposition as an attractive operating environment.

In summary, Medellín's transformation has been driven by concerted and cumulative local efforts across different urban agendas as well as the implementation

of various policy and planning solutions. These efforts have significantly improved the city's social, physical, and knowledge environments, making it attractive for MNEs. The influx of different types of MNEs engaged in knowledge-intensive activities has validated and advanced Medellín's developmental trajectory. MNE attraction remains fundamental to maintaining Medellín's progression, spanning crucial initiatives such as social healing, knowledge-based development, and internationalisation efforts.

5.2 Towards a theoretical synthesis

The theoretical contributions of this dissertation stem from the multiperspective approach, which enables the identification of cumulative and interrelated processes underlying the attractiveness of cities in emerging economies to FDI. By employing this approach, the findings of the study, which stem from the chosen perspectives, jointly offer insights for understanding how investment hubs may emerge. The following discussion draws together these insights and presents a stage model of the emergence of an investment hub, drawing both from the quantitative analysis of global southbound FDI and from the Medellín case studies.

5.2.1 Emerging economies and FDI flows

The analysis in A-I captures the structural position of countries within the world economy (cf. Van Hamme & Pion 2012) and its impact on the degree to which emerging economies in the South attract diverse FDI flows. The general criteria representing advantages that attract MNEs to emerging economies serve as background information for understanding related ongoing processes at the local scale and provide a compelling rationale for conducting more specific analyses that delve into the characteristics and behaviours of types of MNEs within a local economy emerging as an investment hub.

The findings in A-I indicate that emerging hubs are initially more likely to attract FDI flows from advanced economies, primarily due to the prevalence of AMNE investments and relatively less stringent location factor requirements than those of EMNEs. The presence of AMNEs in an emerging investment hub can signal the availability of favourable advanced factors to other MNEs, thereby enhancing the location's attractiveness (cf. Patibandla & Petersen 2002; Täube et al. 2019). Attracting intragroup investments from emerging economies by EMNEs requires greater knowledge capacity in the location than investments by AMNEs. Additionally, these investments may demand persistence, as higher value-creation activities typically emerge after sustained engagement (cf. Buckley et al. 2023; Cantwell 1987), although local-scale analyses reveal that MNEs engaging in both

higher and lower value creation activities may concurrently enter an emerging investment hub. Emerging hubs with advanced characteristics conducive to developing innovation activities are more likely to attract less common but rapidly growing FDI flows from EMNEs. In contrast, attracting FDI flows by PMNEs may remain infrequent because emerging hubs are not yet well-established contexts for MNE operations and PMNEs' sensitivity to host location volatility.

These findings underscore the impact of structural differences between country groups on the preferences of MNEs from diverse origins in emerging economies. Furthermore, they reveal the array of diverse and specialised factors that emerging investment hubs must develop, indicating the challenges involved in providing for all these needs. The theoretical framework outlined in A-I emphasises understanding these structural differences and the unique requirements of diverse MNEs, which is essential for the evolution of investment hubs in emerging economies.

Emerging economies must meet specific fundamental criteria to be integrated into the global economy through FDI, including surpassing basic requirements akin to factor-driven economies and providing efficiency-enhancing (Sala-i-Martin et al. 2014) and innovation-related factors. Having explored the attractiveness of emerging economies for MNEs across various origins, it becomes evident that different types of MNEs prioritise distinct sets of factors when considering investments in these regions. To compete for the lion's share of investments in the South, emerging economies aspiring to attract AMNEs should provide efficiency-enhancing factors, such as an efficient export market, robust international trade relations, and a high level of technological readiness, demonstrated by the capacity for technological absorption at the firm level. Similar country factors attract FDI flows from PMNEs, a rare yet growing investment type in emerging economies. However, PMNEs prioritise domestic markets, stability, and access to the latest technologies more than other MNE types do. On the other hand, to attract flows from the same country group by EMNEs, emerging economies must possess innovation capabilities alongside meeting fundamental requirements common to all investors.

Expanding the analytical scope to better understand the factors driving FDI location decisions into emerging economies to include various types of FDI flows has interesting theoretical implications. It deepens the understanding of emerging economies as destinations for global investors and identifies specific factors that influence FDI trends and, at the same time, the emergence of investment hubs. By examining different types of MNEs in terms of their strategic motivations, the complexities of FDI patterns in emerging economies can be better explained. This nuanced understanding contributes to advancing theoretical discussions in international business, economic and urban development, and location specialisation by providing empirical evidence and a framework that connects global trends with phenomena at the local scale.

5.2.2 The influence of the emerging investment hub context on MNE strategy and knowledge creation

The insights gleaned from A-II deepen the understanding gathered in A-I about the intricacies related to FDI flows within emerging economies. They emphasise the importance of nuanced analyses and diverse perspectives. A-II confirms that emerging economies' development level and position in the global economy shape their competitive advantage in global FDI distribution (cf. Blonigen 2005; Dezzani & Johansen 2012; Ramírez-Alesón & Fleta-Asín 2016; Van Hamme & Pion 2012).

By zooming into the local scale (A-II), the study surmounts a common limitation in international business studies, which typically analyse MNEs' strategic motivations at the country scale. As some international business scholars have recently noted, this approach keeps analyses decontextualised from the particular characteristics of smaller scale locations that actually influence MNE strategies (e.g., Beugelsdijk & Mudambi 2013). A-II examines the types of operations that MNEs' strategic motivations foster (a) at the local scale and (b) in a city emerging as an investment hub within an emerging economy. It identifies motivations that either increase MNEs' knowledge or leverage their existing knowledge. The Medellín case illustrates how MNEs with each type of strategic motivation can find advantages in an emerging investment hub despite its less developed standing.

The context-specific analyses in A-II indicate that each type of motivation leads to activities, relationships, and benefits that are unique to its specific context and not generalizable across diverse contexts. Similarly, the relationship between strategic motivations and the potential for knowledge creation varies across locations. In Medellín, the greatest potential for knowledge creation arises not from specialised activities within MNE structures but predominantly from MNEs' specialised activities within the local economy involving local firms and partners. These findings suggest that MNEs adapt their activities and relationships to align with specific contextual conditions, highlighting a previously overlooked aspect in existing research: the most significant advantages for knowledge creation in each location could stem from different motivations.

Furthermore, findings from analyses in a specific context suggest a more nuanced understanding of the relationship between MNE strategy and knowledge creation. While it is widely recognised that location advantages influence MNEs' location strategies (cf. Buckley & Casson 2020; Buckley & Munjal 2017; Tse et al. 2021), A-II shows that these advantages also shape the types of activities undertaken and thereby their knowledge creation potential. This understanding challenges prevailing assumptions in the literature by revealing a dynamic relationship between location advantages and MNE strategies, thereby questioning the efficacy of aggregate, quantitative approaches at the country level to identify FDI determinants and MNE motivations. Consequently, these findings indicate the

necessity of extending the study of MNE strategic motivations to local scales and diverse contexts.

The Medellín case illustrates the influence of the location on MNE strategy and knowledge creation. Contrary to expectations (cf. Dunning & Lundan 2008), already at the stage of entry in Medellín, MNEs had the range of strategic motivations, including those related to advanced knowledge-creating activities, indicating that they were ready to engage in such undertakings in the local economy. This suggests a less deterministic association between location types and MNE strategies, including knowledge-creation processes and potentially progressive engagement. This finding highlights the adaptability of MNEs to diverse local environments, allowing for the emergence of various strategies tailored to specific contexts. Additionally, it underscores the growing importance of rapid technological change in less advanced locations for MNE activities, including knowledge creation, particularly under the increasingly volatile conditions facing globalisation. These changing conditions may gradually accelerate the strategic diversification of MNEs in new contexts (cf., Øyna & Alon 2018) and accentuate the increasing global importance of diverse host locations (Asheim et al. 2006, 1).

The approach taken in A-II to assess the potential for knowledge creation within heterogeneous MNE activities from two perspectives also offers important theoretical insights. Unlike conventional approaches that focus primarily on MNEs, specific types of activities (advanced or low-value), or their long-term engagement within technology regions (cf. Fromhold-Eisebith 2002; Karna et al. 2013), this study underscores the importance of understanding the diversity among MNE units, their unique local environments, and their relationships. Furthermore, by considering both the perspectives of the MNE and the hosting local economy, the approach highlights the nuanced dynamics of knowledge creation and technology transfer within host environments. This shift in focus emphasises the complex interplay between MNEs and host locations, contributing to a more comprehensive understanding of how different types of MNEs may leverage knowledge and technology within specific locations and their effects.

Therefore, A-II's findings suggest theoretical propositions about knowledge creation across different strategic motivations. More generally, it is possible to suggest that MNEs seek knowledge resources and create knowledge in less technologically advanced locations, with strategies and resources differing from those in more advanced settings. Thus, understanding the dynamics of MNE knowledge creation requires a detailed analysis of both local conditions and the MNE strategy, as different strategic orientations and contexts lead to varying approaches to knowledge creation. A-II elucidates the reciprocal influence between a specific location and MNE knowledge creation. A location's specific characteristics and development trajectory, such as Medellín's endogenous

knowledge-based development, play a significant role in attracting MNEs with diverse motivations. This attraction may contribute to varying degrees to local knowledge creation and advancement. The findings suggest that some MNEs benefit from actively participating in local knowledge creation, thereby directly contributing to technological advancement within the knowledge-based economy. Conversely, other MNEs benefit from prioritising the generation of local knowledge resources primarily for their internal use and advantage. This highlights the complex interplay between MNE motivations, the local context, and knowledge creation dynamics, offering insights into how different types of MNEs influence and are influenced by the local environment.

At this fairly early stage of knowledge-based economic advancement and sectoral specialisation in Medellín's recent development, the focus has been on attracting ICT firms in general. However, learning processes within specific organisations and the broader economy can be expected due to the increased agglomeration of technology firms. These processes have the potential to foster more intensive local interactions and collaborations with technology firms, leading to increased knowledge creation similar to what has been observed in more advanced and more specialised contexts (cf. Fromhold-Eisebith 2002; Karna et al. 2013). A-II confirms that exposure to MNEs' activities in the local economy can enhance and help cocreate existing location-specific advantages (cf. Lorenzen et al. 2020). In turn, the improved location advantages contribute to advancing local knowledge creation in the host economy.

5.2.3 How is Medellín emerging as an investment hub?

The analysis of the causal process leading to the establishment of an innovation district in Medellín (A-III) shows that understanding FDI attraction requires considering development within the broader urban socioeconomic context. The need for comprehensiveness was evident in the diverse spheres of action observed within the city, where a myriad of transformative processes and measures have taken place. These are reinterpreted here in broad terms as *domains of urban transformation relevant for FDI attraction*. Figure 2 illustrates these domains, their interplay, and their joint contribution to Medellín's attractiveness for FDI. The initiatives occurring in these different domains set in motion a positive transformation in Medellín's overall development, gradually shaping a favourable operating environment with characteristics that render the city sufficiently appealing for MNE entry. Ultimately, they contribute to its emergence as an FDI hub.

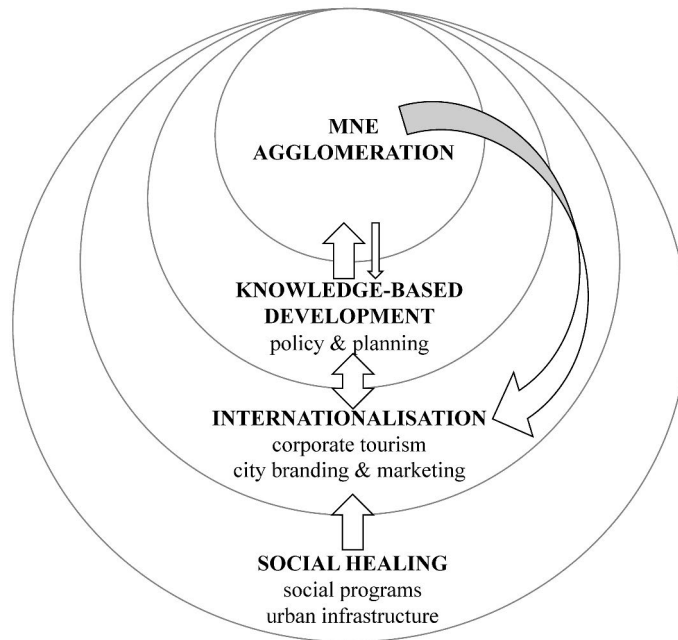


Figure 2. Complementary domains of urban transformation involved in Medellín's emergence as an FDI hub.

The process approach undertaken in A-III serves in this synthesis to shed light on the urban transformations a city in an emerging country may need to undergo to establish itself as a suitable environment for the knowledge-intensive activities of MNEs. Additionally, it underscores how implementing internationally circulating policy and planning ideas can facilitate the emergence of an investment hub. The amalgamation of diverse urban agendas, exemplified in the case of Medellín, was essential to address multiple challenges faced by the city, including the creation of solutions to the problems of underserved communities while simultaneously advancing the city's aspiration to become a significant player in the knowledge economy. Interestingly, the city's previous notoriety as a "no-go zone" unexpectedly served as an advantage when promoting its transformative social innovations on the global stage. This enhanced reputation of the city later played a pivotal role in positioning the innovation district as an attractive destination for incoming MNE operations.

5.2.4 How does a city emerge as an investment hub in the Global South?

This section integrates the findings arising from the four perspectives in this synthesis, offering insights into the processes and intricate dynamics driving the

emergence of an investment hub. Drawing from the empirical analysis conducted in A-III, several key insights emerge, providing a foundation for theory development. In particular, the study emphasises the importance of interwoven processes related to implementing policy and planning assemblages (cf. Healey, 2013, 1514, 1516; McCann & Ward 2012, 2013). These processes are instrumental in shaping the location factors crucial for attracting FDI to emerging economies, as evidenced in A-I and A-II. The findings, as shown in Figure 2, serve as building blocks for theoretical propositions concerning the causal relationships between distinct processes of urban transformation and the evolution of a city such as Medellín into a suitable destination for diverse knowledge-intensive MNEs. These propositions are synthesised in a conceptual model proposed here. The conceptual model aligns with Welch et al.'s (2011) view on contextualised explanations and what they call “contingent and limited generalisation” (ibid., 745). While informed by the Medellín case, the model outlines a set of general categories of strategic activity crucial for understanding the broader phenomena surrounding the emergence of less advanced cities in emerging economies as investment hubs. The model offers a framework for understanding these general categories as essential to the evolution process. They are dubbed here *Preparation*, *Promotion*, *Catching up*, and *Attracting MNEs*. It can be proposed that these general categories of strategic activity, inferred from the domains of urban transformation identified in A-III's empirical analysis, as discussed in section 5.2.3 above, are relevant to other less advanced cities in emerging economies. However, the specifics within each category are city specific. In what follows, the categories of the conceptual model are presented and illustrated via insights gleaned from the Medellín case.

(a) *Preparation*

This process involves measures taken to address underlying socioeconomic disparities, laying the essential groundwork for broadly based socioeconomic development and thereby allowing the cultivation of more sophisticated location factors. While basic location factors such as security (including the cost implications of terrorism threats for businesses) are rarely featured in the literature as determinants for FDI flows into emerging economies, insights from A-I suggest that such institutional burdens can deter risk-averse PMNEs. Additionally, A-I and A-II indicate that efficiency-enhancing factors are imperative for attracting any type of FDI flow. These findings imply that basic factors (institutions, infrastructure, the macroeconomic environment, and health and primary education; Sala-i-Martin et al. 2014, 9) must be adequately met for the emerging economy to transition into a more advanced development stage conducive to attracting FDI. This entails indications of striving towards a socially inclusive, fair, and stable society, a coherent vision for urban development, adequate physical infrastructure, macroeconomic stability, and a healthy and skilled workforce.

In Medellín, efforts were made to set in motion a process of social healing to address the challenges stemming from the marginalisation of large communities. The city grappled with a sizable, segregated population, a consequence of significant rural–urban migration, which faced dire circumstances due to precarious urban conditions, economic recession, high unemployment rates, and the pervasive influence of drug trafficking, leading to crime, social unrest, and (inter)national isolation. Improving conditions for this marginalised population (see more on social healing in section 5.1.3 and Figure 2 in 5.2.3) initiated an upwards process, gradually mitigating social unrest and creating increasing opportunities for advancement. The benefits of social healing extended beyond the marginalised communities, contributing to overall stability in the city, promoting socioeconomic and urban integration, and fostering new opportunities. This foundation paved the way for other transformative processes to unfold. While Medellín’s journey towards improved equality is ongoing and requires time for tangible improvement to materialise (cf., Franz 2017), failure to address some of the most fundamental urban issues would have hindered economic prospects. It could have deterred FDI or attracted exploitative MNE ventures characterised by factor-driven or resource-seeking activities, which provide limited benefits to the local economy (cf. A-II). By prioritising development towards a cohesive society, Medellín not only fostered local development but also increased the potential to attract diverse FDI flows (A-I) and advanced MNE activities with the potential for mutually beneficial outcomes (A-II).

(b) *Promotion*

This process involves efforts to overcome isolation and disconnection from nonlocal economic exchanges by drawing attention to the location, facilitating the movement of people, and reestablishing economic relations across borders. International connectivity is paramount for cities to 1) engage in the global production and circulation of knowledge, products, and services; 2) keep pace with economic processes (cf. Buckley et al. 2020; Lorenzen & Mudambi 2012); and 3) attract MNEs to access advanced knowledge flows, technology, and networks (cf. Castellani et al. 2022; Sala-i-Martin et al. 2014). In emerging economies, only a few cities possess exceptional pools of knowledge resources, such as the thousands of employable English-speaking engineers or skilled labourers found in India and the Philippines, which can draw international attention and facilitate the emergence of technologically advanced or service hubs (cf. Kleibert 2014, 2015; Lorenzen & Mudambi 2012; Täube et al. 2019). For most cities, building urban attractiveness requires a different approach. Rather than relying on existing knowledge resources, they create distinctive conditions for their advancement. By championing significant and well-supported local development initiatives, cities can increase their attractiveness, draw attention, and foster new economic connections.

In the Medellín case, an internationalisation agenda deliberately showcased the city's progress in social healing, a remarkable transformation given its notorious history as a drug cartel capital. This makeover coined the label "Medellín miracle" (Economist 2014; Franz 2017) to mark a stark departure from the city's previous image. A-III highlights the significant role of city promotion in Medellín's internationalisation. Large international events and corporate tourism initiatives have garnered attention from domestic and international audiences, thereby placing the city on the global stage. These efforts also highlighted social progress that resonated with prominent stakeholders, including business leaders and urban planners worldwide. Over time, Medellín's promotional endeavours expanded to trade and investment promotion, further enhancing its international profile.

(c) *Catching up*

This process entails integrating into the global economy by conforming to or following international trends. As highlighted in A-I, two crucial factors determine the ability of emerging economies to compete for FDI flows: the level of technological readiness and innovation capability. Cities respond by various means, including adopting policy and planning strategies that can enhance their knowledge resources and foster knowledge-based development, a trend increasingly dominant in the global economy (A-III). Additionally, as A-II underscores, fostering endogenous knowledge-based development is crucial for attracting, enhancing, and effectively integrating knowledge and technological resources from MNEs. Building upon these insights, A-III further suggests that MNEs can play a crucial role in accelerating the implementation and enhancing the effectiveness of relevant policy and planning ideas, emphasising the importance of potential synergies between cities and MNEs in driving development initiatives and leveraging global trends.

The insights gleaned in A-III regarding mobile policy and planning ideas to foster catching-up processes in the global economy prompt a re-evaluation of prevailing notions in the scholarly discourse. Specifically, the literature on knowledge-based development and innovation districts often assumes the availability of advanced knowledge resources (e.g., Pique et al. 2019; Yigitcanlar et al. 2008), thereby overlooking the potentially significant role of MNEs in creating and enhancing knowledge resources in contexts where such resources are scarce. Emerging investment hubs are a case in point. Analyses of less developed contexts in this literature are preoccupied by exposing the unequal distribution of benefits associated with the adoption of externally originating planning concepts, often favouring powerful economic actors such as real estate operators and foreign investors, including MNEs (cf., Arenas et al. 2020; Bertelli 2021; Goicoechea 2018; Lederman 2020; Lederman & Whitney 2022). Instead, the analyses presented here advocate for a nuanced assessment of the impacts of adopting externally originating ideas alongside carefully considering the role of MNEs in facilitating catching-up

processes. While externally originating ideas can serve as catalysts for advancing a city's economic development and attracting knowledge resources from MNEs, the findings in A-II underscore that not all MNEs can significantly contribute to catching up processes. Furthermore, the efficacy of public sector initiatives to attract and enhance knowledge resources appears intricately linked with broader societal development in cities (A-III).

The case of Medellín offers theoretical implications regarding the role of innovation districts in driving endogenous knowledge-based economic development. By implementing the innovation district concept, Medellín strategically facilitated the operation and collaboration of technology firms, thereby fostering the organic growth of a local innovation ecosystem (A-III). Furthermore, establishing the innovation district enhanced the city's appeal as a destination for foreign MNEs seeking to engage in knowledge-intensive activities (A-II). Some of these activities introduced specialised knowledge and technologies to the local economy, supporting technological readiness and innovation processes. This confluence of factors—the facilitation of technology firms' operation and collaboration within the innovation district, the enhanced appeal of the city for foreign MNEs engaging in knowledge-intensive activities, and the introduction of specialised knowledge and technologies to the local economy—propelled Medellín to achieve the levels of efficiency and innovation necessary to attract diverse flows of FDI, akin to those found in A-I exploring FDI flows into emerging economies.

Moreover, the combined impact of promotional activities, along with ongoing efforts in social healing, set the stage for simultaneous and subsequent transformations across domains within the city. This cumulative effect not only positioned the city competitively but also enabled it to vie for MNEs' strategic resources. As a result, Medellín's increasing international recognition for its social progress and renewed appeal drew people from diverse backgrounds, facilitating the exchange of knowledge and services across borders. The steady improvement of international connections has been instrumental in Medellín's transition towards an efficiency-driven economy, thereby bolstering its overall attractiveness to potential investors. Such a transition is a prerequisite for attracting FDI flows to emerging economies, as indicated in A-I. Ultimately, the combined efforts at social healing and internationalisation (sections 5.1.3 and 5.2.3 Figure 2) significantly contributed to FDI attraction, as observed in A-II and A-III. Furthermore, they paved the way to improve local technological readiness and enhanced the city's potential to attract advanced knowledge resources from MNEs.

(d) *Attracting MNEs*

This process arises from various transformative processes across different urban activity domains, highlighting the interconnected nature of the transformative processes that advance local development and contribute to MNE attraction in line

with the aims of this synthesis, as discussed earlier. These processes include addressing social inequalities, leveraging the city's strengths to foster mobility and economic relations, and implementing urban policies and planning strategies aligned with global economic trends in targeted sectors. The empirical analyses in A-I, A-II, and A-III underscore that individual local government initiatives in isolation or one sphere of activity alone are insufficient for transforming a city into an investment hub. Instead, a coordinated and comprehensive approach encompassing urban policies and planning strategies that support gradual urban transformation is imperative. This approach should span from addressing foundational improvements benefiting all citizens to developing targeted measures supporting economic specialisation in specific industries.

The success of Medellín in becoming an attractive destination for MNEs in the ICT sector and fostering economic growth can be attributed to its strategic utilisation of its historical reputation to propel future initiatives. By adopting a comprehensive and coordinated approach to urban development, embracing international influences, and prioritising knowledge-based development, the city has created an environment conducive to knowledge-intensive activities and MNE entry.

In this section, the conceptual model of the emergence of investment hubs in the South demonstrates that the strategic coupling between cities and relatively technologically advanced MNEs is multifaceted, extending beyond a mere alignment of interests, as suggested by many authors (e.g., Kotabe et al. 2000; Pietrobelli & Rabellotti 2005; Van Tuijl et al. 2012). It also includes systemic urban change. In contrast to the simplistic portrayal of strategic coupling suggested in the literature (e.g., *ibid.*), this synthesis reveals the evolution of this process within a complex ecosystem, necessitating political, societal, and economic transformations. Moreover, the model elucidates the significance, role, and interplay of host-region qualities, institutional thickness and support, and an interactive learning environment (cf., Amin & Thrift 1994; Fromhold-Eisebith 2002; Vang & Asheim 2006) in fostering investment hub development. While certain foundational elements may already exist within a less advanced city of an emerging economy, such as financial resources, a skilled labour force, a set of industries, and universities, the emergence of investment hubs goes beyond mere resources being present (cf., Fromhold-Eisebith 2002; Humphrey & Schmitz 2002; Kleibert 2015) or supportive policies to benefit firms and knowledge systems being in place (cf., Corredoira & McDermott 2014; Van Tuijl et al. 2012). A broader cohesive approach is needed. Thus, the complexity of the factors involved in the emergence of investing hubs highlights the need for a comprehensive understanding of city-relevant dynamics at play in the process.

The conceptual model developed here can be proposed to hold relevance for aspiring cities in emerging economies of the South seeking to become investment

hubs. It offers explanatory *clarity* regarding the combined conditions across general transformative processes crucial to their emergence as investment hubs. The Medellín model, with four domains of urban transformation, serves as a concrete example illustrating these processes. However, it is specific to Medellín's unique history and circumstances and is not a one-size-fits-all prescriptive model for other southern cities. To better understand the diverse paths of urban transformation that can foster FDI attraction sufficient for the emergence of investment hubs, additional in-depth case studies are imperative. These studies could explore the intricacies of content, relations, and the coevolution of processes within the general transformative processes of the conceptual model. They could help reveal alternative paths of urban transformation leading to the emergence of investment hubs and allowing for meaningful comparisons.

5.3 Practical implications

This study provides a conceptual model for investment hub emergence that integrates diverse perspectives of FDI in the emerging economies of the South. The understanding gained from the study can help tailor policies that better engage with MNEs in these economies. These policies can consider local needs and broader global trends influencing FDI flows. Policymaking has been challenging due to overly general or excessively specific understandings of FDI in the South. Studies often lack detail concerning FDI flows and host locations, whereas others focus on unique locations that do not reflect the realities of most others. This disparity has hampered the transferability of insights into FDI across different settings in emerging economies. Instead, this study can provide policymakers with insights into some key issues in developing cities as investment hubs and enhance the positive impact of MNE presence.

The analytical framework of the study for understanding the emergence of investment hubs within the broader context of urban development provides some detail and specificity needed for strategic policymaking. The framework considers different types of MNEs (AMNEs, EMNEs, and PMNEs), MNE strategies in local contexts, and the impact of policy and planning on MNE attraction. This understanding enables policymakers to anticipate policy impacts by considering city-specific location factors attracting MNE types and the effects of MNE strategies in host contexts. Additionally, it allows for planning urban interventions that foster productive interactions with MNEs that better align with specific urban development goals.

Moreover, leveraging EMNE investments can be particularly beneficial for emerging economies. Not all FDI flows offer the same advantages; investments from other emerging economies by EMNEs may offer more significant potential benefits

than those from other origins. These benefits include fostering technological advancement through collaborative innovation in host economies. Policymakers could align their strategies to attract these specific FDI flows by incorporating insights into policy frameworks, such as trade and investment agreements, as well as investment promotion and innovation strategies. Creating favourable conditions for EMNEs could promote collaboration between innovation systems and support the development of location factors that are particularly attractive to them.

Furthermore, as presented in the study, understanding MNE strategies in less advanced cities of southern emerging economies is crucial for guiding policymakers in their potential impacts on fostering local capabilities, knowledge creation, and broader developmental goals within local government objectives. It can aid in managing their influence and crafting context-sensitive policies that consider the strategies of MNEs operating within their jurisdictions. Recognising which MNEs might be most valuable on the basis of expected local impacts and specific circumstances can help decide whether to incentivise or discourage certain types. The study also cautions against the assumption that benefits derived from MNE strategies in technologically advanced emerging locations can be replicated in less developed locations.

In addition, maintaining public support for knowledge-based development remains essential for aspiring and emergent investment hubs. The Medellín case highlights the importance of such support in attracting the knowledge-intensive activities of MNEs with diverse strategies. Prioritising market-seeking MNEs can hold promise for advancing knowledge-based development. These MNEs have the potential to accelerate local knowledge creation and development, fostering virtuous cycles where FDI flows contribute to local knowledge creation, integration into international and local production, and further advancements in (knowledge-based) development, prompting new investment cycles. However, policymakers must continuously monitor MNE strategies over time to ensure that policies remain aligned with attracting and supporting those that best meet the current needs and prospects of the local economy.

Finally, coordinating policy and planning initiatives is essential for improving local conditions, fostering industrial renewal, and attracting the knowledge-intensive activities of MNEs, particularly in the context of catch-up processes. The study shows that the systematic implementation of broad-based and tailored policy and planning initiatives can enhance a local economy's inclusiveness, openness, and knowledge environment. This approach facilitates catching-up processes and incentivises technological operations, including those of MNEs. By doing so, policymakers increase the likelihood of engaging MNEs, sustaining their presence, and advancing the local knowledge environment.

For corporate managers, this study provides insights into the resources that MNEs from different origins seek in emerging economies (A-I). This understanding allows managers to better align their strategies with local opportunities and challenges. Additionally, the study presents specific examples of knowledge-intensive MNE operations in the ICT sector within an emerging investment hub (A-II), highlighting the advantages that such an environment can provide for enhancing MNE competitiveness. *Emerging investment hubs* host new and growing concentrations of technological firms, evolving innovation ecosystems, and dedicated public organisations that foster collaboration and innovation. These combined factors contribute to expanding niche markets driven by unfolding *knowledge-based development*. This dynamic environment creates a demand for knowledge, which is often scarce or nonexistent locally. MNEs can tailor their competencies to meet the needs of these fast-growing environments and leverage these competencies in similar contexts.

5.4 Limitations and future directions

The primary limitation of this study arises from data constraints. In analysing global FDI flows in A-I, the examination was confined to the country scale and a shorter timeframe than initially intended, as outlined in section 3.2. While FDI data are available at the city level, the absence of corresponding data on location factors restricted the possible depth of analysis of FDI flows. The analysis then relies on aggregated FDI flows to countries and country-scale location factors. This limitation prevents a detailed examination of how specific city-level factors in emerging economies contribute to FDI attraction and the emergence of investment hubs. Understanding which local factors are most influential in attracting FDI requires more detailed data that capture variations across cities. If suitable data become available, future research can explore FDI distribution at the subnational scale, providing better insights into different city types, varying industrial structures, and the sectors and activities involved in diverse FDI flows to emerging economies.

Data availability also poses challenges for local-scale analyses. The difficulty of accessing data on MNE units led to a relatively small sample size, and the lack of primary data on MNE local partners required inferences about the advantages that local partners gain from these relationships. The limited sample size resulted in inconclusive comparisons of MNEs from different origins. There were not enough AMNEs, EMNEs and PMNEs to compare their local strategies and build on the findings in A-I concerning types of southbound FDI flows and their influence on the investment hub and, vice versa, the investment hub effect on AMNEs, EMNEs and PMNEs. Future research can address this limitation by comparing the strategies of AMNEs, EMNEs, and PMNEs. Longitudinal analysis can provide insights into their

investment patterns in locations of emerging economies. Network analysis can examine their local relationships, enhancing the understanding of knowledge creation and collaboration dynamics in these southern cities. These analyses can improve the understanding of diverse foreign investment and MNE operations and their effects on local economies in the emerging South.

Additionally, the focus of this study on a single case—a city in an emerging economy of the South—limits the generalizability of its findings due to the city's unique historical, sociopolitical, and economic characteristics. Nevertheless, this case study provides insights into the types of MNE–local economy relationships and their impact on knowledge and capability creation in less advanced cities of emerging economies. Nonetheless, there is a need for more empirically grounded qualitative research. Comparative studies can enrich the understanding of the roles of diverse types of MNEs in knowledge-creation processes across various southern locations. Context-sensitive comparative studies and more extensive datasets on MNEs are necessary to evaluate the influence of diverse contexts and MNEs' local strategies. These studies can also further explore the relationships of local stakeholders with MNEs, including the views of local partners and competitor firms, employees, start-ups, educational institutions, and public organisations.

Moreover, comparative studies can analyse the impact of various policies and plans on MNE attraction and local knowledge generation (or lack thereof) in other southern cities. These analyses can identify diverse factors and conditions that foster the emergence of investment hubs, enabling the formulation of targeted policies to address these critical elements. Future research can examine the various processes initiated by local governments and their effects on MNEs and local economies. Longitudinal studies on less advanced local economies can capture the effectiveness of policy and planning strategies on MNE entry, local knowledge generation, as well as the evolution of MNE and local government strategies over time.

Other limitations in this study arise from its focus on specific aspects of FDI and MNE–local economy relations. While the study explores persistent location determinants of FDI flows in emerging economies (A-I) and the beneficial impacts of MNE–local economy relations on local knowledge and capability creation (cf. A-II), a broader set of issues warrants further investigation. Future studies can examine variations in location determinants for emerging economies over time to better understand trends in FDI flows. Additionally, considering both the positive and negative impacts of MNE presence can provide a more balanced understanding of the dynamics of MNE engagement and their effects on newly emerging investment hubs in these economies.

6 Conclusions

This study has embraced a multiperspective approach to explore the rise of cities as investment hubs in emerging economies of the South. The in-depth analysis scrutinised five interconnected perspectives on FDI, aiming to reveal the factors and processes that drive this development. The analyses cover the distinctive traits of emerging economies as contexts hosting MNEs, selected characteristics of the MNEs themselves, their impacts on local knowledge creation, and the strategic role of policy and planning tools in a given location. This approach captures the complex interplay between local conditions and global trends that enable investment hubs in emerging economies of the South to flourish. This study highlights the importance of considering multiple perspectives and lesser-known urban contexts to understand how cities in emerging economies may develop into investment hubs. It shows that these developments are not strictly economic but also involve significant societal implications, even those connected to the living environments and livelihoods of local populations.

The study challenges conventional wisdom, often confined to more advanced contexts in the global economy, by incorporating perspectives centred on emerging economies and a less advanced urban context. Embracing alternative perspectives addresses the lack of detail, contextualisation, or contextual variation in established literature streams. The study presents generalisable insights considering the less advanced contexts of emerging economies and suggests ways to improve understanding in specific research areas, highlighting the value of a more inclusive and diversified approach to studying FDI flows and MNE operations.

First, to gain a robust understanding of global FDI flows and their relevance to a broader range of economies, it is essential to examine them from various viewpoints, moving beyond the lens of advanced economies. By doing so, this study provides insights into the global network of investments, extending beyond the strongest connections. The perspective of emerging economies in the South offers a view of relationships between countries at varying development stages, bypassing the dominant influence of advanced economies. This examination includes FDI flows from peripheral economies, which are often overlooked in traditional studies because of their weaker ties with advanced economies. The study underscores the importance

of shifting perspectives towards the South, yielding a detailed understanding of trends in FDI flows and the competition for global resources among MNEs relevant to these economies. It also elucidates PMNEs' involvement in FDI flows to emerging economies, highlighting the need for continued perspective shifts to fully grasp global FDI trends and economies' participation. For example, the peripheral economies of the South, which are numerous and diverse, are poised for potential transition to the emerging category, underscoring the importance of further exploration.

Second, alternative research-based insights from relatively peripheral contexts, rather than from what is taken for granted in prevailing academic discourses derived from the most obvious research contexts, can shed new and interesting light on MNE strategies and the processes of knowledge creation they are involved in. This study indicates that MNE strategies elicit unique activities, relationships, and benefits within local host environments, enabling and shaping miscellaneous possibilities for knowledge creation. MNEs with different strategic motivations contribute to knowledge creation in locally specific ways, suggesting that understanding MNEs' strategies at the local scale is crucial. By examining MNEs' strategic motivations within an emerging investment hub, this study extends the discussion initiated by Dunning (1988) and Dunning and Lundan (2008). It highlights how MNE strategies manifest in specific locations and impact local knowledge creation dynamics. The findings of this study emphasise the specific circumstances of individual locations, prompting a question about the relevance of mere quantitative country-based analyses to understand the complexities of MNE strategies and their impacts on host economies.

Third, relying on the simple dichotomy of advanced vs. less advanced economies often delimits expectations of specific host environments and the potential of FDI and MNEs in them. Moving beyond this strict dichotomy allows for a more genuine exploration of the contextual factors that shape relationships, reciprocal benefits, and unique advantages of MNEs in diverse host economies. This more open approach can elicit more meaningful research across various contexts and help reveal the intricacies of global FDI flows and MNE operations. By employing appropriate analytical frameworks that capture this heterogeneity, this study enhances the understanding of these dynamics and highlights the variability across FDI flows, MNE motivations, and knowledge creation within emerging economies and across economies. This study warns against equating places to predetermined categories and development paths tied to investments from advanced contexts, such as low-value, export-oriented locations. Instead, it recognises the potential of these places as emerging investment hubs, attracting knowledge-intensive MNE operations. Thus, this study underscores the importance of recognising and studying dynamics beyond simple categorisations, offering insights and alternative frameworks for future research and economic development policies in specific types of southern contexts.

Abbreviations

A-I	Article One
A-II	Article Two
A-III	Article Three
AMNE	Multinational Enterprise from an Advanced Economy
EMNE	Multinational Enterprise from an Emerging Economy
FDI	Foreign Direct Investments
GIS	Geographical Information Systems
GPN	Global Production Networks
GVC	Global Value Chains
ICT	Information and Communication Technology
MNE	Multinational Enterprise
PMNE	Multinational Enterprise from a Peripheral Economy
R&D	Research and Development
RQ	Research Question
SQ	Subquestion

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