VNIVERSITAT DE VALÈNCIA Facultat d'Economia

TESIS DOCTORAL

SMES' SUSTAINABLE UPGRADING IN GLOBAL VALUE CHAINS: AN INSTITUTIONAL AND NETWORK APPROACH

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A mi madre y a mi padre, Amparo y Alfonso.

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CHAPTER 1: INTRODUCTION

1.1 INTRODUCTION TO THE RESEARCH TOPIC OF THE DOCTORAL DISSERTATION

The world has witnessed a decoupling process of the economic activity since the past century, whereby production and distribution operations started to be fine-sliced and distributed across geographically distant regions (Ponte, Gereffi, & Raj-Reichert, 2019). A series of changes enabled this fragmentation, such as technological advancements, the decrease of transport costs and policy and trade liberalization (Jeppesen & Hansen, 2004; Ponte et al., 2019). These allowed an easier access to foreign locations, and an increasing volume of cross-border transactions. The resultant decoupling of business activities affected firms' degree of specialization as well, with multinational companies (MNCs) or transnational corporations (TNCs) leading the change. MNCs started abandoning vertical integration strategies to begin serving global markets by extending their operations beyond their home regions, keeping the high value-added tasks within the firm, while outsourcing – and offshoring – the lower value-added activities (Ponte et al., 2019). MNCs located the latter in developing countries mostly given the benefits of lower-cost production processes (Jeppesen & Hansen, 2004), and over time, these dynamics transformed the industrial paradigm.

These business opportunities abroad led to the restructuring of production and distribution tasks in geographically dispersed, global production systems (Kano, 2018; Khattak & Pinto, 2018). Researchers described this phenomenon with various labels, with the term Global Value Chain (GVC) becoming among the most well-known. The research associated to GVCs goes back to the mid-1990s, when it was first framed as Global Commodity Chain (GCC) (Gereffi, 1994), with these GVCs being understood today as "*nexus of interconnected functions and operations through which goods and*

services are produced, distributed and consumed on a global basis" (Kano, Tsang, & Yeung, 2020: 579). To this day, GVCs represent an efficient system to organise industrial activity and have evolved to the point of constituting "*the world economy's backbone*" (Yeung & Coe, 2015: 30), as they concentrate nearly 80% of the commerce in intermediate goods (McWilliam et al., 2020; Posthuma & Rossi, 2017). Accordingly, research on GVCs intensified, focusing on matters such as the creation of value across borders or development issues associated to chain participation.

However, our current context is quite different to that of the late nineties and early 2000s. Although starting years ago, with 2008's crisis being an adequate reference point, contemporary trends have motivated further the pre-existing de-globalization sentiments (Curran & Eckhardt, 2021) that could alter this industrial organisation system. The China-US commercial conflict – which intensified in 2025 – , developments following the COVID-19 pandemic, or events like the Rusia-Ukraine war or the Palestine-Israel war have created pressures that affect GVCs too – e.g., scarcity of materials, rising costs. Consequently, companies could consider returning some processes back or near their home markets, when possible, to reduce the risks associated to GVCs' global scale, potentially leading to the regionalization of these chains (cf. Enderwick & Buckley, 2020). All this adds to not-so-recent challenges that are very up to date, though: GVCs play a vital role to the environmental and social issues that we face worldwide and that must not be forgotten, even in the presence of these urgent pressures.

Accordingly, this changing landscape is motivating new avenues for research, while affecting the lenses through which we look at pre-existing research gaps too. The occurrence of these events is critically affecting GVC participant firms'

competitiveness and sustainability – especially the small and medium ones –, as well as the chains themselves and the extant environment. Hence, this dissertation uses the GVC field foundations and analytical framework to these study research issues, since the GVC perspective proves to be most adequate to tackle these matters – as suggested by other scholars too (e.g., De Marchi & Gereffi, 2023).

1.2 JUSTIFICATION OF THE RESEARCH TOPIC

GVCs are international-scale production and distribution systems in which different, interdependent agents that are dispersed worldwide are coordinated and contribute to the set of tasks necessary to bring about products and services (Ponte et al., 2019). Often, these agents are interlinked through the transactions taking place within the chain and not by property linkages – i.e., they are connected by contracts of different type –, with larger partners having a controlling and coordinating role. MNCs, known as lead firms, function as the latter (Ponte et al., 2019) as they took on the role of integrating these distant partners. Given the interdependencies and power dynamics among GVC participants, the lead firms determine how value is created, captured back, and distributed among them, as well as how firms and their locations get involved in the GVC (Gereffi, 2014; Golini, De Marchi, Boffeli, & Kalchschmidt, 2018). These power dynamics and the consequent value-added and value-captured aspects represent the core of GVC research (Ponte et al., 2019), thus with governance and upgrading becoming the two most relevant analytical dimensions in the GVC framework (Gereffi & Fernandez-Stark, 2016).

Governance, on the one hand, refers to the power relationships existing within the chain through which actors holding most authority consciously exert it to determine how to distribute the tasks, risks, and profits among GVC participants (Gereffi, 2014).

Given GVCs international extension, these chains have increasingly depended on private lead firms and therefore they are the ones holding most power, so research has been concerned about lead firms' role as chain governors or orchestrators with the ability to enable market access, knowledge transfer, or capabilities' development (Kano, 2018; Khattak & Pinto, 2018). This depends on the specific governance arrangement in place, which might vary (Gereffi et al., 2005), although governance can be shaped by powerful actors indirectly involved in the GVC too (Ponte et al., 2019). Nonetheless, evidence on the latter, especially at the local level, has been comparatively scarcer in the GVC field. Again, this is due to the weakening power of agents other than lead firms given GVCs' global extension.

On the other hand, upgrading traditionally refers to the process whereby GVC actors move towards chain activities involving a greater share of value-added, the undertaking of which allows increasing the profits or value captured from GVC participation (Gereffi & Fernandez-Stark, 2016). This process refers to pathways consisting of economic (Gereffi & Fernandez-Stark, 2016), social (Barrientos, Gereffi, & Rossi, 2011) or environmental improvements (De Marchi et al., 2019; De Marchi & Di Maria, 2019). Because the relationship between GVC participation and actors' upgrading might not be straightforward (Ponte et al., 2019), prior studies have analysed the influence of governance in this respect (e.g., Golini et al., 2018), with most papers concentrating on the upgrading by firms from developing countries (e.g., Bek et al., 2017; Gersch, 2019; Hoang, Doan & Nguyen, 2021; Hoque, Sinkovics, & Sinkovics, 2016). Economic upgrading has been the path attracting most scholarly attention, followed by social upgrading, as well as efforts devoted to the combination of these two (De Marchi, Di Maria, & Gereffi, 2018; Gereffi & Lee, 2016). Instead,

despite its increasing popularity and the attempts to better conceptualise it (De Marchi, Di Maria, Krishnan, Ponte, & Barrientos, 2019), environmental upgrading has been understudied in comparison (Khattak & Pinto, 2018) – although with notable exceptions, such as the paper by Krishnan, De Marchi, and Ponte (2023).

Notwithstanding the vast research conducted to this day, mainly around these two dimensions, we appreciate that the GVC literature still suffers from gaps that add to those raised by nowadays' changing environment. More precisely, the GVC field still lacks a further integration between the local dimensions affecting GVCs and their global dynamics; relatedly, a greater consideration of agents other than private lead firms as key GVC actors is necessary; a deeper development of the upgrading trajectories to advance the GVC literature is convenient as well; and more research beyond developing countries' firms as suppliers is required too. Regarding the latter, MNCs have incorporated independent firms to their operations in the process of offshore-outsourcing lower value-added activities, hence being forced to be aware of and control the functioning of agents not formally integrated in the MNC given their great relevance in their contribution to the GVC. However, due to the underpinnings of the outsourcing-offshoring process, studies have focused on MNCs and the upgrading of emerging country-based suppliers (Ponte et al., 2019). Indeed, at the Duke University website[1] (Duke University, 2023) most research revolves around Latin America, Africa, or East Asia, even North America, but there is not a section yet for Europe-related research, for instance. Companies from developed countries also act as suppliers in GVCs, and not only as first-tier suppliers, thus we also need a better understanding of these crucial actors for their contribution to the GVC and the

consequences that GVCs have on them and their regions. All this reasoning suggests several research gaps that are the basis of this dissertation.

First, we need further research on less acknowledged GVC actors. This argument has two parts. On the one hand, it is crucial to re-integrate the role of actors other than lead firms that do have power to drive change as governors of GVCs. Public and social agents, at local, regional, and global levels, as well as private local actors, have a vital role as determinants of GVC dynamics – i.e., mainly, governance structures and consequent upgrading paths (Gereffi & Lee, 2016). Despite the GVC framework considering local elements in affecting actors' integration in GCVs (Gereffi & Fernández-Stark, 2016), the role by specific local factors has been decoupled from GVC analysis over time in favour of private, multinational governors better suited to control and coordinate globally fragmented systems. These bottom-up considerations including other type of agents are starting to be accounted for (e.g., Pasquali, Godfrey, & Nadvi, 2021), but further development within the framework is needed, mostly regarding the exact agents, roles, and mechanisms at play. Importantly, research is required on how different elements, at distinct levels too, shall interact to drive GVC dynamics and what the results are.

This could be increasingly relevant in our current context. Although not new, nowadays' trends – e.g., protectionist measures – seem to be pushing forward de-globalization tendencies more each time. In this vein, some analysts point towards the possibility of GVCs' regionalization. This is not new either, as GVCs have been said to be more regional than global before (e.g., Gereffi, 1999; Rugman & Verbeke, 2004) – with detractors too (e.g., Mudambi & Puck, 2016) –, but it has been argued that recent events like the COVID-19 pandemic have shown the weaknesses of being too

global (Pla-Barber, Villar, & Narula, 2021), which could trigger responses by GVC actors in the form of reshoring – i.e., the return of activities to their home or nearby regions (Barbieri, Ciabuschi, Fratocchi, & Vignoli, 2018). This is being observed to certain extent in European firms that are restructuring their supplier base in locations nearby, such as in the North of Africa (Martínez-Mora & Merino, 2021). Under this scenario for which there is some evidence, local forces would have an even more crucial role to play, further justifying dedicating more research to them.

On the other hand, and concerning the second part of our argument, the GVC field needs to tackle more research within the context of developed countries, although on agents other than lead firms. We need more studies on these actors that also perform manufacturing and supplying tasks and contribute to GVCs, the wider economy, and environmental and social welfare. The key today is to advance on sustainability, but the GVC field shall not do so if we disregard agents that are crucial, although challenged at the same time. In this sense, this dissertation focuses on a particular type of firm acting as supplier in GVCs: Small and Medium-sized Enterprises (SMEs) from developed economies. The role of these SMEs remains comparatively understudied in the GVC field, despite constituting most of the production fabric in several countries (Kotturu & Mahanty, 2017; Moore & Manring, 2009) and an important share of lead firms' supplier base (Su, Khan, Lew, Park, & Choksy, 2020). Moreover, SMEs have the particularity that, given their size, they face both advantages and disadvantages towards the development of complex strategies (Juergensen, Guimón, & Narula, 2020; Leonidou, Christodoulides, Kyrgidou, & Palihawadana, 2017; Lu & Beamish, 2001; 2006), including environmental ones, which makes them relevant for research striving for sustainable development as well. Regardless of their limitations, SMEs constitute

key economic, social, and environmental actors for their territories and globally too, as they are significantly engaged in GVCs. Some scholars recognize that SMEs' collective influence should not be underestimated (Hoogendoorn, Guerra, & van der Zwan, 2015), since their combined impact may even outweigh that of larger firms' (Leonidou et al., 2017). Therefore, their role both locally and within GVCs must be analysed further to produce insights that advance research. Especially now, SMEs are seeing their survival jeopardized in a context of great turmoil (Juergensen et al., 2020), which could demotivate them to attend sustainable matters. In this vein, the effect that various external agents can have on SMEs' development – which the SMEs' literature explores too (e.g., Leonidou et al., 2017) – becomes even more crucial, considering both the local- and the GVC-level as the linkages and pressures affecting SMEs increase, further justifying their study.

Second, a more sustainable approach towards GVC analysis is needed. This could be tackled through the construct of upgrading. Attention has been paid to economic development, mainly, as the world has experienced overall growth with the emergence of GVCs. However, economic improvements are a motive of concern if they are not accompanied by social and environmental considerations (Ponte et al., 2019). The offshoring of production has brought positive economic outcomes, but supplying from distant, poorer economies has had negative consequences too. On the one hand, lead firms' competing demands have led suppliers to follow upgrading paths that fulfilled these requirements, but sometimes at the cost of social and/or environmental damage (e.g., Rossi, 2013). On the other hand, offshoring trends have been motivated mostly by cheaper labour costs and weaker institutional environments, hence provoking social and environmental issues in those territories as well. GVCs'

functioning has been controversial in developed regions too. For instance, intermediate goods travelling long distances before producing final products, which are transported then again, have raised voices against the pollution caused in the process. Also, offshoring operations have affected the home regions where these industries used to be located, leading to economic and social loses too – e.g., the disappearance of early stages of the chain or complementary industries (Pallás-Rocafull, Pla-Barber, Villar, & Hervás-Oliver, 2024). All in all, GVC research needs to move forward to assess development in an integrated way.

These gaps form the premise of this dissertation, which will concentrate on: a sustainable approach for firm-level upgrading; SMEs from developed countries as suppliers in GVCs; and the effect of distinct factors on SMEs' upgrading. Regarding the latter, this dissertation does not limit to the role of MNCs as lead firms. These leaders may not drive upgrading because it is against their interest or due to the competing requirements that they impose on suppliers, for instance. In the thesis we also consider actors from SMEs' local contexts – public and private ones – that are relevant as complementary to the international dimension of GVCs, especially for SMEs given their local embedment. In this way, we integrate the local and international dimensions of GVCs. In addition, this dissertation also contributes by framing the research in a developed country context. Apart from the fact that most GVC research deals with developing markets, firms located in developed countries are the ones facing more pressures to follow sustainable approaches, while at the same time they may be more prepared to do so too, given their context. Companies in emerging economies are mostly in a growth phase where their main concerns might not be geared towards sustainability. Instead, firms from developed countries have

moved past that point and are placed in an environment that, from both institutional and social perspectives, demands from them something beyond economic profits – even if they are not large, visible companies. Hence, by focusing on these matters, this dissertation unravels in an adequate scenario to study these research gaps.

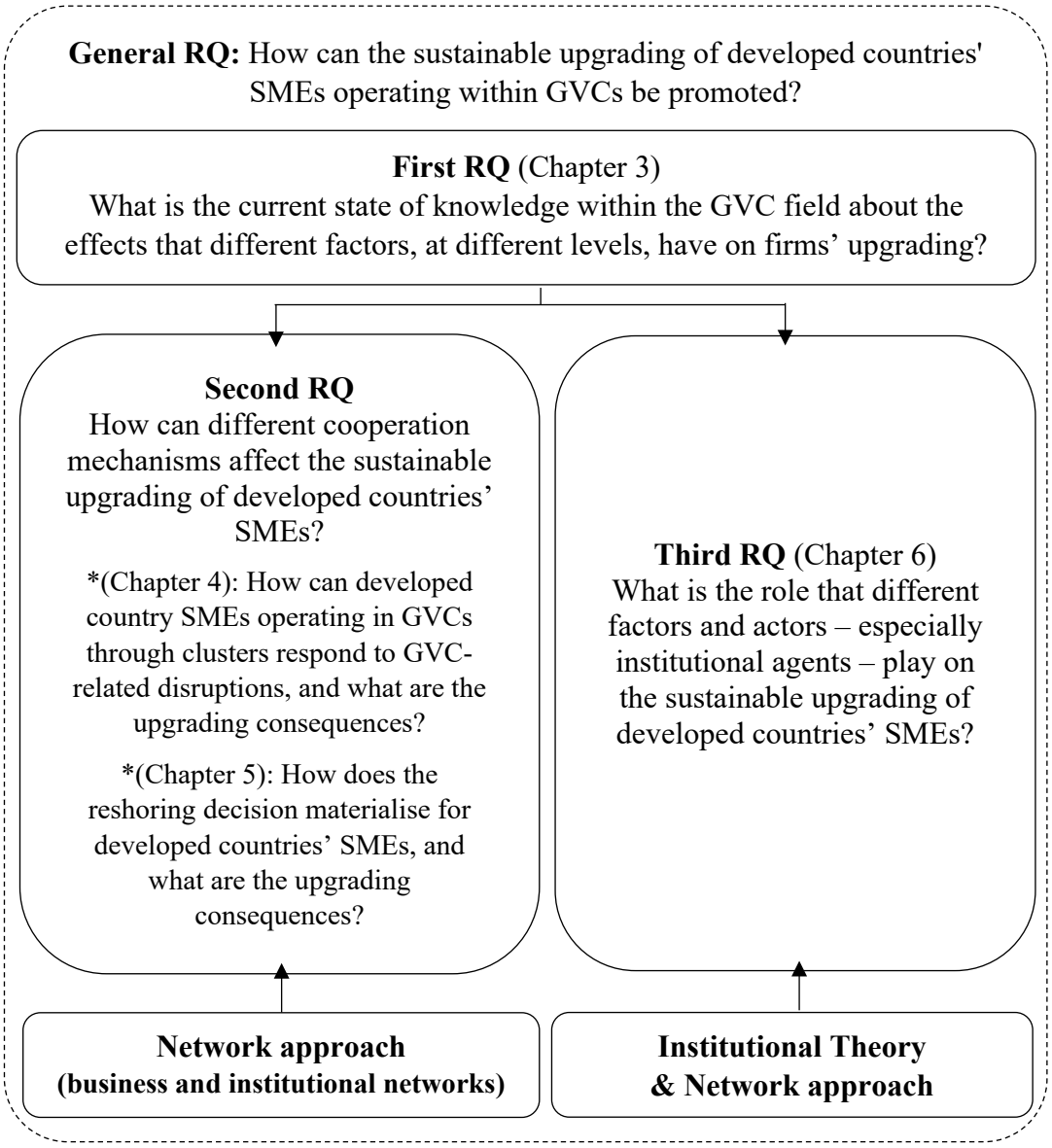
1.3 OBJECTIVES OF THE DOCTORAL DISSERTATION AND RESEARCH QUESTIONS

Following the identified gaps and considering the context affecting GVCs today, the general goal of this dissertation is to analyse **how can be promoted the sustainable upgrading of developed countries' SMEs operating within GVCs**. We consider the role that actors external to SMEs and the chain might have in this vein, as we contend that private and public agents, also at the local level, will be key since we are dealing with resource-constrained firms that are embedded both at the local and GVC level. Accordingly, the dissertation falls at the intersection between the vertical dynamics of the GVC level, and the horizontal forces of SMEs' local context. This general goal can be translated as a **research question (RQ), how can the sustainable upgrading of developed countries' SMEs operating within GVCs be promoted?** In turn, this RQ can be divided into three, inter-related RQs to be studied to answer it. Figure 1.1. summarizes them and indicates the dissertation chapters dedicated to each.

Concerning these specific RQs, we first answer what is the current state of knowledge about the effects that different factors, at various levels, have on firms' upgrading in GVCs. We do so through a systematic literature review because, despite previous works of this kind on GVCs (e.g., De Marchi & Alford, 2022; De Marchi et al., 2020; Kano et al., 2020; McWilliam et al., 2020), there is a lack of research systematically summarising these factors, as well as a lack of consensus on the effects

of some mechanisms on upgrading (e.g., Goerzen, Iskander, & Hofstetter, 2021). By systematically analysing and integrating these elements, we contribute to advance the GVC literature.

Figure 1. 1. Research questions (RQ) of the doctoral dissertation



Source: Own elaboration

Second, we study how different cooperation mechanisms affect the sustainable upgrading of developed countries' SMEs, paying attention to dynamics taking place locally because these influence firms' situation in GVCs too and have been

comparatively understudied. We do so through two empirical studies focused on two contemporary events: The COVID-19 pandemic and the subsequent, potential reshoring scenario. Thus, we also account for current trends that alter GVC dynamics.

Finally, we analyse what is the role played by different factors and actors – with a special focus on institutional agents – on the sustainable upgrading of developed countries' SMEs. This study provides the GVC field with a quantitative contribution – which are scarcer in this research, although with exceptions such as Golini et al. (2018) – that also focuses on firm-level upgrading and a developed country context.

Regarding the theoretical reasoning to answer these RQs, we use theories and approaches from the management field adequate to our goals and level of analysis. The research conducted is anchored, on the one hand, on the Institutional Theory (IT) as we consider different institutional agents and their role regarding SMEs' upgrading; and on the other hand, we draw on the Network (NT) paradigm too as we assess the influence of different cooperation relationships on SMEs' upgrading. Combining these approaches with the GVC literature gives us the necessary theoretical base to explain the underpinnings at play in each empirical work. It also allows us to study institutional-type agents not only as regulators and norm providers, but also as part of firms' non-business networks deploying other roles such as brokers or mediators between vertical and horizontal dimensions.

In answering these RQs, we contribute to the GVC literature in three main ways: By further integrating local and international levels affecting GVC dynamics; by extending reflections and conceptualisations on the upgrading construct, following a sustainable approach too; and by shedding more light on understudied actors and

contexts that, nevertheless, are key for the development of GVCs and the wider environment. These contributions also extend to business practice and policymaking, while tackling several aspects of the Sustainable Development Goals (SDGs) too. Regarding managers, we show paths to competitiveness and sustainability for resource-constrained firms, where SMEs might also take advantage of current changes in the global economic scenario to recover some sovereignty in their GVCs. Concerning policymaking, we illustrate mechanisms going beyond regulation or grants that these institutional agents can use to promote firms' development and competitiveness, also with a sustainable focus. Lastly, regarding the SDGs (2023), we contribute to three since this dissertation gears towards firms' upgrading in a way that integrates economic, social, and environmental improvements. We illustrate mechanisms to drive business practices that consider societal and environmental matters, while still being competitive and innovative. We contribute to goal 9, "build resilient infrastructure, promote inclusive and sustainable industrialization, and foster innovation"; goal 12, "ensure sustainable consumption and production patterns"; and goal 13, "take urgent action to combat climate change and its impacts".

1.4 METHODOLOGY EMPLOYED THROUGHOUT THE DISSERTATION

The methodology employed in this thesis includes a systematic literature review and both qualitative and quantitative research methods in the empirical chapters. In chapter 2 we present the GVC framework, the theoretical background behind this literature, the theoretical underpinnings of the dissertation, and why SMEs are key economic and sustainable agents. In chapter 3 we present the systematic literature review on the factors driving firms' upgrading. In chapters 4 and 5 we employ qualitative research methods to analyse SMEs' upgrading considering cooperation mechanisms, current

trends, and processes and outcomes of upgrading. In chapter 6 we use quantitative methods to analyse the statistical effect of different factors on SMEs' upgrading. Finally, in chapter 7 we present the transversal conclusions of the dissertation. While in each study we use a method that is adequate to its goal and RQ, all the chapters, structured as papers, are inter-related so that we can answer the general RQ in the concluding chapter.

1.4.1. *Empirical setting of the dissertation*

In this subsection, we introduce the empirical setting where we conducted the research from chapters 4, 5, and 6, which we will describe in detail in each chapter. For each of our empirical studies, in Table 1.1. we summarize the industries we considered and describe the firms that are part of them in terms of their size, for which we follow the European Commission (2014) criteria (i.e., number of employees).

Table 1.1. Sample descriptives

Study	Categories	Firm typology (all are European firms)	No. firms
Chapter 4* (qualitative)	Firm size (No. employees)	Micro (less than 10)	1
		Small (between 10-50)	4
		Medium (between 50-250)	-
	Industries	Traditional manufacturing	5
		Advanced	-
Chapter 5 (qualitative)**	Firm size (No. employees)	Micro (less than 10)	-
		Small (between 10-50)	2
		Medium (between 50-250)	4
	Industries	Traditional manufacturing	6
		Advanced	-
Chapter 6 (quantitative)	Firm size (No. employees)	Micro (less than 10)	3
		Small (between 10-50)	58
		Medium (between 50-250)	153
	Industries	Traditional manufacturing	116
		Advanced	98

Note: *Interviews also with one industry association and two institutions (one local, one regional). **Interview also with an employee from the Valencian office, the main Spanish branch, of a logistic MNC to gather contextual information.

Source: Own elaboration

The dissertation focuses, mostly, on Traditional Manufacturing Sectors (TMS) or industries, those that are considered as less advanced or technological (e.g., textiles, furniture, etc.). We do so because TMS are very relevant in economic terms as they include a considerable number of companies, thus they are also critical regarding sustainability matters, and because companies from these industries tend to face higher internal limitations given their lower technological profile (Villar, Pla-Barber, & Ghauri, 2020), hence external forces could be even more relevant to promote their competitiveness. Moreover, these industries tend to characterise by their atomization; that is, they usually concentrate an important number of SMEs. This characteristic leads to concentration tendencies in TMS, often in clusters – as widely seen in related literature and as we will illustrate in the corresponding chapters –, therefore offering us the possibility to assess both top-down and bottom-up approaches to these companies' competitiveness. In addition, as the thesis' interest lies on developed countries' SMEs, we focus on TMS's firms from the Spanish context, a country where SMEs represent a very high share of the business environment (Muller et al., 2019) – thus representing the European context to some extent –, TMS have an important presence, and the public sector is also developed, therefore having a potential great influence on SMEs' industrial activity (De Marchi, 2012; OECD, 2019). Besides, even though TMS from developed countries were negatively affected by globalization trends such as the entry of foreign competitors with lower costs, these sectors managed to survive, and the remaining firms were able to internationalize, often through GVCs. Hence, studying developed country SMEs from TMS is suitable for the goals of this dissertation.

Specifically, the thesis considers firms from the home industry: furniture, home lighting, faucet, textiles, and alike. These are representative within TMS, accomplishing with the characteristics mentioned above. However, due to its special adequacy to our research goals, we paid more attention to the textile industry in some chapters (the qualitative ones). This industry accomplishes with the criteria of including a considerable number of smaller firms; being highly connected to GVCs as well as locally embedded; being a polluting industry that also has social-related issues; and being a competitive sector despite the difficulties it faces in a globalised world. In chapter 6, though, we add some advanced industries to our sample because in this quantitative study we wanted to compare to obtain more generalizable results.

1.4.2. *Methods employed in the dissertation*

In this subsection, we introduce the methods we employed in the empirical chapters of the dissertation, although they are explained in detail in each corresponding chapter. In general, the thesis follows a positivistic approach in the empirical research we conducted. The first two studies employ qualitative methods, while the last displays quantitative methods, as per illustrated in Table 1.2.

Table 2.2. Summary of methodologies employed in the dissertation

CHAPTER	METHODOLOGY
Chapter 3. "Advancing firms' sustainable upgrading in GVCs – Developing an integrated framework for the drivers, processes, and outcomes of upgrading"	Systematic literature review
Chapter 4. "GVCs in the post-COVID-19 era – A network perspective on SMEs' resilience and upgrading"	Qualitative – multiple case study
Chapter 5. "Traditional, manufacturing SMEs' reshoring back home and beyond – Responses to a changing landscape and upgrading consequences"	Qualitative – multiple case study
Chapter 6. "A quantitative analysis on traditional, manufacturing SMEs' sustainable upgrading"	Quantitative – multiple, linear regression

Source: Own elaboration

Concerning chapters 4 and 5, we use qualitative research as we are interested in how/why-type RQs; that is, getting to know the underlying processes taking place. This research allows scholars to study social phenomena in their natural setting through the actors' meanings and interpretations (Gephart, 2004), being powerful to provide thick explanations and suitable for "*opening the black box*" about phenomena (Doz, 2011: 583). It also allows accommodating different philosophical paradigms and research styles (Bansal & Corley, 2011). In this sense, positivism is the most extended paradigm in social sciences (Bonache, 2021), also in managerial fields like International Business (IB). Eisenhardt (1989) and Yin (2014) are the most prominent scholars in this paradigm, which is the one comparatively offering more guidelines to conduct qualitative research. From positivism, in epistemological terms we focus on looking for regularities and relationships among elements of a phenomenon to understand, explain, and predict what happens in the social reality (Burrell & Morgan, 1979; as per Bonache, 2021). Because this positioning assumes that there is one reality that is independent from the researcher (Yin, 2014), we adopt an objective role as it assumes that reality can be understood through variables, constructs, and relationships among them – i.e., models (Bonache, 2021). Therefore, when applying the methods we use here – i.e., case studies – following this paradigm, the research process looks for the development of propositions and theory – as well as hypotheses to be evaluated in subsequent, quantitative studies (Eisenhardt, 1989).

In this vein, in this dissertation we follow Piekkari et al.'s (2009: 569) description of case study research, this being: "*a research strategy that examines, through the use of a variety of data sources, a phenomenon in its naturalistic context, with the purpose of 'confronting' theory with the empirical world*". Accordingly, in

our case studies we depart from an initial theorization or preliminary model from which we formulate our RQs, and as the logic underlying the research would be searching for patterns, multiple cases are preferred, as well as triangulation to find converging explanations (Gibbert & Ruigrok, 2010). Hence, our process of developing case study research is structured: following our RQ, we select the cases; formulate a protocol; enter the field; perform within-case analysis; look for patterns (i.e., cross-case analysis); and develop propositions leading to models to foster future research.

Regarding chapter 6, we apply a quantitative methodology because our RQ is a what-type one; that is, with this study we explore what effects do different elements have on SMEs' upgrading. We use a linear, multiple regression analysis because this technique matches our study's goal and the characteristics of our data. In particular, "*multiple regression analysis is a general statistical technique used to analyze the relationship between a single dependent variable and several independent variables*" (Hair, Black, Babin, & Anderson, 2010: 151). This is adequate for our research since our dependent variable (i.e., SMEs' upgrading) is a continuous one – which splits in five different typologies, so we run a model for each one – and we are analysing how it will be affected by several independent variables, which include various types of private governance as well as public, institutional mechanisms. Of course, we also include several control variables, respecting the adequacy of the number of variables given the sample size. In chapter 6 we provide more details on the methodology.

1.5 STRUCTURE OF THE DISSERTATION

This doctoral dissertation is structured in seven chapters that can be divided into three areas: the theoretical part, including chapters 2 and 3; the empirical research, corresponding to chapters 4, 5 and 6; and the conclusions of the thesis, which we report

in chapter 7. In chapter 2 we review the theoretical background surrounding the dissertation, while in chapter 3 we conduct a systematic literature review around firm-level upgrading. In chapters 4, 5 and 6 we undertake three empirical studies using the corresponding methodological approaches to study various elements affecting SMEs' sustainable upgrading. These chapters are interdependent, as they are all part of the same, integrated research to answer the dissertation's general RQ. Dividing the latter into three more specific RQs allows us to collect and analyse the relations we posited in an isolated manner and obtain a more comprehensive view by appropriately adapting the theoretical explanations and methodological techniques we apply. This enables the formulation of sound conclusions afterwards.

More specifically, chapter 2 introduces the GVC framework, going from its origins to the present time too, while including a section about SMEs' internationalisation and development. This chapter includes an introduction to the theories surrounding the GVC literature, as well as those that underpin the empirical work in the next chapters. Nevertheless, the introduction to the IT and the NT approach is brief because each empirical study has their own section developing such reasoning.

Chapter 3 reports a systematic literature review that we conducted about the distinct factors and mechanisms affecting upgrading at the firm level. This study considers actors pertaining both to the GVC level and to the local level and contributes to the field by covering different gaps compared to other previous reviews: we systematically gather all these mechanisms and their effect on firms' upgrading, also to ease the development of future quantitative studies; and identify future avenues for research for which we propose RQs and theories to use.

Chapter 4 is the first empirical research in this dissertation. It takes a qualitative approach to study the effect of institutional linkages, as well as business networks, on SMEs' resilience and upgrading in GVCs in a disruptive situation. The research is set in the COVID-19 pandemic and shows how local networks, mainly in the form of clusters, allowed SMEs that were suppliers in GVCs to recover from the shock through innovation strategies that led to upgrading paths. Local private agents, as well as cluster collective actors and institutions, were key in fostering the flow of resources and knowledge that SMEs needed to do so.

Chapter 5 also takes a qualitative approach to study a phenomenon of relatively recent occurrence and its effect on SMEs' upgrading: the reshoring trend. We take a network approach and focus on the antecedents/drivers and the strategies deployed, but especially we concentrate on the consequences of reshoring in terms of upgrading.

Chapter 6 includes the last empirical work, which employs quantitative methods with the aim of obtaining more generalizable results. We explore different elements, including institutional ones, influencing various upgrading strategies for SMEs, focusing also on the sustainable approach to upgrading.

Finally, in addition to the specific conclusions of every chapter, the dissertation ends with chapter 7, which summarizes the main findings that are transversal to the dissertation's research and respond to its general RQ. We discuss managerial, political, and academic implications too, as well as future research avenues.

1.6 NOTES

1. This institution has been one of the pioneers of GVC research (Ponte et al., 2019).

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CHAPTER 2: THEORETICAL BACKGROUND

2.1 INTRODUCTION

Prior works have employed the GVC framework as the theory explaining their research (e.g., Ponte, 2020; Puppim de Oliveira & de Oliveira Cerqueira Fortes, 2014; Rainbird & Ramirez, 2012). However, although this literature allows studying industries from a holistic perspective, it is not mature enough to be considered a major theory. This section reviews the underpinnings of GVC research, its origins, evolution, and the main theoretical approaches that have surrounded this analytical framework. We introduce related literatures too, such as that of the Global Production Network (GPN) as it is contemporary to GVCs, and their similarities and disparities are worth mentioning for a better understanding of GVC research. We also include a presentation of the theoretical thinking used in the empirical works of this thesis, although this will be developed further in each corresponding chapter. Moreover, because the dissertation focuses on developed countries' SMEs operating in GVCs, we dedicate a section to literature on SMEs' internationalisation and development. This latter line of research is fragmented, however, and integrating it falls out of the scope of this dissertation, so we only introduce it to set the ground on the topics of interest.

2.2 THE GVC FRAMEWORK: A HOLISTIC, INDUSTRIAL PERSPECTIVE

2.2.1. *The origins of GVCs: The Global factory, GCCs, and GVCs*

The concept underlying GVCs is that of the value chain, which describes firms' full set of activities necessary to produce and distribute products or services (Porter, 1985). These activities include the intermediary stages of material procurement, production, research and development (R&D), design, marketing, distribution, and post-sale services, as well as others such as human resource management, for instance – i.e., primary and support activities – (Buckley & Strange, 2015; Strange & Magnani, 2018).

Currently though, these tasks are performed by different organisations that are connected in an international, inter-firm network of organisational agreements, which usually does not involve ownership linkages (Gereffi & Fernandez-Stark, 2016; Kaplinsky & Morris, 2000). Nowadays, we know this industrial organisation system mostly as GVC, but it has not always been framed as such.

Decades ago, following changes such as technological advancements or market liberalisation (Strange & Magnani, 2018), the global economic landscape started transforming as these events allowed companies to fine slicing their value chains across different geographies (Buckley & Strange, 2015). This led MNCs' vertically integrated structures to transform toward other type of arrangements, often consisting of outsourcing business activities – i.e., procuring previously internalised products and services from third-party organisations acting as independent suppliers (Strange & Magnani, 2018). This, together with offshoring trends – i.e., localising business activities in foreign countries –, changed the way of conducting international businesses, with researchers starting to talk about the global factory (Buckley & Strange, 2015).

The global factory can be considered one of the underlying ideas to GVCs, the key being the control of these dispersed operations, as well as their ownership and location. Authors provided various definitions according to different assumptions, with three models emerging as the main ones (Buckley & Strange, 2015). Here the definitions by Gereffi (1989) and Buckley and Ghauri (2004) or Buckley and Strange (2015) may be those applying the most. The first understood the global factory as a production system of a global scale, whereby manufacturing capacity scattered across developed and emerging countries such that they could specialise in a sector or specific

parts of it, and corporate ownership expanded likewise. Instead, the latter two put the MNC at the centre, defining the global factory as a strategy by developed countries' MNCs consisting of them performing offshore-outsourcing operations in developing economies. Even though MNCs gave up on ownership linkages, they still controlled the geographically dispersed activities. Buckley and Strange (2015) would latter add that the aim of MNCs would be decreasing transaction and location costs. Quite evidently, even if differing in certain considerations, these models surround the reasoning of GVC research. Although the first did not stress control and ownership matters as much, the second did focus on outsourcing-based arrangements that, however, did not hamper MNCs' control – or governance, in GVC terms.

Research has shown that there are diverse ways to arrange these global factories. The international fragmentation of production as per the description above allowed MNCs, the lead firms in GVCs, to increase the benefits of their business activities as they took advantage of technological advances, decreasing transport costs, and lower manufacturing costs abroad. Nevertheless, even if getting rid of direct ownership structures enabled organizing and coordinating more flexibly and efficiently, the offshore-outsourcing strategies involved remarkable losses of direct control over manufacturing too. This implied transaction costs as well, such as economical and reputational – which MNCs aimed at reducing –, making necessary to develop ways to influence third-party suppliers (Alexander, 2020). The evolution and sophistication of these mechanisms to coordinate the actors involved in these systems shaped GVCs' structure in the end, further influencing research in turn.

From there, the GVC field as such emerged in the mid-1990s with their initial conceptualization as GCCs. Commodity chains were defined as production systems

that linked companies' economic activities through organisational networks allowing producing and distributing products globally, giving rise to specific trade patterns – so the idea of the global factory remains. They could be either producer-driven or buyer-driven, depending on lead firms' position and role (Gereffi, 1994). However, evidence later suggested that most industries were moving towards buyer-driven structures due to production outsourcing trends, as marketers and distributors were becoming global leaders (Alexander, 2018). As such, with further conceptualisation about the governance of the chain (Gereffi et al., 2005) and a greater focus on the value-added generated (rather than just on goods as commodities), the GCC conceptualisation evolved to that of the GVC.

At this point, the study of these industrial organisation systems splits into two main frameworks: the GVC and the GPN[1]. They refer to chains or networks, respectively, either to simplify the analysis of such operations or to acknowledge the complex set of relationships in which agents are embedded. Even though both analyse the same reality and share a similar logic[2], their reasoning differs in some key points. While the GPN framework grounds its study over the conceptualization of organisations as involved in networks extending internationally, accounting for the networks' dynamic features (Yeung & Coe, 2015), the GVC literature frames the connection of economic and non-economic actors within the chain concept, which is more practical to focus on the creation, appropriation, and distribution of value (Gereffi, 2014; Golini et al., 2018) – i.e., the value-added throughout the chain, rather than just efficiency matters. The GPN field evolved by building on the GVC literature (Klooster & Mercado-Celis, 2016) and in contestation to its weaknesses – mostly, its lesser acknowledgement of dimensions other than lead firms as shapers of these

systems and associated upgrading paths (Lim, 2016). Thus, it adopts a more dynamic view focused on the evolution of the network and considering institutional and social elements, as well as embeddedness (Morris et al., 2016). Instead, the GVC framework delved deeper on the private sphere as the field evolved, gradually lacking a wider perspective even though this literature does account for institutions, power, territory, and links (Sturgeon et al., 2008).

Considering all this, and the focus of this dissertation on actors indirectly involved in the chain too, we still choose to employ the GVC literature in our study as we deem it more adequate to accomplish our research goals and because, as stated, this framework does consider external-to-the-chain actors, even though they have been comparatively less studied as the field has evolved. The GVC approach provides the necessary assumptions and conceptualisations to answer our RQs, as we shall see in the next subsection, even if it may need further theorizing regarding some elements.

2.2.2. *The GVC framework: Describing the main elements*

The GVC framework allows studying industries from a holistic approach, that is, from a top-down and bottom-up perspective. It does so through six analytical elements. In Table 2.1. we describe them while distinguishing whether they belong to the top-down view or the bottom-up one (Gereffi & Fernandez-Stark, 2016). These elements serve to depict or map the GVC; study its structure; analyse how actors get involved in it; and getting to know how value is generated within and captured back from it.

In this vein, despite initial works on GCCs acknowledging the role of historical paths and social embeddedness in the formation of the chain or the local dimension of upgrading (Gereffi, 1999), with time researchers have paid greater attention to the

governance of MNCs as lead firms and the effect of this on GVC dynamics such as upgrading. Likely, the field evolved this way as the coordination of GVCs started to depend on private lead firms, given the international extension of the chains. Research geared towards inter-firm cross-border relationships, and value creation, capture, and distribution through this (De Marchi et al., 2018; Gereffi & Fernandez-Stark, 2016), such that the terms that have received most scholarly attention are the governance structure and the upgrading paths (Gereffi & Fernandez-Stark, 2016).

Table 2. 1. Main elements of the GVC analytical framework

Top-down view: International elements determined by global industry dynamics	
Element	*Description*
Input-output structure	Activities performed in the GVC to bring a product or service into the market. The researcher identifies and maps these GVC segments and the organisations developing each task.
Geographic scope	Refers to the extent of global dispersion of the industries, since GVCs operate at local, national, regional, and global levels. Due to various factors such as shifts in activities' location and regional trade agreements, some evidence suggests a tendency toward regionalization.
Governance structure	Power relationships that determine the coordination of the tasks performed in the GVC, and hence the distribution of resources and value. The lead firms exerting this authority must be identified. The classical five-typology considers several structures: Hierarchy, market, captive, modular, relational.
Bottom-up view: Local elements explaining how countries, industries and firms participate in GVCs	
Element	*Description*
Institutional context	GVC participants are embedded in different economic and social conditions, as well as institutional contexts. These contexts refer to local, national, regional, and international conditions and regulations that shape actors' insertion into GVCs. This implies territoriality considerations.
Industry stakeholders	Industry-relevant actors who contribute to the development of the sector (i.e., employees, labour and trade associations, government agencies or institutional agents). It also implies territoriality considerations. Key to identify: (1) How relationships among actors are governed locally, and (2) what institutions have more power to drive change in GVCs.
Upgrading	Traditionally understood as a process of moving to higher value-added activities in the GVC (or to other GVCs), thus increasing the value captured from chain participation. Typology: Economic, social, and environmental. These paths are influenced by: Governance dynamics, institutional contexts, stakeholders, and input-output structures.

Source: Own elaboration based on Gereffi & Fernandez-Stark (2016)

We define these two concepts more extensively given their importance. On the one hand, governance describes the corporate power actively exerted by key GVC nodes to control and coordinate the chain; that is, the power relationships through which GVC actors with authority exercise it to determine the share of tasks and risks among GVC participants (Gereffi, 2014). Some authors have defined governance as "*inter-firm relationships and institutional mechanisms through which non-market coordination of activities in the chain takes place*" (Humphrey & Schmitz, 2001:1), such that governance consists of managing relationships among companies through various mechanisms to organise the tasks performed in the GVC. These governors often refer to the lead firms, who are capable of imposing rules and conditions on the rest as they are located closer to the market or production side, depending on the industry (De Marchi et al., 2018; Gereffi & Fernandez-Stark, 2016), and this location is a considerable source of their power. Exercising this governance is crucial because it determines the structure of the GVC, such that geographically dispersed, interdependent partners are coordinated towards the same end, and it also shapes how profits, risks, and value will be distributed, thus defining chain participation, value creation and value distribution.

As stated, operationalising this governance requires the use of activity-coordination mechanisms, often through non-market relationships (Humphrey & Schmitz, 2002). Hence, governance will take different forms with the central mechanism employed varying accordingly. Despite the use of different parameters, governance will often consist of lead firms formulating, communicating, and enforcing standards that determine what and how is to be done in the chain (Humphrey, 2005; as per Neilson, 2008). However, governance will not be only about imposing norms; it

will include monitoring the results and managing actors' relationships too (Kaplinsky & Morris, 2000; Khattak et al., 2015). Therefore, its nature can be circumscribed to rulemaking (legislative governance) and rule-keeping functions, the latter divided into enforcement (judicial governance) and implementation (executive governance) (Kaplinsky & Morris, 2000). Concerning rulemaking, standards have become the most accepted benchmark to codify information (Nadvi, 2008). In terms of rule-keeping, enforcement might take place through sanctions, either negative or positive (Kaplinsky & Morris, 2000), and regarding implementation, this might consist of providing active assistance or simply monitoring compliance, for instance. Hence, governance has a triple intention to drive firms' actions, link them, and normalize practices by aligning them with established standards (Ponte & Sturgeon, 2014) in pursuit of specific goals.

The various possibilities to operationalise governance have driven research on this topic, with studies depicting different governance structures that vary depending on three main variables: (1) the complexity of the transactions taking place in the chain – i.e., how tacit the information necessary to accomplish the task is –; (2) firms' ability to codify the information, which depends on information's complexity; and (3) the supplier base competence, which is necessary to meet lead firms' requirements (Gereffi & Fernandez-Stark, 2016). These are the most widely accepted considerations, according to which five typologies of governance have been elucidated, summarised as hierarchical, quasi-hierarchical and network structures (Giuliani et al., 2005). Each differs on the degree of power asymmetry and explicit coordination (Gereffi et al., 2005), and thus also regarding the mechanisms employed.

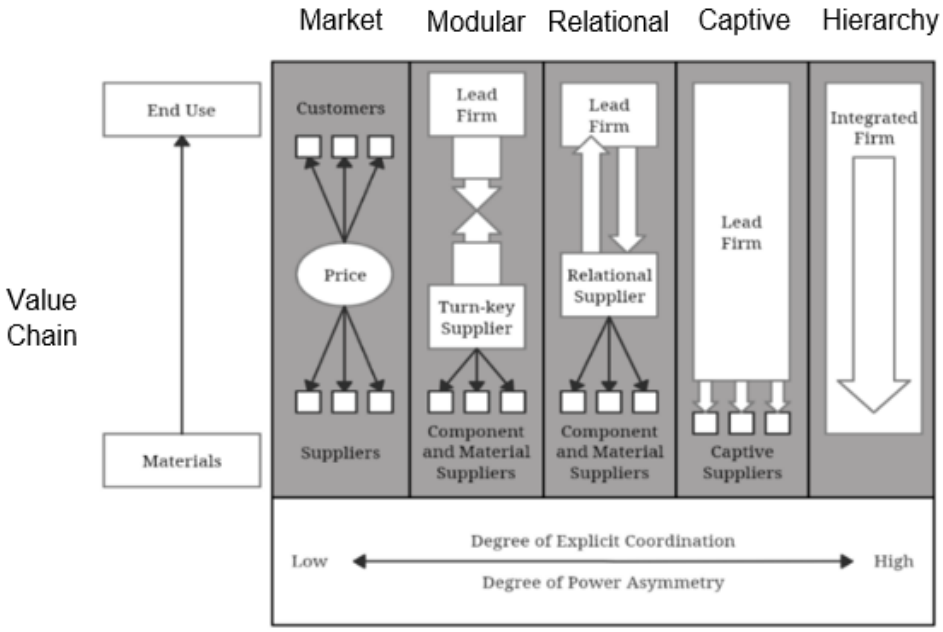
Following Gereffi et al. (2005), hierarchical structures refer to chains that are more classical and vertically integrated – i.e., involving direct ownership – because

product specifications cannot be easily codified, or competent independent suppliers are difficult to find. Therefore, high control and coordination are needed, so the lead firm must manufacture in-house. This recalls the classic MNC vertical structure, less common today and seen in specific industries only. The other extreme is market governance, where chain relationships do not involve ownership and are managed through arm's length transactions. This type of coordination is appropriate for simple transactions and easily transmissible information. Since cooperation is not required because suppliers can produce with almost no market-side input, price becomes the main governance mechanism. This dual typology resonates with insights from the Transaction Cost Theory (TCT) (Williamson, 1979; 1981), but there are more governance structures within this spectrum.

The network structures, including captive, modular, and relational governance, are placed in between hierarchy and market-type systems. These arrangements do not involve ownership linkages but are not purely market-based either. Captive structures recall hierarchical ones, except for the lack of the ownership element, hence they are quasi-hierarchical. This structure can be observed in sectors where few, large buyers control the industry, possess key market information, and many smaller suppliers depend upon them. Power asymmetry here is high, and it is maintained through thick buyer-seller ties so that information flows easily. A classic example could be the textile, fashion industry, led by sizeable distributors specialized in more sophisticated activities – e.g., design, marketing – that have outsourced production but kept their power to set requirements. Modular structures, instead, are less common and specific of certain industries – although this is context-dependent (Yeung & Coe, 2015). Here, lead firms transmit specifications to suppliers through standards because transactions

and tacit information are easier to codify. Suppliers count on generic machinery to produce for more than one buyer so that costs are spread. Thus, although interactions are intense, explicit coordination is not necessary, and flexibility is attained still. Finally, relational governance emerges in industries where competent suppliers are needed because information cannot be transmitted easily as products are complex and of quality. This requires frequent interactions among interdependent parties. Therefore, transactions are managed through long-lasting, trust-based relationships often, relying on reputation and/or social or spatial proximity so that transaction costs are reduced. Although lead firms might retain power, elevated levels of explicit coordination and knowledge-sharing prevail (Gereffi et al., 2005; Gereffi, 2014; Gereffi & Fernandez-Stark, 2016). Figure 2.1. illustrates all these governance arrangements.

Figure 2. 1. Five governance typologies in GVCs



Source: Gereffi et al., 2005

Scholars have stated that the governance structure applies to the entire GVC. However, an important observation – initially made by GPN researchers – is that nodes might interact differently, independently of the general governance structure of the chain, and that this can even vary depending on the geographical setting (Yeung & Coe, 2015). For instance, modular governance structures are frequent in automobile industries (Pla-Barber & Villar, 2019) but, within a particular automobile GVC, it could happen that different suppliers interact differently with lead firms and other suppliers. Indeed, some GVC scholars have acknowledged that chains can present distinct governance relationships in each node, which might also evolve across territorial contexts and because of actors' interactions (e.g., Golini et al., 2018; Khattak & Stringer, 2017). Thus, governance structures have a dynamic and context-dependent component where several variables may intervene, such as (1) the industry type (and the three transaction-specific variables mentioned); (2) the nodes, relationships, and analytical levels being looked at; and (3) the geographical and institutional contexts influencing GVCs' rules of the game.

In this latter vein, although most research has concentrated on governance by lead firms, GVCs do not take place in a vacuum: GVCs extend globally and so they affect and are affected by various local contexts. Hence, there will be more factors beyond lead firms influencing GVC governance, such as actors external-to-the-chain that have power to affect the chain, making governance not limited to this five-based typology. McWilliam et al. (2020) tried to accommodate the governance vision of both the GVC and GPN: while the first considered it as coordinating relationships and relative power, the second referred to regulatory and institutional arrangements. Thus, they defined governance as both organisation and control of GVCs, accounting for

inter-firm links that constitute the chain and for inter-firm and external-to-the-chain power dynamics. Governance, then, can be multipolar (Ponte & Sturgeon, 2014) as it might involve actors indirectly related to the chain too – e.g., unions, governments, or non-governmental organisations (NGOs) (Poulsen et al., 2021). Although the five-based typology is still relevant as an analytical tool, we must bear in mind the many levels affecting GVCs. Following this idea, we count on private governance at the vertical, GVC-level (exerted by lead firms), but also on governance by local private actors, as well as local or global public and social actors (Gereffi & Lee, 2016)[3].

Upgrading, on the other hand, can be understood as a competitive improvement and has traditionally been described as the process through which GVC participants – i.e., firms, industries, countries, or regions – move toward activities in the chain with a higher value-added associated to increase the profits they can capture from participating in the GVC (Gereffi & Fernandez-Stark, 2016). This process materialises in different strategies referred as upgrading paths. Whilst economic upgrading alludes to the general definition provided, entailing product, process, and functional-type improvements (Gereffi & Fernandez-Stark, 2016), social upgrading refers to measures that raise workers' rights and labour standards – i.e., employment quality (Barrientos, Gereffi, & Rossi, 2011) –, while environmental upgrading conveys product, process, and organisational improvements that reduce or avoid firms' negative environmental externalities (De Marchi & Di Maria, 2019). Economic upgrading has been the one attracting most research, as it is the one allowing for economic growth, with some scholars studying social and economic upgrading in combination too (Gereffi & Lee, 2016). Instead, environmental upgrading has received less attention in comparative

terms, although scholars' interest on this path has been increasing (e.g., De Marchi et al., 2019; De Marchi & Di Maria, 2019; Krishnan et al., 2023).

Regarding the drivers of upgrading, even if actors within GVCs may find internal motivations to upgrade, often it occurs that these paths are highly motivated by external pressures, especially when linked to sustainability-related improvements. In this sense, upgrading has been depicted as an outcome of governance (McWilliam et al., 2020) as these structures affect value-capture possibilities – i.e., upgrading trajectories (e.g., Humphrey & Schmitz, 2002). This will occur, first, because access to certain markets is only possible through lead firms' connections; second, because governance structures determine distinct GVC positions entailing highest value-added activities; and third, because linkages – influenced by the governance structure too – are necessary for the transfer and diffusion of knowledge, which enables firms to learn and improve their performance (Khattak & Pinto, 2018). Accordingly, governance will affect upgrading differently as these three factors will be managed in several ways and through different operationalisations.

Considering that most studies are based on private governance by lead firms, some scholars have found, for instance, that captive arrangements difficult suppliers' functional upgrading (Giuliani et al., 2005; Golini et al., 2018). Others have observed that social and environmental upgrading paths are often affected by lead firms' pressures over suppliers to ensure that certain standards are met, but they commonly do so because, at the same time, lead firms receive pressures from other agents – through public and social governance, often (Gereffi & Lee, 2016). The transfer of these demands, in turn, can also lead to counterintuitive results in the form of downgrading, meaning that suppliers may move to lower value-added activities,

voluntarily or not, to fulfil leaders' pressures and be competitive as an alternative to actual upgrading (Hernández & Pedersen, 2017; Lund-Thomsen & Nadvi, 2010). As argued by Mayer and Gereffi (2010), certain conditions apart from external pressures must be met for organisations to develop social practices: such activities should be profitably exploitable. The problem is that some of them, such as environmental ones, do not have a clear relationship with financial returns (Khattak & Pinto, 2018). Despite this, GVC firms still develop them, thus indicating that organisations might also pursue these upgrading because of their strategic intent to become highly competent. Consequently, the link between governance and upgrading is more up to date than ever, although a wider, more sustainable approach should be taken to both.

2.3 THEORETICAL BACKGROUND OF THE DISSERTATION: AN INSTITUTIONAL AND NETWORK PERSPECTIVE

2.3.1. *Theoretical approaches previously employed in the GVC literature*

After explaining the main elements of the GVC framework, we move on now to the theoretical approaches surrounding it. As stated, the GVC literature has its origins in the mid- and late- 1990s with the works on GCCs by Gereffi (e.g., 1994; 1999), but this literature comes from previous theories and paradigms from which it drawn on to explain the global economic reality as it changed. We review this, briefly, to understand the theoretical origins of the field and where can we advance to from there.

On the one hand, the basics of the GVC logic come, first, from previous research on MNCs and development strategies from regions such as Asia or Latin America during the decades of 1970, 1980 and 1990. The initial GCC field added the developmental aspect to the world-systems approach, thus including considerations of upgrading and downgrading possibilities for both companies participating in these

chains and the countries inserted in these systems in turn (Ponte et al., 2019) – being the focus of the research mostly on the country-level, at least at the beginning. Because most research treated developing markets' upgrading, various scholarly streams used different theoretical approaches to study these development paths. There were modernist theorists who considered institutional, contextual characteristics and historical path-dependencies, as well as dependency-related theorists who took an approach more centred on the central or peripheral position of the economies in these global systems and how this and the type of ties among them influenced dependency and, hence, under/development. This second approach focused more on the industry-level, further breaking with the world-systems theory, which referred to how a country's resources influenced its insertion in these systems, this being the key to promote the movement to better or worse positions in the chain (Ponte et al., 2019).

Afterwards, following a series of investigations and workshops to promote the development of the GVC field, the literature took a turn by further considering MNCs' position in these systems, their strategies, and thus their power to influence how the chain worked and what the development possibilities could be. From there, the initial reasoning of what would later become the concepts of governance, upgrading, and GVC mapping started to appear. In turn, apart from the macro-level view of world-system theorists, a more meso-level approach based on development strategies emerged, which focused on the industry-level and how institutional policies shaped the assignment of resources that influenced how industries, and hence countries, inserted into the world economic system. Later, the "*Global Value Chain Initiative"* would join both the scholars interested on MNCs' power and their effect on industrial organisation, and those more focused on a micro-level, local-development approach

departing from industrial cluster literature. This effort to promote a framework that could integrate macro-, meso-, and micro-level views to explain the global economic reality at the time led to the five-year programme "*Global Value Chains Initiative*" by the Rockefeller Foundation. From there, the GVC concept was established, growing apart from theories that did not match the reasoning of this literature and putting the value-added at the centre of its analysis (Ponte et al., 2019).

Since then, other major theories have served to theoretically reinforce the GVC framework. One of them has been the TCT (Williamson, 1979; 1981), which contrasts the market and the firm as systems of allocation and organisation of resources to assess which one can be more efficient at reducing transaction costs for a superior performance. A transaction cost will refer to the cost of either internally (within the firm) or externally (at the market) exploiting a competitive advantage; that is, the decision of "make or buy." This is about choosing to either internalise or externalise a given activity, or competitive advantage, depending on what option reduces this cost the most – i.e., what option is more efficient. This theory has been applied to different knowledge fields, such as that of firms' internationalisation; for instance, companies expanding abroad will choose a different entry mode depending on the transaction costs associated to exploiting a competitive advantage in a foreign market. Firms will choose entry modes implying the internalisation of that exploitation – e.g., Foreign Direct Investment (FDI) – when abroad markets do not operate well enough to externalise this, implying that it would be necessary to incur in high transaction costs to protect the firms' competitive advantage. This connects with GVC logics –even though this literature does not consider efficiency matters only.

This theory has had its application to the GVC literature, indeed, the work by Gereffi et al. (2005) on governance being very illustrative. The initial, dual governance typology of GVCs (i.e., market- vs. hierarchy-based structures) is influenced by TCT insights, as commented above. It departed from this premise of what type of governance would be more effective to control and coordinate the chain, depending on the specificity of the investments necessary to operate in the GVC and how complex the relationships among participant firms were, as this influenced aspects such as potential opportunism that must be controlled for (cf. Williamson, 1975). However, in this same study (Gereffi et al., 2005), the authors also employed resource- and network-based approaches to extend the governance model to the five-typology we described (i.e., including the modular, relational, and captive structures), giving rise to the three factors determining governance and also explaining how this control and coordination can take place through other mechanisms, such as network ties based on proximity and/or trust ties among GVC firms.

In a similar vein, more recent works employed the internalization theory to ascertain how lead firms decided on this internalisation-externalisation decision, also related to the governance mechanisms these leaders would use to coordinate and control the activities throughout the GVC (e.g., Strange & Humphrey, 2019) – in the same issue, the work by Benito, Petersen and Welch (2019) extends the prior study by assessing the differences between internalization theory and the GVC framework, mainly on their notions of efficiency, opportunism, and the analytical level, and explain how to truly advance the GVC literature using theories such as this. Other approaches taken to explain the organisation and control of GVCs have been that of the global factory (e.g., Buckley & Strange, 2015), as explained in the previous

subsection, or the OLI/eclectic paradigm. The latter, for instance, based on ownership, location, and internalization advantages (e.g., Dunning, 1988) – thus following similar logics – has been applied recently within the GVC field to unite the fragmented literature on governance into a more integrated framework (McWilliam et al., 2020).

Given the well-established effect of governance structures on upgrading and downgrading in GVCs, these approaches have, inevitably, also influenced the GVC strand related to value creation and capture. Development-based approaches were initially employed in this vein, mostly at macro-levels (Ponte et al., 2019). In turn, from our literature review (see chapter 3) we know that innovation, learning, and the catch-up literature have been applied to this research stream too, as well as resource- and knowledge-based paradigms – even though this is not always said explicitly in some works. The cluster literature, from a bottom-up approach, has also been used to analyse these development paths in GVCs (e.g., De Marchi et al., 2018; Gereffi & Lee, 2016), enriching considerably the field since, once again, governance is not only exerted by lead firms, which may even promote downgrading instead of upgrading.

As a summary, in Table 2.2., we illustrate the theories, paradigms, and literatures that we have detected to have been the most applied to GVC research, differentiating between the areas of value-distribution – connected to governance issues about control and coordination of the chain – and value creation and capture – referred to upgrading dynamics. Nevertheless, both areas are closely related. Therefore, some theoretical paradigms have been used for both top-down and bottom-up approaches to GVCs' study, as we show in Table 2.2. as well.

Table 2. 2. Main theories and literatures underlying GVC research

	Value distribution issues (control, coordination) (GVCs' governance)	**Value creation and capture** (GVCs' upgrading dynamics)
Theories, literatures, paradigms	World-systems theory Dependency theory Development theory MNCs and power Global factory approach TCT Internalization theory Network approach Cluster literature Production chain and supply chain literatures	Development-based approaches (strategies' development at various levels) Resource-, capability-, and knowledge-based paradigms Innovation, learning, and catch-up literature Cluster literature

Source: Own elaboration

2.3.2. *Theoretical reasoning underlying the dissertation: Institutional Theory and Network perspective*

In this thesis, we employ two different theoretical approaches to support our empirical studies and answer our RQs under adequate perspectives that enable us to theoretically strengthen our reasoning. We use a major theory as the IT is, as well as the NT approach, the latter focusing on business- and non-business networks – hence including both actors internal and external to the chain. The use of these theories is appropriate because this dissertation seeks to understand the interactions between and the effects of underexplored internal- and external-to-the-chain actors on GVC firms' upgrading – in particular, SMEs' sustainable upgrading – and these theories bring together the company and its environment, precisely. This allows us to combine such approaches to provide more sounded answers to our RQs. In this subsection, we introduce what they both consist of, and we will develop further how they apply to our research in the corresponding chapters.

On the one hand, the *IT* originates from the work by authors like North (1990) or DiMaggio and Powell (1983), although it has evolved with time and now there exist several perspectives to it – such as the comparative institutionalist approach, the new institutional economics, or the new organisational institutionalism. The IT has as its core the explanation of the processes that lead the actors from the same institutional and organisational field to adapt to such an environment, and why isomorphism processes tend to be observed in this vein – the latter connecting with the idea of legitimacy. This organisational field refers to "*organizations that, in the aggregate, constitute a recognized area of institutional life*" (DiMaggio & Powell, 1983; 148), and for it to be considered an institutional area there must be interactions among its members (connectedness); defined structures in terms of coalitions and authority; sufficiently significant information exchanges; and awareness of one another among all relevant field members (DiMaggio & Powell, 1983). Taken to the GVC ground, these chains themselves can be understood as these organisational and institutional fields because they accomplish with such characteristics. What is more, the members of the GVC will be part of different institutional fields, as they are both locally and internationally embedded, hence further justifying the adequacy of this theory to respond to our research goals.

Regarding the definition for institutions, initially, North (1990; 1991) defined them as rules that where common to a given institutional group and served to constrain or shape the relationships among agents in that field, thus decreasing potential uncertainty and ambiguity. In other words, institutions were understood as the rules at play in a specific context, with these norms being formal or not (i.e., unwritten rules are included too, because they are known to agents within the same environment)

(Hotho & Pedersen, 2012). The new organizational institutionalism understands institutions as regulative, cognitive, and normative frames shared by agents in the same field that shape their behaviour through norms, rules, and cultural values (Hotho & Pedersen, 2012). The first refers to "*prescriptive, evaluative, and obligatory dimension into social life*"; the second to "*rule-setting, monitoring, and sanctioning activities*"; and the last one to "*shared conceptions that constitute the nature of social reality and the frames through which meaning is made*" (Scott, 2008: 428). Through such formal and informal elements, isomorphism patterns will be observed in the members of specific organisational and institutional fields, as they are pushed to take after one another to gain legitimacy in these contexts. That is, both competitive and institutional isomorphism pressures will lead actors to take measures to fit their environment, both socially and economically, as they compete over resources and power (DiMaggio & Powell, 1983). Once again translated to the GVC field, this identifies well with the ways in which these chains are controlled and coordinated by agents with authority to do so in pursuit of directing GVC members' behaviour towards certain goals.

There are diverse ways to reproduce such norms, though; mainly, coercive, mimetic, and normative pressures. The first concern authority-type relationships that can be more or less formally exerted by different actors, including both governments and organisations. The second consists of imitating actors considered as legitimate – as a kind of benchmarking exercise. The last one regards professionalization in terms of rules imposed by private-type agents (e.g., trade associations) (DiMaggio & Powell, 1983). However, these are not static elements, but rather dynamic as institutionalisation occurs through actors' support, opposition, and willingness to affect institutions back in the process of working within these frameworks (DiMaggio,

1988; as per Scott, 2008). Again, this fits well with the GVC framework and our research goals: there are various types of institutional-like actors – not limited to governments, but also including labour unions or industry associations, all with agency to act on the chain (Sturgeon et al., 2008) – who will use different measures to drive agents' actions, which connects with the idea of governance. In turn, they will operate at several levels affecting GVC participants, such that GVC firms will face pressures at the local, national, regional, and global level, both internal- and external-to-the-chain – that is, from several different actors and levels of action – that will influence their strategies to maintain their legitimacy and keep being competitive – e.g., in terms of upgrading paths. Hence, the key lies on what effects do these institutional agents have on GVC participants' competitiveness and through what mechanisms; and what types of interactions might take place, with what consequences. The underpinnings of this theory are relevant given the focus of this dissertation on sustainability-related upgrading. Prior works have explained that private agents often pursue socially responsible measures when these also fit their competitive interests, and so other governors must act to promote these paths anyway (Mayer & Gereffi, 2010). Here, the IT can shed more light on how these processes can take place.

On the other hand, we employ the *NT perspective* concentrating on both business and non-business networks to assess how such relationships work regarding SMEs' sustainable upgrading. From a more social viewpoint, the NT approach has its origins at works like that by Granovetter (1973) on the strength of weak ties, or Burt's (1992) structural holes theory. However, the more business-related strand of the network paradigm is what has been largely employed in internationalisation-related research (e.g., Johanson & Mattson, 2015; Johanson & Vahlne, 2009), also regarding

the performance of MNCs and their units (e.g., Andersson, Forsgren, & Holm, 2002). Hence, the dissertation will mostly rely on this latter approach.

Networks have been defined slightly differently depending on the paradigm they applied to, but in general they can be understood as groups or webs of different agents that are tied by various types of relationships linking them (Borgatti & Halgin, 2011). These actors can be interpreted as the nodes that form the network, and the relationships that connect them will form specific structures where the nodes occupy a given position. This position and the typology of the links among such nodes will determine the flow of knowledge and resources among the network members, with this idea being the basis to the NT perspective. The position of a node has been a critical topic in this approach because it determines the links it has access to, and hence the resources it can exchange. Indeed, Granovetter's (1973) reasoning on the strength of weak ties did concentrate on the access of network nodes to bridging links that contained novel resources and information, and Burt's (1992) structural holes paradigm focused on how central the position of a node was, because that centrality would enable accessing non-redundant knowledge through the gathering of more social capital. In turn, the centrality idea defined from a power perspective (Freeman, 1979) also connects with how nodes' position grants them access to more nodes with which to interact, hence determining interdependent relationships that make these nodes central to the network, granting them with power in this process.

All this reasoning serves well to enrich GVC research and is adequate to it since, following Sturgeon et al., (2008), the conceptualisation of GVCs as chains does not refer to linearity only as suggested by some GPN researchers (e.g., Alexander, 2018). Rather, the chain view is employed to simplify the analysis of complex

relationships that emerge in the GVC. Considering so, the GVC can still be understood as structure more complex than just a chain, like a network (Sturgeon, et al., 2008) – Gereffi (1994) already depicted commodity chains as inter-organisational networks, and later explicitly included how they were formed by intra- and inter-firm links (Gereffi, 2014). Accordingly, although the chain viewpoint eases the holistic analysis of industries, the network approach applies well to further theorise this research as it enables considering all the relevant actors involved and how relationships among them work with what outcomes.

For example, the centrality concept can connect with why and how lead firms manage GVCs, because their position is one of the key factors that grants them access to more nodes and determines interdependent relationships that make these leaders central to the network, granting them with power. However, the network and so a GVC too will be formed by more agents than just lead firms and suppliers; thus, analysing the number of connections will be as important as studying the type of links (McDermott & Corredoira, 2010) because this will determine the outcomes for the members of the network, as well as for the entire GVC. Therefore, this NT paradigm serves as an adequate basis for the goals of this dissertation too, even if the thesis concentrates more on the business network strand, because in a GVC we will also observe how the position of companies different from lead firms affects the tasks and risks they assume, as well as the knowledge and resources they have access to – not just through GVC nodes, but also through other types of networks at other levels –, therefore significantly influencing their available upgrading possibilities.

Moving on to the *business network* strand, at the beginning these groups were labelled as industrial networks and defined as systems of firm relationships that

included links to customers, competitors, suppliers, or distributors (Johanson & Mattsson, 1987), as well as indirect connections to suppliers' suppliers, clients' clients, and so on, with the basis being the coordination of these links (Johanson & Vahlne, 1990). That is, this line of research framed business networks as the systems containing relationships among business-type agents (Johanson & Vahlne, 2009), where these members of the network are interdependent and embedded in a broader web of business-type links. The latter is crucial to keep in mind that there are connections among networks too, as their boundaries are determined by the existing links but also by the researcher, but also to reflect on the concept of embeddedness, first introduced by Granovetter (1985) and referring to structures of relationships where economic action is embedded. These structures are based on certain values and norms socialized over time that emerge from previous paths (political, historical, legal) – so there is a path dependency component –, with such paths influencing actors' behaviour while creating an environment for trust to exist, enabling the adequate functioning of the network. The embedment in business networks is crucial for firms to access the resources they need to be competitive, as capabilities cannot always be developed internally or acquired from the market when they are not tradable (e.g., experience, reputation, specific knowledge on the industry), and the network allows accessing and exchanging these, as well as generating knowledge (Chetty & Wilson, 2003). Hence, companies will be embedded in context-specific, idiosyncratic business networks, with their embedment degree evolving through time (from arm's-length to more interdependent links) and allowing for these exchanges to take place (the higher the embeddedness, the better). This connects well with GVCs, where we observe that the access to knowledge and resources through nodes' links is key for firms' upgrading,

and that the more relational-type the link, the better. However, an excessive embedment (i.e., over-embeddedness; Uzzi, 1997) can lead to transfers of redundant information, making difficult or even preventing the exchange of novel information (Andersson, Forsgren, & Holm, 2002; Nell & Andersson, 2012). For such reason, considering several types of networks at different levels is crucial when applying this reasoning to the study of GVCs and how they can work towards competitiveness.

In a global world, though, organisations will not be embedded in business-networks only, nor will they be only local or only international. Firms will be part of networks from all the contexts that affect them, leading them to face embeddedness tensions that might appear (Andersson et al., 2002; Ryan, Giblin, Andersson, & Clancy, 2018). This includes networks that are not of the business-type; that is, *non-business or institutional networks*. We define these networks as systems including relationships to public agents, mostly government-type but also actors like industry associations or research entities, and they may also exist at different levels. Prior works already define institutional networks as those containing relationships between companies and public entities, this being relevant because such links can provide support services, as well as investments among other measures, to help drive firms' competitiveness (Oparaocha, 2015). These agents can be as key as business-type actors to promote the competitiveness of firms embedded in these networks. Hence, we consider them in the dissertation, as they will affect GVC firms as well. This also connects with our other theoretical approach, the IT, such that we add more roles to institutional-type actors: they are not only regulators imposing norms to drive organisations' behaviour, because they can also play softer roles in terms of providers of resources and knowledge.

Based on these logics and as stated above, this NT perspective has been largely applied to firms' internationalisation and competitiveness. It has been seen that business networks help companies to develop abroad by giving them a better understanding of how to adapt to foreign contexts (Díez-Vial & Montoro-Sánchez, 2020). Specifically, internationalising – which nowadays often includes entering GVCs – requires certain types of knowledge that can be acquired through networks, such as firm-specific technological knowledge (to be able to adapt the goods and services to foreign markets); market- and institutional- knowledge to gain legitimacy (thus decreasing the risk of such a complex strategy); and firm-type experiential knowledge regarding how to approach and operate in foreign economies (Fletcher & Harris, 2012). In this vein, prior research on network-based internationalisation has mostly studied business networks (Costa et al., 2017), showing that both foreign partners (Díez-Vial & Montoro-Sánchez, 2020) and domestic ones (Chetty & Campbell-Hunt, 2003) can be crucial in favouring it through this knowledge transmission. However, non-business networks have been less studied in comparison despite potentially being as relevant – there are exceptions, though; for instance, the work by Chetty & Holm (2000) included the role by agencies for regional development and export promotion. For this reason, here we consider them both, with the two theoretical paradigms presented serving adequately for our studies.

2.4 SMES: KEY ECONOMIC, SOCIAL, AND ENVIRONMENTAL ACTORS

In this subsection, we introduce the specific type of firm whose sustainable upgrading represents the focus of this dissertation: SMEs from developed countries that participate in GVCs. The interest of the thesis on these SMEs is justified by several reasons. First, the presence of SMEs in most countries worldwide is remarkable

(Eggers, 2020; OECD, 2019). In Europe, for instance, they constitute more than 99% of firms in most economies (Muller et al., 2019). In addition, even though internationalising is challenging for all firms, and it is so especially for SMEs given their inherent limitations (Lu & Beamish, 2001; 2006), these companies have been eager to expand their businesses abroad and have managed to become increasingly involved in international markets (Morais & Ferreira, 2020). Consequently, SMEs represent pivotal engines of economic, social, and environmental development, not only in their home regions but also at the global level. Regarding GVCs, SMEs' international activity and impact often unfolds through these chains nowadays. Nevertheless, this field of knowledge has studied SMEs in terms of their role as suppliers and their upgrading, but mostly in the context of developing economies. Instead, SMEs from developed markets have been comparatively less studied despite working mostly as suppliers in GVCs too – and not only as first-tier ones – so the GVC literature needs more research about these critical actors. Hence, in this section we discuss, briefly, different approaches to SMEs' internationalisation and their insertion in and development through GVCs.

2.4.1. *SMEs' internationalisation and development: Theoretical approaches*

Developing complex strategies such as internationalisation ones demands the deployment of a considerable quantity of resources and knowledge. This is challenging for any company, but it is especially so for SMEs. Even if some of their characteristics (e.g., SMEs' flexibility) can represent an advantage to undertake certain strategies (Juergensen et al., 2020), SMEs face limitations that are intrinsic to their smaller size, referred as SMEs' liability of smallness (Lu & Beamish, 2001; 2006). This means that these firms possess fewer technical, financial, and human resources to dedicate to

complex strategies. In addition, SMEs' size often implies that they will not count on internal, formal processes of knowledge management either (Villar, Alegre, & Pla-Barber, 2014), which may lead them to suffer information shortcomings as well. These internal limitations, as well as limited management experience or availability, increase SMEs' difficulties to internationalise, also by enhancing their liabilities of newness and foreignness in turn (Lu & Beamish, 2001). Yet, SMEs have gone increasingly global, prompting research on their internationalisation strategies. In doing so, most studies have analysed the case of high technology firms and often operationalised this strategy as SMEs' entry mode or the time to internationalisation (Morais & Ferreira, 2020; Morais & Franco, 2018; e.g., Chetty & Wilson, 2003; Coviello & Munro, 1997; Schweizer, 2013). The scholarly attention that SMEs have received is partly rooted in this paradoxical relationship between SMEs' limitations and the pursuit and fulfilment of complex strategies despite that, but also in the fact that internationalising can drive SMEs' competitiveness. It does so, for instance, by helping them grow, use their resources more efficiently, diversify risk, or decrease their unit costs, among others (Fariborzi, Osiyevskyy, & DaSilva, 2022). In this way, research has produced significant insights on SMEs' internationalisation process that are relevant to their insertion in GVCs too.

Several studies have shown that SMEs' international strategy often responds to external shocks such as economic crises might be, thus following reactive, risk-averse paths, mostly concerned about short-term results (Villar & Pla-Barber, 2018) – not meaning that these firms cannot be proactive. This tendency is related to SMEs' inherent limitations, as their lack of available assets imposes greater risks to the development of internationalisation strategies (Lu & Beamish, 2001; Majocchi et al.,

2005). Departing from this line of thinking, several models have attempted to explain SMEs' internationalisation processes under different theoretical lenses. Even though initial theories began describing firms' internationalisation as a gradual process of commitment to foreign markets, mostly focusing on MNCs (Morais & Ferreira, 2020), SMEs' increasing global reach spurred more research on them.

Starting with the Uppsala model (Johanson & Vahlne, 1977), this argued that companies would follow sequential internationalisation processes depending on firms' accumulation of experiential knowledge, hence the process consisting of gradually increasing firm commitment. Firms would first enter the closest, most similar markets, and would expand to more distant regions while increasing their commitment of resources as they accumulated such knowledge. Although different types of companies fit this explanation, the model put both the development and commitment of resources and the accumulation of knowledge at the centre, which may be particularly challenging for SMEs as stated. This model was criticised too for its inability to explain why some companies internationalised from their inception, or did not follow this traditional path, and for concentrating on knowledge accumulation as the driver of the process even though other elements might motivate firms' internationalisation as well, such as domestic market conditions, for instance (Wright, Westhead, & Ucbasaran, 2007). Consequently, other models emerged to provide alternative explanations.

These models are those based on entrepreneurship literature, mainly International New Ventures or Born Global firms (e.g., Knight & Cavusgil, 2004), and those based on the network view (e.g., Coviello & Munro, 1997; Johanson & Vahlne, 1990). The first emerged against the traditional model in response to companies

internationalising soon after being born or at the same time, whereas the second complemented the two previous strands. The first sees firms' internationalisation as an act of entrepreneurship, such that companies may go international since their inception, or they might be well-established firms that internationalise quickly (Lu & Beamish, 2001; Morais & Ferreira, 2020). The network-based view, instead, gives an explanation whereby firms' internationalisation would not depend on their internally generated experiential knowledge only. Companies could leverage their local or host market networks to develop knowledge and thus overcome their liabilities of foreignness, outsidership, and smallness regarding SMEs (Johanson & Vahlne, 2009). According to this, firms are embedded in business networks of interdependent actors that simultaneously enable and limit firms' strategic actions, such that firms' network position allows them to sense and seize opportunities, this being the path to internationalisation (Johanson & Vahlne, 2009). The network would influence firms' decisions on what market to enter and the entry mode to employ. Networking could foster SMEs' internationalisation then, even in distant regions, as the barriers to this strategy associated with outsidership and lack of resources and knowledge diminish.

Consequently, the network-based view became particularly important as it contended that SMEs made use of networks to tackle internationalisation strategies (Costa, Soares, & de Sousa, 2017; Morais & Ferreira, 2020). Research in this area often supported this reasoning, also considering the increasing complexity of the global markets and the limitations that led SMEs to make use of networks to compete (Hohenthal et al., 2015; Johanson & Vahlne, 2015; Pla-Barber, Villar, & Royo, 2019). Studies focused mostly on business networks (Costa et al., 2017) and the relationships taking place within them (Johanson & Vahlne, 2009) between counterparts such as

clients, suppliers, distributors, or competitors of the focal firm, but also suppliers' suppliers, clients' clients, and so on (Johanson & Mattsson, 1987; Johanson & Vahlne, 1990). Overall, these relationships were regarded as key to driving SMEs' internationalisation, as establishing relationships with a variety of partners can be the key for SMEs to compete optimally (Soontornthum et al., 2020) because these linkages allow accessing a variety of necessary assets that SMEs lack internally. This identifies largely with what occurs when SMEs enter GVCs in their internationalisation process, and how their competitive development through the chain can take place.

2.4.2. *SMEs in GVCs: Insertion, roles, competitiveness paths, and consequences of GVC participation*

As posited above, the use of external knowledge sources appears to be critical for SMEs to develop demanding strategies, given their internal constraints (Villar et al., 2014), and that includes their internationalisation strategies. This can be even more important for SMEs from TMS – the focus of this dissertation – given their higher resource-allocation trade-offs (Villar et al., 2020). SMEs' internationalisation has been explained by the NT paradigm largely (Hohenthal et al., 2015), often concentrating on the business networks SMEs are embedded in, as they allow them to access and develop knowledge to internationalise (Johanson & Vahlne, 2009). Even though empirical evidence has shown different results sometimes, often depending on the network agent under analysis, this argument in favour of the use of networks is well-established overall (see Morais & Ferrerira, 2020, for a review). This connects well with the GVC literature because, nowadays, firm's internationalisation tends to take place through their insertion in this global, industrial organisation systems. That is also

the case for SMEs, which usually enter these chains as suppliers at different tiers depending on their industry, the tasks they perform, and their capabilities.

Said capabilities can improve with SMEs' insertion in GVCs, at least potentially, following this network logic whereby companies can access resources that they cannot develop and/or manage internally. However, evidence shows that this does not always happen as it depends on different variables (e.g., the type of relationship with other GVC, business agents). In this vein, various actors must be considered, as it can occur that firms improve their competitiveness (i.e., upgrading, in GVC terms) anyway. Regarding SMEs, as they are embedded in their local contexts very deeply (Hervás-Oliver et al., 2021), they often rely on linkages established with actors from that environment too, such as institutional ones might be. Therefore, they have access to a wider set of networks – not only of the business-type, but also institutional or non-business ones – and at different levels – not only at the GVC level, but also at the local, national, or regional level – that can explain their internationalisation and competitiveness paths even when they face their limitations and/or GVC structures non-conducive to their competitive development.

Concerning these different agents to whom SMEs may have access to, it is crucial to consider both market and non-market ones as managing both forces influences firms' competitiveness and success (Baron, 1995). In doing so, it becomes imperative to study both business and institutional networks, at the domestic and international context, as potential promoters of SMEs' development through GVCs. For instance, actors from SMEs' home markets can be the first stage for these companies to acquire networking abilities, knowledge, and resources, which would enhance their capabilities to deploy complex strategies (Díez-Vial & Montoro-

Sánchez, 2020). Other value chain agents at the local level that can be key for SMEs' development are firms and institutions from the clusters where SMEs are often embedded in. SMEs tend to locate in these geographic spaces that agglomerate institutions and companies and favour that their members can benefit from proximity advantages to achieve collective efficiency advantages and so be more competitive (Giuliani et al., 2005; Porter, 1998). This agglomeration tendency by SMEs occurs very often in TMS, as they often face increased limitations and so tend to follow concentration trends. Thus, by gathering agents of distinct kinds in the same place, clusters create a space where knowledge and resources can potentially flow through actors' social interactions more easily (Mudambi, Mudambi, Mukherjee, & Scalera, 2017). Global connectivity and the evolution of industrial clusters: From tires to polymers in Northeast Ohio. Industrial Marketing Management, 61, 20–29., 2017). This would promote firms' competitiveness, and their ability to pursue complex strategies (i.e., innovation ones), as it can foster the motivation to compete, inter-firm relationships, and knowledge spillovers (Fang, 2015). Even though business-type agents such as clients, competitors, or suppliers may be the preference options (cf. Hervás-Oliver et al., 2021), other entities can serve as this sources of knowledge and resources too. Examples of the latter include public institutions, but also industry associations and other private, local firms from auxiliary or complementary industries. These agents can use different mechanisms to set norms and/or provide complementary assets – i.e., technical knowledge to improve firms' goods and their differentiation, marketing-based resources, etc. (Wright et al., 2007) – to foster SMEs' internationalisation (as GVC participation) and competitiveness.

However, studying SMEs' strategies both to participate in GVCs and improve their competitiveness will be just as important as studying the consequences of such strategies. In other words, analysing the outcomes of these strategies is as key as studying the specific processes taking place because, otherwise, how can we determine that these strategies have successfully improved SMEs' competitiveness? This can be even more complicated when studying sustainability-related upgrading paths. Especially for environmental upgrading, it is often argued that it is very hard for SMEs to develop these practices departing only from internal motivations to do so (De Marchi et al., 2019), which might include the willingness to enhance the firms' reputation (e.g., to increase its visibility and legitimacy in the chain); to reduce costs and so be more efficient; or to improve their performance through product innovations of the kind. The complexity of these competitive improvement paths together with SMEs' limitations make them particularly challenging. Therefore, external pressures and relationships tend to be critical for these strategies to take place (Leonidou et al., 2017), potentially being as important as SMEs' strategic intent, because they can trigger SMEs' motivation and capabilities. Nevertheless, there is a lack of further, explicit research on the true outcomes of these strategies. It could happen that SMEs can successfully integrate in GVCs, but not in a node that fosters their competitive development in a sustainable manner – i.e., SMEs could get trapped in between competing demands by powerful GVC actors that, for instance, lead them to improve their processes, but not necessarily in a sustainable way. In turn, some research on sustainability-related practices within the GVC literature has shown that these strategies might not always entail an immediate profit (Khan et al., 2020), whether in economic terms or not, which might demotivate further the willingness to undertake

them – thus the importance of considering the outcomes too. Finally, since most GVC research on these issues has been conducted regarding the upgrading of suppliers from developing markets, we need to conduct more studies on developed country contexts. There, SMEs also act as GVC suppliers in various tiers, and because they are embedded in a different environment, studying them could shed more light on their upgrading paths and outcomes and show results that can vary compared to developing country's firms, hence enriching GVC research.

2.5 CONCLUSIONS

Throughout this second chapter, we have outlined the origins of the GVC literature, as well as the different theoretical paradigms it comes from and how it has evolved over time, comparing it with related strands such as that of the GPN. We have also introduced the main elements of the GVC framework, extending the explanations on the concepts of governance and upgrading, as they are key in the fiend and in this dissertation too, while also connecting with those areas that have been comparatively unresearched in the GVC field. In addition, we have introduced the theoretical frameworks that we will use in the empirical chapters of this dissertation, already relating them with the GVC logic. Finally, we have introduced the type of company this dissertation focuses on, SMEs from developed countries, explaining why they are key and so the reasons to concentrate on them. From here, we can extract several conclusions.

Regarding the evolution of the GVC field, we can appreciate how it has gone from a more macro-level perspective to a more meso- and micro-level approach to finally integrate all three viewpoints. At the beginning, researchers focused more on how countries engaged in an economic system that started to organise differently at

the global level and what the repercussions of this were – thus considering more commercial-related aspects. But then, the field moved on to also consider the industry-level and then the firm-level, which makes sense as countries' insertion in GVCs also occurs because of the participation of the latter two levels. This prompted studies focused not only on the organisation of GVCs, but also on the development outcomes for different actors at various levels, hence the application of different theoretical approaches at different points in time. Nonetheless, there is still room for the further theorisation of GVC research, as the framework can be considered more as a theory that can still benefit from drawing on other major theories and/or well-established theoretical paradigms. In this vein, in this chapter we introduce the IT and NT approach and how can they support our reasoning regarding our RQs.

Finally, we briefly reviewed the role, insertion paths, and competitiveness improvement possibilities for our actor of interest: SMEs from developed countries. We justified their importance and provided an overview of what we know about their ability to internationalise, insert in GVCs, and develop through them. We justified the importance of conducting more research on these actors – as the GVC field has focused more on the development by firms from emerging markets – but also about the influence of agents other than lead firms in promoting SMEs' upgrading. Again, we have connected this with the theoretical reasoning that will underline the dissertation.

2.6 NOTES

1. We also acknowledge the extensive work within the supply chain field.
2. In this dissertation, we use both the terms network and chain for its comprehensiveness and because, as stated by Sturgeon et al. (2008), the

chain concept is not literal nor refers to exclusive linearity. Indeed, "*a value chain can usefully be conceptualized as a subset of more complex and amorphous structures in the spatial economy, such as networks, webs and grids*" (Sturgeon et al., 2008: 302). Gereffi (1994) already depicted GCCs as inter-organisational networks, and later as formed by both inter- and intra-firm links (Gereffi, 2014). Hence, we use both concepts since GVCs can be considered networks of inter-firm relations (Khan et al., 2020) where GVCs' structure will depend on the transactions taking place and the nature of their relationships (e.g., market- or trust-based), and also chains as this provides a useful meso-level view (Gereffi, 2014) to study actors' relationships (Sturgeon et al., 2008).

3. We extend these considerations in chapter 3, because they will have different effects on firms' upgrading paths.

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CHAPTER 3: ADVANCING FIRMS' SUSTAINABLE UPGRADING IN GVCS – DEVELOPING AN INTEGRATED FRAMEWORK FOR THE DRIVERS, PROCESSES, AND OUTCOMES OF UPGRADING

ABSTRACT

As economic actors worldwide have joined GVCs, development opportunities from chain participation have received increasing attention. Research has concentrated on the effect of lead firms' governance over upgrading paths, as well as on the case of suppliers from developing countries. However, it has been observed that these paths are not straightforward, and as GVCs are embedded in different contexts there have been calls to consider and integrate other elements in this analysis too. In this vein, and despite mixed evidence on the impact of distinct factors on upgrading, these elements have not been systematically integrated to date. As doing so is critical to advance research, we conduct a systematic literature review answering what is the current state of knowledge within the GVC field about the effects that different factors, at different levels, have on firms' upgrading. We focus on the firm-level and consider the sustainable dimension of upgrading too, while accounting for both internal and external drivers and framing the latter as vertical and horizontal private, public, and social governance. From our review, we elaborate a framework elucidating the drivers of firms' upgrading and the specific mechanisms employed. In doing so, we disentangle their effects on upgrading, which we consider as both processes and outcomes, and propose future research avenues.

Keywords: GVCs; upgrading; sustainability; private governance; public governance; social governance

3.1 INTRODUCTION

Economic and industrial activities have scattered globally as MNCs have outsource-offshored their non-core operations. This has led to a system of production and distribution based on GVCs where MNCs act as lead firms that control and coordinate these chains (Buckley & Strange, 2015; McWilliam et al., 2020). The evolution of GVCs has aroused a great body of research on the creation of value through cross-border relationships, the effect of GVC structures on participants' development, or the efficiency of GVC transactions (Kano et al., 2020), but most studies have focused on the relationship between lead firms' governance and upgrading (Khan et al., 2020; McWilliam et al., 2020) given that lead firms influence the upgrading possibilities available for GVC participants by coordinating and controlling the chain.

However, although research has shown that upgrading is significantly dependent on these governance structures, it has also become clear that these development paths are not so straightforward, let alone in an inclusive manner (Ponte et al., 2019) because the lead firms do not always favour upgrading (Achabou et al., 2017). Yet, upgrading paths may take place anyway: GVCs do not exist in a vacuum (Kano et al., 2020), meaning that their global extension implies that GVCs are embedded in different local contexts, and therefore elements from these environments can affect the dynamics of the chain as well. Indeed, the fact that upgrading may occur even if lead firms' governance does not favour so, justifies the study of other factors at play. Accordingly, there have been calls to integrate further these other elements in GVC research (McWilliam et al., 2020) – just as related disciplines like that of GPNs have called for too (Murphy, 2019). Nevertheless, to this date, these elements have not been systematically integrated, even though there is also prior, mixed evidence on the

effects of some specific mechanisms on upgrading – for instance, concerning whether instruments such as audits drive certain paths as intended (Goerzen et al., 2021).

Hence, integrating this knowledge is critical to advance the GVC field, especially in the theorisation of how upgrading dynamics work. The purpose of this chapter is to gather these factors that affect upgrading and, for each one, elucidating the mechanisms employed and their effect. To do so, we conduct a systematic literature review to answer the following RQ, which constitutes the first of this dissertation: What is the current state of knowledge within the GVC field about the effects that different factors, at different levels, have on firms' upgrading? We focus on the firm level, and on those companies different from lead firms, because they participate in GVCs through manufacturing activities and are critical subjects of upgrading paths, which afterwards may drive development within industries, chains, and countries. We explicitly consider the sustainable dimension of upgrading too, since in a context where GVCs are contested (Kano et al., 2020) because they have brought economic growth but also social and environmental damage, it is crucial to advance knowledge in a way that tackles sustainability-related issues too. In answering our RQ, we systematically analyse the available evidence and develop a comprehensive model of the drivers, processes, and outcomes of upgrading.

This review differs from prior ones related to GVCs by bringing in a new perspective; we refer some examples. Koberg and Longoni (2019) synthesize the elements of sustainable supply chain management by coming up with different configurations that connect governance mechanisms with upgrading, considering sustainability too. However, even though they focus on vertical relationships while acknowledging the role by third parties, they do not delve further into other local

dynamics. The work by Kano et al. (2020) concentrates on governance issues at the micro-, meso-, and macro-levels and detects several research gaps. Although extremely relevant, their focus is different and does not provide an analysis of upgrading drivers and mechanisms. McWilliam et al. (2020) review the governance construct through the lenses of the OLI framework, but do not delve on the various mechanisms driving upgrading in detail either. De Marchi et al. (2020) review the evolution of GVC studies and identify connection points with IB literature, but their purpose differs from ours and so do their results. De Marchi and Alford (2021) fill an important gap by reviewing states' roles in GVCs as regulators, facilitators, producers, and buyers, but do not consider other possible roles – e.g., knowledge bridges (Corredoira & McDermott, 2020) – or agents. Lastly, Golgeci et al. (2021), and Epede and Wang (2022), focus on developing countries and the latter also on SMEs. Even though the first considers institutions and environmental upgrading, both lack the illustration of the mechanisms driving upgrading while accounting for other actors' roles.

Therefore, we make several contributions to advance the GVC field within IB research. By systematically gathering the factors affecting upgrading, both internal and external and at various levels, we formulate an integrated framework to explain the dynamics of firms' upgrading from both top-down and bottom-up approaches. In doing so, we also advance research by proposing new research lines departing from this model. As we specify the mechanisms employed to drive upgrading, we provide a basis for the elaboration of scales too. We deem the latter crucial because the GVC field still lacks more quantitative studies that test generalizable relationships. By integrating external drivers with the governance construct, we address our analysis

from the lenses of vertical and horizontal private, public, and social governance (Gereffi & Lee, 2016), therefore assessing the state-of-the-art from a wider perspective that also integrates the local contexts affecting GVCs, an acknowledged shortcoming of this framework (Gereffi & Lee, 2016; McWilliam et al., 2020). This is even more critical in the face of potential regionalization of GVCs, as the local level may acquire a renewed relevance. Finally, we contribute to the conceptualisation of firm upgrading. Building from the empirical studies reviewed, we advance in the consideration of this term as both a process and an outcome, while proposing an integrative perspective through the term sustainable upgrading, the latter being key in a time where sustainable growth is a priority. Overall, we focus on firms' upgrading because companies' development is crucial as a first step to prompt development at other levels too.

The rest of the chapter is structured as follows. The next section presents the conceptual framework that guides this work, based on the GVC literature. Then, we describe the methodology we followed to conduct the systematic literature review. Afterwards, we present our integrated model and the main findings of the review, including our reflection on such results and the upgrading construct. Finally, we conclude with a proposal of future research avenues and the limitations of the work.

3.2 CONCEPTUAL BACKGROUND

3.2.1. *The GVC and GPN frameworks: Focus of research*

GVCs' relevance as industrial organisation systems allowing to arrange geographically distant, interdependent actors for the production and distribution of products and services (Kadarusman & Nadvi, 2013; Rainbird & Ramirez, 2012) has grown over time. This has spurred research from different disciplines and through two main frameworks, the GVC and the GPN. The GVC literature has focused on the

creation, appropriation, and distribution of value (Gereffi, 2014; Golini et al., 2018), while the GPN has adopted a more dynamic view by building on the first and its weaknesses (Klooster & Mercado-Celis, 2016; Lim, 2016).

By studying industries from a holistic perspective (Gereffi & Fernandez-Stark, 2016), the GVC framework has prompted research on actors' development following chain participation. Studies have done so through two main constructs: governance and upgrading. Despite initial works on GCCs acknowledging elements such as historical paths or social embeddedness (Gereffi, 1999)[1], as the GVC field has evolved researchers have paid increasing attention to lead firms' governance and its effect on dynamics like upgrading. Nonetheless, the local contexts where GVCs are embedded affect the chain as well. Here then, we contribute to further merge these realities.

3.2.2. *Key concepts of the GVC literature: Integrating governance with the drivers of upgrading*

The governance construct refers to the relationships through which GVC actors holding power, mostly the lead firms, exercise this authority to determine how activities and risks will be shared among chain participants (Gereffi, 2014). Thus, governance consists of controlling and coordinating the GVC through the formulation, communication, and enforcement of standards or norms that determine what and how is to be done (Humphrey, 2005; in Neilson, 2008). Governance conveys managing actors' relationships, but also monitoring the results (Kaplinsky & Morris, 2000; Khattak et al., 2015), such that exercising it will drive firms' actions, link them, and align them (Ponte & Sturgeon, 2014). Accordingly, the nature of governance connects with three main functions: rulemaking (legislative governance) and rule-keeping, the latter divided into enforcement (judicial governance) and implementation (executive

governance) (Kaplinsky & Morris, 2000). In doing so, the governance structure in place determines how the chain works, affecting the upgrading possibilities available.

Upgrading refers to processes whereby GVC actors move towards activities implying a greater share of value-added (Gereffi & Fernandez-Stark, 2016) because they imply the use of more sophisticated technology, abilities, or knowledge, hence entailing higher value-captured in turn (McWilliam et al., 2020). Later, the concept has expanded to include environmental and social improvements as well. However, there is also the possibility of downgrading, which entails a worsening of conditions for different reasons that may include strategic considerations (McWilliam et al., 2020). Regarding the antecedents, research on how lead firms' governance may deter or promote upgrading is extensive – indeed, upgrading has been depicted as an outcome of governance (McWilliam et al., 2020) –, but governance may affect upgrading differently depending on its operationalisation. Literature has also distinguished between internal and external drivers of upgrading. Regarding the first, firms might be intrinsically motivated to upgrade either to be more competitive or to cut costs (i.e., intra-firm drivers), but concerning the second, firms can be pushed to upgrade as well, either by lead firms' requirements or regulatory and social pressures (i.e., lead firm or extra-firm drivers, respectively) (De Marchi et al., 2019). Although, initially, this was argued for environmental upgrading (De Marchi et al., 2019), it applies well to upgrading in general, with these external drivers clearly connecting with governance.

External drivers refer to actors capable of governing the chain because they have power to do so, such that just as "*the lead firm governs the upgrading process*" (De Marchi et al., 2019; 310) other agents might affect it too. As it happens with the

external drivers, governance may not be limited to lead firms: there are external-to-the-chain actors with authority to determine GVC dynamics. McWilliam et al. (2020) defined governance as both the control and organisation of the GVC, accounting for inter-firm links that constitute the chain and for inter-firm and external-to-the-chain power relations. Therefore, drivers beyond lead firms (e.g., customers, policymakers, other stakeholders; De Marchi et al., 2019) can act on upgrading as well, showing the connection between external drivers and governance. Indeed, prior works already suggested that governance can be multipolar (Ponte & Sturgeon, 2014), meaning that it might involve actors indirectly related to the GVC too, such as unions, governments, or non-governmental organisations (NGOs) (Poulsen et al., 2021).

This occurs, precisely, because GVCs affect and are affected by participants' local contexts. Some previous literature already considered this matter. For instance, there are studies that have integrated clusters and GVC literature (e.g., De Marchi et al., 2018) often to analyse paths to upgrading (e.g., Gereffi & Lee, 2016; Giuliani et al., 2005; Humphrey & Schmitz, 2002; Kadarusman & Nadvi, 2013). In this vein, Gereffi and Lee (2016) presented a typology of governance that shed light on these different forces affecting upgrading. Although focused on social and economic paths, they referred to vertical and horizontal private, public, and social governance. Vertical governance would refer to GVC-level authority, where the private sphere concerns the lead firms – as in the classical typology by Gereffi et al. (2005) –, whereas horizontal governance refers to the local or cluster-level coordination of relationships between organisations and institutions (Gereffi & Lee, 2016). This typology relates well to the relationship we present between external drivers and governance, such that our review departs from an integrated framework of both, as per Table 3.1.

Table 3. 1. Internal and external upgrading drivers: An integrated typology with the governance construct

Internal (intra-firm) drivers			
- Cost saving-related - Pursuit of differentiation-based advantages			
External drivers (governance structures)			
Agent Level	**Lead firms as drivers (private governance)**	**Extra-firm drivers (social governance)**	**Extra-firm drivers (public governance)**
Vertical governance (stemming from the GVC level)	Standard vs. mentoring approach to governance Governance structures determined by GVC **lead firms** to maximise efficiency and reduce bounded reliability. Often, the mechanisms used include codes of conduct, standards, and monitoring.	Civil Society Organisations (CSOs) and other stakeholders Governance exercised mostly over lead firms by **global, civil society groups –** e.g., NGOs, international labour associations, or ethical trading groups. These groups usually constitute multi-stakeholder platforms to achieve social and environmental goals through joint action.	Policymakers Governance by **supranational organisations** (international entities and trade-related authorities or agreements, such as the WTO, NAFTA, EU, or the ILO). Their power has weakened as GVCs have extended globally, so its enforcement is ineffective at times.
Horizontal governance (stemming from the local/cluster level)	Private entities as drivers Governance by **local/cluster actors** (cooperatives, industrial associations) to achieve collective efficiency through cluster-level coordination. Often, actors depend on one another, and the mechanisms at play include cooperation and trust-based relationships (usually mediated by institutions).	CSOs and other stakeholders Governance by **local, CSOs** (e.g., workers, unions, NGOs) that exert pressure on GVC firms (either leaders or suppliers) to affect they performance, usually regarding social- and environmental-related matters. Often, the mechanisms employed include purchasing behaviours, customer-market pressure, and the creation of multi-stakeholder platforms.	Policymakers Governance by **local, national, and regional governments and institutions** that, mostly, influences environmental- and labour-related issues. Usually, the mechanisms employed include the legislation and the creation of other formal rules.

Source: Own elaboration based on De Marchi et al., 2019; Gereffi & Lee, 2016

We account for both internal and external drivers, and for the latter we specify the agents acting through different governance structures. External drivers shall act through either public or social governance (i.e., extra-firm drivers) or private

governance structures (i.e., lead firms as drivers). Gereffi and Lee (2016) add the role of private, local governors (at the cluster level) and we consider them too by framing them as "private entities as drivers". Therefore, we take into account both the vertical and horizontal dimensions as Gereffi and Lee (2016) did, also because the horizontal level is key in their interaction with vertical GVC dynamics to influence upgrading positively. This framework allows us to address our review according to the type of driver in place and to uncover possible interactions and effects on firms' upgrading.

3.3 METHODOLOGY OF THE REVIEW

We conducted a systematic literature review focused on the GVC field and on the analysis of the antecedents or drivers of firms' upgrading, the processes and outcomes of upgrading, and the theories and methods employed by previous studies. In doing so, we followed established procedures that enabled the identification and analysis of relevant studies to our RQ while using a transparent, replicable search strategy (Briner & Denyer, 2012; Tranfield, Denyer, & Smart, 2003). We conducted the search on the ISI Web of Science Data Base because it provided an adequate equilibrium between quantity and quality regarding the works included, as well as a variety of possibilities for search and selection criteria. This database is recognised in the academic field as a reputable source and its use is supported widely (e.g., Tranfield et al., 2003).

In Table 3.2., we depict our search strategy for transparency and replicability purposes. First, we selected the Web of Science Core Collection to ensure that we collected works of quality, and we set the starting point of our search in 1994 when Gereffi's (1994) seminal paper on GCCs was published. Concerning the keywords, we used the driver 'theme' in every string for them to appear in the title, abstract or keyword section, for the search to be sufficiently broad. We employed two search

strings that we combined, and then we merged the first search with another including only one broad string on sustainability. Despite our domain of interest being the GVC field, the first string of our first search included keywords from other related literatures that have treated our topic of interest too. For the second string, we employed keywords on such topic – i.e., upgrading and downgrading – although using the roots of these words to allow for variations. From there, we merged the first search with the second, which included the keywords sustainability, environmental and social. This latter search made sure the consideration of works about the sustainability dimension. To avoid missing potentially relevant results, we employed the roots of the keywords in this search as well.

Table 3. 2. Search strategy of the systematic literature review

SEARCH STRATEGY Source: Web of Science (Core Collection). Last search: beginning of 2023.		
KEYWORDS EMPLOYED IN THE SEARCH	**Results**	
	Separated searches	Combined searches
TS= ("global value chain*" **OR** GVC* **OR** "global production network*" **OR** GPN* **OR** "global supply chain*" **OR** "global commodity chain*"**)** **AND** **TS= (**upgrad* **OR** downgrad***)**	876	
AND		
TS= (sustainab* **OR** environment* **OR** social**)**	6,140,917	293
WEB OF SCIENCE FILTERS		
Type of work: Only **articles**		245
Language: Only **English**		239
Web of Science categories: **Economics** OR **Business** OR **Management** OR **Environmental Studies**		133
Timing: Only works published until **December 2022**, included. Also works from 2023 that were available online/in advance by this date.		**131**
FINAL NUMBER OF PAPERS SELECTED AFTER APPLYING THE EXCLUSION AND INCLUSION CRITERIA		**51**

Source: Own elaboration

Afterwards, we applied several filters from Web of Science to refine the search. We limited the type of works included to articles, such that conference papers and

similar works were excluded given the variability in their review processes (Jones, Coviello & Tang, 2011). In doing so, we focused on peer-reviewed works that were also empirical, where the effects of different factors on upgrading were analysed and reported. Regarding the language of the works and their classification by research areas, we selected articles in English and the research categories of Economics, Business, Management and Environmental Studies. We were interested in works within these fields of knowledge, and we considered the last one as well to avoid losing relevant works from the sustainability dimension – prior literature reviews in the GVC field have followed similar practice in terms of selecting various fields of knowledge (e.g., De Marchi et al., 2020). Following this procedure, we obtained 133 results.

As we did the final search at the beginning of 2023, we only included works published until December 2022 – this month included – as well as articles from 2023 that were available in advance by December 2022. We set this time limit so that we could conduct our content analysis sufficiently in depth. This filter resulted in the elimination of two works. Afterwards, we applied our pre-established inclusion and exclusion criteria regarding the type of work and its content. These criteria depart from our RQ and the initial conceptual framework we presented. To do so, we screened the titles, abstracts, and the paper's content in case of further doubts about its eligibility. Even though our search filters helped in this process, we still excluded works with no impact factor, books and book chapters, literature reviews and conceptual papers. In addition, we discarded studies only at the country-level of analysis; papers not having as their focus the factors affecting upgrading; and those not within the GCC, GVC, GPN or supply chain literature. In turn, we included empirical, peer-reviewed papers; and papers at either chain, industry, firm, or micro-levels of analysis that, ultimately,

focused on factors affecting firms' upgrading. We considered the micro-level because works on social upgrading can fall in this category, as they focus on workers. This process led to the final selection of 51 papers for content analysis.

3.4 RESULTS

Following common practice, this section reports the descriptive and content analysis we made about the 51 works we selected. The study of their content consists of a process of codification as we read the papers to extract the relevant information according to our RQ, thus being able to synthesize, analyse and report our results.

3.4.1. *Descriptive analysis*

Concerning the source of publication, as per Table 3.3. we observe that the papers have been published in thirty-two journals. The first five per number of publications are Competition and Change, Review of International Political Economy, World Development, Business Strategy and the Environment, and Environment and Planning A – Economy and Space. Regarding the year, 2013 seems to be a turning point as a higher number of publications is maintained over time. This could be related to the Rana Plaza incident (for a description, see Posthuma & Rossi, 2017), which raised the interest in upgrading related to sustainability, mostly of the social type. As for the research areas of the journals, we searched for the first mentioned one among those we used in our search. Economics emerged as the area where most papers were published – which could be connected to the GVC field having its origins in this area –, followed by the Business one. However, most journals fall into more than one category, such that knowledge areas like Geography, Development Studies or Political Studies were of importance too.

Table 3. 3. Papers included in the review by journal and year of publication

Journal title	No. of articles	2008	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022
1. Competition and Change	4				2	1	1							
2. Review of International Political Economy	4										1	1	1	1
3. World Development	4		1		1				1	1				
4. Business Strategy and the Environment	3				1				1	1				
5. Environment and Planning A – Economy and Space	3							1				2		
6. Economic geography	2											1		1
7. International Labour Review	2										1		1	
8. Journal of Economic Geography	2							1			1			
9. Journal of International Business Policy	2												2	
10. Regional Studies	2					1		1						
11. Sustainability	2							1			1			
12. Asia Pacific Journal of Marketing and Logistics	1												1	
13. California Management Review	1	1												
14. Cambridge Journal of Regions, Economy, and Society	1						1							
15. Chinese Management Studies	1				1									
16. Ecological Economics	1													1
17. Environment and Planning A	1					1								
18. European Journal of International Management	1							1						
19. European Planning Studies	1				1									
20. Geografisk Tidsskrift - Danish journal of geography	1										1			
21. Global Environmental Politics	1												1	
22. Global Strategy Journal	1													1
23. Journal of Agrarian Change	1								1					
24. Journal of Development Studies	1										1			
25. Journal of International Business Studies	1			1										
26. Journal of International Management	1									1				
27. Journal of Management Studies	1													1
28. Knowledge Management Research & Practice	1								1					
29. Marine Policy	1							1						
30. New Political Economy	1								1					
31. Technological Forecasting and Social Change	1										1			
32. Work Employment and Society	1			1										
Total	*51*	*1*	*1*	*2*	*6*	*3*	*2*	*6*	*5*	*3*	*7*	*4*	*6*	*5*

Source: Own elaboration

Regarding the methodology, we find qualitative, quantitative, and mixed methods studies. As shown by prior reviews too (e.g., Koberg & Longoni, 2019), qualitative works continue to be the most numerous: They represent 80.40% of our sample (41 papers), whereas quantitative and mixed approaches constitute 11.76% (6 papers) and 7.84% (4 papers), respectively. Most of these qualitative studies have consisted of interviews (semi-structured, often) usually supported by secondary data, and sometimes accompanied by direct observation or ethnographic work. Instead, quantitative articles have used both primary and secondary data, although the second appears to be a preferred option.

Lastly, concerning the contexts considered in these studies, we categorized the countries as developed or developing following the criteria by the IMF World Economic Outlook Database (April 2022). 88.24% of the papers studied developing countries, whereas 11.76% focused on developed economies, with only one paper studying explicitly both. Concerning the industries, the field has studied a variety of them (e.g., auto parts, electronics, tanker shipping), although the garment, apparel, and agricultural sectors seem the most popular ones.

In this vein, we preliminary conclude that the GVC field continues to lack more quantitative studies, even though they seem to be emerging. Qualitative research may be more popular because it is powerful in shedding light on upgrading processes, a key research topic in this literature. Also, conducting quantitative studies within the GVC framework is challenging given all the variables at play. Nevertheless, this literature needs more studies testing relationships among different factors with a potential for generalization. In addition, 43.14% of the papers lacked a sound theoretical base: They often relied on various perspectives, or on the GPN, GVC or (Global) Supply Chain

literatures, but not on well-established theories from the management field and alike. This could partly be due to the inclusion of studies from areas other than that of Business. However, using these major theories to explain the underlying logic of these works would critically strengthen the theoretical explanations of their results, thus truly advancing the GVC literature in turn.

3.4.2. *Content analysis*

For our content analysis, we elaborated labels and codes ex-ante departing from our conceptual background and based on our RQ. These codes allowed us to classify and synthesize the information we gathered as we went throughout the papers. We also allowed for and considered codes that emerged in the process of studying these works. In doing so, we first arranged a table with different columns related to the information we were interested in collecting (e.g., theory employed in the paper, methodology, country, sector, governance type, external drivers, mechanisms, internal drivers, upgrading type, etc.). Then, as we read the papers, we used our either pre-established or emerging codes to synthesize the information corresponding to each column (e.g., for external drivers, we employed codes such as international buyers, public institutions, etc.). We only extended our explanations for the column on the main results of each work. Once this process of reading and coding finished, this comprehensive structure allowed us to extract our results and report them. We illustrate this in Table A1 in the Appendix.

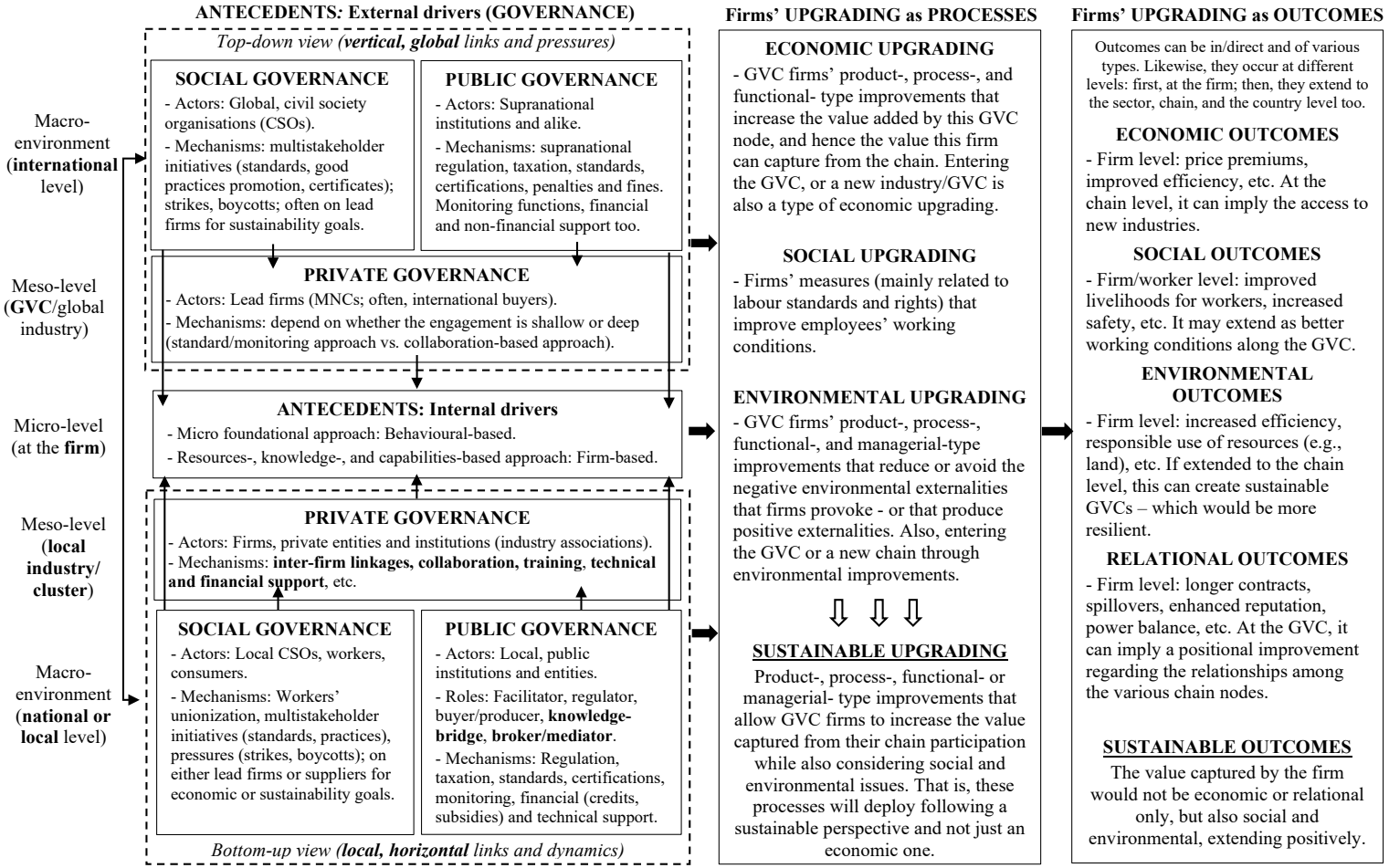
Hence, this analytical structure includes subthemes – i.e., the concepts in practice as they appear in the papers –; themes; theoretical concepts; and aggregated dimensions (following a similar logic to that of Gioia et al., 2013). The subthemes emerge from our analysis and refer to specific forms of upgrading, specific

mechanisms to drive it, etc. The themes aggregate the subthemes into corresponding concepts according to the GVC literature – i.e., driving agents, upgrading types, etc. In this step, most codes were predefined, although some emerged during the analysis – e.g., when related to actors and upgrading outcomes that we did not consider ex-ante; indeed, the part of upgrading as an outcome emerged mostly while reviewing the works, as we deepened our knowledge. Then, we aggregate the themes again into corresponding, superior constructs from the GVC literature (e.g., private governance, vertical and horizontal governance, etc.) and finally, the higher, aggregated dimensions convey these theoretical concepts as the drivers, processes, and outcomes of upgrading. All this process allowed identifying and analysing the specific drivers of firms' upgrading and reflecting on the concept itself.

3.5 FINDINGS: AN INTEGRATED FRAMEWORK FOR FIRMS' UPGRADING – DRIVERS, PROCESSES AND OUTCOMES

Our systematic literature review shows that most studies delve on the influence of private, vertical governance, which often operates through standard-based approaches driving upgrading only limitedly. However, we also appreciated a tendency to include other actors and analytical levels. Research has focused more on the interaction of private vertical governance with either social or public vertical governance, and it is only relatively recently that the intersection of vertical and horizontal levels is being considered. Some studies, for instance, reflected on private, local actors and on the local, public sphere too. Hence, following our review we propose a model as per Figure 3.1. where we integrate all such drivers of firms' upgrading at different levels and we illustrate through which paths they work and interact, through what specific mechanisms, and their effects in terms of upgrading processes and outcomes.

Figure 3. 1. Integrated model of the drivers, processes, and outcomes of firms' upgrading



Source: Own elaboration

In doing so, we consider internal and external drivers, the latter connected to private, public, or social governance in their vertical and horizontal dimensions. Therefore, we include both the top-down and bottom-up approaches to firms' upgrading, as also demanded by previous works (e.g., Selwyn, 2013, on social upgrading). The model, then, synthesizes the dynamics through which these drivers would work and interact while distinguishing between upgrading processes and outcomes, such that we can see that the drivers affect upgrading as a process, which materialises as specific firm strategies leading to trajectories of economic, social and/or environmental upgrading (or downgrading), and this in turn will have an either positive or negative outcome (at different levels too).

More specifically, the drivers will affect firms' upgrading in diverse ways depending on the specific mechanisms employed and on possible interactions among different factors. In this way, they shall lead to these upgrading (or downgrading) processes that manifest as firms' strategies and will produce economic, social, environmental, and/or relational outcomes ultimately – only being considered as upgrading if leading to greater competitiveness and positive final outcomes. Logically, these dynamics will take place at the firm level first, as they are the ones acting in practice (i.e., the GVC is a construct; it would not exist without these actors forming the chain nodes), which is why we focus our analysis on firms. From there, the effects of upgrading shall extend to other levels (i.e., the industry, GVC, country). In this vein, in the model we also propose a new, more integrative conceptualisation for firms' upgrading that we deem crucial in a context where is not just about economic growth anymore, but about sustainable growth: sustainable upgrading. We develop this more extensively in the next section, considering it both as a process and as an outcome too.

3.5.1. *Firms' upgrading in GVCs: An updated, integrative conceptualisation*

In the GVC field, upgrading has traditionally referred competitive improvement processes for GVC participants, with these participants being different depending on the level of analysis – i.e., firms, industries, countries (Epede & Wang, 2022). Initially, the analysis of upgrading did not focus much on the firm level (Epede & Wang, 2022), as the interest was greater regarding industries and regions – possibly due to the economic origins of the field. However, as firms are the ones effectively integrated in GVCs, their upgrading has become a concern of the GVC and GPN literature (Selwyn, 2013). The subsequent conceptualisation of upgrading as a process leading firms towards greater value-added activities has led to understand it as strategies that consist of various economic improvements (Gereffi & Fernandez-Stark, 2016).

Initial works referred to industrial upgrading (Gereffi, 1999) and later to economic upgrading, which was conceptualised as the process of increasing firm competitiveness (Selwyn, 2013) either by producing better products, making them more efficiently or performing new tasks that required better skills (Humphrey & Schmitz, 2002; Lund-Thomsen & Nadvi, 2010). Other terms have been employed as well, such as technological upgrading (e.g., Cho & Lim, 2016; Deng et al., 2022) – which recalls economic, functional upgrading (Gereffi & Fernandez-Stark, 2016). With the evolution of the field, however, upgrading later included social (Barrientos et al., 2011) and environmental improvements too (De Marchi & Di Maria, 2019). Accordingly, nowadays we find three types of upgrading in the GVC literature: economic, social, and environmental, each with their own specific paths.

Although these processes will lead to different outcomes, thus truly determining whether there has been a competitive upgrade or not, this distinction

between processes and outcomes is not always made explicitly and the literature has revolved mainly around upgrading as a process (Ponte, 2020a) – despite some exceptions such as Khan et al. (2020), Khattak et al. (2015), or Krishnan et al. (2023). This distinction is key to analyse the factors driving upgrading and its consequences, though. Hence, departing from this consideration, we report an updated typology of upgrading following our review (Table 3.4.). There, we distinguish upgrading as a process and an outcome, the different typologies, and we consider that processes and outcomes may not consist only to actors' position improvement throughout the chain, as they may apply to the firm internally but also to the wider context. In turn, we include our more integrated view of upgrading as sustainable upgrading.

Specifically, upgrading as a process involves the strategies and choices undertaken by an actor to obtain a higher share of value from their GVC participation (Khan et al., 2020). This differs slightly from the traditional definition, but we deem it appropriate. At the firm level, upgrading often connects with innovation (Selwyn, 2013) since innovating allows companies to perform better – hence the knowledge-related strand on upgrading because firms need the knowledge to innovate (cf. Humphrey & Schmitz, 2002). For instance, product upgrading may involve minor or major improvements (Cho & Lim, 2016), such that we might think in terms of incremental or radical innovations. This does not imply a movement along the chain necessarily (in terms of changing the functions performed or the firm's position in the chain), as it can be a change at the firm that may lead either to such movement or simply capturing greater profits. Whitfield et al. (2020), for example, distinguished two ways to upgrade: one implying firms' movement to new nodes, and the other concerning firms' deepening into their capabilities within a given function. Therefore,

upgrading may refer to a movement along the GVC, or it may not, but it will always refer an increase of the value captured from GVC participation. Besides, different improvements can be related too. For instance, introducing new products can be connected to process upgrading, such as incorporating new technologies. Economic improvements may be connected to social upgrading as well. Therefore, as a process, firm upgrading refers to strategies to reap a higher share of value from GVC participation, not being restricted to a movement along the chain only, with these processes being various and potentially linked. In Table 3.4., we put economic and environmental upgrading side-to-side to illustrate potential connections (in italics) among different types of upgrading paths too – also in line with other authors (e.g., De Marchi et al., 2013; Ponte, 2020a).

As an outcome, instead, upgrading refers to the actual incorporation of value following a specific improvement, perhaps as economies of scope or scale, or higher profitability (Khan et al., 2020). However, this value may not be economic only – just as upgrading processes are not only economic. Some works refer to relational upgrading as the achievement of a better position in the GVC, although in terms of the actors improving their know-how and their know-who (Khan et al., 2020). This, we believe, can be interpreted mainly as an outcome (e.g., Khattak et al., 2015; Khan et al., 2020) as it may grant firms a better reputation, long-term contracts, or better chain relationships with diverse benefits (e.g., knowledge spillovers). For instance, Khan et al. (2020) reported that environmental upgrading did not always yield positive economic outcomes for suppliers, but it led to relational outcomes such as new market access. Hence, upgrading outcomes refer to the incorporation of value, whether economic or of another type, following a given upgrading process. These outcomes

must take place for upgrading to be effective. Moreover, following prior works too (e.g., De Marchi et al., 2019; Krishnan et al., 2023), outcomes will be both direct and indirect, since firms' upgrading processes impact the industry, GVC, and the country level too. Considering these indirect outcomes is also key to truly assess whether upgrading is taking place or not.

We insist on paying attention to both processes and outcomes as well as to both direct and indirect consequences of upgrading also because of the possibility of downgrading. The latter manifests as performance decreases, worsening of workers' conditions, or the production of negative environmental externalities, and it may be driven by the different factors we considered too. In this sense, authors have distinguished between high and low roads to upgrading, the second concerning paths such as squeezing labour, non-complying with labour and environmental standards, or entering lower value-added activities (Lund-Thomsen & Nadvi, 2010). This often happens when firms find themselves trapped between lead firms' competing requests (Goerzen et al., 2021). For instance, although economic upgrading may lead to social upgrading (e.g., Kwon, Chung, & Lee, 2021), several works contend that this does not always happen, that it may do so with mixed outcomes, or that the first might be necessary but not sufficient to achieve the second (e.g., Barrientos et al., 2016; Bek et al., 2017; Gersch, 2019; Klooster & Mercado-Celis, 2016; Rossi, 2013; Selwyn et al., 2020; Vicol et al., 2018). Accordingly, downgrading processes leading to negative outcomes are a possibility that we contemplate in our typology too. Likewise, in the analysis following our review we consider factors driving upgrading or downgrading processes, which shall lead to specific positive or negative outcomes at different levels, being this the key to truly assess the effect of various mechanisms on firms' upgrading.

Table 3. 4. Typology of upgrading at the firm level

<table>
<tr><td colspan="4">Upgrading as a process: strategies undertaken by a firm to obtain a higher share of value from its GVC participation.</td></tr>
<tr><td>
Economic upgrading: process through which GVC actors access more value-added activities through different strategies.
</td><td>
Environmental upgrading: process through which GVC actors improve their production systems to reduce or avoid negative environmental externalities or produce positive ones.
</td><td>
Social upgrading: process of enhancing workers' employment quality through different practices.
</td><td>
Sustainable upgrading: integrative perspective of upgrading referring product, process, functional or managerial improvements including social and environmental considerations too.
</td></tr>
<tr><td>
Firms' entry in the GVC:
* Backward linkages: local firms in a sector supplying to others (MNCs, usually) located in the same country but in another GVC.
* End-market: movement into superior markets requiring compliance with new, more demanding standards, or into larger markets requiring larger production scales and price accessibility.
</td><td>
Organisational/ managerial: measures taken regarding firms' management and the realization of profits.
</td><td rowspan="5">
Measures to improve employees' measurable standards and enabling rights. These measures can include (non-exhausting list):

- Training
- Contractual improvements (e.g., permanent contracts)
- Work-life balance measures
- Hiring people in risk of social exclusion
- Ground-breaking practices (e.g., four-day working week).
</td><td rowspan="5">
Strategies implying economic-type/ competitive improvements (e.g., new products, processes) together with sustainable-type considerations, both social and environmental.

These strategies would allow firms to increase the value captured from their GVC participation, although in a sustainable manner. The value captured will not be only economic or relational, but also social and environmental. This shall produce sustainable, positive outcomes, both directly and indirectly, to truly be considered as upgrading.
</td></tr>
<tr><td>
Product: process of producing more sophisticated products or services (innovations).
</td><td>
Product: measures concerning the product portfolio (eco-branding when the production process is greener, which links with eco-efficiency; eco-product when the good is new given its use, materials, design).
</td></tr>
<tr><td>
Process: process of improving the efficiency with which inputs are transformed into outputs. It may imply introducing superior technology or improving the production system (e.g., through its reorganisation).
</td><td>
Process: measures regarding products' manufacturing process (eco-efficiency as optimizing energy and material use, using renewables, recycling, etc.).
</td></tr>
<tr><td>
Functional: process of increasing the skill content of firms' activities by either acquiring new functions or getting rid of existing, lower value-added tasks.
</td><td>
Functional: vertical integration of new resources (i.e., other tasks in the chain).
</td></tr>
<tr><td>
Inter-sectoral: process of moving into new, often related sectors. It may imply horizontal moves.
</td><td>
Inter-sectoral: vertical integration employing existing resources to move to other industries (linked to eco-product).
</td></tr>
<tr><td colspan="4">Upgrading as an outcome: direct outcomes refer the incorporation of value (whether economic or other type) for the GVC actor undertaking the upgrading process; indirect outcomes convey the impacts on other levels, GVC-related or not.</td></tr>
<tr><td colspan="4">
▪ Depending on the level: Direct (for the firm) or indirect (industry, community, chain, country).
▪ Depending on the type of outcome: Economic (e.g., higher profits, productivity; increased economies of scale/scope; increased efficiency); social, such as improved wages, health, safety (measurable standards), or better empowerment, equality measures, freedom of association (enabling rights); environmental (e.g., pollution reduction, increased green efficiency, respectful land use); and relational (e.g., new market access, increased reputation, business continuity, knowledge spillovers, trust increase).
</td></tr>
<tr><td colspan="4">Downgrading: as a process, refers to strategies leading to worse conditions, whether economic, social, or environmental, (e.g., practices consisting of cheaper labour, non-compliance with sustainability standards, etc.). As an outcome, concerns negative environmental externalities, poor performance (e.g., on quality), or worse labour conditions (e.g., wages).</td></tr>
</table>

Source: Own elaboration based on the review (e.g., Jensen & Whitfield, 2022; Khan et al., 2020; Krishnan et al., 2023) and Barrientos et al., 2011; De Marchi & Di Maria, 2019; Gereffi & Fernandez-Stark, 2016

3.5.2. *Antecedents of firms' upgrading: Internal drivers*

In the GVC field, we find two main strands of work on firms' upgrading: one related to the capabilities enabling upgrading (knowledge-based), and the other related to the conditions driving upgrading for disadvantaged actors (hence the popularity of works based on developing countries' contexts) (Ponte et al., 2019). Relatedly, we depart from considering that the two forces driving firm upgrading are either building firms' capacities to upgrade and/or pushing firms to upgrade. This serves to establish a viewpoint from which to assess the effect of various drivers on upgrading.

In doing so, and although external drivers and especially lead firms are key, we also account for the relevance of internal elements as factors leveraged by GVCs participants to meet strategic goals (Khan et al., 2020), which should not be underestimated. De Marchi et al. (2019) referred to intra-firm drivers as cost- or differentiation-based. In our review, we found different lenses through which these factors have been approached too: We distinguish a micro foundational, behavioural approach and a firm-level, capability-related one.

The first approach has been treated regarding environmental upgrading, mostly, but it applies to upgrading in general. It refers to, for instance, managers' concerns about upgrading, or their willingness to differentiate (e.g., Achabou et al., 2017; De Marchi & Di Maria, 2019). This entrepreneurial vision might drive upgrading (e.g., De Marchi et al., 2013) when there is the aim of staying ahead of demand (e.g., Pipkin, 2011) or the perceived need to upgrade to remain in the game or improve the firm's status (e.g., Ponte, 2020a). The second approach, instead, focuses more on the capabilities enabling upgrading (e.g., Kadarusman & Nadvi, 2013; Sinkovics et al., 2018), although both perspectives are related. For instance, apart from

lead firms, Khattak et al. (2015) argued that the main drivers of environmental upgrading were, first, the willingness to reduce energy costs to be more competitive towards buyers, and second, the development of capabilities to be able to absorb knowledge and deploy environmental innovations accordingly. In some other cases, works consider internal capabilities, or firms' characteristics, jointly with external factors (e.g., Deng et al., 2022; Morris et al., 2016; Whitfield et al., 2020; Whitfield & Staritz, 2021). For example, Hoang et al. (2021) considered firms' perception of their available resources as a mediator between their upgrading attitude and ultimate behaviour, and besides, found that government support moderated positively the relationship between the intention and the actual upgrading behaviour. Whitfield et al. (2020) explicitly accounted for firm capabilities that had to be built to upgrade and found that foreign linkages, international buyers sometimes, government support, and firms' ownership (i.e., diaspora-owned companies with linkages) were key to developing said capabilities.

All in all, internal factors appear critical as firms are either internally motivated to upgrade and have the required capabilities to do so, especially under non-supportive governance conditions (e.g., Kadarusman & Nadvi, 2013; Hoque et al., 2016). Besides, when lead firms do not transfer knowledge, suppliers' agency is the key to driving capability development to upgrade anyway (e.g., Sinkovics et al., 2018). However, there is yet an avenue for deepening research on internal drivers and in connecting them more and explicitly with external ones; that is the key to ascertain how to properly drive firms' upgrading.

3.5.3. *Antecedents of firms' upgrading: External drivers through private, public, and social governance*

As per our departing framework, external drivers refer to: extra-firm agents, acting through social and public governance structures; lead firms acting through private, vertical governance; and private, horizontal governors. In GVC research, the area receiving the most attention has been that of private, vertical governance.

Private vertical governance refers to the authority exerted by lead firms in GVCs. The reviewed studies suggest positive, negative, and sometimes mixed effects on upgrading, considerably depending on the specific mechanisms employed, which in turn depend on the approach taken to governance. Jeppesen and Hansen (2004) already posited that environmental upgrading in Third World countries was often driven by relationships with lead firms, which could be standard- or collaboration-based; that is, based on shallow or deep engagement approaches, respectively (Khan et al., 2020). If lead firms opt for the first, they will rule through standards and enforce them along the GVC through monitoring and control, without meaningfully engaging (regarding implementation) with suppliers. Instead, if they opt for the second, they will follow hands-on approaches, which is likely if standards are unavailable, suppliers lack enough capabilities (De Marchi et al., 2013) and need mentoring, or transactions are significantly complex (Khan et al., 2020). These two approaches may be further split, connecting with the governance typology by Gereffi et al. (2005), whereby the governance spectrum may be hierarchy- or market-based in its extremes, or network-based as either captive, modular or relational structures.

Shallow engagement is most common in structures where power is more asymmetrical and information can be somewhat codified (e.g., market-based, or

captive structures). Instead, where power is more balanced and knowledge may be more tacit, deep engagement may emerge (e.g., relational structures). Nonetheless, despite power imbalances, lead firms might find themselves in need of capable firms, being forced to follow mentoring-based approaches (e.g., Gersch, 2019). Thus, the approach to governance, and hence the specific mechanisms employed to exert it, will depend on the type of industry, the characteristics of suppliers, lead firms' requirements or needs, etc. In reflecting on how all this drives firms' upgrading, we consider Gereffi et al.'s (2005) governance typology yet keeping in mind whether the approach is more shallow or deep. As prior works consider buyer-driven and producer-driven chains (Gereffi, 1999) or do not explicitly label the governance structure, but it is geared towards such typology, we may refer to it too – although, where a chain is unipolar or mostly driven by one powerful agent, it will often identify with captive structures (Gereffi et al., 2005).

Shallow approaches involve mere requirements on quality, delivery, or price, which may be signalled through purchasing or pricing practices, or formal supplier selection. These mechanisms are common in market-based structures, but also in chains where suppliers are just price and standard-takers (e.g., captive structures). More advanced measures might consist of adopting formal standards on labour and environmental matters, which gives suppliers clearer directions. These standards can come from third parties or be private (e.g., codes of conduct). Such mechanisms, however, drive limited upgrading only (e.g., process upgrading, minor product improvements), also depending on suppliers' abilities. For instance, some works found that suppliers in buyer-driven chains were in a better position to upgrade products and processes but lead firms' cost pressures and demands drove some firms out of the

market, while also leading to social downgrading (i.e., seasonal, non-formal work) (e.g., Barrientos et al., 2016). Selwyn (2013) also noted that buyers' requirements for quality led to product improvements by producers, who saw themselves in need of skilled labour, but on the social side initial working conditions were rather poor. Concerning environmental improvements, some authors suggest that buyer demands influence suppliers' commitment, but nothing beyond with no further support (Achabou et al., 2017). Besides, Krishnan et al. (2023) report how a standard-based approach to governance drove suppliers' upgrading only limitedly, with outcomes for farmers being negative, whereas lead firms' and intermediaries' market access and reputation improved.

More advanced mechanisms may involve the offering of preferential contracts based on code compliance, the creation of private programmes and practices to incentivize suppliers (e.g., Perez-Aleman & Sandilands, 2008), or codified, specific design instructions (Hoque et al., 2016) – as it could occur in a modular-type chain. However, this may promote upgrading only limitedly too. In Hoque et al.'s (2016) work, upgrading (which was efficiency- or process-related) depended on suppliers' agency because they received codified guidelines and standards from buyers but not further assistance, and hence they learned to decode these instructions themselves. Concerning monitoring, this often consists of auditing by either lead firms or third parties, and the effect on upgrading seems limited as well (see Goerzen et al., 2021).

Instead, under deep engagement approaches to governance (e.g., relational structures), mechanisms often involve sharing information, usually including frequent interactions among GVC participants, and this is more likely to spur suppliers' learning. Such mechanisms can also imply direct or indirect financial assistance,

technical assistance, training, engagement in R&D or product development, or technological-type transfers (e.g., Szalavetz, 2019). Perez-Aleman and Sandilands (2008) reported how international buyers provided grants and supported local microcredit organisations to assist suppliers. Kumaraswamy et al. (2012) showed that, throughout different phases, domestic automotive suppliers from an emerging economy could catch up – upgrade, improve their performance – by accessing licenses from and technical collaborations with MNCs, and then by developing closer customer relationships. The work by Gersch (2019), despite dealing with the agricultural sector – which may identify with market-based and, today, captive structures –, showed that leaders, partly forced by the national customs system, fostered upgrading because they required capable local producers. Although they started with a hands-off approach, they ended up collaborating, visiting suppliers, conducting audits, and elaborating action plans – after narrowing down their supplier base, though, given the various costs associated to these measures. Hence, even if reactively, leaders fostered product, process, and functional upgrading to some extent – also because of the interaction with an agent at the local level: the government, in this case.

In hierarchical structures, lead firms' strategies may lead to product, process, and even functional upgrading by suppliers if this aligns with their interests (Kadarusman & Nadvi, 2013). However, other works indicate that, if lead firms hold significantly more power, suppliers could be less incentivized to develop advanced forms of upgrading (e.g., new products), limiting themselves to efficiency-related improvements to avoid risks (Deng et al., 2022). Thus, although some works (Ponte & Ewert, 2009; as cited in Achabou et al., 2017) state that the lead firms will drive upgrading more than horizontal links will, this can be limited. Increasingly, evidence

points out that GVCs may limit advanced forms of development, such as functional upgrading (Li, 2022). This depends greatly on the mechanisms employed: those mechanisms that are more collaboration-based, despite costlier, foster upgrading further. Several authors refer the need for higher technical and financial assistance (e.g., Achabou et al., 2017). The problem is that these mechanisms are significantly determined by power dynamics and lead firms' goals too, and thus leaders do not always deploy them, or we might even see unexpected or mixed outcomes. What is to be done, then? Vertical governance can be detrimental to upgrading, but upgrading can take place anyway; it may occur when receiving support from other sources simultaneously (Murphree & Breznitz, 2020). That is, other actors may be able to determine what mechanisms are put in place, hence alleviating vertical dynamics (e.g., Gersch, 2019) and favouring firms' competitiveness.

Private horizontal governance concerns local, inter-firm links to achieve collective efficiency (Gereffi & Lee, 2016). It includes cluster actors such as industry associations or cooperatives (e.g., Rueda et al., 2018), for instance. These actors employ mechanisms such as training, inter-firm cooperation, technical assistance, information brokerage, or even the development of standards too, among others. Studies find, overall, a positive effect of these agents on upgrading, sometimes limited, and in some cases mixed. Works considering this dimension often account for others as well, such as that of lead firms or public agents (e.g., Peng & Wu, 2013; Yap & Rasiah, 2017) and explore how they interact. For instance, Puppim de Oliveira and de Oliveira Cerqueira Fortes (2014) analysed under which conditions the GVC participation of Brazilian clusters fostered firms' technological and sustainable upgrading, the latter mostly in social terms. Although international buyers fostered

product, process, and limited social improvements, suppliers were left in a locked-in position because of buyers' interests. Local cooperatives helped in obtaining managerial skills and promoted technology transfers and the development of fair-trade contracts. This attracted global buyers, which further enhanced upgrading as local institutions and associations improved the clusters' infrastructure and workers' capabilities to respond to their demands.

In addition, where local firms do not have access to lead firms' tacit knowledge, other networks might be the answer. Hoque et al. (2016) reported how suppliers took the initiative to upgrade as they were pressured to do so but did not receive any support. They used both internal and external knowledge sources, the latter including benchmarking and external programmes, training and meetings with overseas firms and independent associations of exporters. Although firms' limited resources only allowed for product-oriented process upgrading, in the absence of meaningful vertical linkages the horizontal dimension was critical. The work by Gammelgaard et al. (2021) assessed livelihood upgrading as a supplement to economic and social upgrading that also considers the wider community. Their results point out that, because of policies fostering GVC engagement, communities not directly engaged in the chain saw themselves negatively affected by these activities, while communities participating in GVCs experienced livelihood upgrading but not thanks to private nor public governance. Instead, it was due to community governance, as they label it, which manifested through cooperatives. In the end, this is an actor from the private, horizontal governance sphere that can interact with vertical GVC dynamics. Hence, even if some evidence pointed to mixed effects (e.g., Vicol et al., 2018), this dimension

seems key to filter vertical pressures and allow for firm upgrading overall, mostly by helping to build firms' capabilities rather than just pressuring companies.

Public governance concerns institutional-type actors with the authority to set and enforce norms. Research has considered supranational entities from a vertical perspective (e.g., Posthuma & Rossi, 2017; Rossi, 2015) and local institutions and governments from a horizontal viewpoint (e.g., Jensen & Whitfield, 2022), also including other agents such as research entities (e.g., Hoang et al., 2021; Rainbird & Ramirez, 2012). Allegedly, these actors are key for sustainable improvements especially. Despite works suggesting that lead firms drive sustainability-related upgrading in unipolar chains (Ponte, 2020b), other actors (e.g., regulators) might be key in multipolar GVCs (Poulsen et al., 2021). Moreover, they may use a vast range of mechanisms. Regarding governments, literature has depicted their role as facilitators, regulators, producers, and buyers (De Marchi & Alford, 2022). The first consists of supporting firms' GVC participation through taxes, policies, subsidies, etc.; the second involves elaborating regulations, standards, or control mechanisms to direct and constrain firms' actions; and the last ones consist of engaging in production or consumption (De Marchi & Alford, 2022). As facilitators, they may act as providers of financial aid too, either directly or indirectly. However, institutions can have another crucial role as knowledge bridges: Corredoira and McDermott (2020) referred to non-market institutions that guided firms on the resources and knowledge they needed, and how to acquire, integrate, and use them. This institutional tutelage increased firms' absorptive capacity[2]. We posit that it will be several types of institutions that can act this way, their potential role as vessels of knowledge being particularly crucial.

Concerning previous studies, in general they seem to point towards a positive, although limited effect of public governance on upgrading, sometimes even mixed. In some cases, institutions favoured social practices but were rather non-significant to environmental considerations (e.g., Giuliani et al., 2017). Jensen and Whitfield (2022) showed how, although initially driven by global buyers' requirements, it was government investments and actions (e.g., creation of district infrastructures and a public company acting as mediator and coordinator) that bore the cost of environmental upgrading and allowed suppliers to accomplish buyers' demands. However, effects on upgrading were limited given financial constraints and the fact that supra-firm entities to ease joint action were not in place yet. Rainbird and Ramirez (2012) found that, in absence of meaningful vertical links, national and local institutions were key as catalysers of learning, adaptation, and capability development, and so it was their coordination with other agents (e.g., NGOs, consumers, trade unions). Institutions protected workers' rights, favoured their training, and supported firms through investments. Nevertheless, their effect was limited too given leaders' interests and local limitations, which led to low roads to competitiveness based on cheap labour, for example.

In other cases, institutional action has had unintended consequences. For instance, related to environmental upgrading, they have sometimes facilitated supplier squeeze by lead firms (e.g., Ponte, 2020a; Krishnan et al., 2023). Hedberg (2013) also reported that Thai workers suffered social downgrading in the Swedish market (despite empowerment at home) given the low road to upgrading followed in the wild berry sector, but also because institutions drove social downgrading unintendedly through labour regulation and taxation. Poulsen et al. (2021) reported that European regulations

were not significantly driving environmental upgrading in the tanker-shipping sector either, as they did not focus on the chain's governors but on agents subject to lead firm pressures, for whom such leaders were a higher priority. In addition, recent works such as that by Goerzen et al. (2021) suggest a potential substitution effect. They analysed the mediating role of public governance between private third-party interventions, operationalised as audits, and social upgrading regarding standard compliance, and they found that private governance led to social upgrading, although limited given the diminishing returns of audits. In turn, institutional action and quality had a mixed impact: its overall effect was non-significant, and when looking at the specific dimensions (as per the Worldwide Governance Indicators), some were positively associated with social upgrading and others were not. This suggested that public governance could work synergistically with private governance, but it can also interfere and provoke an unintended substitution effect working against upgrading.

Instead, Lombardozzi (2021) found that state intervention, through policies and investments, led to various forms of economic upgrading for horticulture producers. Acting as a regulator, coordinator, facilitator, buyer, and producer (e.g., through state consortiums or as a mediator in purchases), it allowed building local capabilities, weakening the negative effects of GVC integration and driving social upgrading (e.g., improved wages and employment, despite undesirable effects on smallholders). Furthermore, Puppim de Oliveira and de Oliveira Cerqueira Fortes (2014) found that public institutions were key as regulators and financing agents, but also as translators of lead firms' requirements such that local producers could upgrade. This translating role appears to be key, perhaps representing a crucial research avenue.

Consequently, public governance has a potential critical part to play in promoting firms' upgrading, also at the local level and in interaction with other governors too – indeed, some works already analyse so-called forms of hybrid governance where the state acts as a governor together with other agents (e.g., Yeung & Liu, 2022). For instance, as regulators, institutions may pressure larger firms to use collaboration-based approaches (e.g., Gersch, 2019), or they may pressure for specific upgrading paths. However, perhaps their part at building firms' capabilities should be receiving more attention because that can lead to higher roads to upgrading. Hence, the question is not whether institutions should intervene or be considered in GVCs, but about how and where on the chain they should act to manage vertical dynamics and foster firms' upgrading. In this vein, the analysis of the mechanisms employed and how they are going to interact with both local and vertical-GVC dynamics is key, because institutional agents could also drive downgrading paths, even if unintendingly – for recent, practical examples, see the effect of the promotion of reshoring by the USA government compared to the effect of the taxes imposed by the same institution over Chinese goods, both affecting GVCs in different ways.

Finally, *social governance* concerns non-firm and non-governmental agents, as well as civil or social actors. In this dimension, multi-stakeholder initiatives are important, and several studies have analysed agents of the kind, often as NGO-MNC partnerships (e.g., Perez-Aleman & Sandilands, 2008; Nesadurai, 2019). Social governors can function as providers of knowledge regarding production practices or expertise; monitors of firm action; brokers between parties or builders of local networks; providers of lobbying services, training and technical or financial assistance; and creators of pilot programmes, certifications, and local services too, amongst other

mechanisms. Concerning consumers, they mostly employ civil society campaigns and boycotts, whereas workers' most powerful mechanisms often are strikes and unionization. In this vein, evidence suggests a positive effect on upgrading, especially related to social dimensions of sustainability (e.g., Barrientos et al., 2016), although this is limited sometimes (e.g., Ruwanpura, 2016; Bek et al., 2017).

Precisely though, this dimension is significant as a driver of upstream and downstream practices: As GVCs' development raised concerns about social and environmental conditions, actors such as NGOs started pressuring lead firms to take accountability, especially in developing countries (Achabou et al., 2017). These governors may serve, then, both as direct and indirect drivers, just as public governors might do. For instance, in her work regarding the cocoa-value chain in Ghana and India, Barrientos (2014) analysed the case of the working women in this GVC, illustrating that CSOs were the ones promoting women's economic and social upgrading. They did so through different measures, including training programmes and cooperatives. Reinecke and Posthuma's (2019) work on Latin American countries and upgrading spillovers from lead firms found that chain leaders always upgraded, whereas only capable suppliers where able to do so, being left out otherwise. Instead, for social upgrading, the key was the involvement of institutions in regulation and inspection, as well as mobilization by trade unions and workers. In studies such as that by Ruwanpura (2016), ethical trading measures started being implemented as a response to Northern firms, but it was labour struggles that truly led the change. However, the effect of multi-stakeholder initiatives was limited, as codes of conduct were formulated, but no enforcement measures were in place. Moreover, social improvements remained limited too, as economic demands had greater consideration.

This work suggested that pressures had to come from the state and buyers, which remained silent, nevertheless. Hence, the key would be that there is a coordination of public and social forces, collective action both at vertical and horizontal levels, such that GVC pressures are accommodated to local contexts.

3.6 DISCUSSION AND FUTURE RESEARCH LINES

Following our review and considering the numerous works made on private vertical governance, in Table 3.5. we illustrate the relation between different GVC-level, private governance approaches and firms' upgrading paths. In doing so, we synthesize how the effects on upgrading vary depending on this type of governance, as each determines the mechanisms employed to exert it. We include the main mechanisms only, although our analysis and integrative framework have shown that there may be more mechanisms at play, maybe in interaction, being key to study them further to truly promote firms' upgrading. This summary is important because it also shows what types of private, vertical governance may require action by other actors to promote advanced forms of upgrading, and because it illustrates the governance structures to be incentivised to foster firms' upgrading, especially sustainable-related paths.

Keeping in mind the systematic review we provided as well as the summary from Table 3.5., we delve further now into the insights of our integrative model (Figure 3.1.) to discuss its implications. Such model integrates both internal, firm drivers and external, governance-related drivers. External drivers' effects on upgrading will depend on the governance type, as this determines the mechanisms used to control and coordinate GVC actors. Accordingly, these actors may foster or deter firms' upgrading depending on such mechanisms. This may require the action by other driving agents, and so our model includes them to illustrate top-down and bottom-up approaches to

firms' upgrading, showing different paths leading to it. More precisely, the dynamics of our integrative model work as follows: different drivers will affect firms' upgrading processes, and they may do so either directly or indirectly because there can be connections among driving agents and the mechanisms they employ – e.g., internal drivers as firms' motivation and capabilities can drive upgrading directly, but they can be affected by external drivers too. From there, firms' upgrading paths will lead to various upgrading outcomes, which may be positive or detrimental, hence determining whether this upgrading has been effective or not – i.e., it could turn out to be a low road to upgrading or a downgrading path; in such cases, upgrading has not taken place. Regarding external drivers, they act by two means, either by pushing firms to upgrade – e.g., some improvement is required to enter the GVC –, and/or by contributing to build firms' capabilities to upgrade – e.g., through hands-on approaches, often, as standard-based ones often lead to limited upgrading or downgrading.

Hence, departing from the understanding of our model's dynamics, we can appreciate how such model also illustrates what types of drivers can effectively promote firms' upgrading, as well as those that may require the action by other factors. For instance, collaboration-based governance structures are the key to drive advanced upgrading because of the mechanisms they use, but they are costlier, and their choice depends on several other elements, so the intervention of other drivers can be differential to promote firms' upgrading in this sense. This applies especially to sustainability-related paths, which are complicated to follow as a variety of capabilities is needed. As the operationalisation of these drivers as mechanisms is crucial to assess these effects, our model includes these elements too, but in Table 3.6. we provide a wider list that also indicates whether they are more shallow- or hands-on-based.

Table 3. 5. Typology of private, vertical governance and related upgrading paths

Ways in which the chain is coordinated	*Governance: continuum based on:* *Typology of private gov.*	**Transaction complexity** (i.e., determines transfer of knowledge)	**Information codifiability** (i.e., ability to transfer knowledge understandably)	**Supplier base capabilities**	*Characteristics*			**Economic upgrading enabled**	**Social upgrading enabled**	**Env. upgrading enabled**
					Degree of explicit coordination	Degree of power asymmetry	Central governance mechanism (*does not exclude other mechanisms*)			
Hierarchy *(vertical integration)*	**Hierarchical** *(depends on lead firm strategy)*	High (Information is not easily shared)	Low (Product specifications cannot be codified)	Low (High switching costs; there are less competent suppliers)	High (control and information flow from lead firm - unidirectional)	High (lead firm dominates the relationship; direct control)	**Vertical integration and managerial control** (in-house, lead firm; MNC)	**Product** ('yes'/partial) **Process** (yes) **Functional** ('yes'/partial)	Depends on lead firm strategy	Depends on lead firm strategy
Arm's length market relationships	**Market** *(shallow)*	Low	High (Product specifications are easily transmitted)	High (Low switching costs for both parts)	Low	Low (parties work with multiple partners)	**Price**	**Process** (no) **Product** (no) **Functional** ('yes')	Usually, will not lead to this upgrading	Usually, will not lead to this upgrading
Network governance types	**Captive** *("shallower")*	High (Specific conditions set by buyer)	High	Low (Thick ties; high switching costs for suppliers – specific investments –, not for buyers)	High (control exerted and information flow from the lead firm - unidirectional)	High (lead firm direct control)	**Monitoring and control** (by lead firm). Ethical leadership is necessary (to ensure fair value distribution)	**Process** (yes/ limited) **Product** (yes, limited/no) **Functional** (no)	Can lead to **social downgrading**	Influences only firm commitment to **environmental upgrading**
	Modular *("deeper")*	High (Complex transactions, customer's specifications)	High (Transactions are relatively easy to codify – standards)	High (Switching costs relatively low; limited transaction-specific investments)	*Medium-low* (Due to codification)	*Medium-low* (parties work with multiple partners)	**Linkages** (also codes) as information may flow both ways: - Information technology - Exchanging technical standards	**Process** (yes) **Product** (yes) **Functional** ('no')	Can lead to upgrading	Can lead to upgrading
	Relational *(deep)*	High (Complex, tacit information involved)	Low (Information is not easily transmitted because is tacit)	High (High switching costs due to relational linkages and unique, quality products)	Medium (achieved through "close dialogue")	*Medium (low)* (Power is more balanced)	**Frequent interactions, knowledge sharing**. Requires reliance. Regulated through: **Reputation;** social/spatial **proximity; trust** ties	**Process** (yes) **Product** (yes) **Functional** (yes)	More adequate to foster this upgrading	More adequate to foster this upgrading

Source: Own elaboration based on Gereffi et al., 2005; Humphrey & Schmitz, 2002, and the literature review

Table 3. 6. Mechanisms employed within each type of upgrading driver

Internal drivers (intra-firm)			
Mechanisms			
Motivation (micro approach)	Attitude to upgrade, Chief Executive Officer's (CEO) plans, differentiation, willingness to sell with a premium, enhancing the company's image, etc.		
Resources and capabilities	Firms' knowledge, prior experience, investment capacity, R&D abilities, human capital, etc.		
External drivers			
	Actors internal to the chain	**Actors external to the chain**	**Actors internal and/or external to the chain**
Mechanisms to exert governance from the GVC, vertical level			
Agent / Approach	**Private governance (lead firms)**	**Public governance (institutions)**	**Social governance (CSOs, NGOs, etc.)**
Standard (pressures, requirements)	*Shallow engagement:* - Price and purchasing practices - Standards, codes of conduct, certifications, in-house protocols - Preferential contracts - Monitoring (often, audits)	- International legislation (regulations, standards) - International penalties (based on non-compliance of the above)	- Creation of certifications, standards, codes of conduct - Pressure exerted over chains' visible head (lead firm) through: · Strikes, boycotts, protests... · Mass media · Lobbying groups · Unionization - Provision of monitoring services
Mentoring (collaboration-based)	*Deep engagement*[3]*:* - Design and product specifications (in collaboration) - Training - Knowledge sharing (on trends, certifications, production capacities), R&D engagement - Active support (financial, technical) - Ties based on trust, reputation - Frequent, face-to-face interactions - Ongoing, future contracts	- International support (e.g., financial) through different programmes	- Broker function between actors (e.g., helping building networks) - Providing training, expertise, or incentives for specific practices - Creation of programmes (e.g., pilot ones) - Providing assistance: financial, technical, organisational, etc.
Mechanisms to exert governance from the local, horizontal level			
Agent / Approach	**Private governance (local firms and cluster collective actors)**	**Public governance (local institutions)**	**Social governance (local CSOs, NGOs, workers, consumers, etc.)**
Standard (pressures, requirements)	- Price mechanisms - Standards, certifications - Benchmarking approaches	- Local legislation (regulations, standards) and industrial policy - Certifications - Penalties, fines (non-compliance) - Fiscal measures (taxes)	- Creation of certifications, standards, codes of conduct - Pressure over chain agents (either lead firms or not): · Strikes, boycotts, protests... · Mass media · Lobbying groups · Unionization - Provision of monitoring services
Mentoring (collaboration-based)	- Active support (e.g., technical assistance, training) - Creation of collective infrastructures - Role as knowledge brokers, transferring resources and information (cooperation) - Active monitoring	- Active support: direct, financial (credits, subsidies); non-financial (public infrastructure, contracts, brokerage role, provision of training and assistance, promotion of collaboration)	- Action as mediators or brokers - Providers of expertise, incentives, training services - Creators of pilot programmes - Active assistance in technical, financial, or organisational terms

Source: Own elaboration based on the literature review

Following the reflections above, we appreciate how other governance structures such as public and social ones, or horizontal private ones, are crucial to promote the upgrading of companies different from lead firms. From a bottom-up or horizontal perspective, these drivers can accommodate vertical pressures in many ways, also potentially being key at helping to build firms' capabilities. This may lead to indirect paths to upgrading, as it occurs with pressures by public or social agents on GVC leaders to drive them to extend corporate social responsibility (CSR) along the chain, for instance (Achabou et al., 2017). However, given potential concealed non-compliance – because norms are costly to fulfil and supportive enforcement is less common –, these governors must act both ways, as stated, such that they have an important double role.

Accordingly, the GVC field still needs to integrate further the horizontal dimension affecting the chains and the vertical, global level, because the first seems crucial for its potential to allow for firms' upgrading when vertical dynamics are not enough or even work against it. Especially now, in a context where de-globalisation tendencies seem to be growing to some extent, drivers beyond lead firms may recover some of their lost power over GVC actors. All these reflections open potential avenues for research within the GVC field, which we summarise in Table 3.7. More precisely, we divide the research gaps we have identified as how to drive firms' upgrading, who may drive it (in terms of less studied agents in the GVC literature), and what should be the updated conceptualisation of upgrading in our current environment. We also indicate specific RQs to set a starting point, and we propose theories and methodologies to answer them, which we develop in more detail now.

Table 3. 7. Avenues for future research in the field of GVCs

RESEARCH GAPS AND RQs		
HOW (conditions for firms' upgrading)	**WHO (agents/drivers)**	**WHAT (updated, integrated conceptualisation of upgrading)**
Firm level (internal viewpoint) What are the specific resources and capabilities that enable companies to follow different upgrading paths? What drivers influence in the building of these capabilities and how (positively or negatively)? Through what mechanisms does this happen? Do they have to work in interaction?	GVC, vertical level (external viewpoint) *Public governance*: Need to further conceptualise these actors as supranational drivers under institutional-based theoretical thinking (norms to normalise GVC actors' behaviour) What is the effectiveness of specific mechanisms (policies/grants/tariffs, etc.) on firms' upgrading? Local, horizontal level (external viewpoint) *Public governance*: It can be seen as an institution, but also as a resource, mediator, or broker. Need to further explore the latter, "softer" roles. How may institutions' role as knowledge bridges deploy and what is the effect on firms' upgrading? Can these agents contribute to build firms' capabilities to upgrade? What is the effect of norm-related measures taken at the local level (e.g., taxes, tariffs)? *Horizontal, business networks*: They (e.g., industrial associations, local firms) represent pools of resources and knowledge. How can these actors influence the building of firms' capabilities to upgrade? How do potential interactions work in this respect?	The GVC field needs further conceptualisation and theorisation about upgrading paths (they are industry-dependent and need an integrative view, especially in nowadays' environment) How does the understanding of firms' upgrading change depending on the industry? What specific, different processes of upgrading may this imply, and what are the consequences? Can the concepts of social and environmental upgrading be understood the same way in all industries? And in both developing and developed countries? Accordingly, would these processes materialise in different measures? And which ones? What would be the consequences? What potential connections can emerge among various upgrading paths? What are the outcomes/ consequences? How do these outcomes extend to levels beyond the upgraded firm? How can the different upgrading paths integrate to take a sustainable approach on them? (Studies considering sustainable upgrading as an integrated upgrading process and assessing its outcomes)
POTENTIAL THEORIES TO EMPLOY		
RBV / DCV / KBV	IT RBV / Network approach	RBV / KBV
METHODOLOGIES		
Both quantitative and qualitative	Quantitative approaches (assessing effects/effectiveness) Qualitative approaches (integrating actors and interactions among them)	Theoretical works Qualitative methodologies to explore these matters afterwards

Source: Own elaboration

First, regarding the "how" question, between drivers and upgrading as a process there are firm resources and capabilities that drivers contribute to build or not. Studying the exact capabilities required for different upgrading paths and how these may be developed would help in advancing GVC research. However, only few papers consider such a perspective explicitly, and among them, not all are supported by an adequate, well-established theory. That space in between would benefit from theories such as that of the RBV or the KBV, as firms' upgrading processes are intrinsically connected to knowledge, learning and innovation. Moreover, applying the DCV would be interesting too as upgrading has been argued to rest on incremental learning processes that often require knowledge located across the chain, hence being safe to say that firms need managing both internal and external elements to upgrade. The latter applies to sustainability-related upgrading paths especially, as they often require resources, capabilities and knowledge located throughout the GVC because of all the actors affecting and being affected by such paths. In this sense, the horizontal, business networks where firms are embedded acquire a renewed importance as well, as they represent pools of resources and knowledge too, which could be explored through the proposed theories, as well as in combination with a network perspective. In terms of the methodologies employed, qualitative ones would serve adequately to RQs related to how different driving elements may affect the development of these capabilities, whereas quantitative approaches would be used to assess the effectiveness of such interactions and the mechanisms employed in building said capabilities.

Second, the "who" question focuses on those actors that have been comparatively less studied in the field. Although public vertical governance has been studied in some works, there is still room to apply major theories that help in advancing

the GVC framework in this sense. In addition, GVC research still needs to pay more attention to the horizontal, local public level, because despite having lost power given GVCs international extension, these governors are still relevant, and they could be even more crucial nowadays. So, on the one hand, and concerning the need for further theorisation, employing the reasoning of the IT in this area would strengthen GVC research. At the vertical, supranational level, public governors and the mechanisms they use mainly serve to create norms that normalise GVC actors' behaviour towards certain goals, either economic, social, or environmental – although they may use other mechanisms such as project development programmes or grants, for instance. Hence, employing this theory would contribute to further explore how different norms influence firms' upgrading or downgrading, also strengthening these explanations in theoretical terms. For instance, the EU is setting new legislation to oblige MNCs to monitor suppliers along their chains and the tendency points towards starting to look closer at SMEs too, so assessing the effects of these measures would be important regarding how effecting they may be for firms' upgrading. This applies critically to sustainable-related upgrading paths, as some research has shown that these are not always effective or may even lead to counterintuitive results. Thus, both quantitative and qualitative methodologies would apply.

On the other hand, public horizontal governance has been comparatively less studied in the GVC field despite its potential relevance, and it may be even more interesting as it can be seen from both an institutional perspective and as a resource for firms. Indeed, and even though it is not new, nowadays the world is witnessing the global effects that local, political decisions can produce. Warlike events like the Ukraine-Russia one already altered the functioning of GVCs, as well as the tariffs

imposed by USA's government in 2025 are – even leading to the commercial collaboration of China, Japan, and South Korea to face these measures. So, these are external-to-the-chain governors that cannot be ignored, as their critical role is undeniable. In terms of mechanisms such as legislation applying to local firms, or tariffs as the mentioned ones, theories like the IT still apply, and the key would be to assess their effectiveness in promoting firms' upgrading or downgrading, considering all the different paths. In doing so, quantitative methodologies apply well. However, these public, local governors are even more interesting if we consider their "softer" roles in terms of acting as mediators, brokers, or knowledge-bridges (Corredoira & McDermott, 2020). Studying such a role requires the analysis from other perspectives related to resource-related theories and in combination with a network perspective, as these governors may be part of firms' local, non-business networks. Especially their role as potential knowledge bridges opens a crucial avenue for research, as institutions go beyond being mere regulators to also be builders of firms' capabilities by providing knowledge or acting as translators of lead firms' requests – this being particularly beneficial for resource-constrained companies and sustainability-related upgrading paths. In practice, for example, the Spanish Government has put into practice a pilot programme to lead SMEs into adopting the four-day working week, which should constitute a driver of social upgrading, the outcomes still to be seen although they seem positive. All this could be tackled with quantitative and qualitative methodologies.

Third, there is a need to integrate further firms' business networks in the private horizontal level. The role of actors such as industrial associations has been relatively less explored within the GVC field despite being a key actor given their capacity to contribute to build firms' capabilities. Also, local business networks can be integrated

more formally. Suppliers, clients, auxiliary or complementary firms from companies' clusters to name but a few, are actors imposing conditions, norms, and subjects of potential transfers of resources and knowledge too. This demands for them to be explicitly acknowledged and studied as drivers of firms' upgrading. In this vein, a network perspective, perhaps in combination with resource-based theories, would contribute to shed some more light on their role and drivers of firms' upgrading.

Fourth, regarding the "what" question on the upgrading construct, our framework offers a more integrative view of firms' upgrading, and an updated consideration of the term, while also outlining possible connections among various paths. Regarding this integrative view, Gereffi and Lee (2016) already considered social and economic upgrading in combination, and so did De Marchi et al. (2013) for environmental and economic upgrading. Furthermore, Krishnan et al. (2023) stated the necessity to integrate further the study of economic, social, and environmental upgrading too. Each time, indeed, it makes less sense to talk about upgrading paths separately. Firms need to earn profits, and worldwide societies need growth to be sustainable and socially and environmentally responsible. Hence, we propose the term sustainable upgrading as an integrative perspective. This should refer to product, process, functional or managerial improvements that include both social and environmental considerations too, such that they allow firms to increase the value captured from their GVC participation, although in a sustainable manner (i.e., the value captured is not only economic or relational, but also social and environmental, extending to other levels too, in a positive way). We believe this conceptualisation should drive future studies within the GVC field, including theoretical ones to

strengthen this conceptualisation, such that GVC research starts assessing upgrading in a more integrated way that is adequate to the context we live in.

We have two more observations to make on this updated conceptualisation of firms' upgrading. First, as for environmental paths, despite recent, significant contributions to its definition (e.g., De Marchi et al., 2019; Krishnan et al., 2023), the terminology may be considered a bit vague still. One of the reasons may be that these strategies are industry dependent, so it may not mean the same for firms in agriculture and the fashion industry, although they may find some contact points – e.g., the first upstream nodes in a fashion GVC are related to the agricultural sector. Another argument is that related to the literature focusing more on the processes rather than the outcomes. In this vein, qualitative studies continue to be adequate to assess different understandings of firms' upgrading and how strategies shall develop, but we also need to assess the effectiveness of this in terms of outcomes at different levels, because that is what determines whether upgrading has occurred or not. Second, regarding social upgrading, this concept adopts a much more micro perspective as it has a its core the workers, and most works have concentrated on lower-income countries, as it is logical. However, the latter has led its conceptualisation to be too geared towards their reality. Even though this is critical, suppliers from developed countries are also subjects of social improvements, and worsening conditions. These may be of a different kind, though, since firms from these economies are presumed to be past the point of matters such as labour exploitation or basic health conditions. Accordingly, future research on social upgrading may benefit from accounting for a wider set of issues, which we tried to account for in our typology where we also attempt distinguish between processes and outcomes in a clearer way.

Finally, upgrading processes can be connected among them within a category (e.g., product and process upgrading occurring simultaneously), but also among categories. For instance, economic improvements may lead to social or environmental upgrading (or downgrading) too. We contend that this is dependent on the specific mechanisms employed to drive upgrading. In turn, this will have different outcomes. This reinforces our reasoning that future research should not restrict only to one upgrading type, as the approach taken should be wider. Likewise, concerning outcomes, something similar applies. Outcomes occur within the firm first but then extend to other levels. For instance, firms' environmental process upgrading in the form of using clean, renewable energy sources, or recycled materials obtained in the territory, may lead to a greener, more resilient chain, in that it should be less affected to external shocks such as energy costs or the lack of inputs. However, a positive outcome in one level may not always translate in the same way to other levels (e.g., Krishnan et al., 2023). Acknowledging these considerations explicitly is an important avenue for research as well.

3.7 CONCLUDING REMARKS

Our review shows that the drivers of firms' upgrading go beyond lead firms, the specific mechanisms employed being crucial at determining what upgrading processes emerge with what outcomes. Standard approaches shall promote limited types of economic upgrading, often leading to social or environmental downgrading even, whereas collaboration-based approaches are the key to advanced, sustainable upgrading. The latter is not only restricted to private vertical governance, as it can be enforced by social and public actors, as well as by horizontal private governance. The latter agents become key to build firms capacities to upgrade, and to accommodate

vertical pressures to allow for upgrading. Future research, then, must contemplate upgrading from an integrative perspective while accounting for these various drivers and both direct and indirect impacts of firms' upgrading too.

These conclusions point out to other research avenues too. First, most research has focused on developing countries, so we have less evidence about developed country companies different from lead firms, which may be crucial as well, especially under a potential de-globalisation scenario. We deem key to analyse smaller firms, such as SMEs from developed countries, because they act as suppliers in GVCs and are important economic, social, and environmental actors for which we have less studies. Second, the field still lacks more quantitative works testing generalizable relationships. We suggest conducting research with primary data, especially when involving upgrading paths as these are industry-specific, for which we believe our review provides a starting point as it gathers the specific mechanisms employed too.

Furthermore, most papers also lack a sound theoretical base. We observed the employment of GPN, GVC or GSC frameworks, but also other approaches such as absorptive capacity; catch-up literature; cluster literature; CSR; developmental state; innovation; feminist political economy; FDI-spillovers; theory of contractual relations; network approaches; theories of planned behaviour; power dependence and spatiality; relational geography; strategic management applied to environmental strategies; or technological capabilities. Hence, future research would benefit from well-established theories that help in integrating more the bottom-up drivers of upgrading.

Our review is not without limitations, though. Development opportunities may have been treated from several perspectives, not always as upgrading per se, which

could have limited our results. Moreover, we have not included grey literature, which given the practical orientation of this research could be relevant for future studies. Despite this, we believe we have contributed to set the stage for future GVC research. We have gathered the factors that affect firms' upgrading, integrating them with the governance construct, and we have disclosed the mechanisms employed. Hence, we provide a basis for the development of future scales assessing the effect of these mechanisms, also in combination. Besides, we contribute to the conceptualisation of upgrading as a process and an outcome and its integrative view through the term of sustainable upgrading. Finally, our integrated framework helps to illustrate future research avenues too, for which we proposed theories to advance the GVC field.

3.8 NOTES

1. In Gereffi (1999), the author analyses the determinants of upgrading in Asia's apparel industry. Among others, the author considers the historical and social embedment of these chains, and that their upgrading paths are locally entrenched.
2. As per our review, we argue that institutions can have other roles beyond facilitators, regulators, producers, and buyers; they can be knowledge bridges (Corredoira & McDermott, 2020) between private agents and private and public spheres – even if Corredoira and McDermott (2020) focused on public-private institutions as government support entities and found that they benefitted micro firms the most. We believe this role is worth paying more attention as key to build firms' capabilities to upgrade.
3. Actors tend to be mutually dependent on knowledge and skills, standards may not be available, and/or supply base may not be able to comply.

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3.11 APPENDIX 1

Table A 1. Analytical structure of the content analysis

Subthemes *(concepts in practice)*	Themes	Theoretical concepts	Aggregated dimensions
Attitude to upgrade Willing to differentiate / enhance company's image / sell with a premium CEOs' concerns	Firms' internal motivation	Firms' behaviour, resources, and capabilities	**Internal firm drivers**
Human capital development Internal R&D facilities Firm knowledge (e.g., market research, home and abroad) and experience Firm investments	Firm resources		
Investments (FDI) Requirements (quality, delivery, price, environmental) / specialized markets Purchasing practices Granting GVC participation / formal supplier selection Preferential contracts based on code compliance Establishment of minimum prices / price schemes / premiums Financial assistance (e.g., grants, support to microcredit orgs.) Creation of companies to support producers Private purchasing codes, programmes, practices Codes of conduct Standards (e.g., quality and labour) Private certifications Monitoring (audits) Codified design instructions Information and knowledge sharing (formal and informal, limited or non-limited) Frequent supplier interactions (learning) Training Technical/active assistance Direct engagement in R&D and/or product development	International buyers (lead firms)	Private governance *(vertical and horizontal)*	**External drivers (governance)**
Technical/active assistance, training, meetings Development of (collective) infrastructures Linkages (transfer of information and resources) / information brokerage Monitoring and certification programmes Standards	Cluster firms Cluster collective actors (e.g., cooperatives) Local industry associations (cluster)		

(continued)

Standards Price mechanisms Competitors' observation (benchmarking) Close interactions (transfer of information and resources) Local cooperation / associations Information brokerage	Local buyers (e.g., retailers) / producers private firms (e.g., intermediaries)	Private governance *(vertical and horizontal)*	**External drivers (governance)**
Collaboration Meetings Training Learning / information/knowledge transfer Certifications	Foreign private actors (e.g., consultants)		
Broker between parties Building of local networks Provision of expertise (e.g., in sustainable practices) / incentives Promotion of (production) practices Training Certifications Monitoring Creation of pilot programmes	International NGOs Local NGOs	Social governance *(vertical and horizontal)*	
(*NGOs with lead firms*): Brokerage role Provision of certification schemes Creation of standards / norms / codes of conduct Creation of local services Monitoring Organisational / technical / financial assistance	Multi-stakeholder initiatives		
Civil society campaigns and boycotts Strikes Lobbying Unionization Technical assistance	Local consumers and consumer associations Workers Labour and trade unions		
Regulations (e.g., on disclosure, transparency)	International institutions (supranational authorities)	Public governance *(vertical and horizontal)*	

(continued)

Regulation, standards (e.g., on labour) Industrial policy Fiscal incentives / taxation Investments (e.g., direct, in infrastructures) Financial aid (credit policies and grants / support to microcredit orgs.) Licenses (e.g., on quantities to produce) Certifications Contracts Selective protectionism State ownership / public companies to support specific processes Public collaboration and coordination (promoting relational mechanisms) Inspections Provision of industry planning, R&D, equipment Training / technical assistance Brokerage (e.g., translation of requirements, knowledge)	Local and regional authorities (governments, government agencies) Local public institutions (e.g., universities)	Public governance *(vertical and horizontal)*	**External drivers (governance)**
Entering GVCs or new industry/GVC	Chain or inter-chain upgrading	Economic upgrading	**Firm-level upgrading (as a process)**
Product range enlargements / new products Development of higher quality goods	Product upgrading		
Logistical improvements Automation / improvement of processes (sorting, cleaning, cutting, packing…) Development of new production practices Matching standards Acquisition of new machinery	Process upgrading		
Acquisition of new functions / business activities (*technological upgrading*) Brand upgrading	Functional upgrading		
Imposition of fair-trade conditions Increasing employees' voice Establishment of workers' rights to enter and exit employment	Enabling rights (*equality, empowerment, freedom of association*)	Social upgrading	
Training Creation of collective structures Creation of social facilities Access to healthcare Establishment of higher wages / minimum wage Elimination of child labour Creation of codes of conduct, reporting and audit systems Lower wages (*downgrading*) Social exploitation (*downgrading*) Technology-driven firings (*downgrading*) Unhygienic working conditions (*downgrading*)	Measurable standards (*working conditions*)		

(continued)

Eco-branding Environmental cost leadership Development of new, ecological goods	Product upgrading	Environmental upgrading	**Firm-level upgrading (as a process)**
Eco-efficiency / improvement of production methods	Process upgrading		
Elimination of hazard elements Certification Beyond-compliance leadership / Conservation principles	Organisational upgrading		
Price premium Differentiation Productivity and yield/profit/rent increases Increased efficiency (lower operational costs/cost savings) Access to a GVC / to superior functions in a GVC Positional improvement	Economic outcomes	Upgrading / downgrading	**Firm-level upgrading (as an outcome, direct and indirect)**
Increased efficiency (related to energy / water / waste) Emission reduction; better management of waste, resources, energy Land use / erosion reduction Deforestation (*downgrading*)	Environmental outcomes		
Employment creation / formal employment Employee qualification Occupational health Workers' union (enabling and collective bargaining rights) Ethical production Safety Workers' livelihood conditions Skilled labour Working time Casualization of work / seasonal work (*downgrading*) No union organisation (lack of bargaining rights) (*downgrading*) Weak collective rights (*downgrading*)	Social outcomes (enabling rights and measurable standards)		
New market access Word of mouth / increased reputation Larger / long-term consistent orders (business continuity) Knowledge spillovers Improvement of buyer-supplier relationships Increase of trust, understanding and confidence Higher switching costs (more bargaining power)	Relational outcomes		

Source: Own elaboration

Table A 2. Summary of the papers included in the literature review

Paper ID	Authors, year, and paper title	Purpose / RQ	Theory / framework employed	Method & sample / Country & sector	Upgrading assessed / Factors (actors) affecting upgrading	Research findings
23	Puppim de Oliveira and de Oliveira Cerqueira Fortes (2014) *Global Value Chains and Social Upgrading of Clusters: Lessons from Two Cases of Fair Trade in the Brazilian Northeast*	The paper studies how GVC participation or GVC linkages as well as local cluster integration and organisation affect upgrading (focusing on social improvements especially) in two Brazilian clusters, either facilitating it or constraining it. Authors analyse clusters involved in fair trade relationships with international buyers.	Industrial cluster and CSR GVC	Qualitative (primary data; semi-structured interviews) 218 interviews Developing country (Brazil) Agrifood sector (honey and oil clusters)	Economic upgrading Social upgrading Cluster actors (Local) public institutions International buyers (lead firms) International actors	The paper finds that GVC participation fosters economic (product) upgrading and social upgrading, whereas local cluster and public actors foster economic product and process upgrading and social upgrading (in terms of managers' training, fair trade conditions, the development of collective structures and the creation of advantages for workers). In particular, local actors promote the entering of firms in GVCs. Institutional actors do so through mechanisms such as laws, financial aid, and different initiatives taken; they also work as translators of lead firms' requirements. Cluster actors foster further linkages and the development of infrastructure allowing firms' upgrading. International buyers foster firms' upgrading through long-term contracts, premium prices and certifications. However, suppliers' upgrading remains limited as they are left in lock-in positions (by international buyers' actions, even if this can be unintentional). Authors conclude that the action of strong, local entities was critical in achieving firms' social upgrading before and after the insertion of these clusters in GVCs; GVC linkages alone are not sufficient explanation for social upgrading.
32	Hedberg (2013) *'Grapes of Wrath'? Power Spatialities and Aspects of Labour in the Wild Berry Global Commodity Chain*	The paper uses the case of the wild berry industry in Sweden to analyse power relations in GCCs concerning the relationship between firms and workers. It studies how workers' social relations are affected by economic upgrading in the GCC, analysing power spatiality in this sense. It pays attention particularly to the relationship between firms and regulated workers, acknowledging also non-regulated ones.	Power spatiality GCC	Qualitative (primary data; interviews) - Developed (Sweden) and developing (Thailand) country Agrifood sector (wild berries)	Economic upgrading Social upgrading (Local and international) private actors (Local) public institutions International buyers (lead firms) Social actors	The author does not focus on governance nor networks; instead, integrates power spatiality (hierarchical, networked and topological power) concepts in GCC literature to analyse connections between local and global levels that connect participant actors, giving them certain abilities and thus affecting GCCs and the manufacturing, distribution and consumption of goods. Findings suggest that economic upgrading (in the sense of chain entering) is made through a low road path, thus implying social downgrading. There are a set of public actors (such as institutions and social actors like NGOs) trying to push for social upgrading, but their reach is limited and they even end up having negative, unintentional consequences. Although GCC participation leads to social downgrading, the position of workers is better at their home countries (there is a mismatch between standards in developed and developing countries).

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107	Khan, Ponte and Lund-Thomsen (2020) *The 'factory manager dilemma': Purchasing practices and environmental upgrading in apparel global value chains*	RQ: How are export-oriented apparel manufacturers in Pakistan affected by the purchasing practices and environmental upgrading requirements of their global buyers?	*Not explicit/not mentioned* GVC	Qualitative (non-experimental case study; interviews, secondary data and observation) 39 interviews Developing country (Pakistan) Apparel sector	Environmental upgrading International buyers (lead firms)	The paper explores the conflict between the economic demands and the social and environmental requirements that lead firms impose over suppliers from the Global South. Through purchasing practices, lead firms require certain prices and demand adaptations, but they also impose social and environmental standards that may be incompatible with prior demands. Hence, a trade-off appears between the viability of suppliers' activity in economic or financial terms and suppliers' ultimate environmental upgrading (a "factory manager dilemma"). The authors examine the difference between upgrading as a process and as an outcome, as well as the "fallacy of composition". Suppliers may find themselves continuously upgrading or improving without "reaping additional benefits". In this case, Pakistan apparel firms are driven towards environmental upgrading more heavily by external drivers; in particular, they are mostly buyer-driven and do not account much of local regulations. Buyers rely on standards, certification bodies and codes of conduct because they have limited environmental experience themselves, thus they do not provide direct support. Buyers are most pressured by both reputational risks and home market regulations, while suppliers are more proactive because they have realised that this is a requirement to participate in GVCs. Regarding processes, suppliers upgrade mainly through obtaining certifications. Regarding outcomes, suppliers do not associate environmental upgrading with cost savings, and their benefits come from being able to fulfil product and price demands by buyers; thus, there is a mismatch. Instead, environmental upgrading might be more important for its relational outcomes and the possibility of business continuity.
21	Khattak, Stringer, Benson-Rea and Haworth (2015) *Environmental upgrading of apparel firms in global value chains: Evidence from Sri Lanka*	RQ: How do apparel firms (suppliers or manufacturers) engage in environmental upgrading and what types of GVCs foster environmental upgrading	*Not explicit/not mentioned* GVC	Qualitative (in-depth interviews) 5 interviews Developing country (Sri Lanka) Apparel sector	Environmental upgrading International buyers (lead firms) *Public institutions (treated contextually)*	The paper analyses the governance structure of the apparel GVC in Sri Lanka to provide an empirical definition of environmental upgrading based on primary data while identifying the critical components and outcomes of this upgrading. The authors outline the drivers, activities, outcomes, and monitoring of this upgrading, and consider the governance structures within which suppliers and manufacturers in Sri Lanka are embedded to understand the implementation and diffusion of upgrading. Thus, they explain the conditions and dynamics of environmental upgrading at the firm level. They find that this chain is managed through relational mechanisms, as products are complex and knowledge thus is difficult to codify, motivating frequent interactions and close relationships with international buyers. This allows for knowledge transfer and technical advice that contributes to drive suppliers' upgrading. Another important driver is suppliers' capability to absorb and implement such knowledge, as well as their human and financial capability, since they must bear the costs of implementing such processes, and they often must purchase the technical expertise that is lacking in Sri Lanka. Buyers are not contributing to those costs and, besides, they continue to put pressure on prices. Thus, the benefits that suppliers get is cost savings, continued relations with buyers, and knowledge spillovers.

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39	Achabou, Dekhili and Hamdoun, (2017) *Environmental Upgrading of Developing Country Firms in Global Value Chains*	The paper studies whether the participation of local firms in GVC could lead to the process upgrading of such firms (thus, helping them to better manage their waste, which is the type of – environmental – upgrading analysed here)	Corporate environmental management GVC	Mixed (survey and semi-structured interviews) 24 companies Developing country (Tunisia) Agrifood (olive oil)	Environmental upgrading International buyers (lead firms) *Public institutions (treated contextually)*	This paper studies the influence of western companies (MNCs or lead firms) on responsible corporate behaviour (or CSR) by firms in developing countries by studying the case of Tunisian olive companies. Authors study whether the relationship of these supplying companies with GVC lead firms can lead to environmental upgrading by Tunisian firms. Results indicate that these exporting companies have developed environmental upgrading strategies from which they have benefited, but the gains remain limited because rather than cooperating more closely, western companies have opted for standards imposition, and they have not provided financial nor technical assistance.
54	De Marchi, Di Maria and Micelli (2013) *Environmental Strategies, Upgrading and Competitive Advantage in Global Value Chains*	The paper studies the combination of economic and environmental upgrading and improves the understanding of firms' strategies aimed at reducing their impacts along the GVC	(Environmental) strategic management strategies GVC	Qualitative (case studies) 4 companies Developed country (Italy) Home furniture	Environmental upgrading International buyers (lead firms)	This paper relates specific forms of upgrading with green strategies to combine economic and environmental upgrading, showing how firms implement environmental strategies while also aiming at achieving economic benefits. By coupling both, firms can improve their competences, technology, and market relationships, thus increasing their power within the chain. At the same time, they can reduce their impact in the chain, further affecting their relationships with other actors (e.g., with other suppliers). They concentrate on the Italian context, where policy makers and high consumer awareness have triggered the establishment of eco-friendly practices in the furniture industry. Besides, firms are also trying to overcome the loss in competitiveness against Asia through the implementation of green strategies. Of the four case studies, 2 are suppliers of IKEA, 1 of Interface (US MNC), and the other is a medium-sized firm with international activity.
117	De Marchi and Di Maria (2019) *Environmental Upgrading and Suppliers' Agency in the Leather Global Value Chain*	RQ: To what extent can suppliers autonomously pursue environmental upgrading processes? What are the motivations for firms to pursue environmental upgrades in GVCs?	Environmental innovation GVC	Qualitative (in-depth interviews) 18 interviews Developed country (Italy) Leather	Environmental upgrading International buyers (lead firms) Supplier firms themselves	This paper studies suppliers' own agency to conduct environmental upgrading strategies, mostly of the process type in this case. It concentrates on the leather sector in Italy, where firms implement process innovations to limit the environmental impact of the different activities along the value chain. In this case, the main drivers are internal as suppliers are anticipating lead firms' needs and intend to differentiate themselves, thus improving their position towards international clients. Although lead firms request suppliers to be more sustainable, they do not provide specific requests, nor collaborate with them to help them, also because they do not possess the specific knowledge required, but suppliers do; they are located in an Italian cluster and so they have the knowledge. Authors find that environmental and economic upgrading cannot be separated.

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8	Lombardozzi (2021) *Unpacking state-led upgrading: empirical evidence from Uzbek horticulture value chain governance*	The paper studies how the state, through the establishment of vertical and horizontal ties, can shape the direction and pace of upgrading in an agro-industrial setting. It looks at micro-meso level state interventions.	Developmental state GVC / GPN	Qualitative (interviews, observations, and archival data). 18 interviews. It also complements with 120 surveyed firms (farmers) Developing country (Uzbekistan) Agrifood (horticulture)	Economic upgrading (Local) public institutions	The paper analyses how state interventions, through policies and investments, lead to the (economic) upgrading of the horticulture sector in Uzbekistan, where private investment might not be as strong or where FDI might have detrimental effects for firms/industry upgrading. Investments, incentives, and active intervention (through state consortiums, or acting as a mediator in purchases) led to technological improvements, and to product, process, and functional upgrading, and allowed the industry to enter international markets. Besides, this improved wages and employment too, even though with undesirable effects for smallholders. Thus, macroeconomic policies allowed building local capabilities at the micro-level. This allowed weakening the negative effects that GVC integration might have for firms by securing prices, inputs, and income.
9	Ruwanpura (2016) *Garments without guilt? Uneven labour geographies and ethical trading-Sri Lankan labour perspectives*	The paper analyses how multistakeholder initiatives or individual corporate initiatives drive labour standards up. In turn, it studies how workers' actions shape the economic landscape gains from labour movements facilitate legislation benefiting industrial capital (ethical corporate codes are a focus of this paper).	Network (metaphor) / relational geography (*no full-compliance with GVC nor GPN*)	Qualitative (interviews and observations) - Developing country (Sri Lanka) Apparel sector	Economic upgrading Social upgrading International buyers (lead firms) Social actors (Global) multistakeholder initiatives *Public institutions (treated contextually)*	The paper considers the role of three main agents in both economic and social value creation: firms (international buyers), the state, and labour (workers). Sri Lanka implemented ethical trading measures as a response to increasing concerns among Northern buyers, but it was labour struggles what truly led change first on Sri Lankan legislation and then on global governance initiatives. Multi-stakeholder initiatives postulate codes of conduct as well, but with no enforcement measures. Moreover, there are tensions to implement codes, because when production targets must be met, workers may be forced to work overtime and punitive measures may apply. Hence, as workers ability to have a voice is limited and so is the efficacy of ethical codes, the pressures must be local-global, stemming from the state and buyers, although they remain silent here.
17	Pipkin (2011) *Local Means in Value Chain Ends: Dynamics of Product and Social Upgrading in Apparel Manufacturing in Guatemala and Colombia*	The paper studies how upgrading may be driven by local institutions and politics	*Not explicit/not mentioned* GVC	Qualitative (primary and secondary data) 14 firms, 68 interviews in Guatemala, 25 interviews in Colombia Developing country (Guatemala, Colombia) Apparel sector	Economic upgrading Social upgrading (Local) private actors Supplier firms themselves *Public institutions (treated contextually)* *International buyers (lead firms; treated contextually)*	This paper analyses the upgrading processes of apparel producers of Guatemala and Colombia. The author finds that, by employing different organisational routines and processes, firms in both countries get to be high value-added producers. This and the social upgrading processes occurring in each country's firms is shaped largely by several factors. First, the country history (whether the industry was born or developed in a moment where national development agenda geared on that direction, mainly). Second, the international trade relations of the country. Finally, the socialization of firms (either via managers, ownership structures, or by means of business associations, which offer training and brokerage roles).

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19	Rainbird and Ramirez (2012) *Bringing social institutions into global value chain analysis: the case of salmon farming in Chile*	The paper investigates the interaction between local institutions and producers' participation in GVCs concerning the development of skills and innovation	*Not explicit/not mentioned* GVC	Qualitative (review of literature, reports and semi-structured interviews) 5 firms Developing country (Chile) Agrifood (farmed salmon)	Social upgrading International buyers (lead firms) (Local) public institutions	This paper explores the role of national institutions in favouring social upgrading in Chilean firms participating in GVCs. The premise is that lead firms may serve as conduits of knowledge and may pressure towards upgrading labour, because they are interested in doing so, but entering a GVC does not always result in improved labour conditions. The latter demands the involvement of other actors, like trade unions, NGOs, consumer groups, etc. Indeed, improvements may depend on several institutions and their coordination with other actors. The author finds that public institutions, and universities often, enhance workers' training, protect them with regulation, and support companies' upgrading with investments. However, Norwegian firms owned most companies in Chile. These might not be interested in further developing producers, and so this social upgrading is limited. Moreover, in Chile it is not possible to unionize, which reduces bargaining prospects. Thus, this is a low road to competitiveness based on cheap labour and poor skill development. MNCs actions seem to be driven by the will to exploit natural resources and cheap labour, and the industry expanded rapidly thanks to state support, but in a limited way.
22	Kwon, Chung and Lee (2021) *South Korean first-tier suppliers in apparel global value chains: Upgrading and labour implications in the Asian context*	The paper studies the strategic responses of first-tier suppliers to post-crisis trends and labour issues and the implication that their upgrading has for labour in GVCs. It comments on the effect that lead firms may have on suppliers' upgrading too.	*Not explicit/not mentioned* GVC	Qualitative (archival data and interviews) 20 interviews (2 large supplier firms) Developing country (Republic of Korea) Apparel sector	Economic upgrading Supplier firms themselves *Public institutions (treated contextually)* *International buyers (lead firms; treated contextually)*	The paper examines how suppliers from the apparel industry in the Republic of Korea became first-tier transnational suppliers of larger buyers. Korean producers cut out Japanese intermediaries and started working with buyers directly. These direct contacts fostered learning for them. Besides, the national Government created industrial complexes for those exporting industries. Then, Korean producers started relocating its production in places where they could be closer to the clients and could access cost-efficiency benefits. This responded to a change whereby leaders looked for capable suppliers that could also accomplish with regulations and pressures. In this case, working closely with buyers favoured suppliers' upgrading to respond to leaders' necessities. Suppliers integrated vertically and improved their capabilities related to manufacturing or design, even co-creating with lead firms, therefore occupying a strategic role in the chain. This required skilled workers. For such a reason, suppliers also improved workers' knowledge and wellbeing. Lead firms also required compliance with specific standards and codes (at the risk of penalties). Therefore, economic upgrading (and especially, functional upgrading) led to suppliers' strategic engagement in socially responsible activities.

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35	Reinecke and Posthuma (2019) *The link between economic and social upgrading in global supply chains: Experiences from the Southern Cone*	The paper studies the extent to which economic and social upgrading are linked within supply chains and whether upgrading spillovers are spreading from lead firms to domestic suppliers.	- GSC	Qualitative (interviews, secondary data) 9 case studies (quantitative and qualitative indicators employed to assess upgrading) Developing countries (Southern Cone: Brazil, Chile, Argentina, Paraguay, and Uruguay) Agriculture, industry (apparel) and business services	Economic upgrading Social upgrading International buyers (lead firms) (Local) public institutions (Local) private actors Social actors	The paper analyses 9 GSC in Latin American countries, of various industries, and explores how relationships between lead firms and suppliers triggers economic and social upgrading. The paper finds three patterns of upgrading spillovers. First, a pattern of oppositional development (where lead firms upgrade through uneven processes). Second, a pattern of truncated development (where lead firms' upgrading creates little or no opportunity for suppliers to upgrade). Third, a pattern of integrated upgrading (where economic and social upgrading by lead firms results in spillovers for suppliers to upgrade). In general, informal, and small-sized firms engaged in low value-added activities experienced downgrading paths due to quality, price and scale requirements by lead firms. They also found difficulties in identifying upgrading opportunities. The two integrated upgrading cases were those where lead firms supported suppliers' upgrading and took place in the same country, indicating also that the government had established an institutional framework in economic and social areas that was conducive to upgrading. This policy framework supported upgrading in a natural resource-based sector (with manual labour) and a high-end, technologically sophisticated business process services. Hence, they key would be to create stronger linkages between private, public and social governance mechanisms.
38	Ponte (2020) *The hidden costs of environmental upgrading in global value chains*	The article studies how global buyers capture the value of environmental upgrading by their suppliers while environmental issues remain largely unsolved (the "hidden costs" of environmental upgrading).	*Not explicit/not mentioned* GVC	Qualitative (previous work by the author, interviews and focus groups) - Developing country (Africa) Agrifood (wine and coffee)	Environmental upgrading International buyers (lead firms) Supplier firms themselves *Social actors (treated contextually)*	The article analysis how lead firms use the information flows related to environmental upgrading to "squeeze" value out of suppliers. The study finds that private, value chain-oriented forms of sustainability governance are failing to address sustainability problems and have become a conduit of major redistributive dynamics against global South producers. In this way, lead firms reduce their risks and pass costs onto suppliers; they intentionally hide these costs while they announce their environmental upgrading strategies; and this has negative distributive consequences for weaker players. Deregulation and liberalization processes favour this, as governments do not have such a key role. Public authorities and civil groups must be aware of the limitations that business/private actors must achieve environmental solutions (self-regulation and multi-stakeholder cooperation cannot achieve all). Thus, public orchestrators must follow strategies where (a) they know how value chains operate and (b) they know what the pressure points are where they can stimulate positive change.

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40	Whitfield, Staritz, Melese and Azizi (2020) *Technological Capabilities, Upgrading, and Value Capture in Global Value Chains: Local Apparel and Floriculture Firms in Sub-Saharan Africa*	The article studies firm-level export strategies and processes of capability building and the upgrading trajectories taking place as a result	Technological capabilities approach GVC/GPN	Mixed (surveys and interviews) - Developing country (Ethiopia, Madagascar, Kenya) Apparel and floriculture sectors	Economic upgrading International buyers (lead firms) (Local and foreign) private actors (Local) public institutions	The paper focuses on firm-level export strategies and processes of building capabilities, and the resulting upgrading paths and value capture trajectories. It finds that different GVC nodes require different capabilities for suppliers to fit in there, and that different export strategies served to develop different capabilities. The Ethiopian apparel case showed that these firms did not have the international networks required to access knowledge and create linkages with international buyers. Instead, in Madagascar, apparel firms were embedded with abroad firms from which they obtained spillovers. Besides, there were diaspora firms through which knowledge could be accessed as well. However, industrial policy remained limited; it supported local investment, but lack of control and content measures led to less successful support for local firms to invest in learning. In addition, global buyers did not support learning actively, and their strict requirements made learning difficult. In the case of floriculture exports, firms had the possibility to export through Dutch auctions, from which producers obtained feedback (thus, knowledge). Local and external linkages were important conduits of knowledge too. Hence, foreign linkages (sometimes through FDI), local linkages in some cases, international buyers support, ownership characteristics of suppliers, and government support on investment were the main drivers mentioned to develop capabilities that allowed suppliers to access GVCs.
42	Perez-Aleman and Sandilands (2008) *Building Value at the Top and the Bottom of the Global Supply Chain: MNC-NGO partnerships*	RQ: How do MNC-NGO partnerships facilitate the inclusion of poorer producers in GSCs? What conditions contribute to such an inclusion where there is increasing pressure to upgrade social and environmental standards? What approaches to designing and implementing standards in developing economies work for local producers and communities and for reaching sustainability goals within supply chains?	*Not explicit/not mentioned* GSC	Qualitative (archival material and interviews) - Developing country (Mexico and Central America) Agrifood (specialty coffee)	Economic upgrading Environmental upgrading (International) social actors International buyers (lead firms)	The paper studies the conditions under which social and environmental standards can contribute to the inclusion of suppliers at the bottom of the pyramid in global supply chains. It looks at standards created and implemented within the context of MNCs and NGO partnerships. The authors conclude that creating social and environmental standards that do not exclude the smallest suppliers requires taking into account the local context of producers. To do so, it is necessary to cooperate with NGOs and local private/public organisations (such as universities or governments), as well as suppliers themselves. Switching from a hands-off approach (based on standards and monitoring) to a mentoring-based approach is key too, as simply monitoring might lock out the smallest suppliers. An n approach that includes providing active financial and technical assistance will help those suppliers to upgrade, in the benefit of all parts. Cooperating with other actors can be useful also when MNCs lack the knowledge about the local reality or how to be more sustainable.

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44	Klooster and Mercado-Celis (2016) *Sustainable Production Networks: Capturing Value for Labour and Nature in a Furniture Production Network in Oaxaca, Mexico*	*The paper studies the institutional arrangements of a production network to analyse the relevance of developing arrangements supporting governance and upgrading in a way that also generates and distributes value across the chain and communities*	*Not explicit/not mentioned* GPN	Qualitative (interviews and site-visits) - Developing country (Mexico) Furniture sector	Social upgrading Environmental upgrading (Local) public institutions (International) private actors	Participation in GPNs is more common each time, but economic upgrading does not always lead to social and environmental gains. The wooden furniture industry in Mexico has adopted a low-value-added approach that links competitiveness to the externalization of environmental costs (related to forest management), the degradation of (forest) resources and to minimal returns to labour. Instead, an alternative strategy has emerged in Oaxaca, where there is a regional furniture production network. There, economic upgrading enhances value through improvements to machinery and worker skills, or through environmental branding (wood certification and manufacturing skills). Moreover, there are institutional arrangements that act as brokers of GPN integration. The latter are found to be community structures and ownerships, formal and informal cooperative arrangements, a shared brand, the support and technical assistance from NGOs, government contractual arrangements, and FSC global standards and certification.
45	Vicol, Neilson, Hartatri and Cooper (2018) *Upgrading for whom? Relationship coffee, value chain interventions and rural development in Indonesia*	The paper analyses buyer development interventions to reduce poverty	*Not explicit/not mentioned* GVC	Qualitative (ethnographic research with semi-structured interviews) 3 case studies Developing country (Indonesia) Agrifood sector (coffee)	Economic upgrading International buyers (lead firms) (Local) public institutions	The paper explores upgrading interventions and their effect in small producers' benefits. It focuses on the coffee value chain under the "relationship coffee" model, which relies on a more direct interaction between roasters and producers, more informal and based on trust. The aim of such roasters, they say, is to improve producers' livelihoods too. In this sense, different actors promoted roasters-producers' connections, as well as producers' upgrading to be able to serve international roasters. These actors were, mainly, (particular) intermediaries (from local/village elites) and the government. The government often provided producers with the necessary capital to advance processing capabilities. Intermediaries served as a channel through which interventions could be developed. Cooperatives were formed to gain power against roasters too. However, the local reality of Indonesia led to value being captured by such intermediaries, and as the government assumed the task of evolving suppliers' capacities, roasters had no investment risk to lose. Moreover, suppliers did not have managerial capacities to manage the increase in production, leading to quality failures or bottlenecks. Roasters ended up exiting the relationship. Besides, government interventions did not continue. All this led to value not being captured by producers. The problem was a lack of knowledge of the local and institutional reality in Indonesia.
46	Giuliani, Ciravegna, Vezzulli and Kilian (2017) *Decoupling Standards from Practice: The Impact of In-House Certifications on Coffee Farms' Environmental and Social Conduct*	The authors examine the relationship between in-house certification and suppliers' social and environmental conduct, considering several moderators in such relationship	*Not explicit/not mentioned* GVC	Quantitative 575 farms Developing country (Brazil, Costa Rica, Colombia, Guatemala, Mexico) Agrifood sector (coffee)	Social upgrading Environmental upgrading International buyers (lead firms) (Local) public institutions	Authors in this paper investigate whether those coffee farms with socio-environmental certifications granted by global buyers display a better conduct in this area compared to farms with no certification. Authors find that this is accomplished for environmental conduct, but not for social conduct, and that selling to a cooperative and being from an institutionally weak context strengthens the relationship between being certificated and displaying a better environmental conduct. Instead, being in a strong institutional environment favours the farms' social conduct.

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58	Deng, Ma, and Zhu (2022) *Transactional Dependence and Technological Upgrading in Global Value Chains*	The paper studies whether the transactional dependence of suppliers (OEMs) on GVC lead firms affects their technological upgrading	Power dependence, strategy tripod GVC	Quantitative 968 OEMs Developing country (China) Does not specify sector	Technological (economic) upgrading International buyers (lead firms)	The paper examines technological upgrading as an OEM avoidance strategy under the reasoning of power-dependence theory (avoidance vs. adaptation strategies). It also takes into account firms' internal and external conditions affecting inter-organisational power balancing outcomes. The authors depart from the reasoning GVC participation can benefit suppliers' upgrading, although it does not pay enough attention to the fact that OEMs may be locked into low value-added parts of GVCs, unable to upgrade, given power/transactional dependencies. Authors find that an asymmetric dependency on lead firms can eliminate OEMs' technological upgrading. They test this for a U relationship. They find that for the left part of the U, OEMs may benefit from knowledge spillovers, but if the dependence is high enough, this cancels. They also find three moderators that reduce such a negative relationship in statistically significant terms, this being: firms' technological resources, industry degree of technological intensity, and region (institutional) technological protection. Only when equipped with certain resources and under certain conditions can firms become less passive. Thus, being too dependent negatively affects OEMs' sustainability and survival, and erodes lead firm-OEM cooperation and governance, affecting the stability of the entire GVC.
66	Hoque, Sinkovics, and Sinkovics (2016) *Supplier strategies to compensate for knowledge asymmetries in buyer-supplier relationships: implications for economic upgrading*	RQs: (1) Can suppliers in (tacit promissory contracting) access their buyers' tacit knowledge? (2) What implications does their access or the lack thereof have for their economic upgrading? (3) What strategies do suppliers adopt to compensate for existing knowledge asymmetries?	Theory of (the governance of) contractual relations GVC	Qualitative (interviews, factory visits) 3 firms (case studies) Developing country (Bangladesh) Apparel (garment)	Economic upgrading International buyers (Local) private actors Supplier firms themselves	The paper seeks to understand what strategies suppliers may adopt to compensate for the knowledge asymmetries existing in their relationships with MNCs (buyers) to upgrade. It acknowledges a form of international outsourcing that consists of discrete transactions between buyers and suppliers that are repeated through time without any legal original agreement (tacit promissory contracting). These transactions are dependent on the capacity of suppliers to maintain their performance. To acquire such capacity, suppliers must make relationship-specific investments, concerning the purchase of raw materials, the specialization of their workforce, or the adoption of specified codes of conduct, among others. Authors find that within these relationships, suppliers cannot access buyers' tacit knowledge, only the codified one, and thus they use several internal and external sources to compensate and upgrade. Suppliers developed technological and marketing capabilities for upgrading through (1) their own experience in managing transactions with buyers and (2) a range of external knowledge sources - mostly local, publicly available ones. Consequently, suppliers were able to pursue process upgrading, but only limitedly. Thus, collaboration and access to buyers' knowledge sources is still critical for suppliers to pursue higher ways of upgrading.

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112	Gersch (2019) *Foreign direct investment and local supplier upgrading? The case of grocery retail in Turkey*	This article aims to study FDI-induced upgrading of suppliers in retail supply chains. It investigates how suppliers can position themselves to actively benefit from pertaining to these type of chains.	Literature on vertical knowledge transfer through FDI GVC	Qualitative (semi-standardized interviews in Turkey and Germany) Nearly 50 interviews (with suppliers, retailers, and institutional experts) Developing country (Turkey) Agrifood (fresh food and vegetables)	Economic upgrading *Social upgrading (it is mentioned but authors do not delve into this)* International buyers Supplier firms themselves	The paper studies the fresh food and vegetables sector in Turkey, a country whose FFV industry is mostly self-sufficient and whose custom system favours the establishment of local sourcing structures. The paper seeks to analyse how FDI by international retailers may promote suppliers' upgrading and how the latter position themselves in global supply chains. Findings suggest that retailers drive suppliers' product and process upgrading directly, but also functional upgrading, contrary to what the literature suggests. Retailers do so because they are pressured to source locally and they need capable suppliers. Along three phases, retailers go from informal cooperation to formal cooperation, the latter involving monitoring, evaluation and information sharing with suppliers. Along these three phases, suppliers improve their products and processes, and see themselves driven by retailers to vertically integrate, both upwards and downwards. However, the asymmetric relationship between retailers and suppliers does not disappear, because suppliers are still replaceable.
115	Lim (2016) *Value chain upgrading: Evidence from the Singaporean aquaculture industry*	The paper aims to study the role of the institutional and structural environment of Singapore in influencing the upgrading opportunities for producers operating in the upstream stages of their GVCs	- GVC/GPN	Qualitative (semi-structured interviews, secondary data) 66 firms Agrifood (aquaculture) Developed country (Singapore)	Economic upgrading (Local) public institutions *Suppliers' initiatives*	In this paper, the authors study the role that the institutional environment of Singapore plays in allowing or favouring the economic upgrading of the fish farming sector of the country. In this case, the authors find that, despite the efforts dedicated, the institutional environment does not favour firms' economic upgrading (product, process or functional) as such an environment is not conducive. The state provides funding, but the requirements are very complicated for firms to meet; the available land and sea is limited in the country, and the sector is not a priority of state policies; and the country's commitment to trade liberalization does not favour the development of domestic producers.
76	Hoang, Doan and Nguyen (2021) *What motivates Vietnamese enterprises to upgrade in global value chains? Closing the intention-behavior gap*	The paper seeks to examine the factors affecting firms' intention and actual behaviour towards upgrading	Planned behaviour GVC	Mixed approach (interviews and quantitative analysis) 8 interviews 402 questionnaires Textile, manufacturing and electronics Developing country (Vietnam)	Economic upgrading (Local) public institutions Supplier firms themselves	The paper studies the relationship between suppliers' upgrading intention and behaviour in GVCs. It conceptualizes upgrading as an entrepreneurial activity associated to firms' innovation. Concentrating on a functional version of upgrading, it analyses how social norms, attitude, and perceived behavioural control (PBC) influence upgrading intention, which would affect actual behaviour. However, given the intention-behavioural gap, authors propose two moderators: knowledge about Rule of Origin, and government support. Findings suggest the positive influence that social norms, attitude and PBC have on intention to upgrade. As for intention to upgrade, this is a partial mediator between attitude and actual behaviour, and a full mediator for PBC. Concerning knowledge and government support (i.e., financial aid, credit policies, technical assistance), they have a significant, positive moderating effect between intention and upgrading behaviour. These findings support research on the positive influence of government support. A preferential treatment would accelerate firms' movement in GVCs. One limitation is that authors only employ dummy variables to measure government support.

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80	Sinkovics, N; Hoque, SF; Sinkovics, RR (2018) *Supplier Strategies and Routines for Capability Development: Implications for Upgrading*	The study seeks to study how two Bangladeshi garment producers (which successfully went through all functional upgrading stages and eventually turned into micro multinationals) built capabilities to advance from one stage to the other despite a challenging institutional environment. The authors examine what barriers to absorptive capacity they found and how these constraints were addressed.	*Resources and capabilities, absorptive capacity, microfoundations* GVC	Qualitative (interviews, factory visits and organisational documents) 2 firms (case studies) Apparel (garment) Developing country (Bangladesh)	Economic upgrading International buyers (Local) private actors (Abroad) private actors Supplier firms themselves	The paper studies how suppliers develop capabilities to upgrade despite a non-conducive environment. These are Bangladeshi garment manufacturers that have evolved from small firms to micromultinationals. Their relationship with buyers, although long-term, has been based on tacit promissory contracting. Thus, they have not had access to buyers' tacit knowledge, only explicit one. Upgrading efforts mainly depart from supplier firms themselves, to improve their position in GVCs. They went from CTM to OBM. First, they received training from local agents to decode buyers' requirements, as they did not have knowledge to do so. Then, they vertically integrated to produce raw materials and other textiles to control best those areas related to buyers' requirements. They leveraged their social and political networks to get finance to do so, as it was difficult, and infrastructure was not well-developed. At this stage, they received internal and external training too (but not from lead firms), which allowed reducing knowledge and power asymmetries. Afterwards, they integrated design functions to attract new customers (high fashion). They used collaborations with abroad firms and organisations and hired workers from abroad. Once they acquired this knowledge, they developed design units. They developed brands as they detected a need in their local market, and finally evolved to micromultinationals by leveraging their networks and through alliances and acquisitions. Hence, they managed to upgrade by using alternative strategies despite lead firms not being a source of knowledge and the institutional/economic environment to be non-conducive.
86	Bek, D; Binns, T; Blokker, T; McEwan, C; Hughes, A (2017) *A High Road to Sustainability? Wildflower Harvesting, Ethical Trade and Social Upgrading in South Africa's Western Cape*	The paper evaluates the outcomes from a wildflower harvesting programme in South Africa's Western Cape, which looked to achieve positive outcomes in terms of socio-economic development and biodiversity conservation. The principal supply chain is an example of ethical trade as it requires explicit social and environmental standards at production sites. The paper thus illustrates the challenges of producers to achieve economic, social and environmental sustainability through supply chain engagement (chain and localized constraints apply). It concentrates on economic and social outcomes.	- GVC	Qualitative (interviews, visits) +80 interviews Agriculture (floriculture) Developing country (South Africa)	Economic upgrading Social upgrading *Environmental upgrading (authors do not delve into this)* International buyers (Local) social actors	The paper analyses the opportunities for economic and social upgrading, mainly, driven by a biodiversity conservation programme established by a local NGO in South Africa in the context of the wildflower industry, which intends to drive socio-economic development through sustainable harvesting. The programme has promoted sustainable harvesting practices, as well as economic upgrading (as product upgrading) and social upgrading (regarding more stability, better wages, training, and better labour standards, in general). It has done so by engaging with different stakeholders (e.g., regulators to create indexes with which to give harvesting licenses, or by engaging with international retailers or local auditing entities). However, upgrading has been limited, mainly due to operational dynamics of GVCs, which put pressures on local industries. Some producers of wildflowers have been driven out of business as it is a highly competitive industry were quality and responsible production must meet price requirements by retailers. Also, there are high investment costs and social networks granting access to markets. Moreover, although workers are better-off under the programme of the NGO, there is room for improvement in wages and seasonal work, also driven by price pressures. Hence, local entities and institutions have a crucial role in promoting upgrading against GVC trade dynamics, despite the difficulty of creating schemes favouring socio-economic development.

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93	Nesadurai, H., (2019) *Transnational Private Governance as a Developmental Driver in Southeast Asia: The Case of Sustainable Palm Oil Standards in Indonesia and Malaysia*	the paper studies why and how voluntary private sustainability governance initiated by corporations and non-governmental organisations (NGOs) extends its regulatory purview to incorporate developmental strategies aimed at upgrading smallholder practices (regarding productivity, livelihoods and sustainable cultivation practices) // whether and how global private environmental governance designed and implemented by corporations and NGOs without direct state involvement may lead to developmental upgrading processes	Club theory Developmental State GPN	Qualitative (interviews and secondary data) - Agriculture (palm oil) Developing country (Indonesia and Malaysia)	Economic upgrading Social upgrading Environmental upgrading International buyers (Local and international) Social actors	The paper is about the role that transnational private governance may have as a driver of developmental upgrading processes. The study delves into why and how transnational private, regulatory governance evolves into developmental governance to upgrade producers in GPNs. This might happen in fragmented value chains where market signals and incentives cannot reach the most isolated points (e.g., small producers in developing countries) and when (a) there is a regulatory gap (the state is weak as regulator and provides limited or no support) and (b) lead firms have limited or no options to change those suppliers and need to upgrade them. Here, corporations employ developmental interventions to upgrade suppliers and develop institution capabilities to monitor. Moreover, the case analysed here illustrates global retailers facing reputational risks posed by international NGOs that trigger the action by such agents. This is materialised in multistakeholder initiatives that act as this transnational private governance. This first develops standards and certification schemes that have an effect in sustainability, but the smallest producers face difficulties to adhere, which drives developmental interventions to upgrade the latter, consisting in supply chain mapping, financial and technical support, and assistance (even funding) and brokerage functions to foster multi-actor partnerships to promote this upgrading and to scale up industry-wide these interventions. This transnational private governance may also have the power to trigger action by local institutions. It allows upgrading by suppliers in terms of chain entering, and environmental improvements in terms of less deforestation, emission reduction, etc.
105	Barrientos, S; Knorringa, P; Evers, B; Visser, M; Opondo, M (2016) *Shifting regional dynamics of global value chains: Implications for economic and social upgrading in African horticulture*	how are value chain dynamics and governance affected by the expansion of regional retailers? To what extent does this open up space for economic and social upgrading of suppliers and workers?	- GVC/GPN	Qualitative (interviews) 71 interviews Agrifood (fresh food and vegetables) Developing country (Africa)	Economic upgrading Social upgrading International buyers (Local) private actors (Local) social actors	The paper analyses how the expansion of regional retailers in emerging countries, Africa in this case, affects governance dynamics and the possibilities of economic and social upgrading by suppliers in such countries. It focuses on the fresh vegetables and fruits market and combines both the GVC and GPN literatures. The authors find that suppliers of global retailers have better possibilities for upgrading, although suppliers that opt for "strategic diversification" (supplying to both retailers) gain bargaining power, thus better conditions. Retailers operate mainly through standards on products and processes. Suppliers upgrade products, processes and functions when related to global buyers, whereas upgrading is more limited when supplying only to regional retailers. Regarding social upgrading, no requirements are specifically enforced. Regional retailers rely on public governance, which is limited in most countries. Social upgrading processes are driven by the increasing quality being demanded by retailers. This is faced against commercial pressures to maintain prices, which lead to economic and social downgrading pressures. Suppliers may upgrade through chain participation, but economic upgrading will not lead to social upgrading always; suppliers may gain bargaining power through strategic diversification, but commercial pressures by retailers prevail. In this sense, the role of other actors affecting the chain, mainly social and public actors, becomes strategic to affect those dynamics.

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108	Kadarusman, Y; Nadvi, K (2013) *Competitiveness and Technological Upgrading in Global Value Chains: Evidence from the Indonesian Electronics and Garment Sectors*	what forms of GVC engagement help firms to upgrade and compete, and where GVC ties might restrict local upgrading (authors use the GVC framework to explore how the Indonesian garment and electronics firms engage with global markets and how this engagement affects their ability to upgrade and enhance their competitiveness)	- GVC	Qualitative (interviews and secondary data) 25 firms Apparel (garment) and electronics Developing country (Indonesia)	Economic upgrading *Social upgrading (they do not delve into this, but mention workers' training)* International buyers (Local) private actors Supplier firms themselves	The paper studies the way that different governance arrangements influence local upgrading by suppliers of garment and electronics sectors in Indonesia. It finds that, contrary to prior theoretical developments, governance arrangements vary within these sectors, such that garment suppliers are still mostly engaged through captive ties and electronic suppliers through hierarchical ties. Captive ties promote process upgrading, but no functional upgrading, and they do so through trade agents of lead firms that connect the latter with buyers. Instead, hierarchical ties promote product, process and functional upgrading, the latter to some extent, this being determined by the overall strategy of the lead firm. In this case, the lead firm provides training to suppliers' workers as well. Functional upgrading is seen in those suppliers that have no ties to GVCs and sell domestically and/or to emergent markets, thus controlling all their functions. To acquire the necessary capabilities to upgrade (technical, design and product development ones), these firms employ internal sources of know-how (human resources development, establishment of R&D facilities) and external sources, although the later are those beyond GVCs, mainly fairs and exhibitions, relationships to suppliers and domestic producers, reverse engineering, hiring, etc. The GVC literature has largely ignored the role of local agency in supplier capability development and should therefore incorporate the literatures on local/regional innovation systems, as well as the role of policy beyond FDI attraction (as the latter may not be enough to promote supplier sustained and significant upgrading).
113	Poulsen, RT; Ponte, S; van Leeuwen, J; Rehmatulla, N (2021) *The Potential and Limits of Environmental Disclosure Regulation: A Global Value Chain Perspective Applied to Tanker Shipping*	The paper studies the circumstances under which mandatory disclosure can improve the environmental footprint of businesses. It analyses how the governance of the tanker shipping value chain limits the effectiveness of the European Union monitoring, reporting and verification (MRV) regulation on disclosure of greenhouse gas emissions for ships calling at EU ports. RQs: What are the scope, modality and sought-after effects of transparency? For what actors is the information meant and for what purposes? What are the conditions under which transparency leads to behavioural change?	- GVC	Qualitative (interviews, observation and secondary data) 9 interviews Tanker shipping Developed countries (North Europe)	Environmental upgrading International buyers (International) Public institutions	The paper studies how an international regulation intersects with the governance of the tanker shipping GVC and thus affects the environmental upgrading of shipping companies in terms of CO2 emission, that is, efficiency (so it would be like a process upgrading VMO). The regulation in this case is the EU MRV, a reporting system that shipping companies must use, consisting of data collection about vessels' CO2 emission, depending on fuel consumption, with a transparency aim that should foster environmental upgrading (that is, emission reduction). However, while this GVC is bipolar (as the lead firms are usually the cargo owners and ship "managers"), this regulation is put on agents who are not governors in the GVC and are therefore subject to pressures by such lead firms (for instance, fuel consumption and hence emissions are highly influenced by the requirements imposed by cargo owners, who are not concerned on CO2 emission reduction but on delivery times). Because the regulation does not consider the dynamics of the GVC, in the end it does not lead to environmental upgrading. So, this might be an example of vertical public governance not influencing upgrading because it does not intersect well with vertical private governance.

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122	Cho, S; Lim, U (2016) *The Sustainability of Global Chain Governance: Network Structures and Local Supplier Upgrading in Thailand*	The authors examine whether and under what conditions insertion into GPNs impacts the process of local supplier upgrading. Hypothesis: the more hierarchical the types of buyer-supplier networks, the smaller the opportunities for radical types of technological upgrading (development of new product lines or brands that allow suppliers to acquire new functions); more incremental types of technological upgrading (modifications to production processes) would depend on the intensity of knowledge transfers in networks where suppliers are embedded, regardless of whether the type of network is hierarchical or cooperative.	*Innovation and catch-up literature* GPN	Quantitative (secondary data) 2128 observations (PICS survey) Various manufacturing industries (does not specify) Developing country (Thailand)	Economic upgrading International buyers	The paper studies what types of buyer-supplier relationships are related to what types of suppliers upgrading in the context of Thailand. Here authors focus on technological upgrading, giving a definition that resembles functional upgrading (as it implies moving to activities of higher value-added), including product, process, and brand upgrading. Through a quantitative study, authors find being a supplier of a MNC influences process and minor product upgrading positively regardless of the governance type, and that different governance structures exert different influence on technological upgrading. Particularly, quasi-hierarchical or buyer-driven governance facilitates limited product and process upgrading while discourages brand (radical) upgrading. Instead, cooperative networks encourage all types of technological upgrading compared to suppliers not interacting with MNCs, and encourage superior process and product upgrading, as well as brand upgrading. Thus, the more autonomy suppliers are given and the more they cooperate with MNCs concerning R&D, the more radical the upgrading it is promoted; thus, GVC participation sustainability depends greatly on the relational structures where suppliers are embedded.
5	Barrientos, S. (2014) *Gendered Global Production Networks: Analysis of Cocoa-Chocolate Sourcing*	*RQ: How commercial value chain drivers interact with gendered social norms across diverse societies and the potential implications for the economic and social upgrading of women farmers and workers within the chain* (insights into the ways in which the gender dynamics of GPNs linking consumers and producers are shaped by and shape the commercial activities of firms)	Feminist political economy GVC/GPN	Qualitative (secondary data; builds on study conducted by Cadbury on Ghana and India's cocoa production) 12 cocoa communities in Ghana (2007-08) 6 cocoa communities in India (2009-10) Cocoa sector Developing countries (Ghana and India)	Social upgrading Social actors (civil society organisations)	The paper studies how GVC commercial drivers interact with local, social norms regarding gender, thus shaping firms' activities and having implications for the economic and social upgrading of working women in the chain. It focuses on the cocoa-value chain in Ghana and India, which is put in relation with Europe (where cocoa is consumed). Women have a key role both in productive regions and in consuming countries (in the latter, consumption patterns are also gendered, and maintaining certain quality is critical). Thus, the paper addresses how "commercial activity by lead firms interacts with gendered relations of production and consumption" and the implications that this has for the economic and social upgrading of working women. The study finds that, despite women carrying most quality-related tasks and being the ones driving for quality in consumer markets too, male conditions in cocoa production are better as males' work is deemed more arduous (despite women's work being the key to charge price premiums for quality). Problem is the lack of collective organisation for workers. Civil society organisations are a mean to solve this.

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7	Jensen, F., Whitfield, L. (2022) *Leveraging participation in apparel global supply chains through green industrialization strategies: Implications for low-income countries*	RQ: *whether and how governments can leverage GVC participation and the environmental upgrading of GVC suppliers for broader industrialization processes (the paper intends to move the debate forward on state's role in GVCs and environmental upgrading by presenting a different way of thinking about how governments can overcome the limitations of thin industrialization and limited value capture, while minimizing their environmental footprint)*	Structural development economics Circular economy perspectives GVC	Qualitative (primary data and secondary data). Interviews to government entities, apparel supplier firms, buyers sourcing from Ethiopia, and direct observation Apparel sector Developing country (Ethiopia)	Environmental upgrading (eco-efficiency, vertical integration, inter-sectoral upgrading) International buyers (Local) public institutions (Foreign) private actors	Authors studied how State actions drove environmental upgrading, mainly as eco-efficiency, in the apparel sector of Ethiopia. International buyers were interested in Ethiopia as an alternative to Asia given the increase of production costs. However, the strategy by PVH looked for environmental goals too. The Ethiopian government needed financial resources and leveraged its capacities to attract these buyers. The government and PVH designed the industrial park for the apparel sector together, and the environmental standards that PVH followed were passed on to its suppliers. PVH drove its core suppliers in China and India to establish productions in this park, under the promise of better orders, and it would attract other suppliers later, but it offered no price premium. Other brands such as H&M were attracted afterwards given the marketing by the Ethiopian government (lower production costs). However, buyers' demands drove eco-efficiency only; incentives for suppliers (increased sales) were not enough to drive upgrading further. Suppliers were able to meet these requirements thanks to the investments made by the government in the district infrastructure. Also, a public company was put in place to manage the district and contract abroad companies that had the resources and knowledge to build the infrastructure. This public company would act as a knowledge recipient also with regards to operational and management capabilities on the park. However, financial resources by the government were limited and foreign firms were not always incentivized to ensure that technology was transferred efficiently. The problem was largely the lack of well-established supra-firm institutions that could foster collective action and joint problem solving, together with financial issues. So, upgrading remained limited and further improvements were not realized.
12	Gammelgaard, J; Haakonsson, S; Just, SN (2021) *Linking Malawi's agricultural sector to global value chains: The case for community governance*	RQ: *how the national pursuit of GVC integration is experienced at the local level of Malawian farming communities // how the governance of GVCs could be expanded to include local communities and safeguard rural livelihoods* (authors study integrated and non-integrated communities in GVCs whose livelihoods are affected by GVC-related activities)	- GVC	Qualitative (primary; more than 70 interviews to farmers and communities. Secondary; desk research) Agrifood sector Developing country (Malawi)	Economic upgrading (and indirect downgrading) Social upgrading (as "livelihood upgrading") International buyers (Local) public institutions (International) public institutions (local) private actors (Local) social actors	Authors study how GVC insertion impacts the livelihood upgrading of local communities in Malawi within the agricultural industry. Those communities actively involved in GVCs experience upgrading, whereas those not directly involved experience livelihood downgrading due to negative, indirect impacts that GVC activities have on them. Authors point out that said livelihood upgrading occurs not because of a good private vertical governance, or a good public governance, but because of the action of community governance, which is exerted by farmers through a cooperative they constituted (*this, indeed, could be classified as local, private governance*). Private vertical governance achieves efficiency, but disregards local communities, and public governance facilitates GVC integration, but disregards the mitigation of potential negative consequences, even promoting negative effects through regulations easing FDI and land buying or direct action of government-related entities. Instead, through community governance, farmers have a voice and voluntarily enter GVCs, being able to impose certain conditions, this ensuring their upgrading. Authors conclude that public governance cannot govern bottom-up, but instead should promote local, community governance, for upgrading to be inclusive and avoiding negative effects of GVC integration.

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53	Murphree, M; Breznitz, D (2020) *Collaborative public spaces and upgrading through global value chains: The case of Dongguan, China*	RQ: *What is the relationship between MNE post investment engagement strategies and firm (foreign-invested and local) performance in the context of GVCs in emerging economies?*	Literature on individual and collective political action Literature on trust CPS (Collaborative Public Space) GVC	Qualitative (primary; 100 interviews with Taiwanese MNE subsidiaries in Dongguan, China, and with domestic entities) Electronics sector Developing country (China)	Economic upgrading Lead firms (Local) public institutions (Local) private actors (business associations) (Local) private actors (MNE subsidiaries)	This paper studies how a collaborative public space (CPS) acts as a moderator between MNE investment and local policy to allow for improved MNE's subsidiary performance and the upgrading of local firms following their participation in GVCs. The impact of FDI in emerging economies has been found to be ambiguous, especially when the institutional context does not work properly. The paper explores this mechanism as an informal institution allowing for trust, information flows and knowledge spillovers, which ultimately allow for upgrading. This CPS is operationalised as a TBA (Taiwanese Business Association) where dialogue is allowed between representatives of Taiwanese MNEs' subsidiaries in China, and representatives of the local government in Dongguan. This space allows for subsidiaries to share their concerns and for policymakers to regulate accordingly, but prior to that to generate trust through repeated interactions too, which allowed for information sharing and ultimate action. The CPS also served to connect local firms from Dongguan to MNE subsidiaries and GVCs. It also enabled for input access and knowledge spillovers, fostering local firms' product, process, and chain upgrading. Local firms ended up carrying superior activities and the region of Dongguan moved from a peripheral node to a more central node in this GVC (*a form of functional upgrading, although authors do not reflect on this*). A CPS may be key to allow for upgrading where the institutional field is weak, informal, and/or non-conducive to trust and hence MNE's willingness to transfer knowledge.
57	Rueda, X; Paz, A; Gibbs-Plessl, T; Leon, R; Moyano, B; Lambin, EF (2018) *Smallholders at a Crossroad: Intensify or Fall behind? Exploring Alternative Livelihood Strategies in a Globalized World*	Whether alternative configurations of the GVC [*specialized markets and a shorter chain, direct trading between chocolate makers and farmers*] truly offer smallholders new opportunities (that is: whether globalization offers smallholders new opportunities beyond the traditional intensification or marginalization pathways, AND whether smallholders are pushed into these new pathways by lack of resources or by buyers who seek unique market connections).	- GVC	Quantitative (socio-economic and biophysical surveys with a sample of 148 farms) Agrifood sector (cocoa) Developing country (Ecuador)	Economic upgrading Environmental upgrading International buyers (lead firms) (Local) private actors (Local) social actors	Authors study the cocoa value chain in three of the main producing locations in Ecuador, comparing producers of the "nacional" variety with those of the non-national variety (the latter's production process being more massive and intense in its use of non-organic fertilizers and alike). The authors aim at analysing whether smallholders' (producing the national variety) participation in shorter, direct trade GVCs (bean-to-bar movement) grants them with more opportunities to develop in a sustainable way (i.e., not through a low-road to upgrading that worsens their livelihoods, and also sustainable regarding crop treatment and biodiversity). The authors find that the land use by *nacional* farmers is more sustainable, and that these smallholders have been able to capitalize on their unique natural resources to enter a [niche] GVC (quality and/or ecological chocolate). They are reaping profits thanks to their involvement in local cooperatives. The authors mention an NGO playing a similar role: it concentrates processing and exporting tasks and is in contact with international buyers. Cooperatives [as a collective actor] have been able to develop collaboration processes with buyers, favouring lead firms' willingness to transfer knowledge. Hence, cooperatives provide technical assistance to producers, achieve premium prices for quality or eco-certified cocoa that are transferred to farmers, and can to translate to smallholders what are buyers' requirements (price, quality, etc) [*thus, they are kind of knowledge bridges between the vertical/GVC sphere and the local context*].

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62	Goerzen, A; Iskander, SP; Hofstetter, J (2021) *The effect of institutional pressures on business-led interventions to improve social compliance among emerging market suppliers in global value chains*	RQ: *Under what conditions do interventions by GVC lead firms yield significant improvements in social standards among upstream supplier workplaces? [our empirical study is designed to examine the role of national institutions that help or hinder the process of capturing the potential social gains from GVC inclusion]*	Convention theory GVC	Quantitative (merging of two databases. 8000 observations from 2003-2012) Apparel sector Food sector Developing countries (Bangladesh, Bulgaria, Cambodia, China, India, Indonesia, Madagascar, Malaysia, Myanmar, Pakistan, Romania, Sri Lanka, Thailand, Tunisia, Turkey, Ukraine, Vietnam)	Social upgrading Lead firms (international buyers) (International) social actors (Local) public institutions	Authors investigate under what institutional conditions do the interventions by GVC lead firms (in the form of third-party interventions/audits) lead to social upgrading (in the form of improvements in measurable standards). They find that private third-party interventions do lead to social standard compliance (although with diminishing returns over time, suggesting the limits of compliance monitoring measures such as audits), but the institutional quality holds no statistically significant relationship to said compliance. In this vein, the mediating effect of institutional quality between private interventions and standard compliance leads to counterintuitive results depending on the specific dimension of the institutional quality. Authors conclude that institutional quality will not necessarily lead to social upgrading, and in fact, it may interfere with the role of private third-party interventions. A substitution effect between private and public governance may take place, and because they assess so in the context of developing countries, they also suggest the possibility that governments' measures may be more focused on attracting private investment by presenting a favourable context to operate at the cost of social standards compliance. Hence, the local context matters as well as the coupling of both private and public governance.
77	Peng, XM; Wu, D (2013) *Tie diversity, ambidexterity and upgrading of the latecomer firm in global production networks Evidence from China's plastic equipment industry*	RQ: *How does the latecomer firm construct its ambidexterity in GPNs to gain sustainable upgrading?* (not sustainable as in environmental or social, but as in sustained over time)	Ambidexterity Network perspective GPN	Qualitative (primary and secondary; longitudinal, single case study of a Chinese company. Interviews, documentary information, direct observation, and archival records) Manufacturing (plastic equipment) Developing country (China)	Economic upgrading Lead firms (Local) private actors (Foreign) private actors (Local) public institutions	The authors conduct a longitudinal, single case study on a Chinese manufacturer of plastic equipment to assess how a latecomer firm builds ambidexterity overtime to overcome the upgrading dilemma and achieve sustainable upgrading (i.e., sense of not being locked down in the chain). The authors find that, in a first phase, Haitian Group is able to achieve product and process upgrading by collaborating with multinational companies, universities, suppliers and industry associations. With each of them cooperates to different degrees and with distinct objectives. For instance, joint development of products occurs with MNCs, whereas suppliers of parts serve to both part and product development. Collaboration with universities serves to the development of technology. Membership to industry associations also serves the company to acquire industrial information and join formulation of industry standards. In the second phase, the firm adds different types of network partners and achieves functional and chain upgrading. It starts collaborating with tech suppliers, foreign suppliers, foreign industry associations, leading customers (MNCs) and financial institutions to get capital. The cooperation with universities evolves to joint product development and even investment to develop technology. The firm continued to upgrade its processes (technology) and products (extended range), but also researched on new machinery and got involved into different functions such as advanced R&D, brand building, and entered a new industry. Hence, tie diversity helped the company not to became over-embedded in the GPN, hence avoiding being locked down, and this gradual process led to upgrading.

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79	Selwyn, B; Musiolek, B; Ijarja, A (2019) *Making a global poverty chain: export footwear production and gendered labor exploitation in Eastern and Central Europe*	RQ: *(1) to what extent and how are sectoral processes of economic and social downgrading and immiserating growth gendered? (2) how do constellations of actors - international institutions and organisations, national states, and local and transnational firms - generate processes of economic and social downgrading and immiserating growth? (3) to what extent can dynamics of economic and social downgrading and immiserating growth be associated with changes in value chain governance?*	- GPC (global poverty chain) GVC/GPN	Qualitative (primary; 209 interviews with workers from 12 factories across 6 countries) Footwear sector Developing countries (Eastern Europe)	Economic downgrading Social downgrading International buyers (Local) public institutions (International) public institutions (Local) social actors	The authors conduct a qualitative study on six Eastern European countries, on their footwear sectors. They analyse how a series of international and national reforms and policies supporting market liberalization, flexibility and the attraction of FDI resulted in these national sectors entering GVCs at the consequence of economic, functional downgrading and social downgrading in a variety of ways. These sectors were attractive to EU15 buyers given their relatively lower labour costs and ability to respond to changing lead firms' demands, among other reasons, so they started to produce under a cut-make-trim arrangement, so to speak, at fixed prices, thus being largely buyer-driven. This cost pressures and the requisites by lead firms led to social downgrading at the factories, furthered by institutional action, which mainly lowered wages. This is analysed under the Global Poverty Chain approach.
84	Yap, XS; Rasiah, R (2017) *Catching up and leapfrogging in a high-tech manufacturing industry: towards a firm-level taxonomy of knowledge accumulation*	RQ: *how latecomer OEMs can technologically catch up to become industry leaders without compromising the overall value created for their customers* [how latecomer firms upgrade - functionally - in tech industries as knowledge increases - absorbing external knowledge and capturing value from their networks - without compromising buyers*] // what it takes in firm-level knowledge accumulation to make such a transition when it comes to a high-tech manufacturing industry*	Knowledge based view Firm-level taxonomy of knowledge accumulation Firm-level catch up trajectory GVC	Qualitative (from a wider study; 6 firm-level case studies) Electronics sector (integrated circuit industry) Developing countries (Malaysia, Taiwan)	Economic upgrading Lead firms (Local) public institutions Private actors	The authors develop a qualitative study on the integrated circuit industry, choosing case studies of Malaysian, Taiwanese and Chinese companies serving customers from developed countries, one of them being a subsidiary. They study how latecomers upgrade and even leapfrog incumbents, achieving an industry leading position as their knowledge accrues by means of using linkages to different network partners. The main outcome is that inter-firm collaboration is critical for these suppliers to catch up, but they also need base knowledge prior to entering the GVC, and collaborations with customers/lead firms is key too. The idea is that they can learn and accrue knowledge that serves to give customers a service that complements them (*thus, functional upgrading is not everything to be able to achieve a superior position*). Also, companies need to gather knowledge from other different network agents such that they do not become to over-embedded with lead firms and thus locked down. Such agents might be other international buyers, but also universities and research entities, as well as suppliers of materials or technology, all of them susceptible of providing the firm with knowledge to upgrade its capabilities.

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104	Whitfield, L; Staritz, C (2020) *Local supplier firms in Madagascar's apparel export industry: Upgrading paths, transnational social relations and regional production networks*	RQ: *whether and how local firms in low-income countries can participate, upgrade and capture value in apparel global value chains in the context of increased entry barriers and asymmetric power relations*	Technological capabilities approach GVC/GPN	Qualitative (primary; interviews with apparel export firms and government officials, industry associations) Apparel sector Developing country (Madagascar)	Economic upgrading Lead firms Supplier firms	The authors show how the ownership of local apparel firms in Madagascar affects their upgrading paths but also how the relationships they have with foreign firms and buyers determine their product and market specialization. The authors illustrate firm-level processes to build capabilities that are the base for different upgrading trajectories, and how such processes connect to their national socio-economic environment. Hence, the authors argue that different upgrading paths are the result of specific firm export strategies, as different strategies require a different set of capabilities, which influence upgrading paths available. Simultaneously, the strategies that companies choose depend on the resources they have available, this including relational assets (relationships with buyers and so), which can be supported by factors external to the firm like the local/regional assets, industrial policy and international buyers' strategies. Authors find that the export strategies chosen by firms are linked to their product specialization, for which they must build specific capabilities. In turn, the ownership characteristic influences the type of resources that firms can access to build said capabilities too, including the relational assets available, which influence the ability to access tacit knowledge from foreign partners.
3	Selwyn, B (2013) *Social Upgrading and Labour in Global Production Networks: A Critique and an Alternative Conception*	RQ: *how, under appropriate conditions, worker and trade union action can be central to delivering meaningful social upgrading*	- GCC	Qualitative (primary; no further details provided in the paper) Agrifood sector (horticulture) Developing country (Brazil)	Social upgrading Economic upgrading (product upgrading, *in my view – not focus of the paper*) International buyers (lead firms) (Local) social actors	The paper contends that social upgrading is often looked at from a top-down perspective where elites (i.e., lead firms, firms, states) should oversee its promotion. However, it is necessary to acknowledge capital exploitation and labour struggles and to account for social upgrading from a bottom-up view. The author does so based on his work on the Brazilian horticulture exporting region. There, global buyers have imposed strict quality conditions on farmers' products that hare supervised as well by buyers themselves, importers (intermediaries) and third-party certification agencies. Farmers then relied greatly on skilled hard-working workers to accomplish such requirements, most of them women, and initially labour conditions were very poor. In this context, a local labour union initiated a campaign to improve these conditions, and these improvements became institutionalized in a collective agreement between a representation of farmers and workers' unions, overseen by the Ministry of Labour. These improvements affected wages, working hours, and security and social benefits in general. This was possible because lead firms' demands made skilled workers necessary, which grant them structural power, and the union gave associational power to workers in turn. However, farmers tried to contest these improvements by reducing non-wage cost (e.g., reducing the share of women working) and by providing direct benefits to workers to substitute the union. Despite this, this was a first avenue to study social upgrading from a bottom-up perspective, where local agents are key at promoting it.

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20	Rossi, A. (2013) *Does Economic Upgrading Lead to Social Upgrading in Global Production Networks? Evidence from Morocco*	RQ: *Do workers in GPNs benefit from their firms' increased value added in production? To what extent and under which conditions firms' decisions to embark on a high road to participation in GPNs based on economic upgrading can lead to social upgrading for workers in GVCs? Whether and to what extent a supplier factory's process, product and functional upgrading can lead to the attainment of measurable standards and enabling rights for workers?*	- GPN	Qualitative (primary; case studies of 19 garment factories in Morocco. Interviews and focus group discussions) Garment sector Developing country (Morocco)	Economic upgrading Social upgrading Lead firms (international buyers)	The author conducts a qualitative study on the garment industry in Morocco. The paper studies whether economic upgrading may lead to social upgrading under the fast fashion production model. Findings suggest that different types of economic upgrading led to different results in social upgrading. While process upgrading (which is encouraged by lead firms) leads to improvements in measurable standards (with which efficiency and productivity improve too), product upgrading is found to have the potential to improve workers' skills if new products require learning but does not necessarily lead to such a social upgrading. Instead, functional upgrading leads to both social upgrading and downgrading depending on whether workers are regular or not, respectively. This is due to lead firms' competing demands on suppliers (speed, flexibility, and low costs, but quality and labour standards simultaneously), which leads suppliers to count on both skilled workers that see their measurable standards and enabling rights improved, and non-skilled workers at the risk of social downgrading.
30	Posthuma, A.; Rossi, A. (2017) *Coordinated governance in global value chains: supranational dynamics and the role of the International Labour Organization*	RQ: *How the ILO's normative and development cooperation activities are evolving, with a potential to address the challenges of a GVC world.* The case studies illustrate how the ILO attempts to renew its activities concerning two overall challenges in the governance of labour standards in GVCs: (1) the capacity to convene and guide key stakeholders in the design, agreement and implementation of new governance frameworks and instruments; (2) the authority and mandate to foster dialogue, alignment of perspectives and collaboration between public, private and social stakeholders in GVCs. These two aspects concern what the authors call "coordinated governance"	- GVC	Qualitative (three case studies of measures introduced by the ILO regarding labour standards: Forced Labour Protocol; Better Work Programme; Accord on Fire and Building Safety in Bangladesh. No further details provided in the paper). Garment sector Developing country	Social upgrading (International) public institutions	The authors draw on three case studies of actions by the ILO to foster the compliance with labour standards in GVCs, focusing on the garment sector, these case studies being: (1) the Forced Labour Protocol approved by the International Labour Conference in 2014, (2) the Better Work Programme, which at the time of the paper had activities going on in 7 garment-producing countries, and (3) the Accord on Fire and Building Safety in Bangladesh, created in 2013 after the Rana Plaza Accident. The authors emphasize the role of the ILO (an International Organisation) as a mediator, arbiter, and sort of rule-maker. The ILO manages to promote dialogue and collaboration between private, public, and "social" spheres of governance at both vertical and horizontal levels and in this way, through different agreements implying certain norms and mechanisms, manages to promote the extension and compliance with labour standards across GVCs. *However, authors are not very specific on the exact practices and outcomes of social upgrading, nor on the data sources of the case studies*.

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103	Morris, M; Plank, L; Staritz, C. (2014) *Regionalism, end markets and ownership matter: Shifting dynamics in the apparel export industry in Sub Saharan Africa*	RQ: *How structures and geographies of ownership matter in determining the possibilities and opportunities for upgrading* (the authors argue that firm ownership variations and differential value chain insertion influence end markets, governance structures and firm set-up. Ownership dynamics manifest in disparities regarding local and regional embeddedness, with implications for the sustainability of apparel exporting operations and economic upgrading)	- GVC/GPN	Qualitative (primary; fieldwork – interviews, analysis of trade and industry data, evidence from other researchers) Apparel sector Developing countries (Mauritius, Madagascar, Kenya, Lesotho, Swaziland)	Economic upgrading International buyers Regional buyers (lead firms) *(Local) public institutions (only mentioned)*	Authors draw on qualitative work to analyse the importance of firm ownership, end markets and regionalism as determinants of upgrading. They show that the ownership type of apparel supplier firms in a variety of countries in Sub Saharan Africa shape their ability to supply certain end markets and respond to lead firms' requirements. Moreover, their local and regional level of embeddedness also affects their ability to upgrade. These upgrading paths are analysed regarding functional, process, product and end market upgrading. The type of relationships with lead firms is critical to allow for functional upgrading, and this is eased for firms with cultural and historical linkages to buyers. Answering to buyers' demands has also spurred product and process upgrading. Upgrading is deterred, however, for those suppliers related to transnational investors, which produce basic products, feel that the core of their advantage relies on cheap labour, and which have the higher value-added activities concentrated on head offices outside SSA. *Authors do not delve deeply into why this happens, that is, on potential knowledge transferring processes, or learning paths, etc*.
47	Rossi, A. (2015) *Better Work: harnessing incentives and influencing policy to strengthen labour standards compliance in global production networks*	RQ: *What (incentives) drives labour compliance? What works in achieving sustainable change in working conditions in the global garment industry?*	- GPN	Qualitative (primary; factory-level evidence based on firm-level data collection through worker and manager surveys and interviews) Apparel sector Developing countries (Cambodia, Haiti, Vietnam)	Social upgrading (International) public institutions *Lead firms (not deeply studied/commented on)*	The authors present evidence of the application of the Better Work programme by the ILO (in partnership with IFC) to show a combination of factors driving labour compliance in apparel factories. These factors are related mainly to trade and market incentives, public disclosure, and a business case for compliance. The authors explain the role of the ILO in driving this compliance through the Better Work program. *Authors are not too specific on the empirical work carried out, however*. The programme reached important improvements in the measurable standards of workers in these factories, but not so on their enabling rights. Hence, the action by public, vertical governance in this case was positive, although limited.
131	Yeung, G; Liu, Y. (2022) *Hybrid governance of joint ventures in transitional economies: the case of Guangzhou Automobile Group in China*	*There is not a RQ as such, but rather the paper's goal:* the authors focus on transitional economies and aim at uncovering how the alignment of foreign firms', local companies', and states' interests, at the local level and also at the corporate level, may ease the technological upgrading in JVs, as well as the creation of local production networks.	- GPN	Qualitative (primary) Automotive sector Developing country (China)	Economic upgrading (*authors label it as technological upgrading, but it is mainly about processes and products' improvement*) (Local) public institutions Lead firms (foreign firms)	The authors argue that the approach of focusing on firm governance is not enough to analyse upgrading, especially in transitional economies where there is an interplay of actors and the state plays a key role. The paper focuses on China, where the state plays as partner in JVs, to illustrate an analytical framework based on this hybrid governance. The authors uncover how the alignment of different agents' interests may lead to technological upgrading in JVs and to the establishment of local production networks. Based on a case study on the Guangzhou Automobile Group (GAC), a JV between local automotive firms, international brands, and the Chinese State, the paper shows how the divergent interests of each involved party are managed to enable the JV's upgrading. While foreign partners seek profit-maximization, the state looks for industrial development, and the local firms look for product development and large-scale production. The managers of the JV align these agendas, which allows for the JV's upgrading and the establishment of a local production network. A 50-50 ownership, a latecomer entering a big transitional market, and the financial imperative of local firms present as the three key conditions.

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70	Murphy, JT. (2019) *Global production network dis/articulations in Zanzibar: practices and conjunctures of exclusionary development in the tourism industry*	*There is not a RQ as such, but rather the paper's goal:* Given calls in GPN literature to research more the disarticulations (i.e., the "exclusionary development outcomes" that also take place with GPNs), the author argues that a practice-oriented approach to GPN research may allow to study said conjunctures and disarticulations, understanding by "practices" the day-to-day activities that conduct to GPN couplings, production, governance, and upgrading.	*Approaches to research and thinking (e.g., economic geography)* GPN	Qualitative (primary; firm-level evidence collected through interviews) Tourism sector Developing country (Zanzibar)	Economic upgrading Social upgrading (workers and territory) (Foreign) private actors (operating local tourism firms)	The authors seek to illustrate practice-oriented research within the field of GPNs given calls on dedicating more research to study the disarticulations produced by GPN insertion. They use the case of the tourism industry in Zanzibar, also showing exclusionary development outcomes in this case, focusing on firm-level practices. They conduct a qualitative study based on primary data collected between 2011 and 2012, mainly on tourist firms (small, medium, and micro-scale enterprises), although they have data from other agents too (e.g., institutional actors and alike). They also collected secondary data from various sources. The findings show that despite the development of the tourism industry in Zanzibar - mainly through FDI - socioeconomic development has not taken place in a distributive way. Zanzibari firms from the industry remain excluded from value enhancing opportunities (that could increase value for the territory too) despite the practices they employ to capture such value, while foreigners operating resorts and so on employ practices that bypass local firms, thus capturing such value. These firm-level practices are coupled with a series of conjunctures, regarding social, political, economic, and technological forces. All this translates into local firms not being able to capture economic value (upgrade), and the same for local workers (affecting their social upgrading), as the benefits of the industry are captured by foreigners.
95	Szalavetz, A. (2019) *Industry 4.0 and capability development in manufacturing subsidiaries*	RQ: "*whether advanced manufacturing technologies (AMT) can modify the patterns of upgrading in manufacturing subsidiaries operating in FDI hosting factory economies*". Or, in other words: "*whether new manufacturing technologies will indeed modify the patterns of upgrading in FDI hosting factory economies in general, and in Central and Eastern Europe, in particular*".	Advanced manufacturing technologies and industry 4.0 literature Production capability, technological capability, innovation, and R&D capability literature GVC	Qualitative (primary; 16 in-depth interviews in 2017 with manufacturing subsidiaries in Hungary and providers of advanced manufacturing technologies) Automotive, electronics, machinery, and metal casting (the latter regarding automotive suppliers and machinery firms). Also interviews with technology providers. Developing country (Hungary)	Economic upgrading (*mainly, process improvements; treated mostly in relation to capabilities developed*) Lead firms (through transfers of AMT)	The author conducts a qualitative study on subsidiaries in Hungary to assess whether AMT can alter upgrading paths in these companies operating in FDI-hosting territories. Findings reveal that these technologies have improved the production capabilities of the subsidiaries, fostering their upgrading - which also explains, at least in part, why there has not been much reshoring either. These technologies have improved production capabilities, fostered a fusion of some technological activities with production tasks, and have automated some previous tacit-knowledge technological tasks too. Some activities have become more knowledge-intensive, on the other hand. Regarding labour, workers have been able to adapt at subsidiaries, with positive outcomes for specific works such as that of engineers', for instance. Hence, AMT fostered the upgrading of subsidiaries' capabilities (regarding R&D and production), also enabling innovation collaboration (basically, this has fostered process-type improvements, mainly). This AMT is provided by local suppliers of such technologies, and its adoption is also fostered by lead firms.

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123	Krishnan, A; De Marchi, V; Ponte, S. (2022-*in advance*) *Environmental Upgrading and Downgrading in Global Value Chains: A framework for analysis*	Goal: *"… to advance our understanding of the environmental dimension of upgrading and downgrading in GVCs and GPNs"*	*Authors leverage selected insights from economic geography* GVC/GPN	Mixed methods (case study of Kenyan-UK horticulture GVC. Longitudinal mixed method-approach based on fieldwork – mainly, interviews and survey on a sample of 391 farmers) Horticulture sector Developing country (Kenya – *UK is the buying country*)	Environmental upgrading (and outcomes; *at different levels*) International buyers (Local) private actors (intermediaries) (Local) public institutions	The authors study the green bean and avocado industries in Kenya, which are connected to supermarkets in the UK, such as Tesco. Through a mixed method study involving semi-structured interviews and surveys, authors study environmental upgrading by developing a framework accounting for it both as a process and an outcome. Regarding the first, they recognise different paths to value creation (including vertical top-down/bottom-up and horizontal ones) and appropriation. Concerning the second, they recognise both direct and indirect outcomes, as well as their manifestation in biophysical terms and as market or reputational results. The findings point out that lead firms follow a standard-approach to governance (as they are pressured by their buyers, international NGOs, and business associations in their home market), where standards are transferred and enforced on local suppliers (farmers) through local private intermediaries (exporting firms). This, drives upgrading limitedly for suppliers, as the adoption of practices to comply with standards and/or codes of conduct (i.e., *process upgrading*). In turn, suppliers experience negative outcomes in the form of extra costs to comply and environmental degradation, the latter also being an indirect, negative outcome for the local community. For lead firms and intermediaries, outcomes are positive as market and reputational-like, as they benefit from greener production that increases their legitimacy. This supplier squeeze and the value appropriation by leaders is facilitated by local public institutions: they only provide limited support to suppliers (as standards and demonstration farms few times a year) and instead support more intermediaries and buyers through export promotion mechanisms, mostly.
60	Kumaraswamy, A; Mudambi, R; Saranga, H; Tripathy, A. (2012) *Catch-up strategies in the Indian auto components industry: Domestic firms' responses to market liberalization*	RQ: *How may domestic firms in emerging economies catch up and perform well with market liberalization and large-scale entry by MNEs?*	Internalization theory Upgrading and catch-up literature Learning and relational networks literature GVC	Quantitative (secondary data from databases; based on 1271 firm-year observations, from 1992-2002. 10 interviews performed to gain insights on the quantitative results) Automotive sector Developing country (India)	Economic upgrading International buyers (Local) public institutions *(government; treated more contextually)*	The authors focus on the automotive (auto components) industry in India to analyse the upgrading and catch-up processes of Indian auto components firms amidst market liberalization (1991/1992-2002). This liberalization took place in three different stages marked by Indian government measures, such that the catch-up strategy varied in each phase. At the beginning, licenses, and technical collaboration with automotive MNEs were the key to catch up, as well as JVs with these firms. Next, developing close, long-term relationships with customers became the key to continue upgrading. Lastly, generating knowledge from internal R&D was key to catch-up. The authors test the relationship this has with local firms' performance by means of separate fixed-effects models. They found support for their three hypotheses, although H3 would need further data from post-2002. They find that: during early years of liberalization, licenses and technical collaborations (whether arm's length or through JVs) are the main strategy for upgrading, but can have negative effects on local firms' performance; then, developing strong customer relationships becomes part of the catch-up strategy, having positive effects on performance; finally, firms add the creation of knowledge through internal R&D to upgrade, all three having positive effects for firms' performance. Thus, local catch-up strategies evolve as the environment evolves.

Source: Own elaboration

CHAPTER 4: GVCS IN THE POST-COVID-19 ERA – A NETWORK PERSPECTIVE ON SMES' RESILIENCE AND UPGRADING

ABSTRACT

Nowadays' global economic environment is becoming increasingly volatile, and this is affecting firms' international operations. Apart from events such as active wars and de-globalisation trends related to political tensions and commercial conflicts, the COVID-19 pandemic was the first disruption in the last few years that clearly evidenced the weaknesses of GVCs. Using this shock, we study SMEs' responses to answer how can developed country SMEs operating in GVCs through clusters respond to GVC-related disruptions, and what are the consequences for SMEs' upgrading. We focus on clustered SMEs to adopt both a top-down and a bottom-up perspective that allows us to contribute to answer the second RQ of this dissertation: how can different cooperation mechanisms affect the sustainable upgrading of developed countries' SMEs. We take a network-based perspective to explain how upgrading paths can occur even in a global scenario where disruptions are intensifying. Methodologically, we undertake a qualitative, multiple-case study on the Valencian Community's (Spain) textile cluster where we focus on the shock that the pandemic-related inputs shortfalls represented. Our results illustrate that the institutional infrastructure of the cluster was crucial for SMEs to reorganize and respond to the crisis. Local collective actors were key to activate this infrastructure and enhance SMEs' resources and capabilities, allowing them to adapt – i.e., be resilient. This had positive effects for SMEs' competitiveness – i.e., upgrading in products, processes, and in relational terms.

Keywords: Clusters; SMEs; GVCs; COVID-19; disruptions; upgrading; resilience

4.1 INTRODUCTION

Today's economic scenario characterises by increasing uncertainty, complexity, and dynamism; it is a VUCA world (Zhan, 2021). Events such as the 2008's crisis, and more recent ones like the blockade of the Suez Canal, Ukraine war, or the USA-China commercial conflict already raised concerns about the disruptions that may occur in a given place but have global consequences for all. These shocks of different nature have only intensified, and among them, one of the greatest has been the COVID-19 pandemic, which provoked a global, health crisis that also disrupted international commerce and investment. This shock was among the first to clearly evidence our global industrial system's weaknesses, reinvigorating discussions on GVCs' fragility given their dependence on distant countries' supplies. It affected firms worldwide due to their interconnections through GVCs but also prompted them to prepare for future shocks. This crisis was especially challenging for smaller firms involved in GVCs, as SMEs are. These companies represent a significant share of the business fabric in most countries and disruptions of the kind jeopardize their survival, this potentially having significant consequences given SMEs' huge presence worldwide (Juergensen et al., 2020). Hence, in this turbulent context, studying resource-limited firms' responses when they are so critical to the global economy and society becomes crucial.

In this chapter we use the COVID-19 pandemic as a case study to answer how can developed country SMEs operating in GVCs through clusters respond to GVC-related disruptions, and what are the consequences for SMEs' upgrading. In doing so, we take an integrative approach by considering both the top-down perspective from the GVC-level and the bottom-up approach from the cluster-level. We consider the latter because SMEs tend to locate in clusters to improve their competitiveness and so

they often insert in GVCs through clusters, thus the local level seems crucial for SMEs' survival to shocks and ultimate upgrading. Indeed, firms' strategies are hardly comprehensible without considering their contexts (Cainelli, Giannini, & Iacobucci, 2019b), which holds especially for SMEs given their limitations. This chapter, in turn, contributes to respond the second RQ of the dissertation: how can different cooperation mechanisms affect the sustainable upgrading of developed countries' SMEs?

Our theoretical reasoning departs from the NT perspective, based on the business-networks strand (e.g., Johanson & Mattsson, 1987; Johanson & Vahlne, 1990; Johanson & Vahlne, 2009), to argue how cluster linkages worked at supporting SMEs' competitiveness and survival against an exogenous, GVC-related shock. We consider institutional or non-business networks too, as they are also significantly present in clusters. We follow the idea that clusters, as part of SMEs' context, represent extended pools of resources and knowledge from which firms can tap, and that this can hold true for disruptive events too because SMEs' capabilities to adapt and survive can be enhanced by this location advantage. We take an NT approach because of the importance that networks have to promote SMEs' undertaking of complex strategies (as commented in chapter 2), and we consider this paradigm from both a vertical, GVC-perspective and an horizontal, cluster-viewpoint because GVCs do not take place in a vacuum and so their participants are going to be embedded in several networks at different levels that can be equally relevant for SMEs' competitiveness.

The horizontal approach we take is particularly crucial for SMEs because their characteristics – e.g., internal resource-constraints (Lu & Beamish, 2001; 2006) – lead them to agglomerate in industrial clusters, as it has been documented by research in both developed and developing markets (Giuliani et al., 2005). As clusters bring

together complementary and specialized partners in the same geographical area, they offer an equilibrium between scale and flexibility that fosters the competitiveness of their members (Porter, 1998). This location- or proximity-based advantage, together with the appropriate links and flows of resources, grants the firms with collective efficiency advantages (Gereffi & Lee, 2016) that help them to overcome their limitations to compete (Giuliani et al., 2005). In turn, these industrial districts[1] become innovation communities as they foster change and adaptation. For such reasons, we often observe that it is through clusters that SMEs are able to join GVCs. However, even if there is a consensus that clusters promote innovation and competitiveness (e.g., Hervás-Oliver et al., 2018), some research has found that clusters' institutional infrastructure (Harris, 2021) can create communities of inertia too (Glasmeier, 1991; Sull, 2001), hampering cluster members' competitiveness. Therefore, by taking a NT perspective where we do not limit our research to one level of analysis or only business-type agents, we assess the process of how to truly foster SMEs' survival to shocks and competitiveness.

We also consider the concept of resilience given its intrinsic relation to the disruption-related literature and because the COVID-19 crisis has spurred works on GVCs suggesting their redesign to be resilient, and not only efficient. That is, even if GVCs have granted companies with higher efficiency in their operations, as stated in previous chapters, this may not be enough in an environment where disruptions are becoming the new normal. This resilience concept, although not yet clearly defined in the literature, at the chain level often refers to the capability to recover after a disruption in an acceptable time (Brandon-Jones et al., 2014). Nonetheless, GVCs are systems that we as researchers depict to understand reality, but the agents taking

actions are the participating firms. This is another reason for this chapter to take a firm-level approach, where we consider this resilience as adaptation capabilities that allow SMEs to adjust to shocks. In addition, within the cluster and industrial district literature (e.g., Bellandi, 1996; Belussi & Hervás-Oliver, 2016), there is still a non-consensus regarding whether being in a cluster can favour firms' resilience in terms of adaptation and survival (e.g., Cainelli, Fracasso, & Marzetti, 2018; Behrens, Boualam, & Martin, 2020). For instance, regarding economic disruptions, some works found that cluster-related advantages disappeared (e.g., Martin, Mayer, & Mayneris, 2013), while others suggested that sectors active in clusters could recover faster (Delgado & Porter, 2017). Hence, considering this viewpoint is relevant for our study too because not all shocks are of the same nature and this can change their effects and management – e.g., not all disruptions are of an economic nature and yet they have economic effects.

Empirically, our qualitative, multiple-case study focuses on the Alcoi-Ontinyent textile cluster located in the Valencian Community, in Spain. We undertook semi-structured interviews with textile-related SMEs, institutions at the local and regional level, and the textile industry association. In this case, as the pandemic first provoked the closing of China, the flow of inputs to Europe interrupted. Together with lockdowns across countries, this affected firms' activity worldwide and disrupted GVCs, creating an environment of uncertainty (Belhadi et al., 2021; Gereffi, 2020). This cluster stood out because firms located there, mostly SMEs, responded by reorganizing to start producing sanitary textiles, surviving the highest point of the crisis this way. Our findings reveal that local, cluster collective actors were key in leveraging the cluster institutional infrastructure to help SMEs in their reconfiguration, allowing them to develop their resilience. This had consequences for SMEs' upgrading

too, in terms of improved processes, products, and relationships. Thus, we illustrate how to promote SMEs' upgrading even in the face of disruptions through cooperation-based mechanisms, while integrating both vertical and horizontal SMEs' contexts, showing how critical the local dimension is. We contribute to the GVC field, the COVID-19-related literature (e.g., Gereffi, 2020; Belhadi et al., 2021; Pla-Barber et al., 2021) and cluster literature on shocks too (e.g., Delgado & Porter, 2017; Cainelli et al., 2018; Cainelli et al., 2019b; Behrens et al., 2020).

The chapter is organized as follows. First, we outline the conceptual framework supporting our study. Then, we describe the research setting and the methodology we followed. Afterwards, we present the analysis of our data, which informs our process model and propositions, finally answering our RQ. The last section includes the chapter's conclusions, the study's limitations, and the associated future research lines.

4.2 CONCEPTUAL BACKGROUND

4.2.1. *A network-based view of clusters: Promoting SMEs' competitiveness*

The NT approach posits that companies are embedded in context-specific, dynamic networks that are made up by prior and ongoing paths, value systems, norms, and social relationships and, in turn, configure the structure within which firms operate and cooperate (Granovetter, 1985). Taken to the business sphere, this can translate into companies being embedded in networks that grant them a broader resource and knowledge base that goes beyond firms' boundaries (Hilmersson & Hilmersson, 2021; Villar et al., 2014). Hence, firms' strategies will somewhat depend on their networks or contexts (e.g., Cainelli et al., 2019b), which then turn out to be key for companies' competitiveness, especially when dealing with resource-limited entities like SMEs.

At the local level, one way these networks have materialised is in the form of clusters, which in turn are connected to GVCs (Sturgeon et al., 2008). From a business-network perspective, networks contain ties to customers, suppliers, and similar business counterparts, which are interdependent as they are embedded in wider networks of relationships at the same time (Johanson & Vahlne, 2009; Chetty & Wilson, 2003), and these linkages allow exchanging assets and generating knowledge (Chetty & Wilson, 2003). Clusters can be viewed as networks as they constitute geographical agglomerations of firms and institutions where specialized and complementary actors are co-located and interact. This co-location spurs rivalry, cooperation, and exchanges, thus fostering an innovation environment. Consequently, clusters provide their members with an equilibrium between scale and flexibility that fosters firms' competitiveness. In addition, cluster members have a better observation of market evolution through their counterparts, which also fosters firms' ability to identify business opportunities and act quickly and flexibly on them (Porter, 1998). All this has led SMEs to locate in clusters often, because by being co-located they can access cluster collective efficiency advantages (Schmitz, 1995) and overcome their constraints, this spurring their competitiveness (Giuliani et al., 2005).

Just as networks do, clusters act as extended pools of resources and knowledge. In addition, cluster-specific agents can ease actors' collaboration and development, being crucial for SMEs to benefit from these proximity advantages (De Marchi et al., 2018). Specifically, the collective efficiency SMEs can benefit from refers to the competitive advantage built on external economies and group activities within the cluster (Giuliani et al., 2005). This translates in SMEs accessing higher-skilled labour; knowledge spillovers; relationships whereby exchanging resources and information;

or being more motivated to compete given their co-location with rivals (Fang, 2015). Besides, as SMEs are deeply rooted in their environment (Hervás-Oliver et al., 2021), they are often in contact with public actors too that may act as creators and coordinators of linkages as well (Mudambi et al., 2017). These actors can act as knowledge bridges, fostering information sharing and firms' absorptive capacity further (Corredoira & McDermott, 2020), thus also facilitating adaptation (e.g., Hervás-Oliver, 2021) and firms' competitiveness.

4.2.2. *SMEs facing disruptions through clusters*

Following this network logic, we argue that being in clusters shall favour SMEs' competitiveness and their ability to respond to GVC-related disruptions because the necessary resources and knowledge to achieve so will flow more easily through the cluster – as it would occur in a network. The RBV, for instance (e.g., Barney, 1991; Peteraf, 1993), posits that developing core capabilities to support firms' competitive advantages and strategies depends on firms' ability to develop unique, valuable, rare, and imperfectly imitable, irreplaceable resources. Nonetheless, this adopts only an internal view to the firm, not completely applicable in a context that is more dynamic, and inter-firm connected each time – and problematic too when dealing with inherently-limited SMEs. Thus, taking a NT perspective seems crucial to explain how SMEs' survival to shocks and ultimate competitiveness may occur anyway.

However, clusters can also present disadvantages, as they can be communities of innovation but also communities of inertia. Myopic perspectives and excessive intra-cluster ties can be counterproductive and conducive to lock-in effects – following the same logic as with over-embeddedness (Uzzi, 1997). Indeed, Glasmeier (1991) showed that clusters could facilitate the dissemination of resistance to change, and that

local managers might be biased when they share similar paradigms and imitate each other. This possibility makes unclear whether clusters work for the change and adaptation of firms, or against it. We contend that clusters contain assets of their own that contribute to explain firms' own endowment of resources, such that firms' characteristics and strategies cannot be separated from their cluster (Hervás-Oliver & Albors-Garrigós, 2007). By allowing for quicker, efficient flows of resources and knowledge, clusters contribute to firms' resource position, routines, and paths, favouring their performance. We argue that this will favour SMEs' survival to disruptions and their competitiveness. The key to this paradox, we posit, lies in studying the process of how this happens, considering both the international and local networks where SMEs are embedded, as well as the action by local, non-business agents that may be as critical to turn the scales one way or the other.

Consequently, we partly develop our argument by elaborating on whether external shocks foster cluster inertia or change, what intervenes in this process, and how this affects SMEs' competitiveness – i.e., upgrading. We contend that clusters will expand clustered SMEs' scope of resources. In turn, clusters with great tradition will influence firms' path dependencies, enhancing SMEs' organisational processes too. This should lead to clusters enhancing SMEs' capabilities, their adaptation and survival to disruptions, and ultimately their upgrading.

4.2.3. *Responses to disruptions: Firm-level resilience*

Firms' responses to shocks often materialise in the concept of resilience. This is a multidimensional notion (Kamalahmadi & Parast, 2016) rooted in ecological, economic, and organisational approaches (Ponomarov & Holcomb, 2009) that generally refers to a system's reaction, adaptation, and survival to shocks. According

to Rose (2004), resilience can occur at microeconomic, meso-economic, or macroeconomic levels, and so it has been defined at business (e.g., Conz & Magnani, 2020), industrial (e.g., Behrens et al., 2020), cluster (regional resilience; e.g., Cainelli et al., 2019a; Martin, 2011), and supply chain levels (e.g., Brandon-Jones et al., 2014), for example. However, the literature is unclear on the definition of resilience, about whether it is a capability, an outcome, or something else (Ozanne et al., 2022).

Despite differences, most concepts coincide with considering a shock that requires systems' adaptation to survive. But systems do not take strategic actions by themselves; the first to do so are their nodes, or firms in our case. In this vein, although some studies have framed resilience as a performance outcome (e.g., Brandon-Jones et al., 2014), its definition does imply having this adaptation capability. For instance, Kamalahmadi & Parast (2016) define resilience at the firm-level as a dynamic capability dependent on firms' subsystems. Hence, we take a similar positioning and understand resilience as agents' capability to adapt to and recover from a disruption in an adequate time. This ability shall sustain a strategic response that allows for that survival; if executed adequately, it shall favour firms' competitiveness in turn. Thus, we adopt the perspective that separates the mitigation and recovery stages, similarly to Brandon-Jones et al. (2014) or Miroudot (2020a; 2020b), and understand resilience as a firm-level capability dealing with minimizing the shock's impact once it has occurred (cf. Brandon-Jones et al., 2014). Then, resilient actors would be those going through disruptions, adapting, and recovering from them (Miroudot, 2020a).

In light of mixed evidence, the research stream within the cluster literature related to shocks and resilience also presents a non-consensus on whether clusters foster resilience or not. While some works show no relationship (e.g., Behrens et al.,

2020), others report that clustered firms are more likely to survive during economic recessions (e.g., Cainelli et al., 2019b). Instead, other studies suggest that, at least in the short term, being in clusters amplifies the negative effects of external disruptions (e.g., Cainelli et al., 2018), similar to a ripple effect (Ivanov, Sokolov, & Dolgui, 2014) – i.e., disruptions occurring in a given network node where the negative effect of the shock spreads out and multiplies throughout the system because of nodes' interdependencies, affecting its entire performance. Indeed, this contagion effect took place during the COVID-19, together with a bullwhip effect – i.e., demand fluctuations that extend upwards affecting supplying dynamics (Belhadi et al., 2021; Katsaliaki, Galetsi, & Kumar, 2022). However, even if this potential contagion effect of shocks could transcend to the local-level and counterbalance the positive influence of clusters, we contend that SMEs' resilience is contingent on their capabilities to reconfigure and adapt to changing environments and that clusters can enhance these abilities, the key being the exact process taking place for this to happen. The main reasoning is that the resources for SMEs to adapt circulate faster and better among localized actors, but we must study how this shall happen to be effective. By integrating the local approach with the GVC-level, we explain the process through which clusters can help to respond to global disruptions and the consequences this has for SMEs' upgrading.

4.3 METHODOLOGY

4.3.1. *Research setting*

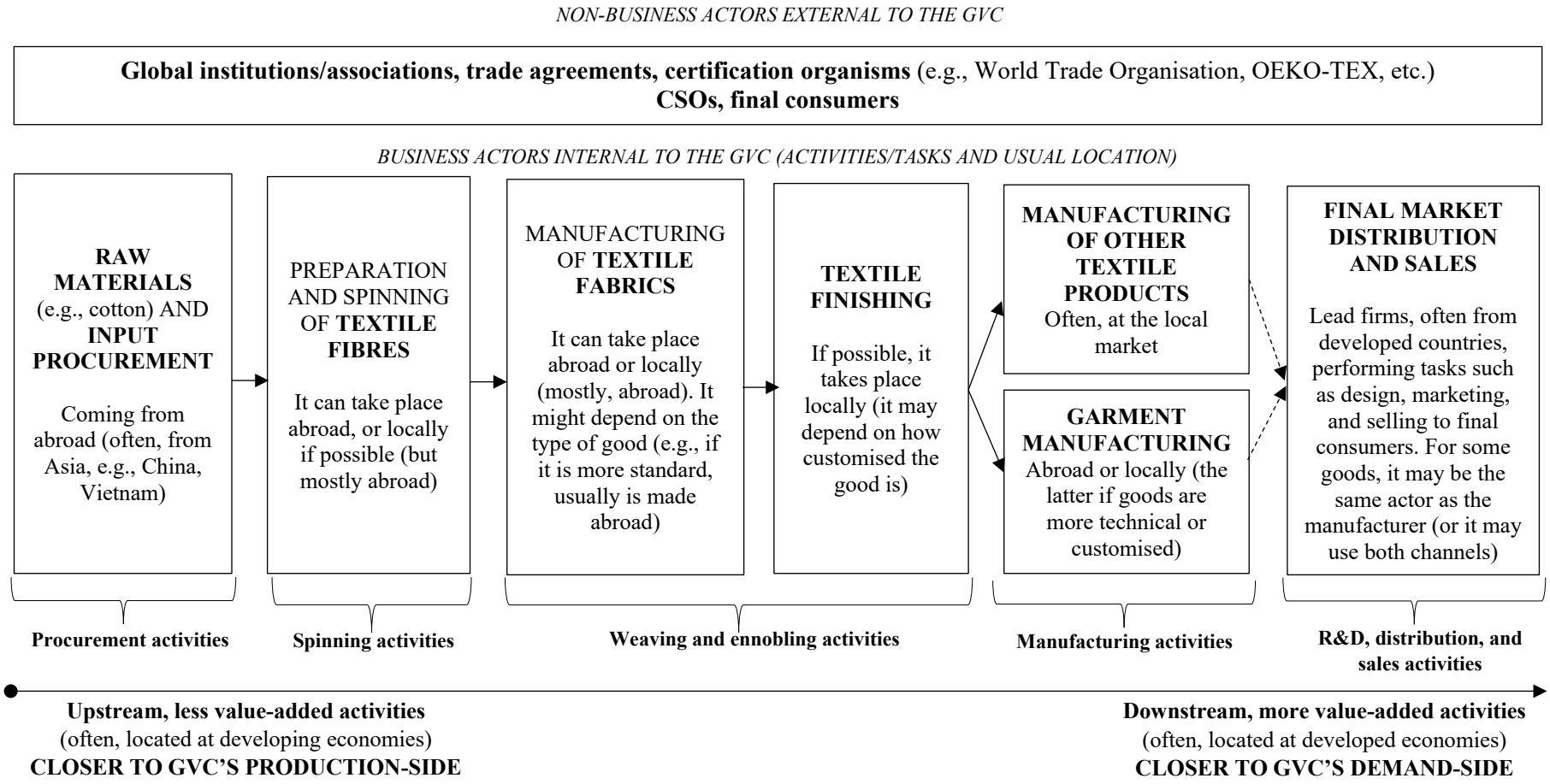
We focus the study of this chapter on the Alcoi-Ontinyent textile cluster, located in the Valencian Community, in Spain. Regarding the type of firm, this industrial district includes mostly SMEs, which dedicate to different activities within the textile value chain, such as thread- and yarn-making, garment manufacturing, home textile

production, or non-woven fabrics, among others. The cluster also contains complementary and auxiliary firms to this sector, various institution-type actors, and business associations (Pla-Barber & Puig, 2009). Among the latter, the textile technical institute (AITEX) and industry association (ATEVAL) stand out. The first is a private entity dedicated to, among other tasks, the analysis and certification of textile materials and the development of R&D projects, but it also trains technicians, sometimes together with other organisations. The second was founded in 1977 and assists more than 300 associated firms in areas related to internationalisation, innovation, finance, or CSR, for instance. Moreover, at the regional level, the Valencian Institute of Business Competitiveness (IVACE) supports firms' innovation and internationalisation strategies, as well as their technological and sustainable development. It focuses on SMEs, and it is integrated within the Valencian Government. Amongst other support entities, the ones we mentioned are the most crucial for SMEs in this cluster. In Figure 4.1., we illustrate the textile value chain at the GVC-level, based on the literature and the data we collected, while in Figure 4.2. we show the textile value chain at the local level in this district, specifying its main actors and the cluster structure respective to NACE manufacturing codes, which we extracted from ORBIS (focusing on the territory of Ontinyent) to corroborate our data.

Regarding the textile cluster, its initial activity dates back to the 19th century, so it has a great tradition and history that translate into significant, specific firm expertise and industry knowledge. However, this industry has also suffered the consequences of globalization (Pla-Barber & Puig, 2009): market liberalization, technology evolution, or the decrease in transport costs led to the de-localization of certain parts of the textile production chain. In addition, cluster firms had to face the

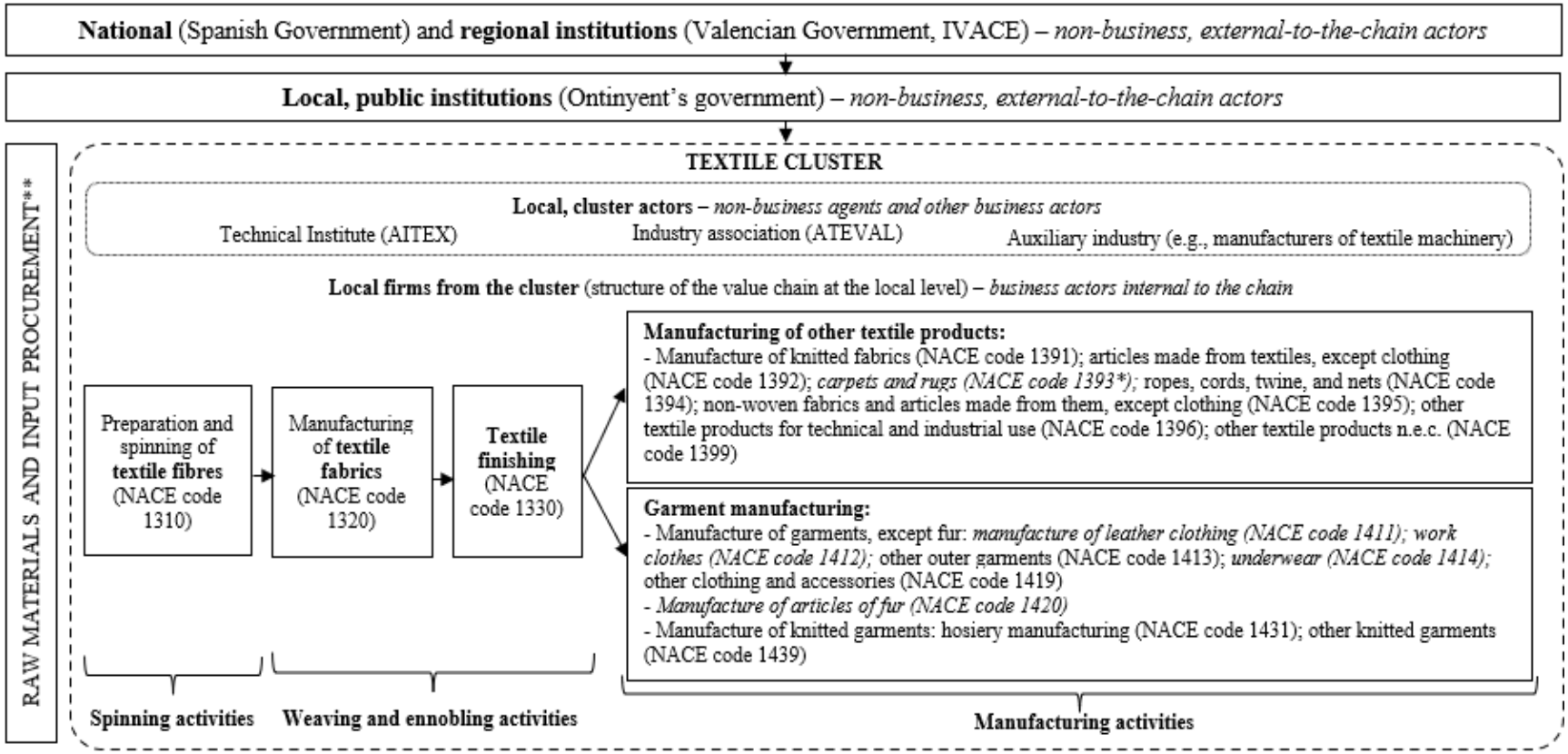
competition of cheaper, foreign companies, which also led to the disappearance of several activities previously performed at the local market. This has kept cluster manufacturers dependent on raw materials and inputs from abroad. We can appreciate this in Figure 4.1., where we show how the textile GVC is structured at the international level. The upstream activities that are closer to the production side, related to raw materials and inputs' procurement mainly, often locate in emerging economies, either because materials are located only there (e.g., cotton from China) or because certain, more traditional tasks with less value-added started to be outsourced to these territories and this know-how has been lost locally. In turn, in this GVC, the closer the activity is to the final consumption market, the more likely it is that it can be performed locally. For instance, even if spinning activities may occur outside the cluster too, tasks like weaving and ennobling can take place locally (as seen in Figure 4.2. as well). However, it is the final manufacturing activities that are seen in the home market most commonly, especially the more specific and/or customised the product is, as this is the specialized knowledge that the clustered firms retain. The downstream, most value-added activities, often related to design, R&D, and marketing tasks, are performed by powerful agents located the closest to the final markets – i.e., the lead firms –, but sometimes also by tier-1 actors, which may sell through these large distributors or international clients, as well as through their own channels. This commonly depends on the exact type of product and the type of linkages maintained with global buyers.

Figure 4. 1. Mapping of the textile and apparel industry (GVC-level)



Source: Own elaboration

Figure 4. 2. Mapping of the Alcoi-Ontinyent textile cluster (chain structure at the local level)



Notes: *NACE codes in italics indicate activities not localised in Ontinyent, but that may be in the cluster anyway as it extends to territories like Alcoi. **This activity often takes place outside the cluster, especially when it comes to raw materials.

Source: Own elaboration based on the empirical work and ORBIS (2022)

4.3.2. *Process of data collection, analysis, and interviewees' description*

Since our RQs focus in explaining a process, we conducted a qualitative, multiple-case study (Yin, 2014) to answer them. Following our literature review, we first crafted a protocol to establish the goals and themes we aimed at covering, our sampling criteria, and the questions for the interviews according to the type of agent. Regarding the selection criteria for our interviewees, we conducted an initial search of firms in ORBIS according to their location in the cluster and NACE code, and together with our knowledge about this cluster, this led us to select: (a) companies from the textile cluster that had been affected by the COVID-19 crisis, (b) which were also SMEs (European Commission, 2014), and (c) supporting institutions and/or collective cluster actors that were closely involved in managing the crisis. Regarding the SMEs, we selected those that were relevant in the cluster too – because of their economic importance, and/or their involvement in cluster institutions, for instance –, such that they could provide an informed perspective. After contacting several of them, we finally interviewed representatives of four textile manufacturing SMEs; one importing SME specialized in textiles; a representative from the local City Council; a representative of the industry section of the Valencian Government; and a representative of ATEVAL. We interviewed CEOs and senior representatives, as we deemed their viewpoint more comprehensive. Contacting with ATEVAL also helped us in reaching firms that had started to produce sanitary products during the crisis.

Between May and July 2021, we designed and conducted semi-structured interviews with open-ended questions, while carrying out some more interviews in June 2022 as well. The interviews lasted about one hour on average and, prior to asking our questions, we explained the interviewees the goal of our work and our focus on

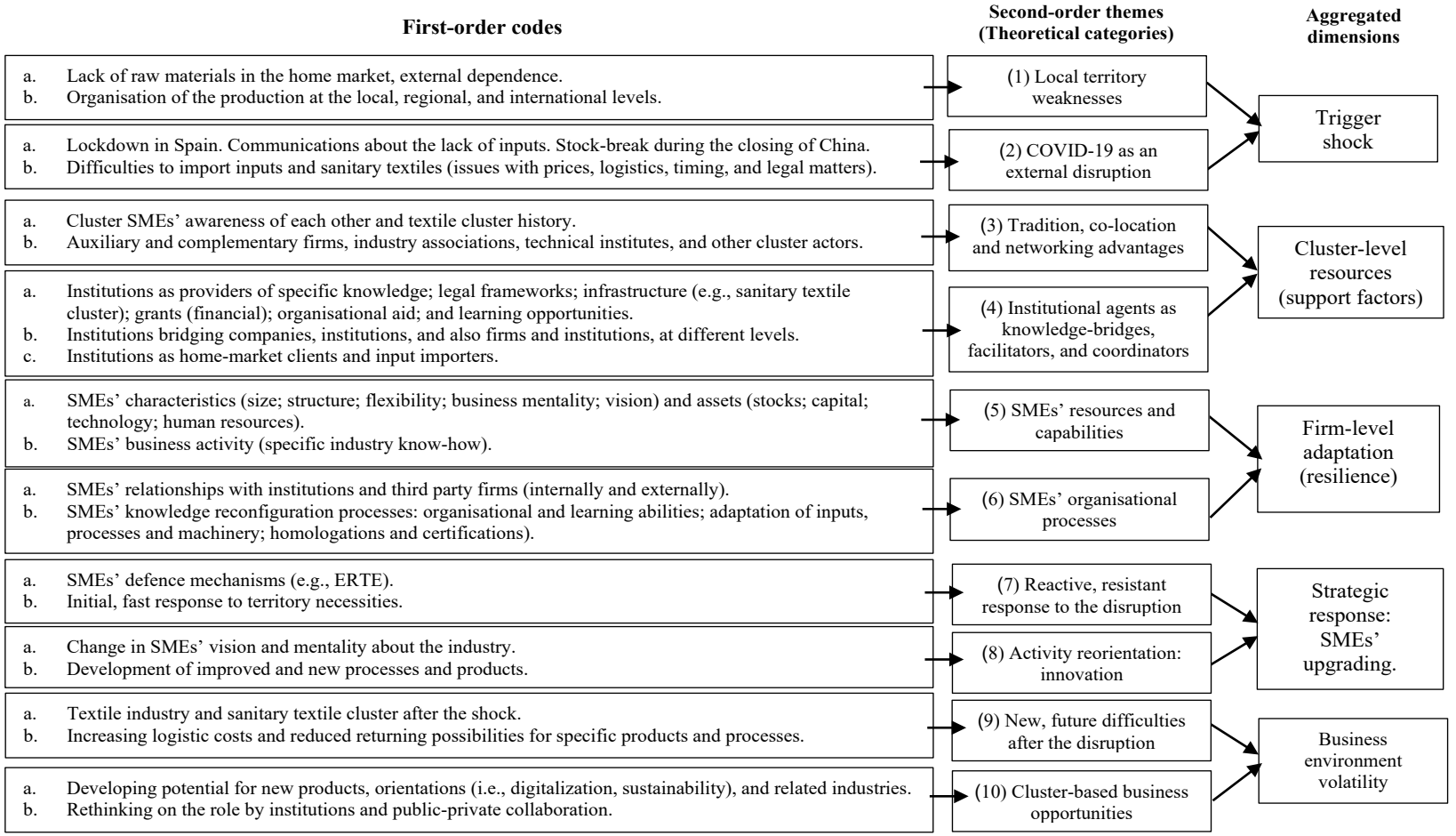
the COVID-19 shock, mainly associated to the shortage of inputs. The interviews were based on five over-arching questions: (1) How is the activity of your company structured? (2) How was the material and sanitary crisis experienced in your firm? (3) What led to the production of sanitary textiles? (4) What do you think has been critical to reorganizing your business activity, and how has this change taken place? And (5) how do you see the industry's future? As the interviews progressed, we deepened on specific topics that emerged in the process. After collecting the data, which we recorded while taking notes too, we transcribed the interviews verbatim and within a day. We also supported our primary data with secondary data from news, firms' and associations' websites, and reports, as this allowed triangulation to improve our study's reliability (Gibbert & Ruigrok, 2010). With all this information we gathered, we made a report for each case study afterwards, finally counting on 105 pages – including the transcripts and the reports.

In Table A3 in the Appendix, we provide information about the data sources, with interviewees' names codified to ensure their confidentiality. Alpha is a home textile manufacturing SME of approximately 15 employees, whose activity is export-based. Nevertheless, if we consider Alpha's system of internal suppliers (i.e., suppliers that are not formally part of the firm but that manufacture in exclusive or quasi-exclusive terms for it), the numbers rise to nearly 180 workers, according to its CEO. Beta, instead, is a garment manufacturer specialized in sports fabrics and technical textiles. This SME is vertically integrated and possesses technology of its own. Lambda is a home textile producer, with an integrated vertical structure too, which exports through independent agents and works with renowned global buyers. Zeta is an importer and distributor of non-woven fabrics that, recently, has started to perform

some parts of the manufacturing process. Lastly, Gamma is a microenterprise importing a variety of goods but specializing in textiles, as it spent decades collaborating with producers abroad, often in Asia and in design tasks. As for the non-business agents, Epsilon is the highest representative of the cluster's textile industry association; Omega was the industry representative of the Valencian Government at the time of the crisis; and Delta is the representative from Ontinyent's City Council.

Regarding our analytical process, we summarised the information from the interviews by following a process of iterative abstraction and codification, going from first-order codes to the theoretical elaboration of second-order concepts and aggregated theoretical dimensions (with a logic similar to that of Gioia et al., 2013). First, we took our transcripts and classified all quotes according to their similarity, codifying them openly and using similar terms to interviewees' words. Afterwards, we regrouped them again in codes that clarified the quotes' empirical content. Then, we aggregated the latter into literature-based concepts according to the similarity of the codes too. Finally, we aggregated them again also based on similarity and we obtained aggregated categories further connecting with our theoretical approach. In Figure 4.3., we show the data structure that we came up with throughout this process. This guides our findings section, where we employ some illustrative quotes to justify our reasoning, and informs our discussion section too. In Table A4 in the Appendix we provide some additional quotes as examples.

Figure 4. 3. Data structure



Source: Own elaboration

4.4 FINDINGS

4.4.1. *Describing the trigger shock: Timeline of the COVID-19-induced crisis*

The COVID-19 pandemic had its epicentre in Wuhan, China, between the end of 2019 and the first months of 2020, while being detected in Spain between January and February of 2020. The virus spread and triggered a global health crisis with social and economic repercussions, the latter provoked by three shocks. First, Chinese enterprises closed to localise and contain the virus (Miroudot, 2020a), and this had immediate economic effects given previous offshoring strategies whereby many industries depended on China's supplies (Belhadi et al., 2021); that is, it led to a rapid contagion effect through GVCs. Secondly, as governments worldwide imposed lockdowns on the population and the firms, global business activity stopped gradually (Miroudot, 2020a). Lastly, the population's lockdown triggered a demand decrease too (Pérez et al., 2020). When demand recovered as restrictions relaxed, firms had to restart their activities, which led to mismatches between demand and supply (i.e., a bullwhip effect). The nature of the crisis also pressured the demand for protective equipment, which came mostly from China as well, and the production side could not absorb it either (Gereffi, 2020). Hence, the crisis affected supply and demand dynamics (Pérez et al., 2020): it started as a supply-side shock (Miroudot, 2020a) and extended to the demand side, causing an unprecedented scarcity of materials and, consequently, an escalation of prices.

Regarding the timeline of the pandemic (Belhadi et al.,2021; Miroudot, 2020a), although it began at the beginning of 2020, it was not until the 11th of March that the World Health Organisation declared it global, while the Spanish Government enacted the State of Alarm on the 14th of March. The latter implied a national lockdown

whereby the population could not leave their homes, with basic-needs-related exceptions, and businesses could not open either unless considered essential (e.g., sanitary-related firms). China re-opened around April 2020, which allowed Spanish and Valencian institutions to start importing sanitary materials again; firms to start importing supplies; and to start thinking of developing sanitary products locally, given an increasing necessity that could not be met only with imports – as countries worldwide were in the same situation. During this time, the Ontinyent City Council together with ATEVAL announced the creation of the Sanitary Textile Cluster[2] to support textile manufacturers deciding to produce sanitary goods. By July 2020, these measures were much more established, public contracts had also been enacted, and the Valencian government authorised the Sanitary Textile Cluster officially. By August 2020, cluster firms joined in groups to gain size and ramp up production to be able to access these public contracts.

Concerning raw materials and inputs, Valencian companies started to notice their scarcity before the declaration of the State of Alarm. They contacted institutional representatives because they had run out of inputs or anticipated that they would do so in the coming months since China was closed, as stated by Omega, and China concentrated the production of most materials, as Gamma indicated. Indeed, Gamma had to stop its activity in China, which was very intensive, and this forced the restructuring of its business. Most textile manufacturers, instead, withstood the shock initially because they were used to nourish from abroad, because there is not enough local production of inputs or it is inexistent due to the disappearance of the primary industry, as Lambda or Gamma explained. Hence, firms commonly had enough raw materials or, sometimes, they were standard such that they could keep on working by

using them for different purposes. For instance, Zeta acquired its non-woven fabrics abroad, and Alpha had enough inputs to keep its activity ongoing.

In the case of sanitary goods, the situation was worse as they were mainly imported. For surgical masks, China concentrated most of the production (Gereffi, 2020). Epsilon stated that production in Europe was residual, and beyond Asia's products being much cheaper, huge investments were required to produce the inputs as well (e.g., the meltblown). Consequently, there was no local production, even less in the required quantities. Omega explained that the channel for sanitary goods broke days before the State of Alarm because China was "with the machines stopped" for many months. Besides, as the disease spread and governments took containing measures, the initial supply shock eventually transformed into a demand disruption.

> During the COVID, we paralyzed everything. […] The demand [for home textiles] fell because […] our clients closed their doors, and there was uncertainty… […]. When [the clients] opened, they were already asking for [delivery] tomorrow [but that was not possible]. […] [At the beginning], there is no cut [of stocks], but there is a cut when a need begins to emerge and we do not have the product, which we had managed to paralyze. (Lambda)

Textile manufacturers coped with the supply disruption thanks to their system of inputs provision – i.e., they tend to accumulate stocks – and later by capitalizing on the demand decrease following firms' closing. However, demand activated rapidly afterwards, and recovering previous production levels was complicated, also given the problems to import raw materials due to global bottlenecks and price escalations. The latter joined the scarcity of sanitary goods. Importing them was difficult, and prices

escalated quickly, as Gamma explained. According to Zeta, non-woven fabrics' demand and price rose too, given their use for these specific goods and others. In this way, the pandemic, a shock of health-related nature, led to an economic crisis: first, China's closing provoked uncertainty about input availability and jeopardized firms' activity (putting pressure at the micro-level); second, firms' closing during the lockdown affected their activity and the cluster's functioning (meso-level) – as well as GVCs; and third, both these shocks together with the scarcity of sanitary goods and the price increases (not only for inputs, but also for logistics) put pressure on firms, but also on the society and the entire business environment (macro-level).

4.4.2. *Cluster-level resources: Support factors for clustered SMEs*

In this moment of economic crisis and social necessity, SMEs' co-location in the cluster allowed them to notice the business opportunity that the sanitary textiles represented and tackle it, also for the good of the territory. For instance, Zeta stated that being in the cluster, surrounded by textile manufacturers, made it easier to buy inputs – those that were available locally, of course – and outsource the tasks they needed to when they started producing masks – as they were not traditional textile manufacturers. Companies' awareness of each other fostered inter-firm exchanges as well; as Alpha explained, an advantage of the cluster is that firms knew each other's activities, and so these contacts often drove product developments (i.e., innovations). Then, even informal exchanges were key, and so they were for masks' production. In addition, when firms were unsure of how to proceed, their co-location allowed benchmarking and imitating competitors, just as Lambda did to produce its first masks.

The cluster also provided a context where manufacturers could access resources and knowledge they lacked to produce sanitary textiles. Even if they had

specific knowledge regarding textiles' production, these SMEs were all inexperienced in sanitary textiles manufacturing, even if several tasks were very similar to the ones they already performed. They still needed some specific expertise to adapt to this production; for instance, learning how to adapt the machinery or where to obtain adequate inputs. Exchanges among cluster actors, often at the micro level through employees or institutional agents, were crucial to transfer information. As argued by Delta, cluster auxiliary firms such as those dedicated to textile machinery were also differential because they helped SMEs to adapt their machinery.

> The cluster was good at [providing] the initial information, [when] people do not know where to go […]; and it guided [them]. [...] That was very important because the engineer who made the clean room […] was already doing it for other firms […]. The information on where we could get the necessary filters for [masks] to be functional […] was [available] from people at AITEX. [A person from AITEX] cared to tell us: "Look for it here or there because..." And she gave us valuable information and […] put us at the starting point. (Lambda)

Apart from co-location advantages, SMEs' experience granted by their location and the cluster tradition and heritage was key to seize the opportunity too. Even if the sanitary textile industry had its technicalities, the manufacturing was not so different to the production of typical textiles, as stated. Besides, the cluster had historically experienced crises to which SMEs had adapted continuously, sometimes by evolving their activity. Therefore, both intrinsic, sectorial knowledge and a particular business mentality were inherent to the cluster and its firms. Delta argued that this heritage and firms' knowledge played an important part, as well as their readability to reinvent. Lambda also stated that cluster companies had been traditionally poor, leading them

to do anything to acquire materials or sell, so there was a revulsive to this area when faced with a need that could even spur new businesses.

Importantly, certain cluster actors also contributed to making effective these co-location and networking advantages in terms of resources and knowledge exchanges, enabling SMEs to tackle this opportunity. These actors did so by performing different roles that fostered collective action in the cluster. First, different institutions created frameworks to ease the adoption of legal and quality requirements; foster joint learning opportunities; and provide financial and organisational support to SMEs. For instance, Omega explained that the regional Government set up a consultancy to help manufacturers with the certificates for sanitary goods, and approved a mask through the IVACE as well, on which they worked with AITEX and some companies. Moreover, sometimes in combination with other institutions, they also created specific financial aids. Locally, institutions joined to create the Sanitary Textile Cluster as a "collaboration agreement between ATEVAL and the Ontinyent City Council based on […] four specific actions and with a line of grants" (Delta). This provided cluster SMEs with technical, economic, and training assistance. The lines, articulated through ATEVAL, included creating a technical office to help SMEs with materials' homologation; obtaining quality and sanitary certifications (including ISO norms); attending medical fairs and innovation and commercialization conferences; and providing grants for firms' investments. AITEX also contributed to validating and enhancing products' quality, legitimating them. Thus, these various local agents – public institutions and industry, cluster actors, mainly – offered technical, financial, and bureaucratic support that was key to spur SMEs' adaptation to the shock.

Second, institutional and cluster actors worked as bridges among firms and also between SMEs and institutions, creating and coordinating private and public linkages. Contacts among institutional agents gave rise to mechanisms to support firms (e.g., the sanitary cluster) and allowed them to coordinate actions (e.g., the Valencian Government established conversations with the national one before the State of Alarm already). Omega also stated the importance of industry associations to help institutions to identify and bridge firms. Contacts with SMEs enhanced their visibility and fostered interactions among them, resulting in collaborations and even enhanced performance. For instance, ATEVAL eased the contacts with and among firms by creating a marketplace that was mainly business-to-business (B2B), and afterwards the City Council also created a virtual platform to gather producers. Omega had this bridging experience too: for example, they helped to connect a large company with a smaller one to produce respirators, since the former had the scale, and the latter had the knowledge. Similar initiatives took place at the national level, with several agents coordinating among them (e.g., companies, Ministries, Autonomous Communities, etc.).

According to Delta, ATEVAL was the catalyser of many support measures. In addition, the association also gathered information about companies, searched for suppliers of all kinds (e.g., fibres, meltblown, etc.) along the value chain, worked to connect those agents that complemented each other, and provided information about firms to the institutions. Zeta regarded ATEVAL as a key source of information and a bridge between public entities (e.g., the regional Government) and the business reality, thus being a critical agent that helped translate the knowledge contained in the public

institutional field into the business arena, and a provider of structure for the smallest firms that could not afford to hire different specialists.

> To tell you something, I […] ended up with a list in 2.5 months of 250 [firms] from Spain […]. I took the [names of the firms] from the Valencian community and passed them on to the [regional] Ministry. […] I ended up with a list of 110-120 [not only textile firms]. (Epsilon)

Third, institutions also acted as buyers through public tenders while awaiting other mechanisms, such as financial aids, to be created. They equilibrated imports with local purchases to support companies' investments, as referred by Omega, whilst covering society's needs. Indeed, Omega's contacts with China were key to import sanitary goods at the most critical moment. Locally, Delta stated that they purchased in smaller batches from several firms to support them and ensure the supply of sanitary products, as firms were too small to assume larger orders. Nevertheless, although this drove production in a moment of necessity, this mechanism lost its strength eventually as tenders were too dependent on prices and thus favoured imports. All in all, however, institutional and cluster actors functioned as facilitators of resources and knowledge; coordinators among SMEs' and between private and public spheres; and brokers or knowledge bridges. They helped to activate the cluster infrastructure to foster collective action while easing firms' ability to access cluster resources to adapt.

4.4.3. *Firm-level adaptation capability: SMEs' resilience*

In this case, clustered SMEs' activity and structures helped them to adapt to the shock. SMEs' characteristics provided these manufacturers with the assets, knowledge and flexibility required, at least to some extent. In the case of Alpha, this firm provides its

internal suppliers with the materials and machinery they need, and the suppliers respond by producing for Alpha in exclusive or almost exclusive terms. This creates a flexible structure based on long-term relationships, characterised by trust, joint commitment, and knowledge exchanges. Instead, Beta is vertically integrated: it performs all the production tasks, except for the spinning – although it specifies its providers how the spinning must be made –, possesses technology of its own, and has an R&D department. Beta has technological assets, a significant expertise, and holds a great control over its activity, which allows Beta to sell to large distributors and to also sell its own brand. Lambda's integrated structure also confers this SME with specialized expertise and control. Zeta, which is smaller, distributes non-woven fabrics, but it acquired ultrasound machinery before the pandemic to start performing some production processes, so it has extensive knowledge too. Although differently, SMEs' structures – mostly, either integrated or more flexible, the latter recalling internal networks – provided them with the knowledge and flexibility to adapt.

Regarding raw materials and inputs, textile manufacturers tended to acquire them from third parties abroad given the structure of this chain. In this moment of scarcity, SMEs' tendency to have stock in reserve, as a somewhat just in case system, allowed them to withstand the initial shock. Besides, because SMEs' inputs often could be adapted to more than one use, this eased adapting their business activity to the crisis. For instance, Beta is constantly searching for inputs to cover upcoming market needs, and with its stocks and technology, it developed its first reusable masks. Alpha's inputs, instead, are standardized such that they can be applied to many products, and that is what this SME did. However, as Lambda argued, eventually the problem with inputs was about their costs and transport, as Asia continued to be the main provider.

For instance, Zeta had a Turkish non-woven supplier that it had started to complement with inputs from China in 2019 to diminish its dependence from the first; but when China closed, firms started looking for non-woven fabrics around the world, including Zeta's partner. This jeopardized Zeta's supplies in terms of quantity and costs. Luckily, Zeta had several from China on the way and its warehouse full.

SMEs' human capital and associated expertise were crucial as well. On the one hand, workers, and CEOs in many cases, had specific knowledge about the production processes of textiles and the necessary materials, often being also valid for sanitary textiles. In turn, their nerve not to give up during the crisis was key too, this being partly connected with the trajectory of their industrial context. Alpha, for example, regarded the importance of its internal suppliers' knowledge, without which Alpha could not have adapted its machinery. Zeta regarded its team as critical too when they had to increase working hours to unprecedented levels. Technical workers were also essential to accommodate the production of sanitary goods: they knew how to get the machines Zeta bought in 2019 started, and afterwards, while many firms that bought machines for sanitary goods could not put them to work, these technicians were able to do so for Zeta. On the other hand, manufacturers' product knowledge, granted by their decades of experience – also considering that several clustered SMEs are family companies with years of activity behind –, proved to be a critical asset in easing their partial business reconfiguration. Zeta referred this experience as basic after many firms tried to enter this business line of sanitary goods and failed.

> Many people tried to do the same thing [i.e., produce sanitary textiles] [but] lacked the experience and failed because they did not know the fabrics […]. Where did we start? From [our] exhaustive knowledge of the product (Zeta).

Furthermore, even if these SMEs are often regarded as traditional, they tend to possess machinery and even proprietary technology, such as Lambda or Beta do. For instance, Beta initiated its business in the medical area with hosiery for diabetic patients, so it already had the technology and a brand to sell in pharmacies. This conferred the firm with the necessary knowledge to reconfigure but also opened the door to sell masks as soon as Beta developed them, as this SME was already present in that channel. That is, when most firms had to close, Beta could be considered an essential company and continued with its activity, thanks to its history, prior knowledge, and its own technology that allowed the firm to develop sanitary textiles.

SMEs also had investment capacity to acquire overpriced inputs or machinery. Of course, they took advantage of the financing provided externally too. According to their webpages, these firms often used grants from regional institutions or entities to develop sanitary-specific textiles they could certificate, for instance. However, these aids took time to be made available, and investments were considerable. For example, Lambda spent about EUR 800,000 on setting up masks' facilities, although part of it was subsidized, and Zeta, which had the non-woven fabrics to produce surgical masks, took the opportunity to generate cash by selling the inputs it would not use and its own first masks. Later, the company reinvested this in machinery to ramp up production, while also requesting a grant from the IVACE, but they received it much later. In doing so, SMEs started modifying their processes and bought machinery to adapt. Thus, slack inputs and financial capacity were crucial, and so were firms' tacit and specific knowledge – intrinsically connected to their cluster tradition. Omega also remarked that initial investment capacity was indispensable. SMEs' human assets, top management, and technological capabilities proved to be distinctive as well.

However, how were these resources deployed such that SMEs could navigate the crisis? This first relates to firms' culture in this district: clustered SMEs were used to coping with crises, sometimes by developing new product lines. Thus, they had a mentality and a vision translating in SMEs not giving up easily. According to Beta, cluster executives had an excellent reaction capability and were not afraid of investing and innovating when required, as they were constantly looking for new opportunities. For example, Zeta acquired its ultrasound machines because the CEO was considering advancing their activity, already before the crisis. Delta attributed this to the cluster history and to a new generation of executives, more educated and with a different vision. Lambda regarded the professional profile of this territory as key too.

In turn, although interviewees such as Alpha stated that the cluster has traditionally been more individualistic, the reality is that inter-firm cooperation paths emerged out of necessity and accompanied the prior elements. These interactions within and between firms, and with other actors too, allowed SMEs to share production processes and gather new, specific knowledge. For instance, Alpha's internal suppliers gave rise to the idea of modifying its machines to speed up the production of masks. They collaborated in doing so, as the suppliers had the knowledge, and this improved Alpha's production. Afterwards, Alpha was able to invest in new machinery to produce hospital gowns, for which it certified an exclusive fabric from its home textile production. Instead, co-location fostered inter-firm cooperation for Zeta: when it decided to make masks, it searched for textile manufacturers nearby, as Zeta did not perform textile-manufacturing tasks. Zeta would provide them with the non-woven fabric, and those firms would make the masks manually. In addition, Delta highlighted

the actions by auxiliary companies, often related to textile machinery, which were crucial in helping firms to adapt their capital.

> [Someone] from [ALPHA] provided us with the information on the gowns […]. [Someone else from another firm] searched for the best price for melt-blown […]. He knew everything. "Where do I buy this?" [And he would tell us] "Now this is cheaper". (Lambda)

As SMEs advanced in the production of sanitary textiles, more advanced forms of cooperation emerged. Due to their size, sometimes manufacturers could not absorb the requests for sanitary goods, and they needed to increase their scale to access public tenders simultaneously. Some SMEs joined in the so-called Temporary Unions of Enterprises (UTEs, by their name in Spanish). Two UTEs were created in the cluster, allowing SMEs to join their resources to access public contracts and enabling them to compete with the big firms, as argued by Omega. One example was Prosan Medicare, where some manufacturers with no sanitary experience joined others that were active in this sector or that dedicated to machinery. In addition, the UTEs provided an space to share knowledge and get to know other counterparts, fostering further interactions, as argued by Zeta. In this vein, Lambda expressed that the COVID-19 gave the firms the possibility to see what they could become in a moment like this.

> [In] our UTE, we have enjoyed […] feedback in all aspects. In addition, outside of that cluster [i.e., the UTE], we have given feedback to others. […] The union is strength. (Lambda)

In parallel, interactions took place with external consultancies too, which oriented manufacturers on the certifications needed or in making the clean rooms

necessary to produce surgical masks, which were more advanced. For example, Zeta hired consultants that helped with the technicalities of this production line. Institutions also guided firms on where to start, acting as knowledge brokers or bridges. Lambda, for instance, referred to regular contacts with the Ministry and the regional Government that clarified how to start this production line. Thus, intra-cluster linkages and external interactions helped firms tackle their reconfiguration against the shock.

SMEs' characteristics, resources and capabilities, organisational and learning processes, and mentality truly set the ground for them to perceive a business opportunity and tackle it to adapt to the crisis. However, SMEs' reconfiguration was ultimately possible due to their cluster location. Companies' co-location and institutional and cluster actors leveraged a structure incentivizing exchanges of assets and knowledge and collective action. Moreover, the cluster contributed to shape firms' paths, which configured SMEs' willingness to change and adapt as required. In this way, companies started producing masks manually with the inputs they had, as they knew how to manufacture textiles or knew counterparts able to do so, and as they accrued knowledge, often by collaborating, more sophisticated materials and products were developed. Ultimately, SMEs managed to adapt, and the cluster provided the necessary structure to pursue this business opportunity.

4.4.4. *Strategic response: SMEs' upgrading*

Even if the idea was never to abandon their usual business but to complement it, as Delta stated, clustered SMEs adapted to the crisis by partially reorienting their business activity, as this was a unique opportunity. However, SMEs' strategic response materialized in two stages. Their first reaction was, quoting Epsilon, to "cover their backs". Following the State of Alarm, some firms started analysing how to cope with

the already anticipated shock. They considered different scenarios and took protective measures, basically by applying for Temporary Employment Regulation Files (i.e., ERTEs, by their name in Spanish) and loans from the Spanish Official Credit Institute (ICO). The first was a governmental measure created during the pandemic to avoid dismissals due to the cessation of firms' activity. The second, instead, were loans granted by this financing agency of the Spanish Government that existed already to help with cash flow issues. Once these urgencies were covered, SMEs started evaluating how they could respond further, which materialised in the manufacturing of sanitary goods: textile and surgical masks first, and then other protective equipment.

Therefore, even if SMEs' first responses were more reactive and supplying inputs and machinery was still complex at that time – as China was the leading provider of both, according to Delta –, SMEs' strategic, more proactive response arrived soon enough. Following those first reactions, firms perceived a market necessity and an opportunity – also thanks to being in the cluster –, and the timing of their response was very quick. The SMEs that manufactured textiles already were the first to start, but the rest followed very soon, initially using any materials they had. For instance, Beta was already making masks in February, although AITEX did not have a rule for this product yet, and as soon as it came out Beta applied it. Manufacturers contacted AITEX and other laboratories, as the first was soon saturated, and companies made million-worth investments to create the facilities and spaces required to produce surgical masks and other sanitary goods. Later, some local firms even started to produce meltblown, although at a much higher cost. The responding time of agents different from firms was also reasonably fast. As soon as China opened, regional institutions aimed at gathering a reserve of sanitary material by combining imports

with local purchases. The first agreement among local institutions to create the Sanitary Textile Cluster was signed in May, although it was formally approved later. Epsilon focused on exploring material delivery options, including those outside the cluster too, and establishing contacts among companies, and other institutions like AITEX were considerably quick to guide manufacturers with this new production line.

Thus, SMEs' reactive response transformed into a proactive attitude, and as a result, firms gathered and applied new knowledge that consolidated improved processes and products. These actions allowed to navigate the crisis, and in cases such as those of Alpha or Zeta, firms even increased their turnover. Moreover, the crisis triggered collaboration processes that, although sometimes driven by necessity, have shown the benefits of cooperation, also triggering a change in these firms' attitude, as argued by Delta or Beta. Besides, the mentality towards investment and innovation, and the image of the textile sector, have changed too. Above all, the crisis has driven an outstanding learning process for SMEs, which now have products and processes of higher quality as well as improved relationships, also in their usual business activity. Zeta, for instance, bets now on a stronger link with its Turkish supplier with an exclusivity contract relative to other Spanish producers to protect its supplies.

> We have transformed [our] way of working, the technology that we had within the company… We [now] have a garment that we would not otherwise have made and […] it is spectacular. (Alpha)

However, Alpha also explained that several companies started producing masks because they received specific requests from other counterparts to do so. Alpha itself received requests from other firms and Lambda from the local hospital. But this

can be interpreted as part of the co-location advantage we mentioned before, which was useful to trigger firms' sensing and seizing of this business opportunity. Other firms like Zeta or Beta were more proactive. Beta perceived a market necessity for masks soon at the beginning of the year, and Zeta started considering it as soon as supplying inputs became complicated due to the closing of China, which Zeta's CEO noticed during a visit to the production site.

> [The CEO] told me, "Prepare in case we have to liquidate the company. […] Find out whether we have enough cash to pay, how long we can hold out without selling… […]" [He wanted me to examine] all possible scenarios. [...] We thought that... we, who had the fabric, which was the important thing, we were not going to sell it [all] because if we did, we would be left without our raw material. What we had to do was try to convert it ourselves. (Zeta)

Finally, we can connect the consequences from SMEs' cluster-based response to this GVC-level crisis to upgrading processes and outcomes. On the one hand, SMEs transformed their ways of working, incorporated new processes and assets, gathered knowledge, and all this allowed them to produce a new product line from scratch. This can be translated into both process upgrading and product upgrading strategies. In turn, by starting to produce sanitary goods, SMEs were able to access a new business sector, even if this was mostly locally, which we could connect to chain upgrading to some extent. Regarding the GVCs these SMEs are connected to, the learning they went through and the improvements in their products and processes materialised in relational upgrading as well, as they improved their relationships with some of their counterparts and even entered new contracts. With time, in a context where their lead firms reduced their purchases in some cases against the uncertainty of the global

markets, some SMEs were able to consolidate some of these relationships as they could position themselves as more capable partners. Also, some of the protective measures they took can relate to social upgrading, in terms of protecting the wellbeing of their workers and even generating employment during the crisis. In terms of upgrading outcomes, SMEs' development had positive economic and relational outcomes for SMEs (e.g., improved turnover, better contracts), as well as positive social outcomes at a wider level (e.g., employment increased, and SMEs also contributed positively to society with the reconfiguration of their business activity).

4.4.5. *Business environment volatility*

Due to the pandemic-induced crisis and the subsequent responses of firms, the local, regional, and global business landscapes transformed. These changes at different levels gave rise to both challenges and opportunities. Concerning the first, the future of the Sanitary Textile Cluster is unclear. If the Administration continues to prioritize prices, imports will beat local production. Interviewees argue that it is essential to reduce abroad dependence and that including other considerations in public tenders (i.e., sustainable aspects) to put abroad producers and local ones at the same level would be critical. However, this is complicated in terms of affordable costs, and so manufacturers' sanitary facilities are now working at minimum levels or have stopped. To counterbalance this, SMEs such as Alpha are adapting their machinery back to their usual activity. Instead, institutional actors argue that mask demand will decrease, but the key is that this has opened an avenue to new, wider health-related business lines.

Moreover, the economic situation now is volatile. Lambda and Zeta argue that companies worldwide are waiting to see how the context evolves, so demand is not as high as it used to be in pre-pandemic times. Additionally, the increase in transport

costs is making the situation problematic, and it is not just that but also the "huge logistic problem [...]. I cannot bring in containers [of inputs] not only because they are worth a fortune, but because there are none" (Zeta). Although some researchers (e.g., Miroudot, 2020a) predicted a decrease in international trade costs, freights multiplied five-fold, as argued by Gamma for instance, thus affecting the prices of final products through materials, and affecting the prior dynamics that supported competitive advantages too. This could open an opportunity for local production, but it does not mean that all activities will return following potential regionalization tendencies. There are still inputs that can only be found abroad even if some local companies have started producing them, and others that their cost is worth paying the transport because here is not as competitive, as argued by Zeta. Indeed, Epsilon stated that imports continue to be important for both price and quality.

Regarding opportunities, the crisis has led SMEs to consider the feasibility of different strategies or related product lines. For example, during the pandemic, Alpha identified necessities related to the sanitary sector, and so it is developing a new sanitary good – unrelated to the COVID-19, but for hospital purposes and pretty advanced – as well as a recyclable gown through a project with the Valencian Innovation Agency. Institutional actors such as Delta also argued that textiles are now thought about in terms of value-added, knowledge, technology, and innovation, which is the key to differentiation. However, more governmental support is needed to position this industry as a strategic one, as coincided with Beta. Some interviewees mentioned the opportunity to recover part of the territory's activity, and others pointed to an avenue for increased inter-firm cooperation, as it still has room for improvement.

> Possibilities of growth, I see all of them. Possibilities to cooperate [among textile firms] on products that are not our core [business] […]. Possibilities to recover the industry and participate on the development and consolidation levels in anything [that has been taken away by Asia]. […] I have just bought a machine for EUR 300,000 [for filling cushions], but in less than six months, I may have two more [machines] implanted. (Lambda)

Gamma also referred to the popularity of the sustainability area, but with scepticism as it argues that, if it is not compulsory, it will not reach its full potential. Lambda, instead, has been working in this area for years, including environmentally friendly products and social considerations, and believes this is the future, also to attract global buyers. Zeta is also working on sustainable goods, starting before the crisis as well, but the current context demands firms' attention to other urgent issues, with the risk that some trends are postponed or even abandoned. In that sense, institutions' role is perceived as crucial. Formal reports by agencies of the territory point toward similar directions (e.g., Pérez et al., 2020). Specifically, institutions have proved to be key drivers of firms' strategies, opening a possibility for them to acquire a more active role. Omega stated that the Administration must go beyond giving financial grants to find mechanisms that ease business activity while ensuring competitiveness. For instance, the City Council and ATEVAL have renewed the sanitary-textile agreement that emerged during the crisis to consolidate the development and differentiation of these clustered SMEs.

> The agreement focuses on promoting training in sustainable, technical, and advanced textiles, applications, compositions, markets, etc., as well as eco-design. A third action will be to support companies in professional and

> personalized consulting services […] based on the initial analysis […] in order to identify the specific needs of each of the companies. Lastly, participation in two international fairs […] will be promoted. (Press release)

4.5 DISCUSSION: CLUSTERED SMES' RESPONSE AGAINST GVC-RELATED DISRUPTIONS AND UPGRADING CONSEQUENCES

The shock provoked by the COVID-19 pandemic put pressure at the micro-level on SMEs, at the meso-level on the cluster and GVCs, and on the macro-level by affecting the economy and society in its entirety. Pressure on SMEs stimulated their response, whilst pressure on the cluster and the region triggered the implementation of supporting measures. In parallel, the crisis effect at the macro-level altered the business landscape (creating new difficulties), which was shaped by firms' responses too ultimately (giving rise to new business opportunities).

As business activity remained paralyzed, cluster SMEs responded by accommodating the production of sanitary textiles, which were complementary to their activity to a considerable extent. In this process, SMEs found themselves within a favourable context: their co-location in the cluster allowed them to realize this opportunity, access specialized and complementary resources, and gather knowledge. Institutions and cluster collective actors were key too, as they acted as facilitators, coordinators and knowledge bridges that enhanced firms' visibility; fostered inter-firm interactions and collective action; provided resources and knowledge; and acted as buyers to promote firms' reconfiguration. Thus, SMEs' local embedment worked favourably, despite potential contagion effects within the cluster and firms' traditional individualism. Besides, because external linkages are important for SMEs too, for instance because their activity is dependent on foreign inputs and they are intensely

connected to other firms through GVCs, self-reinforcing mechanisms did not play detrimentally. Also, since the shock was not a natural disaster, the cluster infrastructure was unaltered, so its agglomeration advantages remained despite the disruption.

Firms' capabilities were the key to responding as well. Despite being SMEs, manufacturers had enough resources and specific knowledge that, together with their flexibility, allowed them to adapt. Where their assets fell short, the cluster acted as a pool from which to tap and allowed the emergence of linkages, providing firms with the scale and knowledge needed. The functioning of manufacturers and their mentality, both influenced by the cluster tradition, also favoured firms' survival. Thus, SMEs' cluster location enhanced their assets and organisational processes, and historical paths configured a specific idiosyncrasy that favoured SMEs' ability to seize the opportunity and tackle it. This adaptation materialized, mainly, in the acquisition, adaptation, and development of materials to produce sanitary textiles; the transformation and purchase of machinery to scale the production up; and the creation of facilities to consolidate this new, complementary production line. All this had positive consequences for SMEs' upgrading in terms of improved processes, products, relationships, and social matters. Consequently, we elaborate the following propositions (P):

P1: In a disruptive context, cluster location can have positive effects on its member SMEs' resilience and upgrading because it complements and enhances SMEs' capabilities, fostering their ability to sense and tackle business opportunities.

P2: Cluster location supports SMEs' resilience and upgrading when meaningful internal and external linkages to business- and non-business-actors exist.

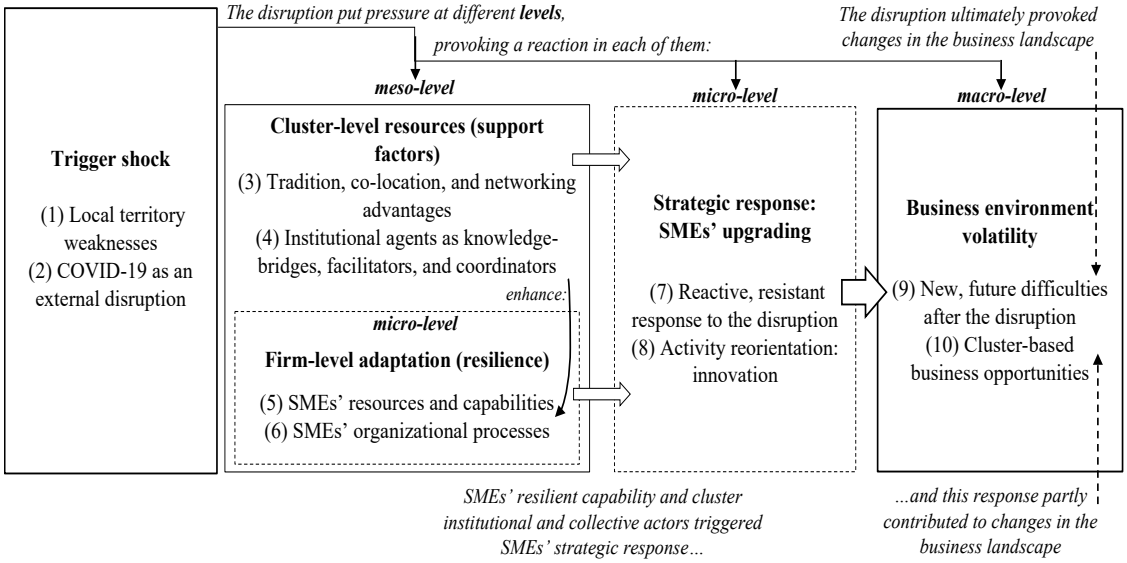
P3: Cluster location supports SMEs' resilience and upgrading when institutional and cluster collective actors actively support SMEs (i.e., not only with financial assistance, but also through other roles as facilitators, coordinators, and knowledge bridges).

Following our propositions and in response to our RQ, we contend that the cluster favoured SMEs' resilience and ultimate upgrading through a process involving mechanisms that enhanced SMEs' capabilities effectively and allowed them to sense and seize a business opportunity to adapt and survive. It is in this way that SMEs could provide a cluster-based response to a GVC-level disruption. The positive outcomes are direct as the crisis translated into an outstanding learning process for SMEs and a remarkable improvement of their products and processes, leading to SMEs' upgrading, and they are also indirect in terms of their positive impact for the territory. Afterwards, the consequences of the crisis, jointly with SMEs' adjustments, have contributed to shaping the business landscape. Even if this is highly uncertain, a series of opportunities are glimpsed for the future. We illustrate these dynamics and explanations in Figure 4.4.

4.6 CONCLUDING REMARKS

This study is positioned in the GVC literature and the cluster resilience strand, using a NT perspective to answer the following RQ: how can developed country SMEs operating in GVCs through clusters respond to GVC-related disruptions, and what are the consequences for SMEs' upgrading? Answering this question allows us to partially respond to the second RQ of this dissertation: how can different cooperation mechanisms affect the sustainable upgrading of developed countries' SMEs?

Figure 4. 4. Process model of SMEs' cluster-based response to GVC-based disruptions



Source: Own elaboration

The findings of our qualitative study show how the pandemic shock triggered firms' reactions and activated the cluster institutional infrastructure, favouring SMEs' performance. Collective actors like local, supporting organisations (e.g., the cluster industry association) and institutions facilitated change in this process whereby cluster's resources were bundled together with those of SMEs, allowing clustered firms to integrate and recombine internal and external knowledge. In doing so, SMEs could reconfigure their organisational processes to adapt to the shock, triggering their resilience, which drove SMEs' upgrading paths ultimately. To summarise, the specific factors at both the firm- and cluster-level that contributed to SMEs' ability to deliver a response to a global, external disruption and upgrade were (a) the cluster's institutional infrastructure, as it provided co-located SMEs with an extended pool of

resources and knowledge; and (b) the presence of local supporting entities facilitating resources, knowledge circulation, and collaboration.

Hence, regarding the specific RQ of this chapter, we conclude that even if the relationship between clusters and firms' resilience remained unclear in the literature, the key lies in the actions taken not only by business agents, but also by non-business or institutional actors. Widening this network view allows appreciating the process and mechanisms at play that activate the cluster infrastructure and help SMEs to adapt to crises and be more competitive (i.e., to upgrade). In turn, this demonstrates the importance of considering horizontal actors, both public and private, since GVC lead firms did not have a critical role here. Concerning the second RQ of the dissertation, we appreciate that, in line with some prior literature, the cooperation mechanisms that foster SMEs' sustainable upgrading must go beyond private linkages and financial grants. Softer roles by supporting agents acting as creators and coordinators of relationships, as well as information brokers and knowledge-bridges seem to be the true, critical mechanism to foster SMEs' sustainable competitiveness or upgrading.

With this work, we contribute to the GVC field and to the COVID-19-related literature (e.g., Gereffi, 2020; Belhadi et al., 2021; Pla-Barber et al., 2021), as well as to the cluster literature on shocks (e.g., Delgado & Porter, 2017; Cainelli et al., 2018; Cainelli et al., 2019b; Behrens et al., 2020), since the application of these mechanisms to cluster resilience goes beyond existing knowledge on institutions and collective actors (e.g., Hervás-Oliver et al., 2019; Harris, 2021). By adding more empirical evidence, we have shed light on the process whereby SMEs' location in clusters favours their resilience against GVC-related disruptions. Lastly, by grounding our research on the NT approach, we consider both internal and external business- and

non-business elements at different levels and how they build SMEs' capabilities to survive and upgrade, hence also contributing to the GVC field in this respect.

Implications are important for SMEs embedded in clusters that participate in GVCs. For managers, this study presents evidence of the potential that investments, innovation, inter-firm collaboration and private-public interactions have as enhancers of SMEs' capabilities. For policymakers, we outline how specific institutional actions can favour SMEs' survival and competitiveness. We posit that institutional actors have a key role beyond providing financial assistance, as their most significant impact could be through their role as knowledge bridges between private and public spheres and between SMEs' local and international contexts. However, this study is not without limitations. Our results are influenced by the shocks' nature and the clustered SMEs' industry. Although we believe that the keys to these supporting processes are more generalizable, this opens a research avenue to test this under different circumstances. Also, as time passes more data will be available, so testing the propositions we presented in future quantitative studies also presents as a future, valuable research line. Finally, gathering a wider sample of firms could amplify the results of the study or give alternative explanations conducive to similar results, so this is also a potential, future study. We hope, though, that our research contributes to the idea that integrating vertical and horizontal levels and promoting a shared compromise between non-business actors and SMEs is critical to create paths for sustainable upgrading, which is the imperative path to pursue in nowadays' environment.

4.7 NOTES

1. We use clusters and districts indistinctively throughout this chapter, albeit recognizing the social difference of districts.

2. As of March 2022, the Textile Cluster Agreement continues, although renewed to emphasize the production of technical, sustainable, and advanced textiles.

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4.9 APPENDIX 2

Table A 3. Information sources employed in the study

Primary data sources		
Case	*Interviewee*	*Interview date*
Alpha (founded in the 1990s): Home-textile manufacturer. Exporter. Approximately 15 employees (if we consider its internal suppliers, the number rises to nearly 180). Turnover: EUR 2-10 million.	CEO	04/06/2021
Beta (1990s): Technical and sport garment manufacturer, vertically integrated. Possesses proprietary technology. 35 employees. Turnover: EUR 2-10 million.	CEO	04/06/2021
Lambda (2000s): Home-textile producer, vertically integrated. Exports through independent agents and works with renowned global buyers. 40 employees. Turnover: EUR 10-50 million.	Financial CEO	01/06/2022
Zeta (2010s): Distributor of non-woven fabrics. It handles some parts of the manufacturing process. Sells mostly national. 21 employees. Turnover: EUR 2-10 million.	Financial CEO	10/06/2022
Gamma (2010s, although it had prior experience): Microenterprise importing a variety of goods and specializing in home textiles. 2 employees. Turnover: EUR 2 million or less.	2 CEOs	07/07/2021
Delta. Local public institution from Ontinyent.	Representative	04/06/2021
Epsilon. Local industrial association (ATEVAL).	Representative	04/06/2021
Omega. Regional public institution (industry section).	Representative	11/06/2021
Secondary data sources		
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(continued)

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- Report from the Valencian Institute of Economic Investigations (IVIE) (Pérez et al., 2020).
- Other: ORBIS (2022), Bureau van Dijk.

Note: firm data obtained from ORBIS (2022) and the interviews.

Source: Own elaboration

Table A 4. Other examples of quotes from the interviews

Trigger shock	(1) Local territory weaknesses	"The production was residual […] in all Europe because this [masks] was a battle product, very cheap and of great production, as it has been seen now in the facilities [that the local companies had to build to make masks]" (Epsilon)
		"Before the State of Alarm, we detected, because I received calls from various [business] associations, that they had many problems because China had closed. […] I started to do a commission [i.e., reunions] of all the sectors. […] Then it began to surface: 'I do not have raw materials'. […]." (Omega)
		"More than [the fact] that they did not have [inputs] immediately, [it was that] they already planned that for the next months they were… [going to run out of stocks] […] [A toy importer] said to us: 'In summer, there is not going to be [typical products he imported] […] because it is a material that we only import. No one manufactures it here'. […] Imagine if we depended on China." (Omega)
		"[For] raw materials, today, China has kept almost all the world's production. […] Here, we can produce. We can do many things… but, of course, what about the raw materials? The polyester raw material […], the cotton one… lots of raw materials that we have to buy in order to produce here. Who has them? China." (Gamma)
	(2) COVID-19 as an external disruption	"…we were receiving, from the businessmen themselves, necessities of materials, the cost of materials, the rise in the costs […] And then the difficulty in obtaining machinery, which normally also came from China" (Delta)
		"As the norm changed, […] we had to adapt because it changed from one week to another." (Gamma)
		"From that moment on [the COVID-19 emerged], here […] there was nothing and it was very difficult to bring it in. […] The transport issue was horrendous […]. Prices were real madness. […] You could be whoever you wanted or have whatever you wanted. Either you deposit 30% or the price tomorrow will be another one." (Gamma)

(continued)

Trigger shock	(2) COVID-19 as an external disruption	"The manager […] picks up a suitcase and goes to the factory [abroad] and tells me […] 'There are people with suitcases of money queuing at the door to take the fabric'. That was amazing. The non-woven fabric became […] a fabric that is worth nothing to, well […], as if it was gold." (Zeta)
Cluster-level resources (support factors)	(3) Tradition, co-location, and networking advantages	"That is the advantage that we have in this cluster, that [other firms know us and] ask us 'hey, you produce blankets'. When we moved from blankets to eiderdowns, someone called and said, 'The eiderdown, can you manufacture it?' [and we said] 'Yes'" (Alpha)
		"…we began to ask and move with the car through the industrial park, […] and calling, 'hey, do you know any clothing [firm]' […] and so on […]. So, this, being located here helped us because we had everything... everything we needed to outsource and buy was readily available, we had it very close" (Zeta)
		"[When a hospital told the firm that its first masks were inadequate] I stood there for 10 seconds with a face like 'What is happening here?'. However, I immediately saw that there were people who were making [the masks] […] by hand and [...] in a specific way." (Lambda)
		"I manufactured [the mask] in textiles, directly, and they told me 'in textile is not worth it'. […] [Lambda observed other firms and] I copied the model" (Lambda)
		"If you do not have a zone, if you do not have […] an environmental of companies around you, an AITEX institute, someone else who has done it before that you [can] copy him […]. If you […] do not have an incubator environment [...] a cluster where it can be incubated, you have no choice [i.e., you don't stand a chance]." (Lambda)
		"Not everyone has a spinning mill at home or a finishing [firm] or a dry cleaner. You need to have an industry here that gives you that [...]. If this industry did not have a primary industry behind it, there are many things I could not do [...]. The environment is super important, […] because many times you cannot do everything, no matter how vertical the company is" (Beta)
		"Part of the sector that initially was like a sector of support for the textile sector, especially [in relation to] machinery… that is, textile machinery companies […], [the fact that] they have had the [capacity] is what has also allowed […] to adapt the machinery." (Delta)
		"I think that there were two very important things, [one of which was] the heritage – that is, the fact that [the firms] already had vital knowledge [of the industry]. In addition, because the textile sector is one that I have always known in crisis […] [it is always] adapting, reinventing. […] I think that the capacity for adaptation of the sector and the capacity for innovation […] [the sector] has been a model [for others]." (Delta)

(continued)

Cluster-level resources (support factors)	(4) Institutional agents as knowledge-bridges, facilitators and coordinators	"What we did was to unite, unite companies. First, we identified, and for this […] it is very important to have business associations because you have a single interlocutor who helps you to identify companies too […] then, we were identifying them, and we were uniting them […]. Yes, we did a lot of bridging" (Omega)
		"... because everything [relative to financial aids] has a process, at first we helped them [firms] by making contracts […] [after] we put a help line […] to help all those [firms] who had invested" (Omega)
		"We joined a company that made anaesthesia machines […] to make respirators. […] We joined a large company with a small one that had the knowledge. […] The State did the same […] at the national level. It found two [firms] to make respirators here and in Madrid, so we all coordinated: the Ministry, the autonomous communities, and the companies." (Omega)
		"We were [supporting firms] and then we said: 'Buy it [the machine, the material], because I am going to buy from you'. […]. That is why many of us, when it was a super expensive [good] like respirators, we went with a contract in hand […] in a first phase. […] So, [firms] had minimal security [i.e., the interviewee refers to the purchases that the governments made to local companies, also as a way of supporting their investments]." (Omega)
		"We concentrated, while in contact with the Ministry of Industry […], all of the possibilities for delivering material because in Spain there was [nothing]. [This material] had to be imported from China." (Epsilon)
Firm-level adaptation (resilience)	(5) SMEs' resources and capabilities	"[I have more than one supplier for each item]. [...] They do not let me down because they only work for me. My problem is always that I have a moral obligation to keep them going. […] Stocking is my problem. […] I give them work on January 1 and they do not stop until December 31 [...]. I view my inter-supplier […] as if it were a part of us." (Alpha)
		"… we have not stopped [producing] […] raw material, [we have] everything you want […] we simplify raw materials […] we use very few raw materials to make a lot of products […] we have […] a lot of raw material stock that is very, very usable" (Alpha).
		"We have a very standard product. […] They [suppliers] only supply the labour. Raw material… everything is ours. Everything is our own contribution. […] They are purely inter-suppliers […]. The vast majority work only for us." (Alpha)

(continued)

Firm-level adaptation (resilience)	(5) SMEs' resources and capabilities	"… without the knowledge, it is impossible. That is, you need to have clear… to know the sector, the product, to be able to do it. And why have we been so capable, so fast to do it [the production of sanitary goods]: because we know the product [the textile goods]" (Alpha)
		"We were, well, lucky enough to have a technician, to hire a technician who... who started them up, who made them work [the machines] [...] the problem of bringing the machinery was that there was a lot of people who either ran out of tissue and didn't have to… to feed, or they couldn't start them." (Zeta)
		"There were many people who tried to do the same thing [sanitary textiles] without the experience and failed because they didn't know the fabrics […]. Where did we start? From the exhaustive knowledge of the product […], they [the managers] have been working with this fabric for more than 15 years. Therefore, they knew the product perfectly. […] we had been working for a year on the product with our ultrasound machines, that is, we knew when to weld, when not to, what temperature to put on it, the tension... […] the experience was basic" (Zeta)
		"The textile [industry] has responded, reached a point, agonized. […] We have been able to do it all. [...] It is a professional profile that exists in this area […] that transforms an industry out of nothing […]." (Lambda)
		"We are not somewhat normal manufacturers. We have gone a step backwards where we have investigated from the fibres. […] We have obtained fibres, [and] we have evaluated them in a way that covers the needs […] that we [detected] from the market." (Beta)
	(6) SMEs' organisational processes	"[The certification process] was extremely complicated. [...] We did […] more than 60 [tests] […]. In the end, it is a problem of elimination. […] As you know the fabrics, in the end, you say: 'Look, this one gives me breathability, but it does not give me waterproofing' […] [if this fabric] does not give me breathability is because one of the two fabrics has a breathability problem. […] You modify it and try it, and you move closer to the parameters set by the standard […]. Afterwards, the manufacturing is easy." (Alpha)
		"…we modified the machine [the one they had for their usual activity], we modified an iron… so that they [the masks] came out ironed, and sewn, and cut" (Alpha)
		"What we did was to hire consultants to help us in the process. We had a company in Madrid that we continue to work with […] specialist in companies that sell to healthcare, and he was the one who helped us with the paperwork. Then we had another external consultant who is the one who helped us at the laboratory level... we began to ask for help and to ask for opinions and to say, 'what do we need'" (Zeta)

(continued)

Firm-level adaptation (resilience)	(6) SMEs' organisational processes	"…Alpha gave us information about the gowns […] [another businessman] was the best sniffer for meltblown prices […] our UTE, we have enjoyed it […] because these people have fed us back in all senses […] sincerely, the COVID has given us the possibility to understand everything we can be" (Lambda).
		"We brought them from China [the machines] [...]. We spoke with the... with the [Spanish Medicine Agency], […] we built [the clean room] ourselves and […] looked for a specific machine with the pressure, the antibacterial [properties] and the necessary temperatures for it to provide the required service." (Lambda)
		"We requested a EUR 250,000 grant from IVACE for […] the machines [for making] surgical masks, which became EUR 150,000, and which we requested in 2020, and it arrived in 2022. This is acceptable because we generated enough cash […], but that was not the case for all companies. […] We have spent EUR 1 million or so. I do not want to have it all subsidized […]. [But] we are very small." (Zeta)
		"As we progressed, [the firms] asked for contracts. Then what did they do? To compete with the big [companies], they established UTEs […] [because] they were small." (Omega)
Strategic response: SMEs' upgrading	(7) Reactive, resistant response to the disruption	"[Employment] has been generated. That is, we have 2.5 [percentage] points less unemployment in industry than we had when the pandemic began. […] First, [firms] took people out of ERTEs. Then, […] they started hiring new people." (Delta)
		"The first reaction was to cover their backs." [Interviewer: "And that was relatively fast?"] "[Before the lockdown] it was very fast […]." "[The State of Alarm] came out on the weekend and, on Monday when I start talking to companies […] those that have a vision, start to move. The others imitate it." (Epsilon)
		"People took cover. From there, they considered what they could attend to […] There were people who got their orders cancelled [and] people who kept them… There was a lot of uncertainty. […] The market need arose. First, [there was] a need to try to… to help […]. Since here there are sewing machines and everything […], and there were no masks nor gowns […], all the companies that could [produced or provided materials] […] the association itself was in contact with the Ministry of Industry and the Regional Ministry." (Epsilon)

(continued)

Strategic response: SMEs' upgrading	(8) Activity reorientation: innovation	"In February [2020], we were already manufacturing masks […] because we had already detected that this need was a month or two months away. Keep in mind that when I went to AITEX laboratory for an analysis, AITEX told me that there was not (yet) a standard for this." (Beta)
		"When the pandemic started, we began [developing masks] formats. In March, April [and] May, we already started to think about the […] machines and we bought them. Before summer, we had the […] machines here and […] we had contacted several consulting companies […]. We wanted our product to be certified as meeting certain levels of filtration […]. We got in touch with AITEX, [and] with more than 40 laboratories from Spain, France, and Portugal […]. You cannot imagine the queues […]. All of this was [happening] at the same time – the arrival of the semi-automatic Asian machines, certification by the [Spanish Agency of Medicines and Medical Devices], the creation of the clean room, the hiring of 40 people […]. At the same time, we saw that we needed to be ISO certified […] [and] added to all was the need to set up a quality system." (Zeta)
Business environment volatility	(9) New, future difficulties after the disruption	"A big company was very concerned. It said: 'How are we going to continue importing? […] We cannot pass it [i.e., the increased cost of imports] on to the sale price' […]. It is a problem." (Gamma)
		"We have spent a fortune on bringing containers from Asia because a container has gone from costing EUR 1,400 to costing EUR 12,000." (Lambda)
		"We plan to feed more from other markets. What is true is that it is a product with a slightly higher cost. So, yes, I know that I have to produce a product under certain conditions in Europe, and I also have to know [how] to source a product with certain characteristics from Asia." (Lambda)
		"Right now, we are all very worried that […] we continue billing, that energy [price] stabilises, that the containers [price stabilises too] [...] Right now, we are focused on all of this. […] If you say to me now, 'Do you think we should invest?' [in green products and other trends], I would say, 'Yes, but be careful'." (Lambda)
		"Now there is a huge logistic problem [...]. I cannot bring in containers not only because they are worth a fortune, but because there are none. I need to load and cannot, even if I pay EUR 10,000 for a container, or EUR 15,000. It takes a month to load the merchandise. Therefore, this is an opportunity for people who want to work [here]. The problem with our fabric […] is that one of these machines does not cost EUR 0.5 million or EUR 1 million […]. It [costs] much more." (Zeta)

(continued)

Business environment volatility	(10) Cluster-based business opportunities	"It was an opportunity for all companies in the area to come together. […] Two UTEs have been created, [but] why two UTEs? [i.e., it should have been just one]." (Zeta)
		"Synergies can be created. […] All that has happened has put companies and businessmen in contact and has made people connect more. I think this is always positive." (Zeta)
		"Now… [Demand for masks, sanitary goods, everything] is falling […]. What happens is that all of this generates value, vision, and ways of work […]. I do not know if this is for four days [...], but it is a change." (Epsilon)
		[Referring to the institutional support provided to the sanitary textile sector] "We think that as a result of previous work, we can be better prepared […] for something bigger, to play in another league. […] At least you [i.e., the firm] have already started and already have a minimum of organisation. […] For us, […] it was trying to prepare people so that they could compete." (Delta)
		"I think […] it [the pandemic] has opened the opportunity […] [to think that] the textile itself can be a sector with added value, knowledge, technology, innovation […] this opens the door to rethink" (Delta)
		"I believe that the Public Administration has a super important task beyond giving money. [It must] invent instruments and resources that ease things. […] I [i.e., the firm] want to adapt to your needs [and] to society as a whole, […] but if you put up a thousand obstacles... Why did things move quickly in the pandemic? Because everything blew up [i.e., because of the urgency of the issue]." (Omega)

Source: Own elaboration

CHAPTER 5: TRADITIONAL, MANUFACTURING SMES' RESHORING, BACK HOME AND BEYOND – RESPONSES TO A CHANGING LANDSCAPE AND UPGRADING CONSEQUENCES

ABSTRACT

Reshoring refers to returning previously offshored activities to a firm's country of origin, often due to control matters, and it is becoming a potential trend in nowadays' economy following the changes that are menacing GVCs. However, this conceptualisation often considers FDI-based decisions that may not always be possible, while overseeing other strategies that represent reshoring too. We contend that this is not a zero to one decision, but rather a spectrum of possibilities, and that these can become an avenue for SMEs to gain control and competitiveness in their GVCs. We focus on SMEs as the actor of interest in this dissertation and because reshoring has been mostly observed for larger firms, partly explaining why strategies different from FDI-based ones have remained overlooked. We take a NT approach to answer how does the reshoring decision materialise for developed countries' SMEs, and what are the upgrading consequences. This contributes to respond the second RQ of this dissertation: how can different cooperation mechanisms affect the sustainable upgrading of developed countries' SMEs. Our qualitative, multiple-case study showcases the motivations and conditions to reshore; how reshoring deploys as a strategic process; and what are the upgrading consequences for SMEs. We show that, when possible, SMEs performed what we label as 'process reshoring': they recovered activities in national territory without implying FDI disinvestments, but investments at the home market and the management of their network relationships instead. They did so to gain control, and this upgraded their goods and services. We contribute to the reshoring and GVC literatures, and for practitioners, we uncover strategies that favour SMEs' chain control, their upgrading, and the reindustrialization of Western regions.

Keywords: Reshoring, process reshoring, SMEs, GVC, value chain control.

5.1 INTRODUCTION

Reshoring is traditionally understood as the return of activities previously outsource-offshored to a firm's country of origin (Barbieri et al., 2018). It is the contrary to offshoring strategies, which often took place in Asia and especially China in its more intense years (Linares-Navarro, Pedersen & Pla-Barber, 2014). This understanding of reshoring implies undoing previous FDI operations, which makes it a costly strategy despite having its advantages too – for example, the reduction of GVCs' fragmentation, the increase of firms' control over value chain activities, etc. In this vein, as the present time of economic turmoil has shown GVCs' weaknesses associated to their international extension, recent evidence has suggested that a potential shortening of GVCs to gain resilience might take place (Gereffi, 2018; Shih, 2020; Witt, Lewin, Li & Gaur, 2023; Cui, Vertinsky, Wan & Zhou, 2023) based on the intensification of reshoring strategies. This would imply that part of the activities previously offshored could be coming back to Western regions, favouring their reindustrialization, especially in sectors where the local supplier networks were lost to offshoring trends (Di Mauro & Ancarani, 2022; Pedroletti & Ciabuschi, 2023).

However, reshoring as closing plants abroad to recover them in the home market may not be possible for all industries or companies, not even for all the value chain activities, and references to other possible options – e.g., different from FDI-based reshoring – are comparatively scarcer too (Canello, Buciuni, & Gereffi, 2022). For instance, business activities could be recovered in countries close-by and not necessarily on the national floor, as some European firms have done; they have relocated their plants abroad in other European countries (Ancarani, Di Mauro, & Mascali, 2019) and in the north of Africa, Middle East, or Latin America as well

(Martínez-Mora & Merino, 2021). In addition, reshoring can include other strategies that imply a network reorganisation, such as recovering processes previously outsourced to third parties, or changing the supplier base to start sourcing from closer-by firms. Hence, as reshoring can convey a wider set of possibilities, we contend that this is not a zero to one decision, but rather a spectrum of strategic options. The GVC and reshoring fields need further research to refine this conceptualisation and, in this way, truly assess how likely reshoring may be for reindustrialisation and GVCs' reconfiguration. In turn, studies should focus on the firm-level, as organisations are the actors undertaking these strategies, afterwards influencing the GVC and their regions. Accordingly, we aim at responding how does the reshoring decision materialise for developed countries' SMEs, and what are the upgrading consequences. Answering this contributes to respond the second RQ of this dissertation: how can different cooperation mechanisms affect the sustainable upgrading of developed countries' SMEs. Focusing on SMEs allows us to take a wider perspective because reshoring has been studied mostly for MNCs that can perform FDI-based strategies. We argue that there may be other overlooked strategies available for smaller firms too. Therefore, this study is important for firms for which FDI-based reshoring may not be feasible, and yet they are reshoring and increasing their competitiveness anyway.

Our goals are to analyse the factors that influence the reshoring decision; define the phenomenon better and how it might be deployed; and evaluate its consequences in terms of SMEs' upgrading. We apply a NT perspective (e.g., Johanson & Vahlne, 1990; 2009) to answer our RQs since we are dealing with SMEs and we suspect that the role of networks at different levels will be crucial for these firms to undertake this strategic path and upgrade. We develop a qualitative, multiple-case study, for which

we focus on TMS – specifically, on accessory goods and various kinds of textiles. We carried out semi-structured interviews to assess SMEs' reshoring, comparing pre- and post-COVID-19 times and different types of reshoring or non-reshoring situations. Out of six case studies, and an extra one with a shipping company to gain contextual information, our results point towards a reshoring strategy that implies a recovery of specific value chain activities. We label it as 'process reshoring' and contend that this is the strategy that will be observed for SMEs often, and/or in those industries where FDI-based reshoring is not possible – e.g., because there are inputs located in a specific, foreign region only. This strategy would fall within the spectrum we mentioned because it still conveys a relocation of previously offshored activities. In turn, our results show that this strategy has potential, positive results for SMEs' upgrading in GVCs. Academically, we contribute to the reshoring- and GVC-related literature within IB by advancing in the strategic options available to reshore and the relatively less-studied consequences in terms of gaining control and competitiveness. In doing so, we present this decision as a feasible strategy for SMEs, which can compensate their limitations with the network relationships they are embedded in. For practice and policy purposes, we uncover strategies that can favour SMEs' competitiveness and the reindustrialization of their regions.

In the next section, we outline the conceptual background we depart from, mainly related to the reshoring and GVC literature and supported by NT insights. Then, we explain the methodology we followed and showcase the results of our study. Finally, we discuss them and present the conclusions and limitations of our work, connecting the latter with future research avenues.

5.2 CONCEPTUAL BACKGROUND

5.2.1. *Global industrial organisation through GVCs: A changing landscape*

Essentially, GVCs are organisational systems that interconnect geographically distant firms on a network of business agreements to produce and distribute goods and services internationally (Giroud & Mirza, 2015). This way of organising the industrial activity has spurred the global commercialisation of intermediate goods (McWilliam et al., 2020). Usually, GVCs do not have a legal entity of their own, and it is lead MNCs that control and coordinate them; specifically, they control key assets, intermediate products, and associated knowledge, thus having power to determine what and how is to be done in the chain. This is done in pursuit of efficiency and creating value-added. This may be achieved through the reduction in production costs, the access to raw materials, the acquisition and transfer of knowledge, or the diversification of risk (Kano, 2020).

However, this form of industrial organisation has been contested recently. Ongoing macro-level, economic changes are exposing GVCs' vulnerabilities. The imposition of protectionist measures (Petricevic & Teece, 2019), changes in production and commerce patterns, such as those in China (Baldwin, 2013), or trade wars like the US-China one (Curran & Eckhardt, 2021) have led to de-globalisation pressures that appear to have intensified, also following the COVID-19 pandemic, as commented in chapter 4. The latter crisis provoked global unprecedented shocks in the logistic structures of GVCs, adding stress to a system characterised by its fragmentation and dispersion (Javorcick, 2020). In addition, more recent disruptions continue to emphasize these vulnerabilities, as it occurs with geopolitical risks like the Ukraine war that threat pre-existing inter-regional commerce patterns. All this must be

considered together with other trends like the incorporation of digital technologies that represent a new paradigm of production organisation (Baldwin & Wyplosz, 2019; Strange & Zuchella, 2017), or stronger values related to sustainability (Pla-Barber, Villar, & Narula, 2021), because all these changes could pressure GVCs' reconfiguration towards shorter, more regional chains – this potentially happening through firms' reshoring strategies.

On the contrary, though, even if today's complex scenario has spurred changes in both the business and political approaches towards searching for GVCs' resilience instead of just efficiency (Antràs, 2020; Javorcik, 2020), with the idea to strengthen GVCs such that the global economy becomes more resistant to crises (UNCTAD, 2020; 2021), this change is not as straightforward as it appears. Indeed, some researchers contend that this may not happen at such widespread scale (Curran & Eckhardt, 2021). At the chain level, studies point towards the regionalization of GVCs as the path to follow, which would imply partially abandoning global sourcing strategies to look for shorter, more sustainable chains (Gereffi, 2018; Shih, 2020). Nevertheless, this is not that simple given the costs of FDI-based reshoring decisions, and the risk of losing competitive advantages associated to international production systems and supply flexibility. Consequently, this shortening of GVCs is as unclear as the feasibility of FDI-based reshoring strategies for all industries and firms.

This opens the possibility to consider other available strategic paths at the firm-level, because GVCs are composed of companies and how chains may adapt will depend on decisions that will be taken by firms first (cf., Curran & Eckhardt, 2021). For instance, some studies suggest chains' diversification (Ciravegna & Michailova, 2022; Aiyar et al., 2022) but including new commercial partners and patterns. Other

external-to-the-chain actors, such as institutions, can be key too in terms of their intervention, given the impact that these changes will have on their territory and its development (Pegoraro, de Propis & Childlow, 2021). UNCTAD's report from 2021 already showed how chain leaders perceived a fragility in their supply networks, suggesting a potential change in future production strategies towards achieving more resilience. However, the adaptation to different alternatives will be subject not only to external trends, but also to firms' and industries' characteristics. For instance, elements such as the need to protect knowledge through patents, the willingness to assume supply risk, or the size of companies stand out as conditioning factors. Considering them is fundamental to understand the potential new configuration of production in different sectors and geographies, as well as the industrial, local impact that this can have. Thinking of the popularity of reshoring strategies to gain resilience, but the scarcer references to alternatives other than FDI-based strategies (Canello et al., 2022) and how these strategies affect the firm, chain, and industry levels (Barbieri et al., 2018), we conduct the study in this chapter to analyse reshoring strategies that can represent an avenue for SMEs' to regain control and competitiveness as upgrading. In this vein, following our literature review and previous works of our own, we presume that there might be three main strategic paths available for SMEs: restructuring their value chain when possible; managing their supply chain; and/or pursuing sustainable business models.

5.2.2. *Conceptualisation of reshoring in the literature*

Firms' location choices have been a constant in IB research (Kim & Aguilera, 2016), and even though the focus has been on offshoring decisions given their prominence with the rise of globalisation, the reverse is as crucial for companies and their regions.

In the reshoring literature, this decision has received many labels – e.g., back-shoring, back-sourcing, manufacturing reshoring, in-shoring, nearshoring, etc.–, often meaning reversing previous offshoring and bringing back these activities to the country of origin, either internalizing them or not (Barbieri et al., 2018). However, this somewhat closed definition mostly considers the possibility involving firms' country of origin and disinvesting abroad, while in practice we are seeing various strategies. In turn, an important aspect that differentiates reshoring from mere divestments is related to its goal: recovering certain control. The latter may lead to different types of strategies too.

In Barbieri et al. (2018), the authors stated several factors along which the reshoring strategy could be specified: the country where the activities are brought back; the typology of these tasks; and the governance adopted in recovering them – i.e., insourcing vs. outsourcing. We argue that several possible strategies can be depicted around these elements and others, because the "what" is as critical as the "why". The drivers of reshoring have received significant attention in the literature compared to its barriers. Wiesmann et al. (2017) provided a summary of both, which we report in Table 5.1. along the five dimensions that they identified. Interestingly, they did not find barriers associated to the supply chain dimension, which was the one they stated had been studied the most. Nevertheless, now – and especially after the COVID-19 shock –, at this level we could talk about barriers associated to losing the supply chain efficiency that is gained via outsource-offshoring certain activities, for example. Besides, they also identified firm-specific drivers and barriers, which deserve more attention as they determine the feasibility of the decision, ultimately. This may be even more important for SMEs given their inherent limitations, which is also partly the reason why we contend that is key to extend the spectrum of available reshoring

strategies, because the FDI-based one may not be feasible for all firms, as some of the drivers and barriers in Table 5.1. suggest, and yet reshoring may take place anyway.

Table 5. 1. Drivers and barriers of reshoring strategies

Drivers/barriers Dimension	**Drivers**	**Barriers**
Global competitive dynamics	- Alterations in the world economy - Political risks - Decreasing comparative advantages - Exchange rates instability - Competition in resources	- Economic differences - Exchange rates - Availability of resources
Home country	- Political incentives - Access to qualified workforce - Community goodwill - Automation - Higher levels of productivity - Sustainability compromise - Marketing goals (e.g., brand building)	- Lack or shortage or raw materials or inputs - Lack or shortage of workforce - Stricter legislation (often, environmental) - Inflexible labour market
Host country	- Less opportunities of growth - Unacceptable quality levels - Weak intellectual property protection - Employee turnover - Lack of supplier trust and commitment - Public relations risks	- Market and distribution channels risks - Loss of access to raw materials or inputs only available there - Loss of supplier knowledge
Supply chain	- Improving innovation and R&D (given reduced distance with manufacturing) - Coordination costs - Disruption and delivery risks - Matching production and consumption - Shortage of transportation means - Difficulties to provide a service - Physical and psychic distance	-
Firm-specific	- Offshoring decision risks - Lack of host country knowledge - Overhasty offshoring decisions - Over-estimation of offshoring costs	- Sunk costs of offshoring - Non-realistic reshoring - Lack of resources and capabilities for reshoring - Lack of proper data in the firm

Source: Own elaboration

Several authors have posited that manufacturing activities would not return given the higher competitiveness of developing countries, or that only value-added tasks were susceptible to be performed in developed regions (Wiesmann et al., 2017). Nonetheless, this could have changed to some extent now. In an increasingly turbulent environment, where firms may also find political incentives to recover certain value chain tasks, opportunities to do so like external shocks or as a risk management

strategy can change the story in some cases (Di Mauro & Ancarani, 2022). It could also happen that GVC lead firms might be willing to reorganise their chains to make them more regional and closer to the market, and then reshoring strategies may play out as a tool to achieve so. In this vein, the potential consequences of reshoring appear to be very much related with the initial motivation of firms to bring back these activities. Especially for companies different from lead firms, this motivation could be connected to the desire to increase control and reduce supply chain risks; being more sustainable; taking advantage of Industry 4.0 opportunities; increase the quality of the products and abandon cost-based strategies; or the necessity to recover activities to accomplish with the standards of MNCs. Hence, the new trends that SMEs face now could alter to some extent the enablers, and disablers, of reshoring, as well as its consequences.

Regarding these consequences, even though it is difficult to predict it, there is evidence already that points towards a positive impact of reshoring. For instance, some Italian manufacturing sectors have managed to recover factories, processes and employment, as well as to promote entrepreneurial initiatives in subsectors that were disappearing (Di Stefano et al., 2022). We also have the example of the US fostering this relocation too (Pedroletti & Ciabuschi, 2023; Di Mauro & Ancarani, 2022). Therefore, reshoring can represent a historical opportunity to strengthen the GVC position of firms from developed regions, especially in a context of industrial change. The consequences of this decision must be considered because of the reindustrialisation potential it represents and because, at the firm level, they can imply an increase in companies' competitiveness too – i.e., upgrading. Precisely, Italian studies on TMS observed that the phenomenon was taking place, although in a

contained way because firms often were of smaller size and did not count on resources to tackle certain strategies. The latter justifies taking a NT approach to this matter and studying different reshoring options within a wider spectrum.

5.2.3. *A NT perspective to SMEs' reshoring and upgrading*

As per chapter 2, the business-related strand of the NT approach (e.g., Johanson & Mattson, 2015; Johanson & Vahlne, 2009) has been largely applied to internationalisation-related research and the performance of MNCs and their units (e.g., Andersson, Forsgren, & Holm, 2002). Likewise, this paradigm has been used to explain the internationalisation process of SMEs, as the networks these firms are embedded in can compensate for their size-related limitations (Lu & Beamish, 2001; 2006), nurturing them with the resources they may lack and the knowledge they may need but that cannot manage internally, for example (Villar et al., 2014). Both business- and non-business-type networks may allow SMEs to deploy complex strategies, and just as they may foster SMEs' internationalisation and competitiveness in the form of upgrading (see chapter 4), they can be the key to SMEs' reshoring too.

Several different models have attempted to explain SMEs' internationalisation, such as that of International New Ventures or Born Global firms (e.g., Knight & Cavusgil, 2004). However, SMEs' internationalisation has been identified with sequential models most often (Johanson & Vahlne, 1977), whereby such a process depends on companies' accruing of experiential knowledge, which affects firms' commitment to abroad markets in a gradual way. Specifically, the NT approach to this sequential process (e.g., Coviello & Munro, 1997; Johanson & Vahlne, 1990) stands out because it explains how firms' leverage the various networks they are embedded in at different levels to gain knowledge and overcome different liabilities (Johanson &

Vahlne, 2009). This internationalisation can include GVCs' insertion, which in the case of SMEs usually takes place through simpler entry modes such as exports of different kinds – e.g., direct exports, through distributors, etc. – and not necessarily FDI-based modes, precisely because of SMEs' constraints. Therefore, it can be argued that SMEs tend to leverage their networks to enter and compete in international markets, creating various network structures in the process. In the same way then, networks will be as relevant for SMEs' reshoring because they have expanded through them, and these systems allow SMEs to develop complex strategies. In turn, this expansion through networks may lead us to observe reshoring strategies different from FDI-based ones for the case of SMEs, as previous internationalisation paths will influence the type of reshoring process. In addition, through the concept of position, this NT paradigm can connect with the idea of gaining control and competitiveness through reshoring, because these strategies will imply recovering previously outsource-offshored tasks, which can translate into acquiring a better position in the GVC. This could grant the SME with more power in terms of improved control over its business activities, which can lead to improved quality too – i.e., upgrading.

5.3 METHODOLOGY

We conducted a qualitative, multiple-case study (Yin, 2014) to answer our process-related RQs because this method allows identifying and comparing patterns across cases, thus allowing for a certain generalization that is subject to a series of conditions. Instead, a unique case study will not be ideal because it is not meant to look for such patterns (Eisenhardt, 1989; Miles & Huberman, 1994) that, here, enable us to define better the reshoring phenomenon and its implications for firms – therefore, enriching existing theoretical insights in this way. Accordingly, we established a sampling

criterion to select representative, informed cases for our research (Eisenhardt & Graebner, 2007). To obtain robust conclusions, some authors have suggested using from 4 to 10 cases (Eisenhardt, 1989), while others refer up to 30 cases (Yin, 2009). As we aimed to uncover a reality that we consider objective, and also to clarify and extend theoretical explanations around a phenomenon such that these are generalizable to some extent, we selected cases suitable to do so with the total, final number of cases determined by the new information we were obtaining from each.

We concentrate on SMEs as the main actor of interest of this dissertation and because of our contention that reshoring as a phenomenon is not completely understood since research has been too focused on larger companies. We considered firms from TMSs also following the focus of our dissertation and to establish generalization across settings. To select the cases, we set the following criteria: first, that the firms were SMEs (European Commission, 2014); second, that they were suppliers of larger, international companies – something that we could assess from secondary data and the previous knowledge we had about these sectors –, which we deemed important as a hint of whether these SMEs were part of GVCs and, as such, cases rich in knowledge for our research; and that SMEs were Western firms, preferably European, because reshoring can represent a reindustrialization strategy, potentially fostering certain mechanisms to favour it.

Initially, then, we looked for an initial population of SMEs in ORBIS (2023) with these criteria in mind. Afterwards, we chose several firms that accomplished our pre-established criteria by using our knowledge from previous studies of our own about the existence of SMEs that had performed strategies within the reshoring umbrella, or that were knowledgeable informants about the matter. We approached

them and, as these firms were from slightly different industries but all within TMSs, they gave us variability too to look for these patterns. We ended up with six cases of Spanish, Valencian SMEs from the industries of home textiles; garment, technical textiles; and luggage and accessory goods. The fact that they were all located in the same geographical space, as part of a cluster, also allows looking for these patters we intended too. We also interviewed an employee from the Valencian branch of a logistic MNC to gain more contextual information about the reshoring phenomenon.

5.3.1. *Data collection and analysis*

We first prepared a protocol based on our literature review that included our goals and RQs, the topics we aimed at covering, and the interview protocol. Second, we conducted semi-structured interviews during 2023, mainly with CEOs or Chief Operating Officers (COO). We made sure that the informants were knowledgeable actors regarding our issue of interest (Eisenhardt & Graebner, 2007). Prior to starting each interview, we explained the goal of the research and, instead of mentioning reshoring as such, we talked about recovering and/or changing the location of previously offshored activities of any kind in any way. We did so to avoid misunderstandings or limiting ourselves or the interviewees to FDI-based reshoring – also in case the interviewees were unfamiliar with the concept, as popular as it may be. We also asked each interviewee to describe the trajectory and activity of the firm before going into the interview. Then, we contacted an informant from a well-known logistic, shipping company to get more information on the reshoring phenomenon at a more global level. In doing so, we conducted seven interviews in total, one including two respondents (the president and the CEO of the same firm). With the SMEs, two

interviews were conducted via Zoom, while the others included factory visits. The one with the logistic worker took place at the University premises.

Regarding the timing of the interviews, they lasted an average of an hour each and were based on open-ended questions. First, whether firms had reshored, how (i.e., strategic process), and why (i.e., motivations, drivers) – if they had not reshored themselves, they could still provide useful information on these matters; for instance, as subjects of others' reshoring strategies. Second, if they thought that their local context had influenced their reshoring decision and how. Third, if this phenomenon had affected their networks in anyway (e.g., the supplier base, or their clients). Fourth, what their relationship was with international buyers. Finally, what consequences were they experiencing in terms of sustainable competitiveness (i.e., upgrading). The protocol for the shipping firm was different because it included open-ended questions about what they saw was happening in the world with these reshoring tendencies. In addition, if the SMEs did not perform any reshoring we reoriented the questions a bit, but always around the same themes and remaining neutral – e.g., we never implied any positive or negative connotations. As the interviews progressed, respondents made us aware of emerging themes that we deepened into sometimes, although they were not too far from our topics. We completed our primary data with additional data we had about these firms from previous works of our own, as well as secondary information from news, firms' webpages, and ORBIS (2023). This is common practice as it allows for triangulation to improve the study's reliability (Gibbert & Ruigrok, 2010).

After collecting the data, we started our analytical process, which concentrated on the firm level. First, we transcribed our interviews verbatim and within a day each, adding the information that we gathered from previous studies of our own (that were

relevant to this study) and the data we obtained from secondary sources to the beginning of these transcriptions' documents. This occupied 106 pages in total, 132 if we count the interview with the shipping company. Secondly, we went through these data to code it according to our pre-established themes: (1) the sector and specific activity of the SME; (2) the moment of the reshoring decision and its drivers; (3) the reshoring strategy deployed by the SME if it did so – i.e., how was it developed, what was needed, challenges –, and why not otherwise; and (4) the consequences for SMEs' sustainable competitiveness (upgrading, or downgrading if that were the case). Having a clearer picture of the data, we moved on to develop individual firm-case studies. The latter occupied 58 pages in total; so, altogether, we counted on 190 pages of data.

We reported these individual cases following a chronological order (e.g., sector, activity and history of the SME; moment of the reshoring decision; duration and deployment of the process, etc.), and we went through them afterwards. Since some cases did not perform reshoring directly but were knowledgeable informants anyway, this incorporated more variability to our sample and richness to our study. Specifically, and to prepare for the next stage of the analysis, we went again through the data to code them according to our themes. This enabled detecting potential discrepancies and finishing our within-case analysis, ultimately. From there, we were ready to move to the cross-case analysis, consisting of comparing our individual cases according to such codification to look for patterns, both commonalities and differences. At this point, the interview with the logistics company helped us to add some more context to the reshoring phenomenon. Again, we undertook this last step of our analysis around the themes we mentioned above, which allowed us to find patterns that contributed to elaborate an expanded reshoring framework. The latter

enables to better conceptualise the reshoring phenomenon and to improve our understanding of reality. In turn, this last analytical step served to develop generalizable propositions to be tested in future research.

5.3.2. *Description of the cases*

As the interviewees were not willing to share their names nor their firms', we refer to them with labels to protect this confidentiality. We provide summarized, updated information about SMEs' size, activity, and background in Table A5 in the Appendix. In this subsection, we describe each case according to phenomenon-relevant information. We have six cases: SMEs A, B, C, D, E, and F – G being the logistic, shipping firm. All the interviewed SMEs are part of the Valencian textile cluster (see chapter 4 for a description), which allowed us to give this study both a top-down and a bottom-up perspective – according to one of the premises of the dissertation. In turn, four of these SMEs are familiar companies, thus counting on even more expertise.

Company A was founded in the 2000s and is a producer and seller of luggage and leather accessories (e.g., school backpacks, purses, etc.). We interviewed the CEO on the 27th of January from 2023, although we had data from previous studies too. The firm qualifies as a SME since it counts on 69 employees and a turnover between 10 and 50 million Euros (ORBIS, 2023). Firm A sells different brands for which it holds licenses to be able to get to different customers, also diversifying clients and distribution channels – mainly, it sells B2B and business-to-consumer (B2C), although also online. Their clients are mostly distributors, often MNCs both national and international. Regarding its international activity, Firm A exports approximately 50% of its sales in more than 40 countries, doing so through distributors, agents, and specialized customers. In the 2010s, it opened an office in Hong Kong to control the

delivery and quality of the product – although this is closed now. Regarding its business activity, firm A is involved in the design of its goods, which it specifies to Asian suppliers that manufacture them in the first place. The interviewee told us that this must be this way as the inputs necessary to do so are there and the manufacturing requires a supply and production network that does not exist at the home market. Then, firm A receives the goods and performs a customisation process on them, this being how it intervenes in the manufacturing, while also engaging in marketing tasks.

Company B is a producer and distributor of home textiles founded in the 2000s. We interviewed the COO on the 25th of January from 2023, and we also had previous evidence from a study back in 2022. This SME counts on 33 employees, with a turnover between 10 and 50 million Euros (ORBIS, 2023), and even though at the beginning they had sales subsidiaries abroad, now the firm engages in exports intensively, mainly through independent agents. Firm B has an integrated vertical structure, but some of the processes (e.g., traditional stamps) are outsourced to local companies. Specifically, this SME covers the design phase, the supply of yarn, dyeing, weaving, textile printing and finishing tasks, and counts on demanding textile certifications too, also sustainable ones. Moreover, it is a supplier of well-known MNCs that are leaders of their respective chains. At the beginning, company B distributed textiles that it bought to manufacturers, without intervening in the production. However, they realised that they were losing economic value and started to produce their own textiles and stamps, so now they nurture from third parties abroad (e.g., from Turkey or India) and produce locally. Company B's goal is to look for the best partners to maintain competitive prices, such that the firm represents a good supplier option. Nowadays, firm B's activity has evolved because international clients

are asking for more service, so the firm needs to accumulate even more stocks than it did to serve at shorter cycles.

Company C is a manufacturer and seller of technical textiles, existing since the early 1990s. We interviewed the CEO on the 27th of January from 2023, though having previous evidence from 2021 too. The firm counts on 42 employees and a turnover between 2 and 10 million Euros (ORBIS, 2023), so it also qualifies as a SME. Although it started as a manufacturer of hosiery, also for health-related purposes, they wanted to expand their business but lacked the know-how. Today, with such knowledge acquired, firm C counts on proprietary technology to produce technical, sport garments and specific, working clothing too. This SME is vertically integrated as well, covering the design of the goods, weaving and finishing tasks, R&D, marketing and packaging, and so on. They get their inputs – mainly, fibres – from third parties, but firm C oversees the entire process to specify how these must be made (e.g., colour, torsion type, etc.). Besides, firm C is constantly aware of market opportunities, so it always counts on extra stock. Regarding its sales, this SME sells nationally and is also an intense exporter within Europe and some other countries. It engages in international sales mainly through distributors, and it maintains a close relationship with several of them. Firm C sells to well-known MNCs too, while still holding control given the superior quality of its goods, which enables firm C to sell its own brand too.

Firm D is a manufacturer and distributor of yarns, mostly sustainable ones, existing from the late 1960s. We interviewed the CEO on the 25th of July 2023, and it can be considered an SME as it counts on 122 employees and a turnover between 10 and 50 million Euros (ORBIS, 2023). The products of this company are mostly for home textiles, although it sells to textile manufacturing and knitwear-related firms too,

which in turn sell to big brands. Firm D covers tasks such as yarning, manufacturing, selling, and recollecting again the products, as the firm is highly compromised with sustainability. Concerning the structure, Company D is also vertically integrated and counts on the latest technologies. The interviewee defines their business as having two lines, the one related to fibres and spinning tasks where the value-added they provide is based on differentiation, given the quality of their goods and how sustainable they are; and the one connected to fashion textiles. Their production takes place locally, as they pursue this environmental sustainability, and hence, want to reduce their carbon footprint. In this same vein, they use renewable energy sources such as the solar one. Regarding their international activity, they sell to counterparts that sell to big brands in turn, although they might sell to these brands directly as well. Besides, the firm opened a manufacturing subsidiary in China to improve their know-how and manage its costs better, but they realised that their path was towards differentiation, so they ended up closing it. In turn, they try to supply mostly locally or regionally, precisely due to this quality-based differentiation.

Company E is a producer and distributor of, mainly, home textiles and elastic knit fabric – specializing in stretch textiles and being a world pioneer in the "dama stretch" fabric. It dedicates to customised upholstery for mattresses; home textiles; and, starting more recently, garments too. We interviewed the president of the firm and its CEO on the 25th of July 2023. The firm qualifies as an SME as it counts on 72 employees and a turnover between 10 and 50 million Euros (ORBIS, 2023) – although in the interview we were told that they were around 90 employees at the time. This SME is considered a reference at the European level in its activity, according to its webpage, and counts on more than 25 years of experience. They base their

competitiveness on product quality and customisation, which they join with robust processes to ensure price competitiveness too. Firm E is highly conscious of environmental sustainability as well: they count on several certifications (e.g., GRS, OEKO-TEX 100, etc.); base their production on the "lean manufacturing" methodology (such that their processes are efficient, free of chemical agents that are harmful to health, and minimize the generation of waste); and recycle other industries' fibres to create new materials. Firm E also adheres to both the 2030 Agenda and the SDGs, focusing on social sustainability too, for which it undertakes different actions – e.g., providing continuous training to its workers or allowing for time flexibility to improve conciliation. Firm E has reduced its water use as well, for both consumption and cleaning tasks (between 2019 and 2020, they decreased it by 66%). Regarding its clients, they are mattress-making companies, and concerning its international activity, firm E exports nearly 20% of its production to more than 20 countries, although they want to raise their exports to at least 40% – even though they sell considerable quantities at the home market. As they customise their products and work on request to be quick, firm E does not have as many clients as similar companies do because it prefers to maintain closer relationships. They also accumulate stocks for at least six months to be able to work this way. They produce locally but get their raw materials and some inputs from abroad – outside Europe, mostly from Asia.

Company F is a manufacturer and distributor of mattress textile covers and protectors, operating since the early 2000s, although the CEO comes from a longer tradition of textile producers. Nowadays, they also produce mattresses themselves. We interviewed the CEO on the 24th of July 2023, and the firm can be considered an SME too since, even though it is the greatest manufacturer of these goods in Europe, it

counts on between 200-250 employees and a turnover between 10 and 50 million Euros (ORBIS, 2023). Initially, all its production was sold to the international markets, although now a bit less than half of it dedicates to the national market. They are present in the five continents, and they change their entry method in each; for instance, this SME might use commercial agents, stores of their own, or they may sell through client MNCs. The firm is also somewhat vertically integrated because of their constant inversion in technologies and R&D. Company F employs textile inputs of quality to offer the best products possible, most of them acquired in Asia, and in the local market they perform the tasks of knitting, packaging, logistics, etc. It is in this vein that they receive economic aid from different public organisms and with different goals, such as researching for sustainable materials or expanding their production capacity. Company F is also very compromised with sustainability: they work with energy from completely renewable sources, and they perform solidarity actions every year too.

Lastly, firm G is a well-known shipping MNC that provides a variety of logistic services – e.g., transport via land, sea, air, etc. We interviewed an employee from the Valencian branch, the main one within Spain, but the MNC is of Turkish origin, from the early 1900s. Now, it is a holding that employs 7,000 people through more than 60 logistics-type companies. We interviewed this employee to gain more context about the phenomenon of interest, as this person had worked in both the import and export area for years, so we considered it sufficiently knowledgeable. The company has an important international presence and acts as intermediary within GVCs, so the firm and its workers have knowledge about the reshoring trend that was worth collecting.

5.4 FINDINGS AND DISCUSSION: WITHIN- AND CROSS-CASE ANALYSES

5.4.1. *Reshoring cases: Company A and Company B*

Company A recovered the printing process for its luggage product line back in 2018, before the COVID-19 pandemic. Until then, third parties abroad, across Asia mainly, were the first to start producing firm A's good, although with the design specifications of A. However, as the luggage products can be printed with many different designs depending on the brand, in outsourcing this task the company realised that it was losing customisation capacity, and hence value-added. The CEO perceived a market change towards demanding more customisation, and so the firm decided to re-internalise this process. The CEO believed that an important trend that was coming in the luggage industry was the customization of the product, so that the suitcase is the same, but the design is adapted to customers' taste. The interviewee thought that this demanded agility and responsiveness by the firm, for which they needed to recover the printing process. Otherwise, if the final good comes finished from abroad, the firm cannot respond to these changing trends effectively – i.e., it cannot customise the good as quick and flexibly. Hence, here the driver to undertake this reshoring decision was a change in market trends, the CEO's vision to detect this, and the need to control better the production processes that increased the value-added by SME A – via differentiation and quicker, more flexible answers.

To carry out such decision, the CEO designed a machine to print the suitcases within firm A. This was not easy because the material did not retain the painting at first. For such reason, the CEO had to collaborate with firms from Japan and China producing similar machinery to come up with a solution. This was possible because of the many years that the SME A had been working with them. In addition, this SME

internalised other processes related to the commercial part of its value chain too. For instance, since 2015-2016 they produce their own catalogues, which now are digital such that they are automatically updated with any changes in the references and designs available. They internalised this activity to improve the service they gave to their clients too, and to control better their image and the part of the chain that is closer to the final market as well. Therefore, regarding the reshoring strategic process, the interviewee tells us that each time that they have recovered a value chain activity they have internalised it. They do not work with close-by or national suppliers simply because of the nature of their product. The company needs a series of raw materials that are only located in Asia, but also certain level of complexity in its supplier network that does not exist at the home market. Thus, in case of reshoring any activity, this often belongs to the downstream part of the value chain, where the firm can gain control, acquire greater flexibility, and provide more value-added. Concerning the supplier base, the company works with the same foreign suppliers since many years, but they are from different zones. For instance, in China, the firms dedicated to school products are not located in the same zone as those dedicated to luggage. However, this does not mean that they will not add a new supplier when needed – this might happen when a given supplier employs some technique that others do not. The fact that firm A attends fairs quite often is very useful in this respect, as it allows studying the market. Therefore, this is an example of a SME in an industry where reshoring is not as straightforward, but it can happen to some extent. For leather goods, firm A would like to recover some processes, but raw materials must come from abroad still – and, in some cases, they may even be patented. Moreover, this is a very artisanal activity for which the workforce at home may not be prepared or willing to do either.

> We want to reverse and start doing some processes here, [but] the content of the material, the raw material that you need […], must continue to come from China, Taiwan, Korea, Vietnam ... [...] this backpack for example, [...] you have: the outer polyester, this polyester [...], which is what the textile ones use, but the textile normally uses that material without a finish that we have to do inside, printed or not printed, which you can already stamp here [...]. (A's CEO)

For the luggage, difficulties are mainly related to the raw materials too. It could be possible to bring some production to East Europe, which would be an advantage because it is closer – indeed, firm A already considered this possibility back in 2019, but the COVID-19 and the Ukraine-Russia paralysed this project. However, many materials continue to be associated to Asian locations, so they would still depend on them, and setting up these factories is also complicated in terms of how sophisticated they are and the different types of machinery that are needed. In general, the interviewee believes that there are many processes with potential to come back, but this depends significantly on the industry. Perhaps, he believes, for textiles is easier because they count on machinery that can solve the issue of the labour intensity. For firm A, however, is a different story, as their products are subject to raw materials located abroad and an associated, localised know-how.

> If we tried to bring [the raw material] [...] that comes from […] kind of an injection process […]. Everything has a lot of residuals, then there is a lot of material left over that... is complicated to recycle […]. There is a possibility […] to bring the production of these products closer, but it is more [about] taking it to Eastern European countries. […] so that we are closer to China. (A's CEO)

Company B dedicates to home textile goods, including the manufacturing and sale of cushions. Traditionally, this SME produced the textile cover for the cushions, whereas the filling of the product was outsource-offshored to third parties, mainly abroad and with an important part from China. Firm B would import the cushions already filled, vacuum packed, and then put its cover at home. However, the COVID-19 pandemic led them to internalise the filling process. The interviewee explained that they did so because it made sense in terms of costs and because it is a process that is susceptible of being localised. Indeed, the interviewee said that these localizable processes are the ones experiencing this reshoring and provided some examples.

> If you bring the compressed cushion, it occupies 5 times more, or 10 times more, than […] the compressed [raw material] bullet. Here, you open it, fill it, and start it. That is […] working, we are doing important 'promos' […] let's say that this type of product locates very well […] in the different countries of consumption. […] For everything that is the substitute for the blanket, it is working fantastically well for the same reason. In fact, those who are doing the engineering of this type of machines [...] they have been setting up 3 quilt manufacturing lines in Argentina. (B's COO)

In this case, the reshoring decision was taken back in September-October 2019, when firm B was approached by an important MNC and conversations to work for this distributor started. During this process, though, the COVID-19 pandemic initiated with its well-known consequences for the supply of textile-related inputs. Although firm B had enough materials in-house, at some point companies were forced to close given the government lockdowns, meaning that companies' clients closed as well, and so demand decreased. Indeed, firm B started producing sanitary textiles to cope with both

the social and economic crisis at that moment. As the normal activity restarted, it was difficult to match production with demand, even more considering that logistic costs had multiplied. Hence, company B took the decision to reshore following the COVID-19 pandemic, the key driver being this cost increase, as container prices went from approximately 3,000€ to 12,000€ and so the advantages of bringing much cheaper goods from abroad were lost.

Concerning the strategic process, the interviewee told us that they invested in new machinery to produce 200 thousand cushions per month, and they predict that soon they will invest approximately 300 thousand Euros more in more machines to respond to their clients' demands, which have increased now. For firm B, this reshoring decision "opened their eyes": even if after the pandemic this SME felt that international buyers were being more precautious in their orders, now they are asking for constant service, which also encourages company B further in this decision.

> [Recovering this process] gives you versatility, this gives you the ability to... to launch […] a project […] a constant sale of cushions [...]. Not having it here [within the firm] does not give it to you. [Otherwise,] you have to bring it; you have to wait 2 months... that is, here you manufacture the covers directly […] and this gives you the ability to give a reaction, right? To put product, put promos, or put linear [on a normal basis]. (B's COO)

This reshoring process has not affected the supplier base of firm B, but rather the type of input that it demands from them now. The reason is that there are importers of cotton bullets in the zone, and so this SME can supply from them on a weekly basis. In addition, the interviewee also gave us its vision on the possibilities of reshoring:

even if the pandemic presented an opportunity to think about it, the situation now is complex. The interviewee considers that reshoring does not represent an opportunity as great as it may seem, not even in the same sector, particularly for firms that dedicate to other processes or the production of other textile goods that compete directly with companies abroad. It all comes to price and competitiveness, so the interviewee believes that institutional actors may have a big role in two ways: by smoothing the needs that SMEs may have to achieve this level of competitiveness, especially in a context of rising costs, and by promoting wide-scale, collective projects, such as one that should give the companies more control over the cost of materials and inputs. That is, firm B considers that the problem for local companies lies in not having a control over costs, as they inevitably depend on abroad inputs that are located there only. They key would be, as firm B argues, starting to recycle at the local territory level, such that these materials served different industries. Company B knows this very well as they work with recycled textiles, but time is needed to implement this at a larger scale.

Among the consequences of the reshoring decision, company B enhances their increased ability to respond to clients. Now that the process depends on them, firm B can react better to clients' demands because the production times have been reduced – and improved. Also, firm B can import more as the raw materials occupy less in the containers, and the unit price distributes better too. Besides, company B also highlights the fact that more employees were incorporated following this decision, and that the quality of the final product has improved significantly, with the price being reasonable still. Nevertheless, this price factor continues to be relevant, even if relationships with clients have improved towards closer ones in some cases. The interviewee tells us that recovering this process is allowing them to provide a differentiated good, but if at some

point the firm was less price-competitive, it is clear who the clients would choose. Despite this, the interviewee believes that there is a desire to look for local producers.

5.4.2. *Non-reshoring cases: Companies C, D, and E*

Company C manufactures and distributes sports garments and technical textiles. In this case, the CEO confirmed us that they did not have undertaken any reshoring strategy, understood as bringing back activities that they had previously offshored. Instead, because C produces internally, what they are doing is to bring closer to them their local suppliers, whenever this is possible – i.e., a somewhat relocation strategy, but at the home market. The motivation to do this is that it gives firm C greater control and flexibility over its activity and allows it to maintain a closer relationship with suppliers too, which benefits the competitiveness of firm C in turn.

> When we detect a [market] necessity or look for any type of composition […] we always look for companies that are as closest as possible; that is, we go from the closest to the furthest [possibility] […] [because] our mentality [is] about proximity and optimization of [our] zone resources. […] [We care more about the proximity than the price] […] because the price is not going to vary since, in the end, I am not changing the country [rather, they are choosing Spanish suppliers that, each time, are closer to C's premises]. (C's CEO)

The interviewee tells us that their only abroad suppliers are for raw materials that are not available locally, and that they do not have abroad suppliers of inputs because they do not work the yarns as well as they do at the home market. As C has created its own proprietary technology and know-how, they do most tasks in-house because that is what gives a superior quality to their goods, and they prefer to work

with close-by suppliers to control better, be more flexible, and because they are better in terms of quality. All this matches C's competitive strategy based on differentiation, enabling it to have considerable power in its chain at the same time. As stated, the only thing that C acquires from abroad is the two main fibres that they use, because there is no local production. The innovation in C comes, precisely, from having taken a fibre that was not employed for textiles but rather for mask filters and having investigated it to adapt it to C's textile business. Now, this SME is among the few with access to buy this raw material, because its production limited at the global level – the interviewee prefers not to reveal their origin, but confirms it is from outside Europe. What C's CEO does tell us is that, for other types of fibres, they also nurture from abroad as they need, sometimes from Europe too – they try to buy in Europe as much as possible, indeed. From there, C's differentiation is based on their technical knowledge about fibres, yarns, and their properties, which allows them to give customised solutions to their clients' needs. This, together with the capital and proprietary technology that they have accumulated over more than 30 years, enables C to optimize their infrastructure and manufacturing costs and, at the same time, offer the highest quality. C's way of working improves the service they can give to their clients as they are quicker and more flexible, also compensating for their higher prices. For such reasons, for C it does not make sense to offshore to cheaper locations, where their competitiveness is based on costs.

Concerning C's distribution channels, they are mostly B2B, although they vary according to the production line and the destination. On the one hand, firm C produces its own brand for sport-related garments, and they sell this one either directly through their web and outlet store or through traditional stores. They do not sell this brand to

larger, either national or international distributors, to whom they sell high-quality goods anyway, but under the distributor's brand. C's position in this respect is that, if they want the highest quality, they should acquire C's products under C's brand and sell them accordingly. On the other hand, even if their main market is Spain because the specific needs of the professional sport sector, SME C also sells internationally through different channels. In Italy, they sell through a third-party, commercial delegation, with which they maintain a very close relationship; they sell the most in Switzerland, where they use distributors because it is a more complicated market; in France, they have multi-brand salespeople; and in far-away markets, such as Chile, they have a person from C's home market through whom they have established a somewhat subsidiary-type entity. All this grants C with control over its image, prices, and hence with power because C is not a mere supplier – in a way, we could say that this SME is kind of a chain leader within its niche sport-related market.

> I do not have four distributors that, now, one of the distributors falls and a country falls for me […]. The firm has two business divisions: one that is our own brands and the other that would be the 'big accounts'. Big accounts would be when we [produce] for three large brands […], which is 40% of the production, [but] we do not have any client that exceeds 15% of our turnover […] [these] are brands of first line and […] they do not have our technologies because we do not produce our technologies for anyone. […] if you want to have it [our superior brand], buy [it and sell it under our brand]. (C's CEO)

Regarding larger brands, the interviewee tells us that it is them that often come to C precisely because of the quality of their goods. In terms of their relationship, the CEO tells us that this has improved because "[they] want, more each time, to

manufacture here [locally] […]. It is us now who select to whom we want to produce for". However, in terms of how the relationship with these partners has influenced competitive improvements for C, the CEO believes that they have learnt some things from them, but all starts with C's own motivation. This SME also assesses whether a client is adequate, as the CEO thinks that if their business philosophies do not align, it is not possible to establish a long-lasting, customised commercial relationship. They choose their clients in terms of whether they value C's quality and the low return rates over a mere price factor, where C is competitive too. Hence, by making improvements by themselves, establishing closer relationships, and by demanding certain business continuity, C builds its competitiveness.

> When I work for a big client, my machinery efficiency is about 80-something per cent. When I work for [our brand], my machinery efficiency is of 65% […] and for three years now we have achieved that [our clients send us their] forecasting […] yes, we always have stocks, but now… we have achieved a brutal efficiency, both in stocks and […] machinery, by taking a decision: that our clients help us […] [with this forecasting in advance] […] [and] this efficiency is not gained by [our] company only; we all win it. (C's CEO)

Regarding sustainability-related upgrading, firm C has always been sensitive to these issues. On a social aspect, and considering that C's manufacturing activities divide into weaving, production, and final textile making, they have implemented turns where they could do so to ease workers' conciliation. For instance, the weaving tasks demand for the machinery to be working twenty-four hours a day, so C has established three rotating shifts. For production they cannot do so, but for the final stage of production and packaging they have established a half-day turn to favour conciliation.

In addition, the firm also counts on a equality plan – which is also mandatory by the Administration depending on certain firm characteristics. All this has been possible because C facilitates bottom-up communication with workers, which also showcases one of the advantages of being a SME: because of its size and flatter structure, communication is more direct and can lead to a quicker application of certain measures. On an environmental aspect, the CEO tells us that they are taking actions by their own initiative because they believe that a prestigious brand is not just about product quality but about the entire philosophy of the company. In this vein, C is about to start producing 50% of the electricity they consume by themselves, and they do not generate waste of any kind either because they control this depending on the type of waste and collaborate with a firm dedicated to its treatment. The CEO tells us that they have learnt all this by themselves, connecting with the idea that their local context – i.e., the cluster – has been key because they have looked for information and services in other firms from the same location. Regarding the product, the firm is now working on making recycled fibres. They have managed to create two new technologies already through their own internal research, although they have collaborated with their suppliers too because apart from being recyclable the fibres must remain technical.

Concerning reshoring tendencies in general, C's CEO believes that enterprises must recover production tasks to contribute to reindustrialise the home economy. The interviewee thinks that there is a transition opportunity to start thinking about better-quality products, and to achieve this proximity is crucial, also in terms of generating less waste – hence favouring sustainability. The CEO believes that the big chains are already working with this mindset, but that it must be firms like C that also take the initiative and position themselves as crucial partners. Regarding institutions, the CEO

believes that it is cluster-specific, industrial entities the ones that are truly key to promote SMEs' competitiveness, sustainability-related measures, and the return of activities that can be recovered. These agents provide firms with specific knowledge, orientation when they do not know where to start, and help SMEs to identify business opportunities. In turn, they represent a bridge with public institutions to communicate SMEs' needs; have access to specific institutional agents to promote the changes they need; and promote a closer, more direct relationship between private and public spheres. This could work together with the tendencies that C's CEO is perceiving in some of their business lines, such as that of technical work clothing, where clients are demanding national product now. However, the interviewee states that this does not happen in every sector; for instance, for home textiles the labour is still very important for some products and tasks, which may not justify a differentiation-based strategy but rather a cost-based one, and this could difficult the reshoring of some tasks.

> What I believe is happening, my vision, is that the potential client or… or the one looking for a trustable supplier and so on […] the price parameter is not just the price parameter anymore. There are more actors intervening in the movie, already […] and the price is just one more […] sustainability is another one, quality is another one… […] [having] a greater control over your production […] a more personal treatment with your [partner]. (C's CEO)

Company D dedicates to the manufacturing and distribution of yarns, focusing on sustainable ones. They have not carried out a reshoring strategy as traditionally understood either, but they bet for proximity as much as firm C does. Indeed, the CEO tells us that they opened a manufacturing subsidiary in China, but that they had to close it after five years because the idea was to make D's know-how more competitive,

focusing on a more basic product – although still sustainable –, but they saw that the cost-based strategy did not work for them, so they disinvested in the end. Concerning the textile industry, D's CEO explained that it can be divided into the retail part and the manufacturing part, and that they fall within the second group as they produce for home and fashion textiles. They count on their own manufacturing installations to carry out the design, spinning, weaving, manufacturing, selling and recycling of textile goods. The interviewee tells us that the manufacturing is the activity that tends to be offshored the most given its higher costs. Even though in Spain there are still firms dedicated to this (e.g., in Catalonia, the Valencian Community, Andalusia, etc.), their activity is small compared to countries like Morocco or Tunisia, such that firms tend to nurture from Asia and Eastern Europe. Regarding the provision of raw materials and inputs, D's CEO tells us that they have always bet for close-by firms, just as they bet for local and internal production, because they want to have the material as closest as possible since they work on a differentiation-based strategy, highly related to sustainability. Thus, they look for proximity and quality in everything they can.

> We work with, basically, four or five raw materials […] cotton […], BCI, which has sustainable characteristics, recycled cotton, […] viscose […] and polyester […] we nurture ourselves to the 100% out of… recycled material […] we buy it […] from… [our] zone […] the virgin cotton is Spanish, we buy 100% of it here, in Andalusia. The viscose is also European […] and the polyester we have two versions, an Asian one […] and an European one […] it is mostly Asian and a 30% is… is European […] there is viscose in China, and cheaper, but we bet for a [firm] that has the brand, that has the prestige […] that is here in Europe. (D's CEO).

As D did not perform a reshoring strategy by itself, we asked the interviewee whether they perceived any changes related to clients' willingness to buy locally. The CEO responded that this is not happening in a significant way and that the advantage that D has is, precisely, to work on sustainability-based strategies that differentiate them. For the case of fashion textiles, although D sells mostly to distributors who sell to larger brands, they call these clients "prompt fashion" firms, as they need close-by production because they work on shorter cycles. In this case, the CEO thinks that the price factor is a bit less important because proximity is needed.

> On percentage, today the textile [sector] continues to be about price, price, price, price, but […] the ones that remain here, we do so because of sustainability […], because of differentiation. Also… because of the service […], because of the differentiation of [our] product and the sustainability. Those are the three factors of… of differentiation that we have with respect to the Asians. (D's CEO)

Indeed, D works with more than 500 references prepared to serve, being among the European reference firms in terms of stock service. They also reinvest in the firm in tasks such as R&D, mostly on new equipment to keep on improving the technical value and quality of their yarns. D is also totally ecofriendly: they use about 75% of solar energy thanks to their photovoltaic panels; they do not consume water nor chemicals than can affect the environment during their production of ECOLIFE yarns; they do not emit CO2; and for each kilo of sustainable yarn that they produce, D compensates by reducing their occupation of cultivable land and their water and electric consumption. In addition, this SME bets on the circular economy such that they avoid for virgin material to enter their manufacturing cycle, and they always offer

this way of working to their clients. Specifically, D collects the products that consumers place in specific containers, classifies them according to their composition and colour, and then starts the production process again with these materials. The CEO believes that this way of working is the key for the local textile sector to thrive, whether they sell to home textile clients or fashion-related ones, because the logic is mostly the same for both. However, the CEO tells us that relatively smaller brands have a higher tendency to bet on this business model, as larger brands that work on cost-based models do not value this quality and sustainability as much. The interviewee connects this idea with the role by institutions – in terms of legislation they can impose to push firms on betting for sustainability – and final consumers.

> The chains could perfectly withstand [it] […] [by] paying a bit more […], the thing is: are they going to bet for that sustainability, that circular economy? If they do, it is because they measure the carbon footprint […] or because they see themselves forced to do so through the European Union legislation […] via traceability, via environmental impact measurements […] this happens where there is a penalty […] via policies […] [or] via [their own] will […]. And then, there is another factor […]. You [the firm] have the willingness to do stuff […]. The consumer has two things: one, that you have to give it the product and […] the competitive advantages […]; and after that, the education […]. That a generation of people who is educated in these aspects comes [and they] can go to the stores, buy, and know […] [as it in the food sector, where people look for organic goods]; that, in the textile sector, why [can] not [happen]? So, it is going to depend on […] sustainable policies that force this situation; [and] the willingness of retailers, because the industry is ready. (D's CEO)

Related to these ideas, we asked the interviewee about the link between their competitive improvements and the relationship with their clients. The CEO told us that they have two types of markets: one where bigger brands do not really value their sustainable approach and only use it as a label for the final consumer, and another one where relatively smaller brands do value this in every level. There are large brands that also bet on sustainability in products, processes, and management tasks, but the CEO tells us that smaller agents tend to do so more because they can simultaneously manage prices and differentiation better. As we saw that D's sustainable upgrading could be more related to their own internal motivation, we asked the CEO about what exactly drove them, in terms of their own willingness but also regarding these commercial relationships and the influence of their local context.

> They [the clients] have influenced because, in the end, some of them want to work [it] directly and they are starting […] especially those who look for circular economy projects, right? That is the novelty. So, they come here and say, 'I want to control you'. Very well. Now you have to improve all these processes because they are going to audit you in social terms and […] quality, right? Independently from what the functioning of the yarn is, the tests they are going to be making… you have to pass their audits and then you will become a type C supplier, or you will not enter [the chain], right? So, these companies […] demand for you to have a working… methodology. (D's CEO)

Hence, concerning production and quality, what the clients do is to monitor through audits, mostly. From the environmental and social viewpoint, D already counts on certifications and its entire business model and value-added is based on sustainability – e.g., they are also carbon neutral and are aligned with the SDGs. In

this sense, they mostly work with an external consultancy company that guides them according to D's goals, and they have looked for this relationship because of their own motivation to be more sustainable and competitive each time, and also when larger clients have made certain demands to pass the audits and D was unsure on how to accomplish them. The CEO told us that they have to look for solutions by themselves most often because clients usually just tell them what they need, but not how to do it, but precisely because of their internal motivation and their collaboration with local actors, it usually occurs that D is already working as required – and when this is not the case and they need to learn something specific, they count on their consultant. Likewise, D's CEO enhances the role by other local, cluster agents, but not so much the part played by public institutions.

> Nowadays, in our zone, we have a business association that works very well, which is ATEVAL, and today it is positioned within the Spanish Inter-textile Council and at the European level in a… a very good level. And then, we have the help by AITEX [see chapter 4 for a description of these agents] […] [which is carrying out] all the policies that are being formulated now at the level of… of training too, of… a bit of recovery of the [textile] sector at all levels […] [such that] we can nurture ourselves of… of workers […] that are trained by AITEX […]. Then, with respect to the Administration […] it helps, because it does have its grants […] [but] some sell more in words than in… real facts […] some have had more… more sensitivity about the sector [especially the local Administration that knows the cluster and its businesses very well] […]. In general […] the environment that we have is favourable for the sector to continue to be where it is. (D's CEO).

Precisely, the interviewee does not perceive that the Administration can perform a "softer" role as a provider of knowledge. The CEO associates this role to very specific moments, as the pandemic was, and to other types of institutions instead. The reason is that they receive all the relevant information to become more sustainable and competitive from agents like ATEVAL and AITEX. In terms of social upgrading, D's CEO told us that they do have improved their working policies because in their firm there is also bottom-up communication with employees to respond to their needs. Moreover, the interviewee also tells us that all these competitive improvements – economic, social, and environmental – have also influenced their relationship with clients, which have become closer; thus, there has been a relational upgrading too.

Finally, in terms of D's general vision of reshoring, the interviewee told us that, within the retail world, everyone bets on sustainable products, but there is a lot of greenwashing still, and in the lower price strand they will not bet for proximity productions. They can only work with clients that value their differentiation and that work with prices that are logical with this strategy. The only possibility to recover these clients that work with lower prices would be to automatise the manufacturing tasks as much as possible but, for now, this does not exist, and hence reshoring is not as likely as it could seem.

Company E is a manufacturer and distributor of, mainly, upholstery for mattresses, more general home textiles and, starting more recently, fashion textiles too. Their clients are mattress-making companies mostly, and this SME bases its business strategy on customisation and product quality, even if they manage to achieve price competitiveness too through the constant improvement of their processes. SME E has

not performed strict reshoring strategies either, but their expertise is significantly valuable to be considered, and so we interviewed the president and the CEO.

Regarding its sector and business activity, SME E specializes in its flagship fabric, the stretch, which consists of weaving using yarns of different compositions and finishes. By creating textiles that improve the quality of mattresses, E works on a strategy based on offering customised solutions to their clients – which are mostly mattresses' assemblers that acquire the different parts of their products from various third parties. In turn, within E's business lines, this SME also offers different manufacturing processes and product lines depending on the type of textile and collection – e.g., the "harmony" line, based on product quality; "conscious", based on sustainable knitting; "heritage", based on process improvements; and the "challenge" line, based on even more advanced production methods. Accordingly, because E works under this business strategy based on customisation, quickness and flexibility – i.e., a differentiation strategy – for all its business lines, they choose to produce locally and work with less clients with whom to maintain closer relationships. The interviewees tell us that they work under the lean manufacturing philosophy to give their clients individual solutions while still offering an excellent quality and service at the most competitive prices as possible. SME E works on demand to be able to serve as quick as possible too, which is also enabled by their stocking system: because they are a SME, they can use their own turnover to buy and accumulate stocks.

> You [the client] send me a request and I, the next week, am serving it to you at your home […]. All this, if it comes from abroad, Turkey and so on, is unthinkable. […] when there is a very good price, we buy, we have the [storage] space […] [and] it is much more profitable. And since we do not have

> to justify […] where the money goes [because they are a SME and do not have shareholders], to us is [indifferent] to have it [the money] at the bank […] [or invested] in yarn. […]. When you buy good [regarding prices], it is worth it to keep it [stored] […] [because] then, you are saving [money] (E's president).

As stated, E has all its production localised, and they only outsource the purchase of raw materials, which they buy outside Europe often. E's president tells us that nearly 95% of materials come from Asia; the polyester comes mostly from China and some of it from India – although the quality of the latter is not consistent –, but most of their materials come from either China or Indonesia because they offer the best quality at the most competitive prices. Regarding the production, they mostly internalise it or work with local enterprises when needed. They can do so because of the great capital investments they have made throughout the years, being able to separate the productions for different clients and to internalise as much as possible activities such as the dying of the yarns.

Concerning E's sales and type of international clients, this SME sells an important part of its goods at the national level, and at the international one they focus on exporting and want to expand their presence. Mostly, E sells B2B, and we could say that they locate very close to the lead firms of its respective chain. In turn, they export about 20% of their production to more than 20 countries but want to increase this percentage. To achieve so, they are contacting several clients directly; they do not work with commercial agents because they consider themselves to be in sort of a niche market within their industry. Hence, because they sell customised textiles, they need to do so through people of their firm. In this vein, the interviewees tell us that they have about 250 clients, less than other companies of their kind, but that allows them

to maintain closer, more personal relationships, and they continue to grow in this way, especially within Europe.

With respect to sustainable upgrading, we appreciated that E was mostly motivated by its internal drivers, although other agents were influential too. Regarding economic upgrading in processes and products, SME E has managed to be more competitive by investing in itself, especially in capital to keep on innovating both with the yarns and manufacturing techniques. SME E does so out of its willingness to advance market needs and being able to customise its goods to each client. In addition, we can distinguish process-, product-, and managerial-related sustainable upgrading paths too. SME E develops them as part of their philosophy as a firm and because, even if their clients do not strictly require this from them, they know that they will do so very soon, as they are already perceiving this in some of their markets. In terms of products, the firm counts on about twenty types of yarn with different properties, some more technical and some recycled ones, such as the ECOLIFE yarn – which they obtain from one of the other interviewed SMEs. They also count on seven different types of treatments for their textile goods, with some as innovative as the Tourmaline one, which favours people's rest by taking advantage of some of the properties of this mineral. Concerning process and managerial improvements, the lean manufacturing philosophy of SME E – based on adjusting the production – allows it to minimise the use of resources during their manufacturing processes while still maintaining the maximum value creation for the client. It also enables E to recycle materials from other industries that they use as fibres afterwards. Moreover, E counts on a variety of certificates, including: OEKO-TEX 100, which showcases that the product is not harmful for people's health in any of its components; GRS, which certifies that the

product comes from recycled raw materials and that it also respects social criteria; ISO 9001, which certifies the efficiency and quality of the good, as well as the optimisation of the service provided; GOTS, an standard that confirms that the textiles are made out of organic fibres that accomplish both environmental and social criteria along the entire chain; and the FSC, which ensures that the products come from responsibly managed forests. They already have them to signal themselves as capable, sustainable suppliers.

In turn, E also aligns with the 2030 Agenda and the SDGs related to social and environmental improvements, for which they take different actions. For instance, apart from recycling materials, they have optimized their water use and produce electricity out of renewable sources such as solar energy. Besides, they also work continuously on making the working space as safest as possible and have established flexible times to ease employees' conciliation according to their needs. They provide internal training on a continuous basis too, for which they cooperate with their suppliers as well; they do so also because more specialized workers are needed in their zone, as this know-how has been partially lost – especially regarding E's activity, as they were pioneers in working with their stretch yarns. In this vein, we asked the interviewees whether they saw any benefit in accomplishing with all these standards and criteria, which could be seen as an advantage by their clients, but they told us that the price is still the most critical factors in their industry, at least for now. This led us to inquire them more about this relationship with the clients and its influence on their sustainable upgrading.

> We do not work the… cheap products. In fact, our… our policy… is not [that one], and we do not want it to be. We are […] trying to sell another type [of good] […] we tell them [the clients] 'at what price do you want to buy', and

> what we do is to give them, at the price they want, the maximum that we can give, because if we are saying that the price is what matters, maybe the weight [of the textile] is not that important […]. So, there is when you put a series of values, which is the service, eh… the quality, the… customisation, the safety […], and some [clients] understand it. (E's CEO).

However, it is not a relationship based merely on prices, because they maintain closer, long-lasting relationships with them where they even collaborate in designs and producing new types of yarns. Firm E makes proposals, and the clients send them new tendencies, and from there they collaborate in these tasks. In this vein, the clients do appreciate the sustainable part of E's activity, but they do not impose it as an indispensable condition yet, especially because the products made with sustainable materials are more expensive. Therefore, E maintains its mindset because they know that, when the economic situation is better, this sustainability will become a determining factor to maintain themselves in the chain and they will be prepared in advance, but also because some niche clients on a higher market target do ask them for these types of products already. Regarding control measures by their clients, most of them do not even audit E, mostly because this SME controls its processes digitally and has demonstrated them that they do not make mistakes in their processes, or they are able to easily fix any potential errors, thanks to this way of working. E's certificates also help in signalling this.

When we asked them about the influence of their environment in E's upgrading, the interviewees told us that being in the cluster enables them to access close-by suppliers, but that they do not believe that their context provides them with more knowledge or appropriately-trained workers – which is why they train them

themselves, also in collaboration with an external consultant. Regarding the Administration, the interviewees feel that their firm is more advanced than them and that most of the valuable information and collaboration comes from associations such as ATEVAL or AITEX – even if the staff turnover of the latter makes difficult to retain knowledge.

> In terms of legislation is almost impossible to have a firm. The… the people who make the law, the norms to accomplish, believe that we all make chips and that we earn [a lot of money] […] [E's CEO: those are entry barriers] […]. And if you come to me and demand me, eh… that, to accomplish the norm, I have to invest 300,000 Euros or more […] it comes to a point where it is not interesting [anymore]. (E's president)

> The only way to make for… productions to come back here is to protect […]. It is part of the 2030 plan. They say, quietly, 'no, we will go for those products […] that we do not have traceability and we do not know that they have done it correctly, as we want it to be done in Europe...'. […] But, eh... of course, in the meantime we are... […] suffering. (E's CEO).

Concerning how they see the reshoring tendency in general, they tell us that some larger brands and distributors are looking for local producers, but that this is not that generalized, and they are unsure about their motivations, because sometimes it is to reduce logistical risks, but it can also be because they look for higher quality, for suppliers more aligned with their internal firm-policies, or even to join themselves as clients to be able to get better offers from companies like E. The interviewee explained us that, because they do not work with a final product, they do not feel this change as

much, and so they perceive that the price still remains the most important factor, even if companies want to have more control and safety over their chains. They also add that, at least in their sector, there is an intention to reshore, but Europe is less competitive, both because of some of the legislation – which develops too slowly, such as the norm to make MNCs to monitor their chains closer, also their foreign suppliers – and due to the fact that, as workers, we have lost know-how on more traditional tasks or even do not want to perform certain activities of less value-added.

5.4.3. *In-between case: Company F*

Company F is a producer and distributor of mattresses' textile covers and upholstery. Nowadays, they have vertically integrated backwards to produce mattresses too. We will concentrate on its upholstery business line for mattresses and pillows, though, where this SME is the main provider for one of the largest home-related brands in Europe. Regarding reshoring, we refer to this SME as an "in-between case" because it did internalise its activity throughout several years and has relocated part of it more recently. At their beginnings by 2002, F bought its raw materials from Pakistan, then gave them to a local company that started working them, then another local company cut the textiles, and a last partner ended the manufacturing process, such that F only had to sell the final good. However, throughout twenty years, the company internalised most of these processes and, nowadays, they have started to produce by themselves a very important raw material that, previously, they were buying abroad. For such reason, we consider F in this separate subsection.

Concerning its business model, F also works on a differentiation-based strategy, where they have managed to be efficient as well. This SME performs tasks such as the knitting of the raw materials; their finishing – which sometimes they do

with auxiliary firms from their local environment too –; the textile making; and the logistic functions. Besides, they are constantly investing on R&D and the latest textile machinery and technologies; they also collaborate very closely with machinery-making partners and suppliers of raw materials; and they work on sustainability principles in several ways, including the use of sustainable textiles like the organic cotton and producing at the local territory too. Thus, F positions its business model on product quality, promoting their "made in Spain" and, at the same time, a very high degree of automation and efficiency in their production processes. In this vein, they opted for this business model when, more than twenty years ago, they entered in contact with the large distributor that is their main client today.

> It was a total change of mentality [with respect to the understanding of what the textile industry and the retail were] […]. Obviously, I could not make what many others, eh… textile firms of our zone did, which was changing most of their local manufacturing to imports [i.e., offshoring] […] because they saw that they were not competitive […] [I] took the opposite decision. I started to create industry because, otherwise, [large clients such as this they work for now] go to Asia and buy cheaper, and they wanted to localise. (F's CEO).

We asked the interviewee whether they had ever outsource-offshored any task or process apart from the purchase of intermediate products or inputs, to which the CEO answered that they considered themselves a global company, but that they chose to produce internally and locally because it is the key to the value-added that they provide. However, the raw material they must buy it from China, mainly, and they are constantly bringing in containers with yarns and textiles. They would prefer to buy it in Europe, but due to the quantities and prices that the clients demand from F, they

cannot do so. In turn, they have been pioneers in using plastic-based materials (i.e., RPET: recycled yarns obtained from plastic bottles) to make their textile goods, but they must get this from Asia as well because they have not found a local supplier that can serve them the quantities that they need at a competitive price. So, F could not perform a reshoring strategy as it is traditionally understood because, for starters, offshoring its manufacturing tasks is not part of this SME's philosophy ("the most part of the value-added of the product we make it […] here". F's CEO). Nonetheless, and as stated, they are now internalising the production of a specific raw material, and they have previously recovered some other processes too.

> To work with a client like [their biggest client] you have to be very competitive and have an important control over the production costs and raw materials. We made the decision of making ourselves more vertical, and one of the raw materials we buy the most is […] the filling from inside the bed quilts. We have embarked on a significant investment in a completely new factory […]. This new factory will supply us with this raw material, and the idea is to be more competitive. We have to focus on quality and design, but it is extremely important to be highly efficient by controlling your production costs, increasing your productivity, and purchasing raw materials wisely […]. After the pandemic, people realised the high dependency we have from China […]. It seems there was a trend change and an intention by the administrations and large buyers to relocate the production and make it closer. At the beginning, this tendency was strong […], especially because of the logistic costs […]. We did not manufacture bed quilts [at the time] because they represented very small quantities, but of course, if a container holds, for example, 1,400 quilts, it costs

> $10 per quilt to ship. This cost did not compensate for not manufacturing here, and so we started producing a lot. […] but now, the shipping costs have dropped, and people have returned to buying more from China. We have built a clientele […]. Now, we make short series, and this product line has been maintained. (F's CEO; extraction from a newspaper interview)

Thus, the recovery of certain processes by this SME is related to increasing their control to be more competitive. Concerning its type of clients and international activity, it is true that F depends greatly on this large, European seller, and so they are trying to increase their businesses with other clients, but this large distributor keeps on growing due to their high volumes – so much so that, in times of crisis, they sell even more. In turn, even if at the beginning F sold all its production to international markets, nowadays they sell to more than 50 countries and 30% of its production is commercialised at the local or national level. Therefore, F also sells directly and uses a different entry strategy depending on country or the region. For instance, in Italy they have commercial agents in three different zones; in Russia and Ukraine they have their own stores; in some other countries they have exclusive distributors; and in countries where they have important clients, they manufacture for their brands.

In terms of F's sustainable upgrading, we observed various competitive improvement paths related to products, processes, and managerial upgrading. First, they are constantly researching to produce new goods with new fibres, treatments, properties, and raw materials. For this, they use their internal R&D department to collaborate with different technological and research institutes. They work with the main laboratories at the global level, including AITEX, and every year they test their materials to make sure they are as sustainable as possible. F is also a signatory of the

Global Compact and uses renewable energy sources for all the electricity they need. All this enables F to count on more than twenty official certificates too, which signals their quality and compromise to large buyers. Second, regarding social upgrading, they count on an equality plan – which is demanded by the Administration –, they promote conciliation for their workers, and they choose suppliers that bet on the same principles. Finally, in terms of environmental upgrading, this SME counts on a treatment facility to eliminate the waste they generate, they are also free from CO2 emissions, and they use electricity from renewable sources only. In turn, F implanted the "zero waste" mentality at all the levels of the firm and also works on projects based on the circular economy – such as that of producing textiles out of RPET.

The interviewee tells us that the motivation to carry out all these upgrades is based on their business mentality, as they see that power and purchasing volumes are concentrating in companies such as their largest client that demand these improvements. Of course, these buyers continue to go to cheaper markets that have a comparative advantage on costs; thus, to attract them, F has to bet on its differentiation and in continuing to automatise its processes to be more cost effective each time. To achieve so, F's CEO states that the key is to be financially healthy; to count on motivated talent; and to have top management directors that have the vision to follow this strategic path. In turn, the interviewee also refers that working with large clients who bet on differentiation and control their suppliers too has influenced their competitive improvements as well. More precisely, Fs' CEO told us that working with large distributors who audit you – for product quality, labour conditions, and sustainability –, also pressures them to become better each time and, besides, has made it easier for F to work with other distributors – thus, there is also a chain-related

upgrading as well as a relational upgrading. Their close relationship with these large clients, the fact that they demand from F a business continuity, and their requests regarding product volumes and sustainability also pushes F to reinvest in the company to become better each time. The relationship they have maintained with this distributor for over twenty years now also allows F to compete with its business proposal where the most important variable is the quality of their product. In turn, they are able to collaborate with the client to design and make new products and, when the distributor wants to get closer to Europe, they count on F first. In addition, the distributor even controls F's suppliers to make sure that all the chain is working with the same sustainable, business philosophy. For this SME, all these demands represent a big pressure – e.g., F counts on departments dedicated to deal with this client only –, but it considerably drives them to improve. As a result, F has managed to earn more prestige, professionality, and an image as a sustainable company with future vision, which continues to help them to work with big companies.

> [The main changes the firm has gone through because of the relationship with this large buyer are related to] the production […] the social [part] too […] the way of working that we have in the firm […], the energetic efficiency, the manufacturing efficiency […], we developed the first waterproof bed protector, 100% recyclable and made with recycled materials, of the world, [and that] was a collaboration [with this client] and with AITEX too […] [however, F's CEO tells us that this occurs mainly for European markets since, for American and Asian economies, this buyer nurtures from China as it does not want to depend on just one provider]. (F's CEO).

Concerning the role of their environment, F's CEO considers that being located in the textile cluster is crucial to access an auxiliary industry that provides them with materials, processes, machinery workers, knowledge about foreign suppliers, and other companies working on logistics and waste management. The interviewee also highlights the role by ATEVAL and AITEX to ease competitive improvements in goods and materials, and as bridges with the Administration. About the latter, F's CEO states that its role as facilitator in terms of granting financial aid is key for them to research new materials, provide better employment contracts, or increase their production capacity. However, the interviewee feels that institutions, especially universities, must also collaborate with manufacturing companies to create more talent for them. In turn, F's CEO also states that some measures taken by institutional actors do not make sense in every sector. For instance, F cannot implement a reduced working week of 37 hours simply because of how its industry and company work, but they can implement other measures, as they do. The interviewee believes that it is institutions at the European level that have more authority to affect business' activities, and that even so, it is large, international buyers that often drive more certain actions.

Finally, when asked about its vision on reshoring as a tendency, F's CEO told us that, after the pandemic, they did notice an interest in avoiding supplying only from Asia due to the logistic costs and transport problems. Nevertheless, when these barriers disappeared and due to the energetic crisis too, this tendency faded considerably. Now, the distributors might be looking for local proximity, but they are still pushing for price competitiveness, so there is a pressure that drives F to continue to become more vertical each time and to keep on internalising production at their home market, to offer both quality and efficiency. The interviewee also believes that the key to the

reindustrialisation is highly related to sustainability (where the large brands must be compromised as well), customisation, and the final consumer (where F's CEO believes there is a problem because they are not always willing to pay a bit more).

> I believe that with the… sustainability and circular economy matters there is an opportunity to do this [i.e., to reshore and reindustrialise based on customisation and shorter production runs] […]. […] the final consumer influences a lot […]. The European consumer […] perhaps is not as sensitive. […] the textile is… among the industries where… we can advance the most the circular economy and the sustainability. (F's CEO).

5.4.4. *Cross-case analysis: Process reshoring strategy*

As stated in the methodology section, for the cross-case analysis stage we took our codified data about the case studies, and we compared them to look for patterns conducive to generalisation. We used the interview with the shipping firm worker (G) to add more information to this analytical step, as this is an intermediary, logistic agent from the GVC who has a global view on the phenomenon. The codes around which we compared the case studies are: (1) the industry and activity of each SME; (2) the moment and drivers of the reshoring decision; (3) the reshoring strategy deployed by the SME, if it did so – i.e., how it developed, what was needed, challenges –, and why not otherwise; and (4) the consequences for SMEs' sustainable upgrading. Here we report the main results.

First, all our case studies belong to TMSs, and all these SMEs are located within the Valencian textile cluster. However, even if all of them are traditional, the specific industries our SMEs belong to are different in some cases. A belonged to the

luggage and accessories sector; cases B, E, and F worked on home textiles, mostly; D dedicated to sustainable yarns for home and fashion textiles; and case C worked within the technical, sport garment sector. This leads to commonalities and differences among our case studies. We have appreciated that reshoring is not equally feasible for all industries, even if they share similarities as it might be the case of TMSs (e.g., they tend to concentrate in clusters, contain a significant number of SMEs, usually use more labour, etc.), because there are contingencies that vary depending on the sector. For instance, in some cases inputs are located abroad only (as it happened with some yarns); for others, labour costs are still important so recovering certain activities is not worth it (as it occurred with some manufacturing tasks for fashion textiles); and in some cases the knowledge, and even the willingness to perform some production activities, has been lost at the home market (as it happened for some textile- and accessory-related production tasks). Hence, reshoring is not as straightforward for all industries, not even for all the activities within the same chain. We have observed that it is more likely to recover those activities that are closer to the final market – i.e., related to the final stages of production, or marketing activities, as in the case of A –, but that this does not mean that more upstream activities cannot be recovered – as in the case of B or F. It depends on the industry and its GVC organisation characteristics.

Second, with respect to the moment of the reshoring decision and its drivers, we observe similarities and differences too. We distinguish SMEs that performed reshoring strategies way before disruptive events such as the COVID-19 crisis and others that did so because of the pandemic effects over input and logistic costs, which altered the functioning of GVCs. Most of the interviewees coincided in thinking that shock-related drivers had been important, and so it thought the logistic firm worker –

as G observed significant changes in trade patterns, which were being relocated to the North of Africa and Eastern Europe mostly, these being territories mentioned by the other interviewees as well. However, all interviewees also coincided that this was only for a moment, since prices have gone back to what they used to be and, even if considering more recent shocks (e.g., geopolitical and commercial wars), previous trade patterns were reestablishing. In this sense, the key to reshoring was more about these events opening the eyes of firms, both SMEs and GVC leaders, in terms of trying to relocate what they could to reduce these shock-related risks.

In turn, we observed that internal drivers were key for SMEs' reshoring. This was very much related to their business models to compete; that is, whether they were differentiation- or cost-based. For instance, way before the pandemic started, SME A took the decision to recover certain processes because the CEO identified changing trends in the market towards customisation and wanted to adapt to them. SME B, instead, took this decision because of the pandemic, due to the increase of transport costs that eliminated the advantage of bringing certain goods from abroad. They decided to seize the opportunity to recover what they could from the production process, and they have remained convinced afterwards, although they might never have considered this option if it had not been for the pandemic. In the case of F, they decided to internalise its processes long ago and, more recently, to reshore the production of a specific raw material to improve their control and so reduce risks and increase the quality of their service.

In this vein, despite these differences, the cases present common ground. First, drivers related to changes in global competitive dynamics were relevant, even if not sufficient per se. The role of the CEO as an internal driver was differential, as well as

the possession of the necessary resources and capabilities was. This points towards the key part to be played by managers as decision-makers, even more in the absence of a pressuring context. Second, the reshoring decision was often connected to the willingness to offer a better service, by finding new materials, coming up with new products, or improving the quality of already existing goods and processes – that is, innovating. All this positions SMEs as competent suppliers for larger buyers, hence favouring relocation too. Besides, the fact that these SMEs' strategies were often based on sustainability also influenced reshoring decisions, for instance because the closer you are to the final market, the less polluting you are – e.g., lower carbon footprints. Third, drivers at the home country level also played a role. At home, there is the possibility to automate processes; access grants and similar advantages to perform innovation strategies; and collaborate with other network agents to know how to do so competitively. In this vein, SMEs that reshored could do so because they had the resources, capabilities, and knowledge, and collaborated with others otherwise. Finally, at the supply chain level there were drivers in terms of the possibility to increase the response capability to clients; match production and consumption better; improving innovation; or facing potential input shortages and transportation costs.

Therefore, despite potential barriers related to the lack of raw materials and inputs in the home market, as well as barriers associated to the host country – especially those regarding foreign suppliers' knowledge and capabilities –, our case studies show that reshoring can occur anyway and that it is more common for SMEs competing on differentiation and/or customisation. The reason is that producing locally or closer to the final market allows SMEs to control better their business processes, thus performing them better and delivering a higher value-added. If firms

cannot compete based on costs – as most interviewees coincided, as well as G did in terms of signalling Europe as less competitive in this sense –, this is the strategy that made most sense for our SMEs, even if they did not reshore, because it is what allows them to remain in the market. All in all, this part of our analysis leads us to believe that a variety of drivers must combine to motivate reshoring decisions in SMEs, being internal ones especially important. Likewise, we appreciated that TMSs SMEs might not be as limited in terms of resources and knowledge management as it is commonly thought, as they were highly innovative, sustainable, and had considerable capital. As a summary, in Table 5.2. we showcase an updated typology of enablers and barriers of SMEs' reshoring, based on the literature we departed from but mostly on our results.

Table 5. 2. Updated enablers and barriers for SMEs' reshoring

	Reshoring enablers for SMEs	**Reshoring barriers for SMEs**
Global (macro) level	- Changes in global economic trends (e.g., political risks, commercial wars, exchange rates/tariffs instability) - Competition for foreign resources - Stricter, supranational legislations	- Economic differences among countries (e.g., labour costs) - Exchange rates/tariffs instability
Country (macro) level (host market)	- Insufficient quality - Fewer growth opportunities - Insufficient trust and commitment with suppliers (due to distance: geographic, cultural/psychic, and institutional) - Image-related risks	- Loss of access to raw materials or inputs only available there - Loss of supplier knowledge
Country (macro) level (home market or closer markets)	- Qualified, knowledgeable workers - Automation (higher productivity) - **Advanced institutional contexts** (support, legislation, communication) - Marketing- and image-related goals - **Access to closer, complementary business and non-business partners**	- Raw material/input availability - Lack/shortage of adequate workforce - Lack of knowledge for some tasks - Stricter, national legislation that may increase costs (e.g., environmental laws)
GVC (meso) level	- Coordination costs reduction - Risk reduction against chain-related shocks (e.g., delivery times; logistic costs, transportation shortages) - **Distance reduction:** easier to match manufacturing and consumption; provide a quicker, flexible service; create trust-based, long-lasting relationships	- Risk in restructuring market and distribution channels - Insufficient compromise by lead firms (e.g., they focus only on cost/price-based criteria)

(continued)

SME (firm/micro) level	- **Differentiation-based strategy** (e.g., customisation, innovation and R&D given reduced distance with manufacturing) - **Sustainability-based strategy** - CEO's initiative/vision - Type of previous offshoring paths (often, less costly because they are not FDI-based)	**- Cost-based strategy** - Lack of resources, capabilities and knowledge to reshore - Type of previous offshoring paths (there could be sunk costs)

Source: Own elaboration

Concerning the type of reshoring strategy developed by SMEs, we appreciated that the process of doing so was very much related to their previous offshoring paths, the type of activity to be recovered, the resources they had, and how helpful their context was to favour this strategy. In addition, the CEO's vision and know-how was key – which could be related to the fact that SMEs' structures are flatter and so the effect of the CEO may be bigger –, and so it was the collaboration with external parties. SMEs needed capital resources and knowledge-related capabilities to undertake this strategy, but social capital turned out to be crucial as well; that is, the use of the networks these SMEs were embedded in was differential too. For instance, apart from considerable capital investments within the firm, in some cases the reshoring strategy also implied the use of design and relational capabilities – e.g., case A when it had to come up with machinery that could carry out the process they recovered. Therefore, after comparing the cases, we concluded that SMEs deployed what we label here as 'process reshoring', which we define as recovering activities or processes back in the country of origin, either partially or totally, without necessarily implying disinvestments abroad. Instead, we observed that this strategy implied investments at the home market if the SME decided to internalise the activity, which was often the case given SMEs' willingness to improve their control and performance. Even though the activities they recovered were different – two cases re-internalised upstream parts

of the production process, whereas one recovered activities from the end of the value chain –, these tasks were previously outsourced to foreign third parties, so there was no FDI disinvestment. Hence, the reshoring decision does take more forms than the FDI-based strategy, thus opening an avenue for SMEs to reconsider their operations and improve their position in GVCs. In Table 5.3. we use our results to update the different types of reshoring strategies that firms, especially SMEs, can deploy. We provide examples of each one too. In this typology, we move along three variables: (1) the country where the activity goes back to; (2) whether the decision implies disinvesting abroad or not; and (3) whether the strategy implies internalising the activity – otherwise, it should affect the firms' network. Accordingly, we depict six different types of reshoring strategies, considering also potential changes in the supplier base.

Regarding the consequences for SMEs' sustainable upgrading, we observed that, in most cases, these were positive. For economic upgrading, reshoring strategies led to better-quality products and processes, with most cases improving the efficiency of the latter too – often through capital investments to automate them. In terms of social upgrading, thanks to reshoring some SMEs created employment, and working conditions improved as well, usually in terms of conciliation. The latter, however, was also possible because of SMEs' characteristics and not so much because of reshoring strategies; that is, their flatter structures allow for bottom-up communication such that these improvements can be developed. In this vein, the sustainable philosophy of the SMEs was determinant, and so it was their closer relationships with GVC leaders, as the latter demand and control for these improvements in many cases.

Table 5. 3. Typologies of reshoring strategies

Reshoring: return of previously offshored value-chain activities to firms' country of origin or closer-by markets, where the returning process deploys in a variety of ways.		
STRATEGY	**DESCRIPTION**	**EXAMPLE**
Implies the re-internalization of the activity; involves the firms' country of origin; does not necessarily affect previous FDI (*depends on the offshoring-mode employed before*)		
1. FDI-based reshoring	Recovery of previously offshored investments (during the intense offshoring years, 90s and 2000s) in the country of origin of the firm.	Closing a production plant abroad and relocating it in the country of origin of the firm.
2. Process reshoring	Recovering processes (either partially or totally) in the country of origin without disinvesting abroad (in terms of FDI), but with investments at home.	Investing in 3D printers to end the products at the firms' country of origin (previously this was done abroad).
May or may not imply the re-internalization of the activity (it can affect the supplier base); does not necessarily involve the firms' country/region of origin; affects previous FDI		
3. Back-shoring	Recovery of previously offshored investments (during the intense offshoring years, 90s and 2000s) in a country that is close to the firm's country of origin.	Closing a production plant abroad and relocating it in countries that are competitive but also closer in terms of distance (e.g., an European firm relocating activities in Poland or Morocco).
4. Friendshoring	Recovery of previously offshored investments in a country that is close to the firm's country of origin in political terms.	Closing a production plant abroad and relocating it in countries perceived as friendly (related with psychic and/or institutional distance, e.g., a European firm relocating elsewhere in Europe).
Affects the supplier base (does not imply re-internalising the activity); may or may not involve the firms' country/region of origin; does not affect previous FDI		
5. Supplier base regionalization	Searching for suppliers considered of greater trust. It could be because they are closer to the country of origin and the perceived risk is lower.	If the reshoring firm is European, it could consist of changing Asian suppliers for European suppliers, or suppliers from the North of Africa, Turkey, etc.
6. Supplier base localization	Searching for suppliers in the country of origin.	For instance, changing Asian suppliers for suppliers from the firms' country of origin (whenever possible).

Source: Own elaboration

Concerning environmental upgrading, the consequences were positive too. When reshoring involves performing manufacturing tasks – often, polluting ones – at

the home market or closer to the final market, this will often imply that they are carried out in environments where the legislation is more demanding, and so these activities will pollute less – even if this implies extra costs for firms, which can be managed by innovating to be more efficient, for example. In turn, this will also imply a reduction in transport distances, thus reducing SMEs' carbon footprint as well. Moreover, reshoring may spur SMEs' innovativeness related to sustainability, for instance by developing recyclable materials that can substitute those that they used to import. However, we appreciated that this type of upgrading, when it is driven by SMEs' internal motivations, can work as a driver of reshoring at the same time, so there are two sides to be considered. Finally, reshoring strategies also had positive consequences for relational upgrading, since the relationships between SMEs' and their international clients improved in many cases as they were able to offer products and services of better quality and/or at shorter cycles if needed by the buyers. Besides, the upgrading driven by reshoring also enabled some SMEs to access new clients, and so chains, in many cases. Apart from this positive, direct upgrading consequences for SMEs, there were also positive, indirect upgrading outcomes for SMEs' environment. Their business models based on differentiation and sustainability, driven either by their own internal motivation, reshoring strategies, or clients' demands, also had positive effects on SMEs' local contexts, in terms of reducing pollution and waste, creating employment, improving employees' knowledge through training, etc.

In the end, the common ground here is upgrading towards differentiation and quality, although also in a sustainable way. In all cases, the quality of the product has improved, and SMEs can provide more value-added, which has also affected their situation in their respective GVCs. If extrapolated to the chain level, what we are

seeing are a series of upgrading processes, in terms of entering chains, and improvements in products and processes, which have been recovered and are even more efficient. This has economic consequences for the firm, but also relational impacts within the chain and positive outcomes for SMEs' environment too.

Nevertheless, despite these potential positive consequences, is reshoring happening as much as it could? We conclude that it is not because there are still contingencies at the country and chain levels. It is not an easy strategy to undertake and depends significantly on the type of industry and activity to be relocated. Indeed, interviewees referred to how realistic it could be to bring certain processes back, considering that they have to remain competitive. This may depend on the presence or absence of inputs and adequate suppliers in the home market, and sometimes it may be impossible because raw materials are located abroad only, or foreign suppliers are the only ones suitable for a specific task. Interviewee G, for example, agreed that relocation is a real possibility, but maybe not so much for Europe as long as prices remain the decisive variable. Therefore, there are contingencies that are unavoidable, but there is also a part of the story that relates to the offshoring processes that conduced to the disappearance of supplier networks in Western regions. Hence, even if possible, reshoring is not the panacea, and it may take different forms depending on firm and industry characteristics. However, interviewees also coincided in signalling sustainable-based firm strategies as the key to relocation and the reindustrialization of advanced, Western markets, such as the European one. All these reflections lead us to elaborate the following propositions, based on the themes we explored.

P1: The reshoring decision is intrinsically related to control (over firms' activities, then extending to the chain level) and flexibility matters (to respond quicker to clients' demands) to be more competitive.

P2: The reshoring decision is intrinsically dependent on the industry and the specific business activity to be brought back (i.e., some activities cannot return).

P3: The reshoring decision can be context turbulence dependent as well, stimulating firms' reshoring strategies even when they are not that obvious.

P4: Reshoring strategies are not limited to FDI-based strategies. The type of strategy will be determined by the industry, the type of firm, and previous offshoring paths.

P5: In the case of SMEs, their intrinsic motivation, resources, and type of strategy (cost- vs. differentiation-based) are critical to decide whether to reshore or not.

> *P5a: For SMEs, reshoring strategies are more usual for firms competing based on differentiation-based strategies (e.g., customisation-based production).*

P6: In the case of SMEs, reshoring strategies are more feasible when they tap into the networks they are embedded in, both business- and non-business ones, as they serve them to access resources and knowledge through collaboration. Often, the local context offers SMEs more valuable linkages – compared to GVC-level connections.

P7: Sustainability-based strategies can be an avenue to stimulate SMEs' reshoring (e.g., because they can reduce raw materials- or input-dependence from abroad).

P8: Reshoring strategies have positive consequences for SMEs' sustainable and relational upgrading. In doing so, reshoring has positive effects on upgrading outcomes too, both direct and indirect.

5.5 CONCLUDING REMARKS

In this chapter, we answer the following RQ: how does the reshoring decision materialise for developed countries' SMEs, and what are the upgrading consequences? Responding to this contributes to respond the second RQ of the dissertation: how can different cooperation mechanisms affect the sustainable upgrading of developed countries' SMEs? We conducted a qualitative study to answer these RQs, and we concluded that reshoring could manifest as strategies different from FDI-based ones for the case of SMEs, and that its consequences for sustainable upgrading are positive. However, this does not mean that reshoring strategies can happen easily, as their feasibility depends on many factors. What we can confirm, though, is that reshoring decisions convey a wide spectrum of strategies, hence representing a potential, feasible possibility for smaller firms too, which can improve their control over the chain and their competitiveness in turn. In addition, regarding the second RQ of the dissertation, we once again illustrated that relational, cooperation mechanisms with both business actors and non-business agents are key to promote SMEs' sustainable upgrading. More precisely, horizontal networks continue to be the most relevant, especially those related to auxiliary firms and local institutions. These agents are providers of resources and knowledge that can help SMEs' in successfully undertaking sustainable upgrading paths – even though, again, public institutions were referred as less useful given their potential disconnection with the business reality.

Accordingly, we reached a series of conclusions. First, reshoring is not the panacea. It may not happen in all industries, nor GVCs, because sometimes it is not possible and there are still gains to offshore certain activities from the value chain. As some researchers have already argued, despite disruptions such as the COVID-19,

GVCs structures may not change so drastically as reality is far more complex than that. The pandemic supposed a momentum, but firms and policymakers need to be realistic as GVCs do accomplish their role in ensuring efficient production and commercialization. Second, available possibilities for reshoring decisions will vary from one industry to another, even from one section of the GVC to another, depending on firms' resources and capabilities too. Third, despite the potential role that institutions may be playing, some industries are being ignored against others that are considered more strategic, even though they might also be significant creators of employment and richness in a territory. In the end, the strategy depends greatly on firms' willingness and capabilities, and further attention should be played to this level of analysis. Finally, reshoring options are available even for resource-constrained companies, as reshoring is not limited to FDI disinvestments that are brought back home. Indeed, reshoring may take different forms, and this is crucial because it may serve to more purposes rather than just minimising supply risk – which will remain to exist anyway. For instance, it may be about reducing sourcing distances, thus being more sustainable; gaining control over the chain; gaining sovereignty in the chain, because as a firm you become more valuable, with the possibility that relationships evolve towards a more relational-type governance modes; or upgrading in the chain, in terms of producing better products and processes that allow the firm to capture a greater value from its GVC participation, also concerning better reactivity and response capabilities that improve firms' position either in terms of the tasks performed or regarding the relationship with international clients.

Notwithstanding the above, our study is not without limitations. Even if the methodology we followed responds to our RQs, our research is still a work in progress,

such that it could be expanded with more reshoring examples that allow shedding more light on this topic. We advocate for more qualitative studies around the reshoring phenomenon as firms are deploying strategies that are difficult to observe from a quantitative point of view. At the same time, though, considerable time has passed already, and so quantitative, primary data could be collected already at the firm level. For example, it would be interesting to quantitatively examine to which extent may reshoring occur in different chains, to truly address how likely this strategy might be, or to assess whether different strategies could have varying consequences, also as a way to improve the formulation of policies that promote this decision. In this sense, the propositions of this study could serve as a departing point for this research avenue.

Therefore, we contributed to the GVC and reshoring literature within IB by advancing in the conceptualization of this term, the analysis of its determinants, type of processes, and importantly, the consequences for SMEs' sustainable upgrading. More studies such as this are necessary to analyse alternatives to FDI-based reshoring that may constitute an avenue for SMEs to regain control. Besides, for managers, we presented this decision as a feasible strategy for smaller companies as well. Likewise, uncovering such considerations is essential for policymakers too, such that they can be efficient in designing measures towards the reindustrialization of their regions, especially Western ones, as we show that they can increase their competitiveness.

5.6 REFERENCES

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5.7 APPENDIX 3

Table A 5. Information sources employed in the study

Primary data sources			
Case	*Interviewee*	*Interview date*	*Reshoring YES/NO*
A (activity from 2000s): Producer and distributor of luggage and leather accessories. 69 employees. Turnover: EUR 10-50 million.	CEO	27/1/2023	YES
B (2000s): Home-textile manufacturer. Integrated vertical structure. 40 employees. Turnover: EUR 10-50 million.	COO	25/1/2023	YES
C (1990s): Technical and sport garment manufacturer. Vertically integrated. 42 employees. Turnover: EUR 2-10 million.	CEO	27/1/2023	NO
D (1960s): Yarn manufacturer and distributor (also sustainable yarn). 122 employees. Turnover: EUR 10-50 million.	CEO	25/7/2023	NO
E (1990s-2000s): Producer and distributor of home textiles, especially for mattresses (they are starting now with clothing). 72 employees. Turnover: EUR 10-50 million (2022 data).	President and CEO	25/7/2023	NO
F (2000s): Producer and distributor of home textiles for mattresses (and mattresses now too; it counts on several brands). Around 209 employees. Turnover: EUR 10-50 million (2019 data).	CEO	24/7/2023	'YES'
G: shipping company. Dedicated to both imports and exports integrating various transport types (maritime, land, etc.). International presence. Valencian office (main Spanish branch): 77 employees. Turnover: EUR 10-50 million.	Employee (experienced in import and export departments)	21/7/23	*Does not apply*
Other data sources			
Secondary data sources: - Newspaper articles, firms' webpages. - Other: ORBIS (2023), Bureau van Dijk. Other primary data sources: - Interviews with these companies from prior studies of our own.			

Note: company data obtained from ORBIS (2023) or the interviews when unavailable.

Source: Own elaboration

CHAPTER 6: A QUANTITATIVE ANALYSIS ON TRADITIONAL, MANUFACTURING SMES' SUSTAINABLE UPGRADING

ABSTRACT

Governance structures and their influence on upgrading paths have been the most studied topics in the GVC field. However, because of the particular way in which these chains emerged, most research has concentrated on private, vertical governance structures and upgrading paths in the context of developing economies. This has led to comparatively understudy other agents that are also key for GVCs and the extant global, economic environment, especially in a context where we must consider sustainable, upgrading paths too. This is the case for developed country SMEs, which represent an important part of the suppliers in GVCs, and other governors such as public institutions at the horizontal level. In this vein, we conduct a quantitative study supported by the theoretical logics of the IT and the business-based, NT approach to answer the following RQ: what is the role that different factors and actors – especially institutional agents – play on the sustainable upgrading of developed countries' SMEs? Responding to this allows us to answer the general RQ of the dissertation: how can the sustainable upgrading of developed countries' SMEs operating within GVCs be promoted? Empirically, we perform a multiple, linear regression analysis on a sample of 214 Spanish SMEs. Even if our study is still rather exploratory, our results illustrate that relational structures seem to work better at promoting SMEs' sustainable upgrading; that captive structures have a positive effect too in several cases; and that the role by governments as facilitators may be limited in fostering SMEs' competitiveness. We contribute to the GVC field by adding more quantitative evidence and extending theory, and we apply our results to practitioners and policymakers too.

Keywords: Sustainable upgrading, SMEs, GVC, developed countries.

6.1 INTRODUCTION

GVCs emerged from a series of technological advances and liberalization trends linked to globalization that allowed firms to access business opportunities in foreign markets. In this way, companies were able to benefit from comparative advantages between countries, often related to costs and, consequently, efficiency. This led MNCs to abandon their traditional, vertical integration strategies to start producing and distributing goods and services for global markets by outsource-offshoring certain tasks. They kept the highest value-added activities – i.e., downstream parts of the chain – within the MNC, and outsourced those of lower-value added – i.e., upstream tasks – to such territories. Over time, these changes gave rise to GVCs: chains made up of interdependent agents – often connected by contracts rather than property linkages – who are geographically dispersed and are coordinated by lead firms to deliver products and services to the global market (Ponte et al., 2019). MNCs became these lead firms because, basically, they were the closest to the final markets and that gave them power to coordinate and control the chains, hence determining how the activities, profits, and risks were distributed among GVC participants (Gereffi, 2014). Thus, this private, vertical governance (Gereffi & Lee, 2016) affects value-creation and value-capture in the GVC, that is, upgrading (McWilliam et al., 2020). For such reason, governance and upgrading have been the most studied topics within the GVC literature (Ponte et al., 2019; Gereffi & Fernandez-Stark, 2016), given the implications for firms' competitiveness and, by extension, for their regions and countries too.

However, because of the way that GVCs emerged, most of the literature has concentrated on said topics especially in the context of developing countries, as they were where lead firms tended to take advantage of lower-cost manufacturing processes

(Jeppesen & Hansen, 2004). Consequently, the GVC field has left other agents comparatively understudied. That is the case for suppliers from developed markets, which are SMEs very often, and also for governors different from lead firms, such as public institutions at the local, horizontal level. In general, the GVC field lacks a further integration between the vertical, global level of governance and the horizontal, local level of governance, which would shed more light on how these dynamics, in combination, affect firms' upgrading. In turn, these paths to competitiveness should be studied in an integrated way too, such that we consider economic, social, and environmental improvements together. The latter is crucial in a world where GVCs are contested (Kano et al., 2020) because they have spurred economic growth, but also social inequalities and environmental damage. In this vein, we propose the term sustainable upgrading (defined as per chapter 3) and, accordingly, in this chapter we answer the following RQ: what is the role that different factors and actors – especially institutional agents – play on the sustainable upgrading of developed countries' SMEs? This contributes to achieve the general goal of the dissertation, which is to analyse how the sustainable upgrading of developed countries' SMEs operating within GVCs can be promoted.

To achieve so, we conducted a quantitative study on 214 Spanish SMEs to assess, simultaneously, the effect of both vertical, private governance and horizontal, public governance on these firms' sustainable upgrading. The fact that we use such a methodology is important already because most GVC-related research has employed qualitative methods to assess upgrading processes (Koberg & Longoni, 2019) and quantitative contributions leading to wider generalisations are comparatively scarcer – with exceptions such as that of Golini et al., (2018). Hence, we carried out a survey

questionnaire by departing from prior GVC literature (mostly, from the work presented in chapter 3, and also from Golini et al., 2018). Because there is not yet a scale to measure sustainable upgrading – since it is a term that we propose in this dissertation –, we run several models to account for all upgrading types together. More precisely, we conducted a multiple, linear regression, whose results indicate that the effects of different governance types vary depending on the upgrading type – even though relational governance seems to be more effective, in general –, and that the role of horizontal, local institutions as facilitators through different types of grants is not as effective as it could be – thus supporting our conclusions in previous chapters on the fact that institutions' most crucial part might lie in softer roles, such as that of knowledge-bridges (cf. Corredoira & McDermott, 2020). Theoretically, we use the business NT perspective and the IT to explain the underlying logic to our hypotheses and the results. Both relate to governance structures and how they work adequately, not only regarding private governance but also public, horizontal governance.

In conducting this study, we contribute to the GVC field in theoretical terms by reflecting on how the vertical and horizontal dimensions of chains work in an integrated way to affect firms' sustainable upgrading. In turn, we also contribute by taking another step in providing the GVC field with more quantitative contributions that allow testing generalisable relationships among different variables. Empirically, we showcase the effect of different governance structures and a particular mechanism employed by local authorities on developed countries SMEs' sustainable upgrading. Thus, we provide evidence of less studied actors, also contributing to prior studies on upgrading as our results are slightly different in some parts. Our firm-level perspective to this study represents another valuable contribution, since firms will be the first

actors to initiate upgrading paths, whose effects will then extend to their chains, countries, and regions, hence the importance of collecting primary data. We consider the use of the latter to be another valuable contribution, as analysing upgrading at the firm level may require so to obtain accurate measures, and because secondary data are less available for SMEs. This study has implications for policymakers and practitioners as well, in terms of what relationships and mechanisms promote SMEs' sustainable upgrading better.

The chapter is structured as follows. The next section presents the theoretical framework of our study, based on the GVC literature, the NT perspective and the IT, and showcases the development of our hypotheses. Next, we describe in detail the methodology that we followed, the type of data that we collected, and the context of the study. Afterwards, we present our quantitative results and explain them. Finally, we illustrate the conclusions of our study as well as its limitations, which are conducive to interesting, future research avenues.

6.2 THEORETICAL BACKGROUND

As stated, we use the IT and the business NT approach to support the logic of our study. The combination of these two theoretical paradigms is appropriate because, first, we aim to shed light on the effects of both internal- and external-to-the-GVC actors on developed countries SMEs' sustainable upgrading, considering the different environments to which SMEs belong to and taking account of both business and institutional agents; and second, because the two paradigms bring together the firms and their contexts, thus being accurate to answer our RQ. In this section, we explain how they apply to the GVC literature in terms of the analytical variables that we study.

First, the IT (e.g., DiMaggio & Powell, 1983; North, 1990) has at its centre the understanding of the processes leading the actors of a given institutional field to adapt to that environment in an effort to gain legitimacy. This institutional field is defined as "*organizations that, in the aggregate, constitute a recognized area of institutional life*" (DiMaggio & Powell, 1983; 148). An institutional area exists when their members are connected among them; there are defined and known structures in terms of authority; there are significant information exchanges among the members; and there is awareness of each other (DiMaggio & Powell, 1983). Hence, GVCs and SMEs' local environments where they are embedded in are equivalents to these organisational fields, as all these characteristics accomplish. In turn, institutions – whether formal or informal – will be those rules of the game common to and known by all the members of a specific institutional group. They will serve to shape actors' relationships in a way that decreases the uncertainty associated with ambiguity (Hotho & Pedersen, 2012). These norms will motivate competitive and institutional pressures that, eventually, will drive isomorphism patterns among actors in the same field, who will be pushed to emulate one another to gain legitimacy as they compete for power and resources (DiMaggio & Powell, 1983).

Taken to the GVC field, this theoretical reasoning identifies well with GVCs' governance structures and how they are controlled and coordinated by agents (e.g., lead firms, supranational or national institutions, etc.) with authority to impose mechanisms that drive GVC participants' behaviour towards a specific goal. Aside from different types of private, vertical governance, and even though there are different ways to reproduce these rules – i.e., normative, mimetic, and coercive pressures (DiMaggio & Powell, 1983) –, here we will focus on a specific mechanism employed

by public institutions that is different from regulation – which has been more explored in the GVC literature. This mechanism refers to national, government grants of different types, which are given to firms for various purposes and can also constitute sort of a norm that looks to normalise actors' behaviour towards a particular end. Thus, we analyse this horizontal, public governor in its facilitator role (De Marchi & Alford, 2022), which together with other chapters of the dissertation where we analyse other roles of these governors, completes a bit more our view about them.

Therefore, the IT theory fits the GVC framework as it considers various types of institutional-like actors that, despite being external-to-the-chain, have agency and authority to act on it (Sturgeon et al., 2008). They will use different mechanisms to drive organisations' actions, just as vertical, private governors do. They will operate at several levels as well, hence affecting GVC firms such that they will face pressures at the local, national, regional, and global level, both internal- and external-to-the-chain, which will influence their strategies to maintain their legitimacy and keep being competitive – in terms of upgrading (see chapter 3 for an extended explanation). The underpinnings of this theory are relevant also because of the focus of this dissertation on sustainability-related upgrading. That is, most GVC research has focused on private, lead firms' governance because of the international extension of these chains, which reduces the capability to act by other agents, such as institutions. However, as previous studies have reported, private governors will often pursue sustainable behaviours when they also correspond their competitive goals, and so other type of governors may be crucial to promote these upgrading paths anyway (Mayer & Gereffi, 2010). We contend that the horizontal level is crucial in this vein, especially for SMEs given their internal limitations (Lu & Beamish, 2001; 2006).

Second, we use the business-based NT approach (e.g., Johanson & Mattson, 2015; Johanson & Vahlne, 2009) as we assess the effect of both business actors and non-business agents on SMEs' sustainable upgrading. In general, networks are groups made of various agents who are interconnected by different types of relationships among them (Borgatti & Halgin, 2011), and in particular, business networks are systems containing linkages among business-type agents (Johanson & Vahlne, 2009), where they are interdependent and embedded in broader networks. Instead, non-business or institutional networks are systems where the linkages are between public actors (e.g., governmental institutions, research entities or industry associations) and organisations. The latter networks are crucial as well because they can provide financial and non-financial support with the goal of driving firms' competitiveness (Oparaocha, 2015). Translated to the GVC field, both these chains and SMEs' national or local environments can be understood as networks too, where the participating agents constitute the nodes of the network, and the linkages that unite them form a structure where these nodes occupy specific positions. This network localisation will determine how knowledge and resources flow among its members, and it will also affect the power of each node depending on how central its position is (cf. Freeman, 1979) – which is why MNCs as lead firms tend to be more powerful, for instance.

Therefore, it is appropriate to combine this view with the IT such that we can explore other types of roles developed by different governors from two perspectives: a network, relational-based one, and an institutional, more formal-based one. Through various mechanisms, both can work to provide SMEs with the necessary resources and knowledge to drive their behaviour towards a particular goal. In this case, we will assess how different types of GVC structures that are more or less relational work

towards promoting SMEs' sustainable upgrading, as well as how particular institutional mechanisms work towards the same end. The NT approach suggests that the higher the embeddedness (Granovetter, 1985) of a firm in its network, the better the flow of resources and knowledge, which suggests that relational GVC structures might be better to promote SMEs' sustainable upgrading. However, as SMEs are deeply embedded in their local contexts too, we might find competing pressures from vertical and horizontal levels, hence the importance of integrating the two approaches.

6.2.1. *Development of hypotheses*

The theoretical reasonings provided by the IT and the NT paradigm serve well to enrich the GVC field with respect to our RQ. As per Sturgeon et al., (2008), even if the chain conceptualisation of GVCs helps in their analysis, this does not imply a unique, linear vision of GVCs, as they can be understood as networks formed by both inter- and intra-firm links, indeed (Gereffi, 2014). Consequently, by using the NT approach we can consider the various actors who affect the GVC and the implications of their relationships for SMEs' sustainable upgrading, while also considering the role by non-private actors through an IT perspective. In this subsection, we develop our hypotheses accordingly.

In internationalisation research, it has been appreciated that business networks help firms to develop abroad by giving them a better understanding of how to adapt to foreign contexts (Díez-Vial & Montoro-Sánchez, 2020). The reason is that internationalising – which includes entering GVCs, a type of economic upgrading path too – requires specific knowledge that can be acquired through networks – e.g., firm-specific technological knowledge to adapt firms' products; market- and institutional-knowledge to gain legitimacy abroad; and experiential knowledge on how to approach

foreign markets (Fletcher & Harris, 2012). In this sense, studies on network-based internationalisation have explored business networks most often (Costa et al., 2017), indicating that both foreign counterparts (Díez-Vial & Montoro-Sánchez, 2020) – as GVC lead firms could be – and domestic ones (Chetty & Campbell-Hunt, 2003) – as local, business and non-business network actors might be – can be crucial in favouring firms' internationalisation. Likewise, this applies to other complex strategies that require different types of resources and knowledge for their development, like SMEs' sustainable upgrading paths. We contend so because network embeddedness is key for companies to access the capabilities that they need to be competitive, especially when firms cannot develop them internally (as it might happen with SMEs) and/or when they cannot be traded at the market either (as occurs with industry, specific knowledge) (Chetty & Wilson, 2003).

In this vein, and as per chapter 3 of this dissertation, sustainable upgrading will refer to product, process, functional or managerial/routine-based improvements, including both social and environmental considerations or actions, that allow firms to increase the value captured from their GVC participation – i.e., to be more competitive –, although in a sustainable manner. The latter means that the value captured is not only economic or relational, but also social and environmental, and that there will be positive outcomes not just for the firm, but for the different environments it is embedded in too (e.g., the chain, the wider society). Regarding firms' upgrading, prior GVC research has argued that it can be driven by both internal, firm drivers and external drivers too (De Marchi et al., 2019). In turn, the more complex the improvements are, the more likely it is that they require sharing knowledge and collaborate with other actors of the chain – for instance, in previous, empirical chapters

of the dissertation we have observed how SMEs cooperated with suppliers and industry associations to come up with more sustainable products. However, and as stated, most studies have focused on the context of developing countries (e.g., Gersch, 2019; Hoang et al., 2021; Hoque et al., 2016), reaching competing conclusions in many cases. Here, as we focus on developed countries SMEs' upgrading and on various external drivers, we contend that these SMEs should be in a better position to upgrade sustainably as their context is more favourable to do so and they might count on more resources than initially expected, despite their size (as we saw in chapter 5). Nevertheless, we develop our hypotheses also thinking that the specific type of external driver might have a different effect on SMEs' sustainable upgrading.

Concerning vertical, private governance structures, we consider the five-based classical typology (Gereffi et al., 2005) and how they might work at promoting SMEs' sustainable upgrading – this is further explained in the methodology section –, even though we focus particularly on network-based structures in our hypotheses – i.e., the relational and captive types – according to the theoretical reasoning that we use. Besides, because the general governance structure of a chain varies with respect to relationships among its nodes, we consider both SMEs' relationships with their international clients and with their suppliers too, as previous works have done as well (e.g., Golini et al., 2018). In this vein, the most network, trust-based governance type are the relational structures, which tend to emerge in sectors where products are of higher quality and so more complex, and thus, knowledge is more tacit and not so easy to transfer. These characteristics demand competent suppliers and, accordingly, frequent interactions among GVC partners, which is why relationships among them tend to be long-lasting and trust-based, often connected to proximity advantages and/or

reputation to reduce potential transaction costs. Even if lead firms may still hold more power, these structures will characterise by knowledge-sharing links and explicit coordination (Gereffi et al., 2005; Gereffi, 2014; Gereffi & Fernandez-Stark, 2016).

Along these lines, previous evidence has suggested a general, positive effect of relational governance structures over firms' upgrading, as the mechanisms employed tend to foster companies' learning better. These mechanisms may operationalise as direct contacts, but also as financial assistance, collaboration in value-added tasks such as R&D or product development, or technical assistance too (e.g., Szalavetz, 2019). Several studies, mostly qualitative, have reported these positive effects over firms' upgrading, such as Kumaraswamy et al. (2012), where they researched the effect of licences and technical collaboration between firms and leader MNCs, or Perez-Aleman and Sandilands (2008), where they focused on financial aid provided by international buyers to support their suppliers. However, for this governance structure to emerge, sometimes this requires the pressure by other agents at the local level too, as governments might be (e.g., Gersch, 2019), as the associated mechanisms are costlier to apply. In turn, there is the potential for over-embeddedness problems (Uzzi, 1997), which may lead to non-effective transfers of novel information. Hence, even if prior results point towards a positive effect of relational governance on firms' upgrading, in general, there are still possible barriers such as the latter that need to be considered. Moreover, most of these previous results are qualitative, and we might appreciate something different with a quantitative test. Reasoning it from a NT approach, we contend that this governance structure, both with clients and suppliers, will have a positive effect on SMEs' sustainable upgrading, because these improvement paths require knowledge from different parts of the chain and because it is the governance

structure that will facilitate the most the transmission of the necessary resources and capabilities to upgrade. Accordingly, we hypothesize:

Hypothesis 1 (H1): Relational governance structures with international clients will have a positive impact on SMEs' sustainable upgrading.

H1a: Relational governance structures with international clients will have a positive impact on SMEs' economic upgrading.

H1b: Relational governance structures with international clients will have a positive impact on SMEs' social upgrading.

H1c: Relational governance structures with international clients will have a positive impact on SMEs' environmental upgrading.

H2: Relational governance structures with international suppliers will have a positive impact on SMEs' sustainable upgrading.

H2a: Relational governance structures with international suppliers will have a positive impact on SMEs' economic upgrading.

H2b: Relational governance structures with international suppliers will have a positive impact on SMEs' social upgrading.

H2c: Relational governance structures with international suppliers will have a positive impact on SMEs' environmental upgrading.

The next governance structures are the captive ones. They are said to be quasi-hierarchical, as they do not imply property linkages but work similarly. These structures are often observed in industries where a few, large, international buyers control the chain as they possess market information – and so they hold most power –

and many small suppliers depend upon them. In these structures, power asymmetry will be high, although there will exist thick links among GVC nodes because certain information will be shared, and it must flow easily (Gereffi et al., 2005). However, the mechanisms employed in this type of GVC have been reported to promote only limited forms of upgrading, especially when referring to relationships with buyers. Such mechanisms often include requirements on quality, prices, labour and environmental standards, but with no further support as it may occur in relational chains.

For example, prior studies have reported that standards only drove firms' upgrading limitedly, especially when related to sustainability, even with negative outcomes for suppliers, while intermediaries and GVC leaders improved their market access and reputation (Krishnan et al., 2023). Other researchers have found that suppliers in buyer-driven GVCs under this type of structure could upgrade their products and processes, but that the competing demands of lead firms, especially related to cost pressures, drove some companies out of the market and even led to social downgrading in some cases (e.g., Barrientos et al., 2016). Likewise, other studies report that quality requirements spurred economic, product upgrading, but that these affected social upgrading negatively (e.g., Selwyn, 2013), and that demands by international buyers did affect suppliers' willingness to upgrade sustainably, but nothing beyond this as they were not given further support (e.g., Achabou et al., 2017).

This leads us to believe that captive governance structures with international clients will only have a limited, positive effect on SMEs' sustainable upgrading, being even negative for sustainable paths such as environmental ones. We state the latter argument because these strategies are costlier and need a higher compromise of resources and collaboration, so if the price factor is more important, this is not a

governance structure that shall foster advanced forms of environmental upgrading. For social upgrading, though, the effect could be positive for developed country firms, as they usually accomplish already with stricter rules and so fulfilling the required standards might not be as difficult. However, these previous studies have been mostly conducted in the context of developing economies; thus, we could observe different results for developed countries SMEs, as these seem to be more capable themselves (as we have seen in previous, qualitative chapters). In turn, we contend that the case might be different when observing relationships with suppliers, even if they are captive too, because there might be an interest in cooperating more in that direction to increase firms' competitiveness, and hence the value they can capture. Therefore, we hypothesize:

H3: Captive governance structures with international clients will have a limited, positive impact on SMEs' sustainable upgrading, especially the more advanced this upgrading is.

H3a: Captive governance structures with international clients will have a positive impact on SMEs' economic upgrading.

H3b: Captive governance structures with international clients will have a positive impact on SMEs' social upgrading.

H3c: Captive governance structures with international clients will not have a positive impact on SMEs' environmental upgrading.

H4: Captive governance structures with international suppliers will have a positive impact on SMEs' sustainable upgrading, even when the latter is more advanced.

H4a: Captive governance structures with international suppliers will have a positive impact on SMEs' economic upgrading.

H4b: Captive governance structures with international suppliers will have a positive impact on SMEs' social upgrading.

H4c: Captive governance structures with international suppliers will have a positive impact on SMEs' environmental upgrading.

In an international world, though, SMEs will not be embedded in business-networks only: as stated before, they will affect and be affected by various types of networks from all the contexts they are part of. This includes institutional networks that, at the local level that we analyse here, connect with public, horizontal governance. Public governance includes institutional actors with power and authority to elaborate and enforce norms, and at the horizontal level they include national, regional, and local governments (e.g., Jensen & Whitfield, 2022), as well as other actors such as research entities (e.g., Hoang et al., 2021; Rainbird & Ramirez, 2012). In the case of governments, previous literature has referred different roles for this institution, mainly as facilitators, regulators, producers, and buyers (De Marchi & Alford, 2022). Here we explore the first – as we have studied other roles in previous chapters –, which would consist of supporting SMEs' upgrading through mechanisms such as grants, subsidies and alike – that is, financial aid, either directly or indirectly.

Prior studies often point towards a positive, limited effect of local public governance on firms' upgrading, sometimes with mixed, unexpected effects. For example, in some cases, institutional actors favoured social improvements but were non-significant for environmental upgrading paths (e.g., Giuliani et al., 2017). In some

other cases, it was government action and investments what allowed for firms to upgrade, although they were initially driven by global buyers and the effect of this public actor as a driver was limited given the lack of sufficient resources – because it was in a developing country context (Jensen & Whitfield, 2022). In addition, in some other cases the action by governments has been key to foster learning and adaptation by local firms, especially in the absence of meaningful, vertical relationships, driving social upgrading paths too through mechanisms such as financial aid or training, but the effect was limited as well because of local limitations (Rainbird & Ramirez, 2012). However, other studies have reported that institutional intervention was positive for economic upgrading paths, by helping to build manufacturers' capabilities through policies and investments, for instance, also fostering social upgrading (Lombardozzi, 2021). In turn, these actors should be crucial for sustainable improvements, at least allegedly: as suggested by some authors (e.g., Poulsen et al., 2021), regulators might have a key role in multipolar GVCs to foster sustainable upgrading paths through the use of a vast range of mechanisms. These reasoning should apply to institutionally well-developed contexts, as advanced economies are. Consequently, we hypothesize:

H5: Public, horizontal governance structures will have a positive impact on SMEs' sustainable upgrading.

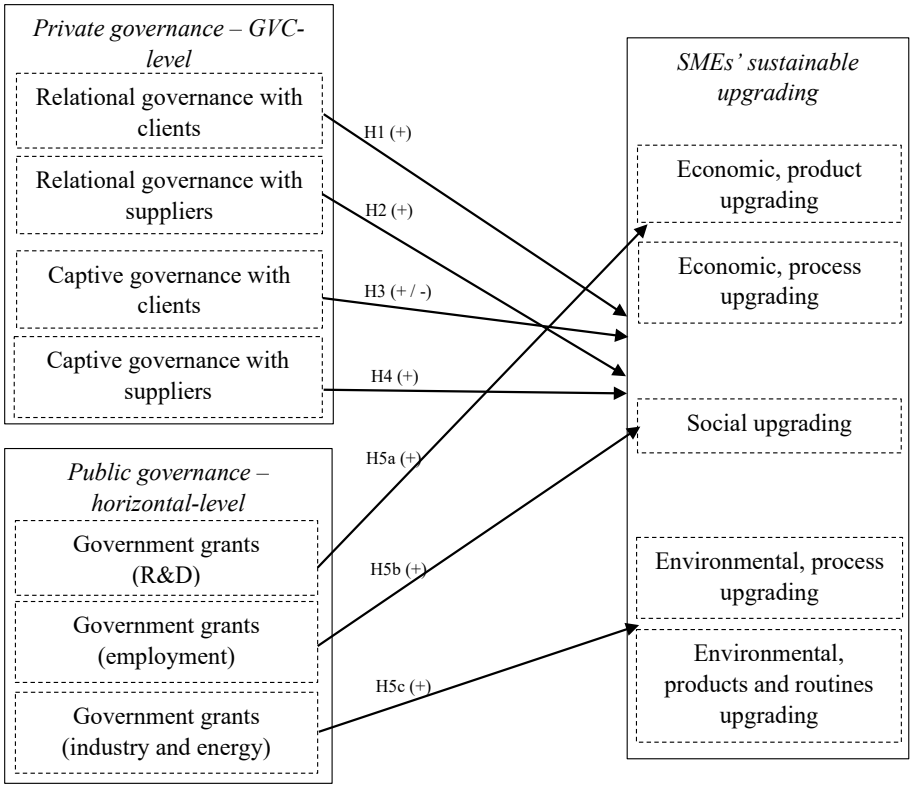
H5a: Public, horizontal governance exercised through R&D grants will have a positive impact on SMEs' economic upgrading.

H5b: Public, horizontal governance exercised through employment grants will have a positive impact on SMEs' social upgrading.

H5c: Public, horizontal governance exercised through industry and energy grants will have a positive impact on SMEs' environmental upgrading.

In Figure 6.1., we illustrate the model of the relationship between the network-based types of governance and public governance and SMEs' sustainable upgrading, with our hypothesized relationships reflected in it.

Figure 6. 1 Model of the relationship between private, vertical governance and horizontal, public governance and SMEs' sustainable upgrading



Source: Own elaboration

6.3 RESEARCH DESIGN AND METHODOLOGY

6.3.1. *Sample and data collection*

Between 2023 and the beginning of 2024, we conducted a quantitative study to answer the RQ of this chapter. We collected primary data through a survey questionnaire on a

sample of Spanish companies, obtaining 254 responses in the process. This survey was part of a larger project, so it included questions about upgrading and governance, but also about offshoring, reshoring, and performance matters. Because the GVC literature does not count on well-established scales of its own yet, we consider this study to be exploratory, as we used literature-based measures, but we also made some adjustments – e.g., we distinguished between types of environmental upgrading and adapted the items of social upgrading to developed countries' reality. The topic of the dissertation justifies the preference for primary data, because this is not information that we can obtain second-hand – not completely, at least, and especially for SMEs' case. Hence, we elaborated the survey from our literature review, and we validated and pretested it with professionals and academics prior to distributing it. Once we had collected our primary data, we complemented it with secondary data about SMEs' characteristics and performance to complete our database and triangulate it to some extent too.

Back in mid-2023 and before data collection, we first searched the sample population in the database ORBIS by Bureau van Dijk. This is a well-known, reputed source that contains financial and non-financial data of companies around the world. We used several criteria to make the search: (a) the firms had to be active; (2) they had to be located in Spain, as the dissertation focuses on developed-country firms, and this proximity would allow us to obtain as many responses as possible too; (3) they had to count on at least 10 employees according to the last year with available data in ORBIS, as the dissertation focuses on SMEs; and (4) the firms had to have a NACE 2009 manufacturer code representing the industries of interest. The latter, considering that the dissertation concentrates of TMSs, would include the NACE code 13 for home textiles or the 31 for furniture, for instance, including a higher variety of codes for

cases such as that of the faucet sector. Following our criteria, we conducted a search for each industry of interest and selected 150 firms from each, approximately – depending on the size of the sector in Spain –, according to their number of employees and income as per the last year of available data – e.g., if the last available data were from before 2019, the company would be discarded. This search also required personally checking the industrial activity of some firms in some cases, as some included more than one NACE code. In doing so, we elaborated a list of 1,603 firms that accomplished our criteria and to which the survey was sent.

The method of data collection was both via phone and through an online survey. In both cases, knowledgeable informants were approached, this including firms' managers and, in some cases, export managers and alike – depending on the informant available, but always being part of the management team. The questionnaire was developed according to the corresponding literature, as stated, and followed recommendations to avoid common method bias during the design phase of the study (Podsakoff et al., 2003). Therefore, we included questions with seven-point Likert-type scales but also questions with five-point Likert-scales and other formats to avoid automatic answers. Likewise, we obtained some independent variables and control variables from ORBIS rather than the questionnaire to reduce this potential effect too.

Our final sample covered companies from TMSs, mainly, although we allowed for the inclusion of firms from sectors considered more advanced too, so that we could compare similarities and differences among industries and increase the generalization of our results. Specifically, we considered: home-textiles; fashion textiles; furniture; faucet-related sectors; lighting; leather and footwear; toys and sports-related goods; ceramics and complementary sectors; machinery-related; electronic and computer

components; car components; and others related to construction and alike (although the latter includes only two firms). Most these sectors are representative of TMSs, which often convey a significant share of smaller, considered low technological firms, as SMEs are. These industries have also been affected by the entry of foreign competitors in Spain, which led to the restructuration of some of these sectors and the internationalisation of the surviving firms – especially in those industries that are more traditional, such as textiles or furniture. We set these sectors to be the ones of most interest for our study and RQ as we thought of them to be well represented in Spain; composed by an important share of SMEs; of significant economic, social, and environmental importance; and highly attached to GVCs.

Once we collected our primary data, we observed some issues. Out of the responding firms, 10 did not indicate the name of their company, therefore we could not use their responses because we could not support their primary data with secondary, firm-level data. In addition, four companies answered twice, so we had to eliminate the duplicates, for which we kept the answers from the respondents we deemed more knowledgeable considering their position within the firm. This left us with 240 valid answers, out of which we selected only those by SMEs. In doing the latter, we followed the criteria about the number of employees (European Commission, 2014), for which we used ORBIS data to calculate the average from the year 2019 to 2022 for each firm. We did so because these were the latest years available in ORBIS with the most complete data considering the year of the questionnaire, and also because, even if studies consider an average of three years most often, here we considered four years as this period includes the year 2020, where events such as the COVID-19 occurred. After this process, our final sample counted on 214 valid

responses, which reaches the recommended size of, at least, 100 observations to ensure statistical power in social sciences (Cohen, 1992).

Regarding the descriptives, our final sample includes 128 SMEs from TMSs, and 86 SMEs from more advanced industries. Following the European classification, our sample contains 1.40% microenterprises (i.e., less than 10 employees; because we calculated the average of several years), 27.10% small firms (i.e., between 10 and 50 employees), and 71.50% mid-size companies (i.e., between 50 and 250 workers). Because of the sectors they are from and their locations, several companies are present in industrial clusters, such as those in Catalonia or the Valencian Community where sectors like textiles often agglomerate. Moreover, SMEs in the sample had an average of 33 years of experience and an average of approximately 27 years of international experience – although the latter perhaps would be higher if considering when firms first exported, since here we have calculated it with respect to when they first offshored any operation, as asked for in the questionnaire (2024 being the reference year). Regarding their international location, all 214 firms were present in Europe (their home region), with 43% of them being in America, 32.7% in Asia, and 33.6% in other regions too. We classified this presence as regional, bi-regional, or global depending on whether the firms located in one region, two, or more than two, respectively. Finally, when asked about what their main activity was, 92.52% responded that it was the sale of final goods to business clients (sometimes in combination with other activities), thus confirming that all SMEs in our sample participate in chains or GVCs and that most are close to lead firms. This somewhat balanced distribution in our sample helps controlling for possible biased results due to dissimilar profiles. We show the descriptive data in Table 6.1.

Table 6. 1. Sample descriptives

Geographical scope (*No. of firms*)	Regional	Bi-regional	Global
	80	69	65
Firms in Europe	214		
Firms in America	92		
Firms in Asia	70		
Firms in other regions	72		

Main activity generating revenue in the firm (*No. of firms*)	Final goods' sale to final consumers	Final goods' sale to business clients	Intermediate goods' sale	Raw materials'/ inputs' sale	Final services	Services for firms
	9	198	10	3	4	9

Firm size as per number of employees (*No. of firms*)	Micro enterprises	Small	Medium
	3	58	153

Industry	No. of SMEs
Home textiles *(traditional)*	23
Fashion textiles and others *(traditional)*	31
Furniture *(traditional)*	11
Faucet-related (includes bathroom and kitchen ceramics) *(traditional)*	2
Lightning *(traditional)*	19
Leather and footwear *(traditional)*	30
Toys and sports-related goods *(traditional)*	12
Ceramics and complementary *(advanced)*	47
Machinery and equipment *(advanced)*	19
Electronic and computer components *(advanced)*	14
Car components *(advanced)*	4
Others *(advanced)*	2
Total	*214*

Source: Own elaboration

6.3.2. *Variables and measurement*

In our model, we test the effect of different governance structures and institutions (independent variables) on SMEs' sustainable upgrading (dependent variable). Hence, according to our RQ and hypotheses, and because we have several independent variables and our dependent variable is a continuous one, we apply a multiple, linear regression analysis (Hair et al., 2010).

More precisely, our *dependent variable* splits in five types of upgrading paths. Therefore, we study SMEs' sustainable upgrading in separate models for each. These competitive improvements include economic upgrading in terms of product upgrading and process upgrading; social upgrading; and environmental upgrading regarding

processes and certifications on the one hand, and product and routines improvements on the other. They are all continuous variables, and except for the last type of environmental upgrading, they are all scales or constructs including several items. Prior to their introduction in the model, all multiple-item factors were calculated based on the average of the items they included.

In the questionnaire, we asked respondents about up to which point the fact of working for, or with, their international partners had had an influence on different aspects of their business activity. These questions were based on five-point Likert-scales (1 being has influenced little, 5 being has influenced a lot), although we allowed respondents to mark 0 if they considered that there had not been any impact. The questions we employed and the idea of considering these variables as scales were based on the paper by Golini et al. (2018) mainly, since it is one of the few quantitative contributions within the GVC field that proposes measures for both governance and upgrading. However, we included some changes to adjust the items better as we were dealing with developed countries' SMEs or considered that the items were lacking certain considerations in some cases. For instance, for social upgrading, Golini et al. (2018) included an item regarding health and safety conditions, but during our pretest we were warned that this was already covered by SMEs in our context, so we included other items such as those related to work-life balance, for instance.

Concerning our *independent variables,* these cover different governance structures and institutional mechanisms, the latter in terms of institutions' role as facilitators. Regarding private governance, we also based our measures on the work by Golini et al. (2018). Our survey included questions regarding, on the one hand, the ability of either suppliers or clients to impose conditions on SMEs, and on the other

hand, the extent to which SMEs collaborated with these partners in different ways. That is, we considered both power matters and the nature of the relationship. We did so for clients and suppliers, as Golini et al., (2018) did too, so that we could account for potential governance variations depending on the node of the GVC. The questions we employed were based on five-point Likert-scales and explicitly differentiated among clients and suppliers. Then, similarly to Golini et al. (2018), we considered governance to be captive (equal to 1) if the relationship was very collaborative (i.e., above 3, in our case, as we calculated the average of the items) and the power by the international partner was very strong (i.e., equal to or higher than 4). Instead, we considered governance to be relational (equal to 1) if the relationship was very collaborative (i.e., above 3) and the power by the international partner was medium to weak (i.e., lower than 4). If a case did not fit any of these considerations, we considered governance to be of the market type, since the SMEs in our sample are not formally part of foreign MNCs – according to the data we downloaded from ORBIS – and so it could not be hierarchical governance. This gave as a result four different dichotomic variables regarding suppliers' relational (or captive) governance, and clients' relational (or captive) governance. In addition, following Golini et al. (2018) as well, we included a control variable assessing the modularity of the product in case governance could be modular, given the different industries that our sample covers.

In terms of public, institutional governance, we did not include questions about this in our survey because we deemed more appropriate including measures taken from secondary data, such that not all data come from primary sources – also to prevent common method bias issues. In this sense, ORBIS contains information about government grants that companies have received in different years. This allows us to

assess institutions' role as facilitators – complementing, in turn, our analyses from other chapters in this dissertation to answer our general RQ. Hence, we downloaded information regarding government grants that SMEs had received from 2019 onwards. We focused on grants regarding R&D, employment, and industry and energy matters because they are connected to the upgrading paths we were studying. This gave as a result three other independent variables that we coded as 1 if the firm had received that grant at any time between 2019 and 2023, and 0 otherwise.

Finally, we introduced several *control variables* in the model. In doing so, we considered previous literature, the moment of data collection, and the last year of available data in ORBIS for our sample firms. In case of having missing data in the variables – which represented less than 30% of data in every case, if any –, we substituted them by the mean of the variable series. Accordingly, we introduced the variable size because it is a proxy for firms' resources (Chen & Hsu, 2010), which affect matters such as company's innovation, and thus upgrading. We introduced it as the natural logarithm of the average number of employees from 2019 to 2022 – for the reasons explained in the prior subsection. We also introduced age as a proxy for SMEs' general experience, measuring it as the natural logarithm of the number of years since the firm was created. We used 2024 as the reference year for the calculation, while obtaining the incorporation year from ORBIS. We included it as experience may be crucial for firms to carry out competitive improvement strategies – indeed, regarding innovation, there is evidence that older SMEs' may be better especially with open innovation, but also that younger firms can be more innovative (Expósito, Fernández-Serrano, & Liñán, 2019). Besides, in our survey we asked the respondents for the year they first offshored any of their operations, so based on this and using 2024 as the

reference year, we calculated SMEs' international experience and introduced it as a natural logarithm as well. We did so because international experience has been argued to increase success prospects (Johanson & Wiedersheim-Paul, 1975). We also controlled for the industry, using a dichotomous variable as traditional manufacturing (equal to 0) or advanced (equal to 1), and for the geographical scope of SMEs too. We introduced the latter as a categorical variable referring to SMEs' domain of international activity. In the survey we asked the firms about what their main geographical regions were, considering Europe, America, Asia, and other regions, allowing them to answer more than one option. Similarly to Villar et al. (2018), we recoded this as 0 if they were only present in one region – i.e., Europe in the case of our sample –, 1 if they were bi-regional – i.e., present in Europe and another region – and 2 if they were global – i.e., present in more than two regions. We used this as a measure of SMEs' international scope because, currently, literature focuses more on this rather than the sales' level given the difficulty of operating outside the firms' home borders (Rugman & Verbeke, 2004; Verbeke & Asmussen, 2016) and because having an extensive international presence could influence SMEs' upgrading too. Finally, we introduced modularity as a control variable to check the possibility that this was the type of governance in place. We asked a question about clients giving SMEs precise instructions on how to do their products because they were parts or components for the client, based on a five-point Likert-scale, which afterwards we recoded as 1 (i.e., the product is modular) if their answer was above 4, and 0 otherwise. In Table A6 in the Appendix, we provide the survey questions we used to obtain our main variables.

Regarding the inclusion of some dependent variables as scales, we first carried out an Exploratory Factor Analysis (EFA) to assess the grouping of the items. All items

grouped as expected according to the literature and in statistical terms, also in a similar logic to Golini et al. (2018), except for the case of environmental upgrading regarding products and routines and the items related to economic, functional upgrading. Regarding the first, this made sense because the rest of items were more related to environmental, process upgrading. Concerning functional upgrading, we oriented the items towards firms' development of higher value-added activities and a brand of their own, but they did not group following the factor analysis. In the end, we did not include this variable in our model as it did not fit the literature.

In Table 6.2., we present a summary of our variable's descriptives and the results of the latent variables' EFA. That is, we assessed the psychometric properties of the Likert scales that we used to measure our first-order constructs as presented above before running our models. In Table 6.2., we showcase the loading of each item, the internal consistency of each construct (Cronbach's alpha), and its convergent validity (average variance extracted; AVE). In this vein, the reliability of the items included in each construct was acceptable since loadings were all above 0.70, which should ensure a common variance of 0.50. Convergent validity was ensured too, with an average variance extracted (AVE) higher than 0.50 for each construct. Moreover, the values for Cronbach's alpha were all above 0.70 as well, so internal consistency accomplished as well. All in all, despite the exploratory nature of the study, the measurements seemed appropriate to evaluate our model. After this checking process, we proceeded to run our regression.

Table 6. 2. Descriptive statistics, latent variables and items, and results of the factor analysis (varimax rotation)

Type of variable	Mean	Standard deviation	Minimum	Maximum
Dependent variables				
Product upgrading	3.80	1.605	0	5
Process upgrading	3.01	1.865	0	5
Social upgrading	2.66	1.726	0	5
Environmental upgrading (process)	3.35	1.740	0	5
Environmental upgrading (products and routines)	3.71	1.836	0	5
Independent variables				
Relational governance (clients)	0.43	0.496	0	1
Relational governance (suppliers)	0.31	0.463	0	1
Captive governance (clients)	0.20	0.402	0	1
Captive governance (suppliers)	0.33	0.470	0	1
Government grants on R&D	0.26	0.443	0	1
Government grants on employment	0.18	0.387	0	1
Government grants on industry and energy	0.28	0.450	0	1
Control variables				
Modularity	0.39	0.488	0	1
Size (average number of employees)	92.70	58.30	2	243.04
Age (years of experience)	33.45	16.37	4	92
International experience (years)	27.47	11.47	2	54
Industry	0.40	0.491	0	1
Geographical scope	0.93	0.822	0	2

Latent variable	Item	Loading	Cronbach's Alpha	AVE
Product upgrading	We have improved the quality and reliability of our product and/or the characteristics of our product.	0.742	0.695	0.603
	We have improved our ability to introduce new products in the market.	0.809		
Process upgrading	We have incorporated new machinery to our production process.	0.823	0.918	0.645
	We have introduced new technologies / digitalization in our production process.	0.827		
	We have decreased our manufacturing costs.	0.813		
	We have improved our work routines (e.g., optimization of production/delivery times).	0.746		
Social upgrading	Employees' motivation, satisfaction, and/or wellbeing has improved (e.g., stress reduction).	0.814	0.897	0.651
	Workers' training has increased or improved.	0.790		
	Working flexibility (e.g., telecommuting) and/or the work-family balance has improved.	0.817		
Environmental upgrading (process)	We make a more responsible or lower consumption of materials, water, and/or energy and use renewable energy sources.	0.829	0.879	0.665
	We have reduced gas emission and waste production.	0.798		
	We have obtained sustainable certificates.	0.819		

Source: Own elaboration

6.4 RESULTS OF THE STATISTICAL ANALYSIS

We ran a multiple, linear regression with the software SPSS 29 to test our proposed model as per Figure 6.1. This method is appropriate to test our hypotheses because our dependent variables on SMEs' sustainable upgrading are continuous ones (Hair, 2010) and also because our study is rather exploratory still, as stated.

Prior to analysing our results, we assessed potential correlations among the variables, as well as other descriptive statistics such as the variance inflation factor (VIF). We report these data in Table 6.3. In this vein, correlations and multicollinearity do not appear to be significant issues for our sample. The first do not represent a problem because correlations among independent variables, even if some are significant, are not above 0.70. Concerning the second, the largest VIF is of 1.876, which is well below the accepted cut-offs of 10 and 3 to 5, thus indicating a lack of significant multicollinearity and acceptable standard errors (Hair, 2010; Lindner, Puck, & Verbeke, 2020).

Afterwards, we ran our linear regression model for each dependent variable. As explained before, we estimated five different models, one for each type of upgrading as dependent variables. We report these results in Table 6.4. Model 1 has economic, product upgrading as its dependent variable; model 2 considers economic, process upgrading; model 3 includes social upgrading; model 4 has environmental, process upgrading as dependent variable; and model 5 includes environmental, product and routines upgrading. We report the results of the final model for each, as the goodness of fit indicators improved as we included the predictors (we show this in Table A7 in the Appendix).

Table 6. 3. Correlations and VIFs

Variables	VIF	1.	2.	3.	4.	5.	6.	7.	8.	9.	10.	11.	12.	13.
1. Relational gov. (clients)	1.876	1.00												
2. Relational gov. (suppliers)	1.671	0.347***	1.00											
3. Captive gov. (clients)	1.774	-0.431***	-0.133**	1.00										
4. Captive gov. (suppliers)	1.605	0.025	-0.466***	0.272***	1.00									
5. Gov. grant (R&D)	1.145	0.102*	-0.013	-0.012	0.053	1.00								
6. Gov. grant (employment)	1.107	0.059	-0.079	0.126**	0.187***	0.072	1.00							
7. Gov. grant (industry and energy)	1.111	0.031	0.124**	0.076	-0.036	0.189***	0.029	1.00						
8. Modularity	1.328	0.091*	-0.116**	0.319***	0.263***	0.019	0.096*	-0.091*	1.00					
9. Size (ln)	1.268	0.124**	0.091*	0.136**	0.057	0.019	-0.087	0.086	0.215***	1.00				
10. Age (ln)	1.648	0.073	0.045	-0.080	0.021	0.193***	0.036	0.121**	0.050	0.016	1.00			
11. International experience (ln)	1.582	0.110*	-0.027	-0.003	0.091*	-0.017	0.062	0.012	0.071	-0.030	0.565***	1.00		
12. Industry	1.262	0.220***	0.134**	-0.030	0.038	0.024	-0.140**	0.082	-0.007	0.357***	0.094*	0.021	1.00	
13. Geographical scope	1.067	0.027	0.032	0.043	0.047	0.155**	-0.033	0.104*	0.068	0.105*	0.054	0.065	-0.046	1.00

Note: two-tailed test. *p < .1; **p < .05; ***p < .01

Source: Own elaboration

Table 6. 4. Linear regression results. Non-standardized betas are reported (deviation errors in parenthesis)

	Product upgrading		Process upgrading		Social upgrading		Environmental upgrading (process)		Environmental upgrading (products and routines)	
Variables	beta	p	beta	p	beta	p	beta	p	beta	p
Relational gov. (clients)	0.948*** (0.268)	<0.001	0.665** (0.320)	0.039	0.558* (0.290)	0.056	0.682** (0.300)	0.024	0.389 (0.321)	0.226
Relational gov. (suppliers)	0.668** (0.270)	0.014	0.838** (0.323)	0.010	0.707** (0.293)	0.017	0.251 (0.304)	0.409	0.394 (0.324)	0.226
Captive gov. (clients)	0.440 (0.321)	0.172	0.768** (0.384)	0.047	0.883** (0.348)	0.012	0.535 (0.361)	0.139	0.043 (0.385)	0.911
Captive gov. (suppliers)	0.390 (0.261)	0.136	0.401 (0.312)	0.199	0.630** (0.283)	0.027	0.230 (0.293)	0.433	0.578* (0.313)	0.066
Government grants (R&D)	0.429* (0.234)	0.068	0.531* (0.279)	0.059	0.540** (0.253)	0.034	0.428 (0.262)	0.104	0.449 (0.280)	0.110
Government grants (employment)	0.136 (0.263)	0.605	0.227 (0.314)	0.472	0.278 (0.285)	0.331	0.110 (0.296)	0.710	0.221 (0.315)	0.485
Government grants (industry and energy)	-0.191 (0.227)	0.400	-0.435 (0.271)	0.110	-0.522** (0.246)	0.035	-0.375 (0.254)	0.143	-0.522* (0.272)	0.056
Modularity	0.117 (0.228)	0.609	-0.091 (0.273)	0.740	0.115 (0.248)	0.643	-0.011 (0.257)	0.965	-0.172 (0.274)	0.531
Size (ln)	0.391*** (0.144)	0.007	0.560*** (0.172)	0.001	0.313** (0.156)	0.047	0.618*** (0.162)	<0.001	0.656*** (0.173)	<0.001
Age (ln)	-0.348 (0.214)	0.105	0.241 (0.255)	0.347	-0.009 (0.231)	0.970	-0.198 (0.240)	0.410	-0.244 (0.256)	0.341
International experience (ln)	0.376* (0.226)	0.097	0.066 (0.270)	0.808	0.019 (0.244)	0.940	0.164 (0.253)	0.518	0.189 (0.270)	0.486
Industry	-0.476** (0.221)	0.033	-0.477* (0.264)	0.073	-0.044 (0.240)	0.854	0.086 (0.248)	0.731	0.059 (0.265)	0.826
Geographical scope	0.323*** (0.122)	0.009	0.375** (0.145)	0.011	0.476*** (0.132)	<0.001	0.376*** (0.137)	0.006	0.444*** (0.146)	0.003
Constant	1.498* (0.867)	0.085	-0.951 (1.036)	0.360	-0.023 (0.940)	0.981	-0.210 (0.974)	0.830	0.181 (1.039)	0.862
R-squared	0.273	-	0.231	-	0.261	-	0.220	-	0.201	-
F-change	5.778	-	4.611	-	5.442	-	4.329	-	3.878	-
F-change sig.	<0.001	-	<0.001	-	<0.001	-	<0.001	-	<0.001	-
N	214	-	214	-	214	-	214	-	214	-

Notes: Relational governance: 0 = market governance, 1 = relational governance. Captive governance: 0 = market governance, 1 = captive governance. Government grants: 0 = did not get the grant, 1 = did get the grant. Modularity: 0 = not modular, 1 = modular product. Industry: 0 = traditional manufacturing sector, 1 = more advanced sector. Geographical scope: 0 = regional, 1 = bi-regional, 2 = global.
*p <= 0.1; **p <= 0.05; *** p <= 0.01

Source: Own elaboration

In model 1, we observe that relational governance with both clients and suppliers, as well as government grants on R&D, have a positive, significant effect on SMEs' economic, product upgrading. Instead, for captive governance, even if the effect on SMEs' product upgrading is positive, it is not significant. In model 2, relational governance structures always have a positive, significant effect on SMEs' economic, process upgrading. In this case, captive governance structures with clients do so as well, and the same happens with government grants on R&D. Accordingly, these results provide support for hypotheses H1a, H2a, and H5a. Instead, H3a is only partially supported and H4a must be rejected. Concerning the control variables, only size had a significant, positive effect on both product and process improvements, which makes sense regarding the necessity of resources to carry out these upgrading paths. Besides, international experience had a positive effect too, but only for product upgrading, and the geographical scope did so as well, the latter being significant for both types of improvements – probably related to an increase in knowledge from this extended international activity. Instead, the type of industry was significant for both product and process upgrading, but with a negative effect, meaning that the fact that the industry is more advanced does not correlate with a higher level of upgrading – indeed, this suggests that SMEs' from TMSs could be carrying out more product and process improvements.

In model 3, regarding social upgrading, we observe some different results. Relational governance continues to have a significant, positive effect on SMEs' upgrading, being stronger and more significant for the case of suppliers. Captive governance structures also have a positive, significant effect for SMEs' social upgrading, especially when looking at clients. Probably, this is related to the higher

standards that large buyers or distributors impose on SMEs. Concerning government grants, those associated to employment have a positive effect on SMEs' social upgrading, but this effect is non-significant. Instead, it is government grants on R&D the ones that have a positive, significant effect on social upgrading. The latter could be connected to the idea that these grants can improve SMEs' processes, which in turn can lead to better working conditions (a similar reasoning we have observed in previous, qualitative chapters of the dissertation). We also observe that grants on industry and energy have a negative, significant effect on SMEs' social upgrading. Consequently, we observe support for hypotheses H1b, H2b, H3b, and H4b, while H5b must be rejected. Here, the only control variables that have a positive, significant effect are the size of the SME and its geographical scope. The first could be related to the higher requirements made to firms of larger sizes in social matters, while the second could be connected to a wider international activity that grants SMEs with higher turnover that can be partly destined to improve its employees' working conditions.

Finally, regarding models 4 and 5, which have environmental, process upgrading and environmental, product and routines upgrading as dependent variables, respectively, we observe the following results. For process upgrading, the only type of governance that has a positive, significant effect is relational governance structures with clients. The rest have a positive effect, but it is not significant. This could be related to a more intense relationship with clients, where knowledge may be transmitted too, which can be key for these particularly complex strategies. Instead, for product and routines upgrading, only the captive governance type with suppliers has a positive, significant effect, even though the rest have a positive, non-significant effect. It could be that these relationships are more important for this specific type of

improvements, for instance because they allow SMEs to improve their materials and/or their way of working. In turn, we observe that government grants on industry and energy have a negative effect on SMEs' environmental upgrading in both cases, although being significant only for the case of products and routines upgrading. This is a counterintuitive result, but it could be that these grants are not well-suited to SMEs' particular needs. Therefore, we can accept H1c and H4c, although only partially, while we must reject H2c, H3c, and H5c. These results lead us to support all our general hypotheses only partially. We summarise this in Table 6.5.

Table 6. 5. Summary of supported and non-supported hypotheses

Summary of the results	
Private, vertical governance	**SMEs' sustainable upgrading**
	H1 (partially supported)
Relational governance with international clients	H1a (+) – supported H1b (+) – supported H1c (+) – positive effect, but significant only for environmental, process upgrading
Relational governance with international suppliers	H2 (partially supported) H2a (+) – supported H2b (+) – supported H2c (+) – positive effect, but non-significant
Captive governance with international clients	H3 (partially supported) H3a (+) – positive effect, but significant only for process upgrading H3b (+) – supported H3c (–) – *non-supported (the effect is positive, but non-significant)*
Captive governance with international suppliers	H4 (partially supported) H4a (+) – positive effect, but non-significant H4b (+) – supported H4c (+) – positive effect, but significant only for environmental, products and routines upgrading
Public, horizontal governance	**SMEs' sustainable upgrading**
	H5 (partially supported)
R&D grants	H5a (+) – supported
Employment grants	H5b (+) – positive effect, but non-significant
Industry and energy grants	H5c (+) – *non-supported (the effect is negative)*

Note: results in italics indicate those that do not correspond to what was hypothesised.

Source: Own elaboration

6.5 DISCUSSION

Due to the way in which GVCs first formed, the study of the governance structures of these chains and the associated upgrading paths has always been at the core of this research field. However, precisely because of the way GVCs worked, most studies have focused on the context of developing economies and their upgrading, thus leaving other, key actors comparatively understudied. For this reason, the GVC literature needs more studies on such agents, as the results for them could be different. Indeed, regarding the effect of various factors and actors on the upgrading by developed countries' SMEs, we obtain results in line with previous literature, but also against it.

On the one hand, in terms of private governance, our results in this chapter partially confirm that relational structures are better suited than captive structures to promote SMEs' sustainable upgrading. Nevertheless, we observed different results depending on the specific upgrading path. First, our results are in line with previous studies (e.g., Gersch, 2019; Kumaraswamy et al., 2012; Szalavetz, 2019) suggesting that relational governance structures with both buyers and suppliers is adequate to promote economic upgrading. Likewise, our results also suggest that this network-based structure is also a driver for social upgrading. However, we did not obtain sufficiently significant evidence to ensure that relational governance has a positive influence on SMEs' environmental upgrading, even though it seems to have it given the values of the betas – at least, in general, it seems to have a bigger, positive effect than captive governance structures. The latter would be in line with previous literature too, but it may require collecting more data to amplify the sample and confirm that this positive effect is statistically significant.

Secondly, our results also illustrate that captive governance structures with clients are the only ones to have a positive, significant effect on economic, process upgrading. The rest of effects are positive as well, but non-significant – again, it may be due to the sample size. These results, though, support previous evidence suggesting that captive structures will only promote upgrading in a limited way, often related to process improvement paths. In this vein, some works suggest that, when lead firms hold much more power – as it occurs in hierarchical structures, but also in captive or quasi-hierarchical ones –, suppliers can be less driven to perform advanced competitive improvements, such as product upgrading could be in terms of developing new products, and may limit themselves to efficiency-based improvements (Deng et al., 2022). Hence, our results would coincide with these previous reasonings. Contrary to previous literature, though (e.g., Barrientos et al., 2016; Selwyn, 2013), we appreciate that captive governance with both clients and suppliers does lead to social upgrading. In turn, we also observe that captive governance, although only with clients, affects environmental, product and routines upgrading, positively. Both results could be related to the fact that the mechanisms that are often employed in these governance structures tend to influence firms' commitment to accomplish certain standards. Thus, our results would partially contradict previous research suggesting that standard-based approaches drive firms' upgrading limitedly. However, we do not have data on the outcomes (Krishnan et al., 2023), only about the processes, so we would require more data to confirm this.

Concerning one of the control variables related to private governance, our results show that modularity's effect was negative for process, economic upgrading and also for both types of environmental upgrading. For the rest of upgrading paths,

the effect was positive. Nevertheless, all these effects were non-significant in all cases. Even so, the first suggests that modular chains may only work to promote developed country SMEs' product upgrading precisely because of the modularity of the goods, which allows to transmit codified information easily. However, this may not work as good for process improvements, which may need more tacit knowledge that cannot be transmitted as codes or standards. The same explanation could apply to environmental upgrading since these improvement paths tend to be more complex and require more collaboration among different nodes of the chain.

On the other hand, regarding public, horizontal governance, our results partially confirm that governments' role as facilitators may not always promote SMEs' sustainable upgrading as intended, at least in terms of the use of mechanisms such as specific financial grants or aids are. Even if most of prior literature has employed qualitative methods to explore other institutional roles, often the regulatory one (e.g., Poulsen et al., 2021) – so, our work is among the few, quantitative studies that also focus on a different role, as facilitators in this case –, our results are in line with previous ones suggesting that the role of public governance may be limited to promote upgrading (e.g., Giuliani et al., 2017). In turn, they are also in line with other authors suggesting that regulation and investments can lead to economic upgrading (e.g., Lombardozzi, 2021; Puppim de Oliveira & de Oliveira Cerqueira Fortes, 2014). However, our results are not completely significant either. We may require some more data, but we also believe that the explanation for our results could be that, to ensure institutions' positive effect on SMEs' upgrading, these grants should probably be more tailored to SMEs' needs, and perhaps this mechanism should be combined with others. That is, our results could be related to what we have reported in previous chapters of

the dissertation: that local or national public institutions may have a bigger part to play through other roles too, such as their action as knowledge brokers – even if this latter role is not always appreciated by SMEs despite having collaborated with public institutions, from previous, qualitative results in the dissertation we know that this can work positively for SMEs' upgrading.

6.6 CONCLUDING REMARKS

In this chapter we answer the following RQ: what is the role that different factors and actors, especially institutional agents, play on the sustainable upgrading of developed countries' SMEs? To respond to this, we carried out a quantitative study based on primary data, whose results contribute to answer the general RQ of this dissertation too: how can the sustainable upgrading of developed countries' SMEs operating within GVCs be promoted? In this vein, we reach several conclusions.

In line with extant GVC research, we show that vertical, private governance may not always be effective to promote firms' upgrading, also for the case of developed countries' SMEs; it may even be detrimental. This will depend significantly on the governance structure, as we show that relational systems tend to work best – despite some surprising results concerning captive structures –, but also on the specific upgrading process. That is, depending on how complex or sustainably-related the upgrading path is, some structures may be more adequate than others. However, some of our striking results may also be related to the fact that we conducted the study precisely in a developed country context. A potential explanation could be that, despite being SMEs, they are better suited to perform competitive improvement strategies, also sustainable ones, precisely because they are embedded in a more advanced, favourable environment. This would be a research line to explore more in the future.

Despite potential negative effects of private governors on SMEs' upgrading, competitive improvements can take place anyway: it may occur when receiving support from other governors too (Murphree & Breznitz, 2020). For instance, through its simultaneous action with private governors, other actors could determine what structure is set in place in a GVC, hence alleviating potential, vertical pressures (e.g., Gersch, 2019) and favouring SMEs' sustainable competitiveness. In turn, the action of public institutions by themselves can also favour upgrading, but our results suggest that, for sustainable upgrading paths, institutional mechanisms perhaps should be more tailored to developed country SMEs' needs.

In general, then, our results show that the story for SMEs' sustainable upgrading may be different in the context of developed countries, thus confirming that more studies on these key actors are necessary in the GVC field. Regarding our RQ, we conclude that different actors do have various effects on SMEs' sustainable upgrading. This depends a lot on the specific upgrading path and the mechanisms employed by these agents, but they have a significant influence, indeed, and it is not just about private governors; other powerful agents must be considered in the analysis. Accordingly, we make several contributions. First, we contribute to the GVC literature in theoretical terms by showcasing how both vertical and horizontal dimensions affect SMEs' sustainable upgrading, explaining it not only from an IT perspective, but also from a NT-based view. Empirically, we also contribute by providing the GVC field with another quantitative study, which allows testing relationships among different variables that, previously, have been explored through qualitative studies in most cases. This enables researchers to take another step in generalizing these relationships. In this vein, we compare the effect of different governance structures and a specific

mechanism employed by national institutions on developed country SMEs' sustainable upgrading, hence providing evidence for less studied actors and contributing to prior studies whose results are slightly different in some respects. We consider our firm-level perspective to be another significant contribution because companies will be the first actors to initiate upgrading paths whose effects will then extend to other levels – i.e., the chain, the country, and their regions, mainly. In this sense, we believe that the use of primary data is also key in studying this topic and represents another contribution, as we show that quantitatively analysing firms' upgrading may require the use of these data to obtain accurate measures, even more for the case of SMEs. Finally, our contributions affect practitioners and policymakers too. For the first, we illustrate that SMEs can upgrade sustainably through different paths and what relationships may work best to promote so. For the second, we show how a particular mechanism works to promote specific competitive improvements, and we argue about what may be lacking in this respect to promote SMEs' sustainable upgrading better.

However, our study is not without limitations. Despite talking about sustainable upgrading as an integrated way to approach these competitiveness paths, we do not relate upgrading strategies together as much as we would want to because there is not yet an established measure for this – indeed, the concept "sustainable upgrading" is proposed in this dissertation. Therefore, for the future, we should develop these scales even more, departing from previous studies, both qualitative and quantitative. In turn, more quantitative studies should be conducted comparing specific mechanisms that drive upgrading to assess which ones do work best (e.g., provision of design instructions, explanations about them, audits, etc.). Likewise, here we do not connect different upgrading paths in our models, even though there could be

connections among them – e.g., how economic improvements may drive social and environmental strategies, or the other way around –, so that represents another research line. We do not relate different types of governance structures either, both as per their type and level, so future quantitative studies could do so to assess how they might interact towards promoting firms' sustainable upgrading. Finally, it would be interesting for future research to include internal drivers and their interaction with external drivers, especially when dealing with developed country SMEs', as we have seen in previous chapters of the dissertation that, despite their size, they are often well-equipped to perform sustainable upgrading strategies, and our results in this chapter also suggest so.

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6.8 APPENDIX 4

Table A 6. Main questions employed in the survey questionnaire

Questions used for the governance variables
Regarding your **relationship with your main international suppliers and clients** (those that you would say are key for the business activity of your firm), please evaluate the following statements, being 1=highly disagree and 5=highly agree: - My **suppliers** can impose their conditions on the operations we do with them (e.g., they impose conditions about payments, delivery times, etc.). (*Scale from 1 to 5 provided*). - My **clients** can impose their conditions on the operations we do with them (e.g., they impose conditions about payments, delivery times, etc.). (*Scale from 1 to 5 provided*).
Think about this **relationship with your main suppliers/clients** and evaluate, being 1=highly disagree and 5=highly agree: - We share information with them (for example, about sales forecast, production plants, orders tracking and control, state of the deliveries, stock levels, etc.). (*Two scales from 1 to 5 provided, one for clients and one for suppliers*). - We develop collaboration practices or agreements with them (for example, to develop products together, share risks and benefits, etc.). (*Two scales from 1 to 5 provided, one for clients and one for suppliers*). - We take joint decisions (for example, about design and modification of the products, design and modification of the processes, quality improvements or costs control, etc.). (*Two scales from 1 to 5 provided, one for clients and one for suppliers*).
Regarding your **relationship with your main international suppliers and clients** (those that you would say are key for the business activity of your firm), please evaluate the following statements, being 1=highly disagree and 5=highly agree: - My **clients** give me precise instructions about how to make my products, for example through manuals or similar tools (because my products are parts/components for my client). (*Scale from 1 to 5 provided*).

(continued)

Questions used for the product upgrading variable
Thinking of your **relationship with your international partners (whether clients or suppliers),** up to which point has affected your firm's performance in the following areas the fact of working with (or for) them? Please indicate whether it has had an impact or not, and if it has, evaluate it being 1=has influenced little and 5=has influenced a lot: - We have improved the quality and reliability of our product and/or the characteristics of our product. (*Scale from 1 to 5 provided, including a 0 as "has not had any impact"*). - We have improved our ability to introduce new products in the market. (*Scale from 1 to 5 provided, including a 0 as "has not had any impact"*).
Questions used for the process upgrading variable
Thinking of your **relationship with your international partners (whether clients or suppliers),** up to which point has affected your firm's performance in the following areas the fact of working with (or for) them? Please indicate whether it has had an impact or not, and if it has, evaluate it being 1=has influenced little and 5=has influenced a lot: - We have incorporated new machinery to our production process. (*Scale from 1 to 5 provided, including a 0 as "has not had any impact"*). - We have introduced new technologies / digitalization in our production process. (*Scale from 1 to 5 provided, including a 0 as "has not had any impact"*). - We have decreased our manufacturing costs. (*Scale from 1 to 5 provided, including a 0 as "has not had any impact"*). - We have improved our work routines (e.g., optimization of production/delivery times). (*Scale from 1 to 5 provided, including a 0 as "has not had any impact"*).
Questions used for the social upgrading variable
Again, thinking of your **relationship with your international partners**, how would you say that it has affected your firm's performance in the following areas the fact of working with (or for) them? Please indicate whether it has had an impact or not, and if it has, evaluate it being 1=has influenced very negatively and 5=has influenced very positively: - Employees' motivation, satisfaction, and/or wellbeing has improved (e.g., stress reduction). (*Scale from 1 to 5 provided, including a 0 as "has not had any impact"*). - Workers' training has increased or improved. (*Scale from 1 to 5 provided, including a 0 as "has not had any impact"*). - Working flexibility (e.g., telecommuting) and/or the work-family balance has improved. (*Scale from 1 to 5 provided, including a 0 as "has not had any impact"*).
Questions used for the environmental upgrading (process) variable
Again, thinking of your **relationship with your international partners**, how would you say that it has affected your firm's performance in the following areas the fact of working with (or for) them? Please indicate whether it has had an impact or not, and if it has, evaluate it being 1=has influenced very negatively and 5=has influenced very positively: - We make a more responsible or lower consumption of materials, water, and/or energy and use renewable energy sources. (*Scale from 1 to 5 provided, including a 0 as "has not had any impact"*). - We have reduced gas emission and waste production. (*Scale from 1 to 5 provided, including a 0 as "has not had any impact"*). - We have obtained sustainable certificates. (*Scale from 1 to 5 provided, including a 0 as "has not had any impact"*).
Questions used for the environmental upgrading (product and routines) variable
Again, thinking of your **relationship with your international partners**, how would you say that it has affected your firm's performance in the following areas the fact of working with (or for) them? Please indicate whether it has had an impact or not, and if it has, evaluate it being 1=has influenced very negatively and 5=has influenced very positively:

(continued)

- We have improved our existing products and/or work routines to make them more respectful with the environment (e.g., use of other materials). (*Scale from 1 to 5 provided, including a 0 as "has not had any impact"*).
Questions used for the international experience variable
On what year did your company start to move activities, or processes, abroad (i.e., offshoring)?
Questions used for the geographical scope variable
What are the main geographical regions where you operate? 1 Europe, 2 America, 3 Asia, 4 Others

Note: some questions are adapted from Golini et al. (2018).

Source: Own elaboration

Table A 7. Linear regression results with control variables only. Non-standardized betas are reported (deviation errors in parenthesis)

	Product upgrading		Process upgrading		Social upgrading		Environmental upgrading (process)		Environmental upgrading (products and routines)	
Variables	beta	p	beta	p	beta	p	beta	p	beta	p
Modularity	0.350 (0.221)	0.114	0.217* (0.256)	0.057	0.531** (0.236)	0.025	0.255 (0.234)	0.807	0.044 (0.250)	0.861
Size (ln)	0.444*** (0.153)	0.004	0.615*** (0.178)	<0.001	0.357** (0.164)	0.031	0.643*** (0.163)	<0.001	0.644*** (0.174)	<0.001
Age (ln)	-0.299 (0.219)	0.173	0.269 (0.254)	0.290	-0.014 (0.233)	0.953	-0.194 (0.232)	0.405	-0.215 (0.248)	0.386
International experience (ln)	0.431* (0.235)	0.068	0.098 (0.273)	0.720	0.077 (0.251)	0.760	0.215 (0.250)	0.391	0.227 (0.267)	0.397
Industry	-0.228 (0.230)	0.324	-0.303 (0.268)	0.260	0.093 (0.246)	0.706	0.221 (0.245)	0.367	0.166 (0.261)	0.525
Geographical scope	0.381*** (0.129)	0.003	0.429** (0.149)	0.005	0.525*** (0.137)	<0.001	0.410*** (0.137)	0.003	0.472*** (0.146)	0.001
Constant	1.348 (0.927)	0.147	-0.914 (1.077)	0.397	0.108 (0.990)	0.914	-0.241 (0.985)	0.807	0.254 (1.051)	0.809
R-squared	0.126	-	0.125	-	0.112	-	0.160	-	0.140	-
F-change	4.958	-	4.922	-	5.480	-	6.565	-	5.627	-
F-change sig.	<0.001	-	<0.001	-	<0.001	-	<0.001	-	<0.001	-
N	214	-	214	-	214	-	214	-	214	-

Notes: Modularity: 0 = not modular, 1 = modular product. Industry: 0 = traditional manufacturing sector, 1 = more advanced sector. Geographical scope: 0 = regional, 1 = bi-regional, 2 = global. *p <= 0.1; **p <= 0.05; *** p <= 0.01

Source: Own elaboration

CHAPTER 7: CONCLUSIONS OF THE DISSERTATION

7.1 GENERAL CONCLUSIONS

The general goal of this dissertation was to analyse how the sustainable upgrading of developed countries' SMEs operating within GVCs could be promoted. This was divided into three, inter-related RQs to be responded with different, interdependent studies. In this section, we answer this general RQ by going through each chapter to summarise their main conclusions, hence reporting the transversal conclusions of the thesis. We recall that chapter 3 consisted of a systematic literature review; chapters 4 and 5 were qualitative studies; and chapter 6 showcased a quantitative study.

7.1.1. *Conclusions on chapter 3: Advancing firms' sustainable upgrading in GVCs – Developing an integrated framework for the drivers, processes, and outcomes of upgrading*

Chapter 3 consisted of studying what the current state of knowledge within the GVC field was about the effects that different factors, at different levels, have on firms' upgrading in GVCs. In doing so, we conducted a systematic literature review to collect the relevant works in this respect. The main motivation was the lack of GVC research that systematically summarised these factors and their effects, together with a lack of consensus on the impacts of specific mechanisms on upgrading paths (e.g., Goerzen et al., 2021). In turn, we concentrated on the firm level as these agents are the first ones to conduct upgrading paths, so they should be the first actors to be studied as well because, without their competitiveness improvements, no upgrading shall take place at other levels – i.e., the chain, the industry, the country, and/or the region.

In response to this RQ, first, our results indicated that yes, private, vertical governance is key as an external driver of firms' upgrading, but the effects vary significantly depending on the type of structure. More precisely, we observed that the

specific mechanisms employed were key in determining the type of upgrading processes and outcomes that could take place – thus further justifying the appropriateness of our RQ and the study itself. We concluded that standard approaches to governance – e.g., those connected with, mostly, captive governance structures, where the mechanisms are usually based on codes or standards, and monitoring based on audits – would promote upgrading only limitedly, even potentially leading to downgrading paths in terms of social and environmental improvements, while collaboration-based approaches – e.g., relational governance – should be key to promote advanced upgrading paths such as new product developments, including sustainability-based ones. Second, we concluded that the drivers of firms' upgrading did go beyond GVC lead firms, as they include also social and public actors, as well as local, private agents, that also have authority to drive upgrading paths. Indeed, horizontal-level governors become key to promote firms' competitive improvements not only by setting standards, but also by helping companies in building their capabilities to upgrade. In turn, they can also accommodate vertical pressures to prevent low roads to upgrading, which is especially key when considering sustainable strategies. Finally, we observed that most papers from our review lacked a sound theoretical base. On several occasions, they employed the GPN, GVC or GSC frameworks as theories, among other, various literatures. Thus, we concluded that future research must make more use of well-established theories that reinforce GVC studies, also by helping in integrating further the top-down and bottom-up drivers of firms' upgrading.

In this way, our conclusions regarding the RQ from chapter 3 also pointed to new research avenues. First, as we proposed the term sustainable upgrading from our

systematic review, we proposed to conduct more studies that take an integrative perspective to upgrading while accounting for these various drivers, with their specific mechanisms, and that consider both direct and indirect outcomes of upgrading as well. Second, as most research has focused on developing economies, we suggested to conduct more studies on developed country companies that are different from lead firms, because they are key as well, also for sustainable development, and results can vary in their contexts. We deemed crucial to analyse SMEs from these economies, as they act as suppliers in GVCs and are important economic, social, and environmental agents, for their local contexts but also for the GVC and the wider, global environment too. Finally, we also concluded that the GVC field lacks more quantitative works that allow to generalise relationships among different constructs, for which we suggest a higher use of primary data because upgrading paths are industry-specific and highly dependent on both internal and external drivers of different types, so we need to measure this as accurately as possible and, at the firm level, secondary data may not be enough to do so.

7.1.2. *Conclusions on chapter 4: GVCs in the post-COVID-19 era – A network perspective on SMEs' resilience and upgrading*

Our objective in this chapter was to answer how developed country SMEs operating in GVCs through clusters could respond to GVC-related disruptions, and what were the upgrading consequences. This, together with chapter 5, would contribute to respond to the second RQ of the dissertation: how do different cooperation mechanisms affect the sustainable upgrading of developed countries' SMEs. Theoretically, the study of chapter 4 is positioned in the GVC and cluster, resilience-related literatures, while using a NT approach to reinforce the logics of our results; and

methodologically, we conducted a multiple case study to answer our RQs. This led to the development of different propositions and a model that extends the literature. In this vein, apart from accounting for latest trends that are altering GVCs' functioning, with both Chapters 4 and 5 we are also considering local dynamics that also influence SMEs' situation in GVCs and have comparatively been understudied.

Regarding the conclusions of this chapter, our results indicate that the disruption triggered by the COVID-19 pandemic led both SMEs' and their local context – i.e., the cluster, in this case – to react and activate, favouring SMEs' survival and their competitive performance. Collective actors from the cluster (e.g., the industry association) were crucial in this respect, and so were public institutions both at the local and regional level. They contributed to bundle clusters and SMEs' resources together, which enabled SMEs to reconfigure to adapt to the shock, triggering their resilience, and driving SMEs' upgrading paths, the latter mostly in terms of developing new products, entering new industries, and improving their processes, also in a sustainable way. As a summary, then, the main, external-to-the-firm factors in explaining this success were the cluster's institutional infrastructure – which provided SMEs with an extended pool of knowledge and resources –, and the local, supporting entities that facilitated collaboration paths, the flow of knowledge, and the access to the necessary resources to adapt and upgrade.

Concerning the RQ of this chapter, we concluded that local relationships at the cluster level were crucial to spur SMEs' resilience and, ultimately, their upgrading too, even if some previous literature within the cluster field was non-conclusive in this respect. We observed that the key lied in the actions taken by both business agents and institutional actors, showing also that it is crucial to widen this network view to

appreciate what are the processes and mechanisms at play that are helping SMEs to adapt to crises and be more competitive (i.e., upgrade) in turn. This also demonstrates the importance of further integrating the horizontal level with the vertical, GVC level in these studies. With respect to the second RQ of the dissertation, we appreciated that cooperation mechanisms are the key ones to promote SMEs' sustainable upgrading, but that they must go beyond private linkages and financial grants for them to be effective. This is in line with previous literature too. Likewise, we observed that softer roles played by some of these actors may be even more important as drivers of SMEs' sustainable upgrading, such as their part as creators and coordinators of private and private-public relationships, or as information brokers or knowledge-bridges (Corredoira & McDermott, 2020).

7.1.3. *Conclusions on chapter 5: Traditional, manufacturing SMEs' reshoring back home and beyond – Responses to a changing landscape and upgrading consequences*

In this chapter, our goal was to answer how did the reshoring decision materialise for developed countries' SMEs, and what were the upgrading consequences. Again, together with chapter 4, responding to this question contributes to answer the second RQ of the dissertation. Theoretically, we positioned this study in the GVC and reshoring literature, and we also used the NT approach to explain the logics of our results. Methodologically, we carried out a qualitative, multiple case study too, leading to the development of different propositions and to the extension of the literature.

Our results showcase that, first, reshoring is not as straightforward as it may have been suggested, because it might not happen in all industries or GVCs, as sometimes it is not possible to relocate and/or there are still advantages to offshoring

certain activities in pursuit of efficiency. Even if some disruptions have spurred these strategies, this does not imply that reshoring is going to happen in an extensive manner and that it is going to change GVC structures in a drastic way, as there are several contingencies to be considered as well. In this vein, possibilities for reshoring vary depending on the industry, they even depend on the section of the GVC and vary in terms of SMEs' resources and capabilities too. Regarding the latter, we also concluded that SMEs' business models were an important factor in deciding whether to reshore or not; more precisely, differentiation-based strategies tended to spur such decision. Second, even if institutions have a potential, key role in fostering this relocation, not all industries are receiving the same attention; so, in the end, reshoring depends on SMEs' willingness and capabilities greatly, as well as on their strategic motivation and possibilities of realistically recovering certain activities. Third, our results showed that reshoring strategies could take more forms than that of FDI-based reshoring, so it is an available option even for more resource-constrained companies. This is crucial also because, even if reshoring strategies are connected to control matters, this indicates that reshoring can serve to more purposes than minimising supply-chain-related risks. For instance, these goals could include the reduction in distances to be more sustainable; recovering sovereignty in the chain by becoming more valuable as a supplier, with the possibility of accessing more relational links; upgrading in the chain by producing better and/or new products, performing better processes, or developing sustainable-related improvements; or improving the service being given to large buyers by increasing reaction capabilities.

Hence, in response to our RQ, we concluded that the reshoring decision, even if it is not the panacea, can manifest as a strategy in many ways, especially for the case

of SMEs – which usually have not performed previous FDI operations –, and that its consequences for SMEs' upgrading are positive. Thus, we confirmed that reshoring decisions conveyed a wider spectrum of strategies and that this represented a possibility for smaller firms looking for strengthening their position and competitiveness in GVCs. Concerning the second RQ of the dissertation, this study also illustrates that relational-based, cooperation mechanisms with both business and non-business actors are they key to promote SMEs' sustainable upgrading, even if they also count on their own internal, strategic motivation to deploy such paths. Specifically, horizontal-level networks continued to be the most relevant ones, especially when referring to local, auxiliary firms and institutional-type actors. These agents worked as providers of knowledge and resources that were key for SMEs' to reshore and to upgrade in a sustainable manner, even if this firms perceived that, sometimes, institutions were a bit disconnected from the business reality.

7.1.4. *Conclusions on chapter 6: A quantitative analysis on traditional, manufacturing SMEs' sustainable upgrading*

In this chapter, we answered the following RQ: what is the role that different factors and actors, especially institutional agents, play on the sustainable upgrading of developed countries' SMEs. In doing so, we used the IT and the business NT approach to underpin our results, which we obtained by conducting a quantitative study. The latter consisted of a multiple, linear regression that can be considered exploratory still, given the lack of well-established constructs within the GVC field since qualitative research has been more numerous until now.

Our exploratory results are in line with previous GVC research in some respects, although they are contrary to them in some others. We concluded that

vertical, private governance does not always have a positive influence on SMEs' sustainable upgrading, also in the case of developed countries. This shall depend on the particular governance structures, as previous works have shown too, because the mechanisms at play are different; but it will also depend on the specific upgrading strategy. For instance, relational systems seem to work better as they are cooperation-based. In turn, some structures may work better than others when the upgrading path to be taken is more complex – e.g., it implies the creation of new products – or more sustainability-related and so it requires more of this cooperation. However, we found some striking results regarding captive structures, which could be related to the fact that this study was conducted on a developed country context. That is, a potential explanation could be that, despite being allegedly resource-constrained SMEs, because they are from a developed economy they are better suited to perform competitive improvement strategies, including sustainable ones, which could explain why captive governance worked well for them in some cases. Hence, we once again concluded that conducting studies in these other contexts and for this type of firm is important. Moreover, we saw that competitive improvements could take place despite negative effects of private governors on SMEs' upgrading – something that has been argued by other researchers too (e.g., Murphree & Breznitz, 2020). In this vein, as we analysed institutions' role as facilitators, we showed that their actions could also favour upgrading, but that in some cases the mechanism employed was non-effective or even had a negative effect on SMEs' sustainable upgrading. Perhaps, these measures should be even more tailored to SMEs' necessities.

Therefore, in general, our exploratory results show that the effect of several factors on SMEs' sustainable upgrading can vary depending on the context, thus

supporting our argument that more studies need to be conducted on these actors, particularly in developed markets. Concerning our RQ, we concluded that various actors would have various effects on SMEs' sustainable upgrading depending on the specific strategy and the mechanisms employed by each actor, and that it is not just about private, vertical governance, but also about combining this view with the horizontal level.

7.1.5. *Conclusions on the general RQ of the dissertation*

The general RQ of this dissertation was: how can the sustainable upgrading of developed countries' SMEs operating within GVCs be promoted? We developed four different, interdependent studies to answer it. In this vein, we considered the role of actors external-to-the-firm and external-to-the-chain too, at both international and local levels, because SMEs and GVCs are embedded in different contexts and so the key to further extend the GVC field lies in integrating the vertical and horizontal dimensions of these chains more, while considering less studied, crucial actors too.

Therefore, departing from the conclusions of each study, we respond this general RQ: to promote the sustainable upgrading of developed countries' SMEs operating in GVCs it is crucial to (a) consider both vertical and horizontal levels of analysis, as SMEs are deeply embedded in both and they will affect their upgrading paths from both a top-down and bottom-up perspective; (b) consider private, governance forms together with public, governance structures at the local level in an integrated way, as they do work simultaneously; (c) foster collaboration-based approaches to governance, in both private and public spheres; (d) and promote softer roles beyond regulation and facilitating mechanisms in the case of institutional-type actors, as they may be key as knowledge brokers to spur SMEs' sustainable upgrading.

7.2 CONTRIBUTIONS AND IMPLICATIONS

In this section, we showcase the general contributions of the dissertation to both theory and the GVC literature within the IB field, but also the contributions we make for managers and policy makers. To do so, we briefly go through each chapter while highlighting the transversal contributions.

7.2.1. *Contributions of the dissertation to the literature and researchers*

In chapter 3, departing from our results and conclusions, we contribute to the GVC literature (e.g., Gereffi et al., 2005; Gereffi & Lee, 2016) in five, main different ways. First, by insisting on the necessary separation between upgrading processes and outcomes to improve the analysis made within the GVC field. Second, by proposing the concept of sustainable upgrading as a way to study these competitiveness paths in an integrated, sustainable way – indeed, in the empirical chapters of this dissertation we already work following the logic of this term. Third, by elucidating a model that integrates all the external and internal drivers of upgrading to showcase how they affect different upgrading processes through different mechanisms and paths, and how this may lead to different upgrading outcomes, both direct for the firm and indirect for other levels – i.e., the country, the GVC, etc. Fourth, since we focused on collecting the specific mechanisms that affect upgrading, we contribute by providing material that can help to develop well-established scales for GVC research. Finally, we also contribute by providing new research avenues that we have detected in our review, for which we propose specific RQs and suitable theories and methodologies to tackle them.

With chapter 4, we contribute to the GVC field and the COVID-19-related research (e.g., Gereffi, 2020; Belhadi et al., 2021; Pla-Barber et al., 2021), and to the

cluster literature connected to disruptions (e.g., Delgado & Porter, 2017; Cainelli et al., 2018; Cainelli et al., 2019b; Behrens et al., 2020). By providing more empirical evidence, we shed further light on the processes that explain the potential, positive effects of being located in a cluster on SMEs' resilience against GVC shocks, as well as the positive consequences that this can have for SMEs' sustainable upgrading. By grounding our study on the NT approach, we also contribute to further integrating private and public spheres, especially at the horizontal level, to explain how they build SMEs' capabilities to adapt, survive, and upgrade.

In chapter 5, we mainly contribute to the GVC and reshoring literatures by advancing in the conceptualisation of reshoring strategies, in terms of their determinants and type of processes; by providing an updated typology of reshoring strategies in this sense, as well as an updated typology of both enablers and barriers in the case of SMEs; and most importantly, by showcasing the consequences that this strategy can have for SMEs' sustainable upgrading. In the end, we show that reshoring can present different forms that make it a possible strategy to regain control even for presumed, resource-limited SMEs, and that the limits of undertaking or not this strategy lie more in the willingness by GVC leaders or even the final market, for instance. To face these barriers, institutional actors could play a more significant role.

Finally, with chapter 6, we make both theoretical and empirical contributions to the GVC field. First, we show the effect of both vertical and horizontal dimensions of governance on SMEs' sustainable upgrading. We explain this by combining both the IT and the NT-based paradigm, thus enriching the GVC literature to some extent. Second, we add quantitative evidence to the GVC field, which still lacks more studies of this type that allow for generalization and, indeed, we demonstrate this necessity as

we obtain some results that contradict previous works. In turn, we also follow our work in chapter 3 and test the effect of particular mechanisms employed by private and public governors on SMEs' sustainable upgrading, hence contributing to the GVC field by showing how one of the future research lines that we proposed could be undertaken. Third, by taking a firm perspective in our study – and the rest too –, we also contribute by emphasizing this level of analysis, which is where upgrading paths start, to extend to other levels from there. Finally, we showcase how primary data is crucial to analyse upgrading paths successfully, because secondary data can only approximate them according to their definition within the GVC literature, and they may also be limited for the case of actors such as SMEs are.

7.2.2. *Contributions of the dissertation for managers and policymakers*

The results and conclusions of the empirical chapters of the dissertation present a series of contributions for business practitioners and policymakers too. chapter 4 presents evidence of the positive effect that clusters have as drivers of SMEs' survival, resilience, and competitiveness. For managers, this showcases the potential that innovation strategies, capital investments, inter-firm collaboration, and intense, private-public interactions have as enhancers of SMEs' capabilities, conducive to sustainable upgrading. For policymakers, we outline mechanisms that favour SMEs' competitiveness, going beyond financial assistance and regulation to consider other roles too, such as their part as knowledge providers and as bridges between the private sector and the public sphere. chapter 5 illustrates the reshoring strategy as a feasible one for SMEs, thus contributing to the managerial field by showing different options for them to regain sovereignty in their chains, and how their firms can be more competitive in a sustainable way. In turn, our results and conclusions also show the

crucial part that policymakers could play in designing tailored measures to reindustrialise their regions, which first requires promoting firms' sustainable upgrading at the local level. With chapter 6, we show that SMEs can upgrade through different paths and what are the type of relationships and institutional mechanisms to be pursued in favour of this competitiveness. For policymakers, we offer evidence of how a specific mechanism they use works in this vein, which leads us to argue that they might need to take more direct actions and more tailored to SMEs' necessities.

Finally, the dissertation also contributes to specific areas of the SDGs by focusing on SMEs' upgrading in a way that integrates economic, social, and environmental improvement paths, and how these can be driven from different perspectives. More precisely, we contribute to goal 9 of the SDGs, "build resilient infrastructure, promote inclusive and sustainable industrialization, and foster innovation"; goal 12, "ensure sustainable consumption and production patterns"; and goal 13, "take urgent action to combat climate change and its impacts".

7.3 LIMITATIONS OF THE DISSERTATION AND FUTURE RESEARCH AVENUES

In this section, we review the limitations of the dissertation as well as the associated future research avenues. Again, we structure this part according to each chapter, also to see how these new research lines can combine.

As per chapter 3, we may have lost some information in the literature search step because upgrading opportunities may have been dealt with under different perspectives and labels, and because we did not include grey literature as some prior works have done. This opens an avenue to keep on this research line by adding more

empirical works that may shed even more light on the topic. Despite this, we still provide a framework that advances the GVC literature and its concepts, hence displaying potential future research lines.

Concerning chapter 4, our results are influenced by the nature of the disruption under analysis and the specific industry of the clustered SMEs that we studied, indeed. Despite our belief that the keys of how the analysed processes work are generalizable, this opens an avenue to study similar RQs under other circumstances. In turn, future research could also analyse our propositions under a quantitative perspective to see how generalisable our results might be. Finally, considering a bigger sample could widen our results to complete our explanations or even provide alternative ones.

Regarding chapter 5, we advocate for more qualitative studies on reshoring and firms' upgrading, but in different industries or contexts, such that we can complete our view in the phenomenon, as we concentrated on SMEs from a particular environment. In turn, we consider that sufficient time has passed to start accessing data on firms' reshoring and upgrading, such that our proposed propositions can be tested too. In this vein, we suggest using primary data since reshoring is not so easily assessed at the firm level with secondary data. All this would allow studying how likely is to develop reshoring strategies in a realistic way, and hence how truly useful it might be to foster companies' competitiveness and the industrialisation of Western regions.

Finally, in chapter 6, despite focusing on sustainable upgrading, we do not connect the different upgrading paths as much as we would want to, given the lack of well-established measurements for them. For the future, such constructs could be developed further, in an effort to analyse how to promote sustainability in general as

well. In turn, future quantitative studies could study more GVC governors than we did, also including more mechanisms in the model, to assess how these may or may not work at promoting firms' upgrading, as well as exploring potential connections among them. It would also be very interesting to add internal drivers to these potential quantitative studies, as we have seen that developed country SMEs, despite their size, tend to be well-suited to perform sustainable upgrading strategies.

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RESUMEN

INTRODUCCIÓN

Desde el siglo pasado, el mundo ha sido testigo de un proceso gradual de desacoplamiento de la actividad económica, mediante el cual las operaciones tanto de producción como de distribución empezaron a segmentarse y distribuirse en regiones geográficamente distantes (Ponte et al., 2019). Este proceso de fragmentación fue posible gracias a una serie de cambios, como fueron diferentes avances tecnológicos, la reducción de los costes de transporte y la liberalización política y comercial (Jeppesen y Hansen, 2004; Ponte et al., 2019). Todo ello permitió un acceso más fácil a localizaciones extranjeras y, así, un mayor volumen de transacciones entre fronteras. La fragmentación resultante de la actividad económica afectó también al grado de especialización de las empresas, siendo las organizaciones multinacionales o transnacionales las que lideraron este cambio. Las multinacionales empezaron a abandonar sus clásicas estrategias de integración vertical para empezar a servir los mercados globales mediante la extensión de sus operaciones más allá de sus regiones de origen. Mantuvieron las actividades de mayor valor añadido dentro de la empresa, mientras que externalizaron y deslocalizaron las actividades de menor valor (Ponte et al., 2019). En este proceso, las empresas multinacionales normalmente localizaban estas tareas de menor valor añadido en las economías en desarrollo, principalmente porque los costes de producción eran menores (Jeppesen y Hansen, 2004) y así, con el tiempo, estas dinámicas transformaron el paradigma de organización industrial.

Estas oportunidades de negocio en el extranjero llevaron a la reestructuración de las tareas de producción y distribución en sistemas globales distribuidos en localizaciones geográficas dispersas (Kano, 2018; Khattak y Pinto, 2018). Los investigadores describieron este fenómeno con distintos conceptos, siendo el término

Cadena de Valor Global (CVG) el que ha terminado por ser el más conocido. La investigación asociada a las CVG empieza a mitad de los años 90, cuando a estos sistemas todavía se les conocía como Cadenas Globales de Productos básicos (*i.e.,* "*commodities*") (GCC, por sus siglas en inglés) (Gereffi, 1994). Hoy, se define a las CVG como "*nexos de funciones y operaciones interconectadas a través de los cuales se producen, distribuyen y consumen bienes y servicios a nivel mundial*" (Kano et al., 2020: 579). Hasta hoy, las CVG representan sistemas altamente eficientes para organizar la actividad industrial y han evolucionado hasta el punto de constituir "la columna vertebral de la economía mundial" (Yeung y Coe, 2015: 30), ya que concentran cerca del 80% del comercio de bienes intermedios (McWilliam et al., 2020; Posthuma y Rossi, 2017). Por todo ello, la investigación sobre CVG se intensificó, centrándose en cuestiones como la creación de valor a través de estas fronteras o el desarrollo competitivo asociado a la participación en estas cadenas.

Sin embargo, nuestro contexto actual es muy distinto de aquel de finales de los años 90 y principios del 2000. Aunque los cambios empezaron hace años, siendo la crisis financiera de 2008 un buen punto de referencia, las recientes tendencias que estamos observando a nivel mundial han motivado todavía más el sentimiento en contra de la globalización que ya existía desde hace tiempo (Curran y Eckhardt, 2021) y que podría alterar este sistema de organización industrial. El conflicto comercial entre China y Estados Unidos, que se ha intensificado en 2025, los cambios provocados por la pandemia de la COVID-19, o eventos como las guerras entre Rusia y Ucrania o Palestina e Israel han creado tensiones que afectan a las CVG también, en términos de, por ejemplo, escasez de materiales o incrementos en los costes. En consecuencia, las empresas podrían considerar la recuperación de ciertos procesos en

sus países de origen o territorios más cercanos a estos cuando fuera posible, para así reducir los riesgos asociados a la extensión global de las CVG, lo que podría llevar a la regionalización potencial de estas cadenas (*cf.*, Enderwick y Buckley, 2020). A todo esto, debemos añadir retos no tan recientes, pero no por ello menos importantes, ya que las CVG tienen un rol vital en lo relativo a los problemas sociales y medioambientales que enfrentamos a nivel internacional y que no deben ser relegados a un segundo plano, incluso ante otras presiones más urgentes como las mencionadas.

De acuerdo con todo lo anterior, este entorno cambiante está motivando la aparición de nuevas líneas de investigación en el campo de las CVG, al tiempo que está afectando a cómo podemos estudiar diferentes cuestiones de investigación que ya se habían detectado anteriormente. Entre estos temas, observamos que tales eventos están afectando de manera crítica a la competitividad y la sostenibilidad de las empresas que participan en las CVG, especialmente a aquellas de tamaño pequeño y mediano, así como a las cadenas en sí mismas y, por extensión, a su entorno. Por ello, en esta Tesis Doctoral usamos el marco analítico de las CVG para estudiar temas de investigación relacionados con estos problemas, ya que la literatura de las CVG nos ofrece el marco más adecuado para analizar tales cuestiones – como ha sido sugerido, previamente, por otros investigadores también (*e. g.*, De Marchi y Gereffi, 2023).

OBJETIVOS DE LA TESIS DOCTORAL

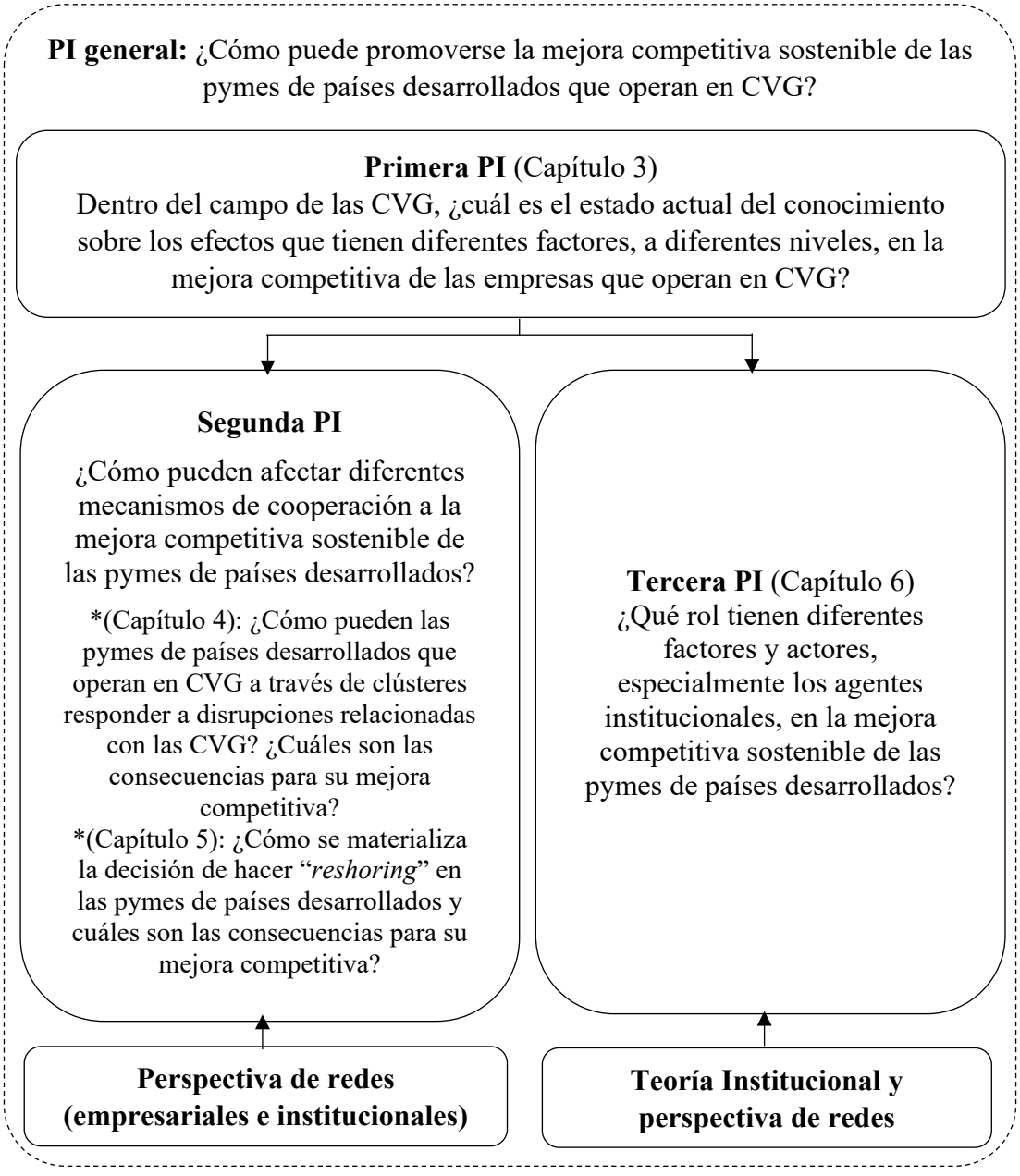
El objetivo general que se busca cumplir en esta Tesis Doctoral es analizar **cómo se puede promover la mejora competitiva sostenible de las pequeñas y medianas empresas (pymes) de países desarrollados que operan en CVG.** En este sentido, consideramos el papel que tendrán los actores externos a las pymes y a la cadena ya

que creemos que tanto los actores públicos como privados, también a nivel local, serán clave para promover este desarrollo competitivo sostenible. El motivo es que estaremos estudiando empresas que, en principio, están más limitadas internamente en cuanto a recursos disponibles, por lo que estos agentes externos serán importantes para motivar su mejora competitiva, y que también son empresas que están muy inmersas en sus entornos tanto locales como globales, por lo que estarán conectadas con todos estos agentes externos. Por todo ello, esta Tesis Doctoral cae en la intersección entre las dinámicas de la CVG a nivel vertical y el entorno local de las pymes a nivel horizontal. Así, el objetivo principal de la Tesis puede traducirse en la siguiente pregunta de investigación (PI): **¿cómo se puede promover la mejora competitiva sostenible de las pymes de países desarrollados que operan en CVG?** A su vez, esta PI puede dividirse en otras tres PI que se investigarán en estudios separados, aunque interdependientes, para dar respuesta a la PI general. En la Figura 1 recogemos estas preguntas e indicamos en qué capítulos de la Tesis Doctoral se estudia cada una de ellas, así como las diferentes teorías que se aplican para su resolución.

Con respecto a estas PI más específicas, con la primera respondemos a cuál es el estado actual del conocimiento, dentro del campo de las CVG, sobre los efectos que tienen diferentes factores, a diferentes niveles, en la mejora competitiva de las empresas que operan en las CVG. Resolvemos esta pregunta mediante una revisión sistemática de la literatura porque, a pesar de que existen trabajos previos en esta misma línea (*e. g.*, De Marchi y Alford, 2022; De Marchi et al., 2020; Kano et al., 2020; McWilliam et al., 2020), todavía hay una falta de investigación que sintetice e integre sistemáticamente estos factores, así como una falta de consenso en cuanto a los efectos que tienen mecanismos más específicos sobre la mejora competitiva (*e. g.*,

Goerzen et al., 2021). Así, con nuestro estudio que integra y analiza sistemáticamente estos elementos, contribuimos a avanzar la literatura de las CVG.

Figura 1. Preguntas de investigación (PI) de la Tesis Doctoral



Fuente: elaboración propia

En segundo lugar, estudiamos cómo diferentes mecanismos de cooperación pueden afectar a la mejora competitiva sostenible de las pymes de países desarrollados. Esto lo hacemos a través de dos estudios cualitativos que desarrollamos en distintos

capítulos de la Tesis. En ellos, prestamos atención a algunas de las dinámicas que, actualmente, están afectando a las CVG y también a los entornos locales de las empresas. En concreto, en el capítulo 4 nos centramos en la crisis provocada por la pandemia de la COVID-19 y en el capítulo 5 consideramos el escenario de potencial retorno de algunas actividades a los países de origen de las empresas. Resolviendo las PI particulares de cada uno de estos estudios, respondemos a la segunda PI de la Tesis Doctoral. Además, en estos estudios damos especial importancia los estos contextos locales de las pymes, ya que han sido menos estudiados en el campo de las CVG, al menos en términos comparativos.

Finalmente, analizamos qué rol tendrán diferentes actores, especialmente los institucionales, en la mejora competitiva sostenible de las pymes de países desarrollados. Para ello, desarrollamos un estudio cuantitativo que supone una contribución al campo de las CVG en sí mismo, ya que este tipo de metodología se ha usado con menor frecuencia – a pesar de excepciones como el trabajo de Golini et al. (2018). Además, también supone una contribución al centrarse en un contexto distinto al que se suele estudiar en el caso de las CVG (*i.e.*, el de los países desarrollados) y en la mejora competitiva a nivel empresa en el caso de las pymes de tales contextos.

Con respecto a las teorías empleadas para responder a las PI, usamos paradigmas asociados al campo de dirección de empresas que son adecuados a nuestros objetivos y niveles de análisis. La investigación que hemos llevado a cabo está anclada, por un lado, en la Teoría Institucional, ya que consideramos diferentes agentes institucionales y su rol con respecto a la mejora competitiva sostenible de las pymes; y, por otro lado, en la perspectiva de redes también (en concreto, las redes empresariales), pues analizamos la influencia de diferentes relaciones de cooperación

en la mejora competitiva sostenible de las pymes. Combinar estos enfoques teóricos con la literatura de CVG nos da la base teórica necesaria para explicar los mecanismos que actúan en cada trabajo empírico que hemos desarrollado. También nos permite estudiar a los agentes institucionales no solo como reguladores y proveedores de normas, sino también como parte de las redes no empresariales de las pymes, pudiendo así desarrollar otros roles como el de mediadores entre las dimensiones verticales y horizontales de las CVG y el entorno de las pymes.

METODOLOGÍA DE LA TESIS DOCTORAL

La metodología que usamos en esta Tesis Doctoral incluye una revisión sistemática de la literatura y métodos tanto cualitativos como cuantitativos en sus respectivos trabajos empíricos. Más concretamente, en el capítulo 2 de la Tesis presentamos el marco analítico de las CVG, la base teórica que sustenta esta literatura, los paradigmas teóricos que utilizamos en la Tesis, y la explicación de por qué las pymes son agentes clave en términos tanto económicos como sostenibles. En el capítulo 3, presentamos la revisión sistemática de la literatura sobre los factores que conducen a la mejora competitiva de las empresas. En los capítulos 4 y 5 empleamos métodos cualitativos para analizar los mecanismos de cooperación y las tendencias actuales que conducen, o no, a la mejora competitiva sostenible de las pymes, centrándonos tanto en los procesos como en los resultados de estas potenciales mejoras. En el capítulo 6, usamos métodos cuantitativos para analizar el efecto estadístico de diferentes factores sobre la mejora competitiva sostenible de las pymes. Finalmente, en el capítulo 7 reportamos las conclusiones transversales a estos capítulos. Si bien en cada estudio usamos una metodología adecuada a su objetivo y PI, estando todos los capítulos estructurados como artículos de investigación, todos estos estudios son interdependientes, realmente.

Por tanto, responder a sus PI específicas nos permite responder al objetivo global de la Tesis en el último capítulo a modo de conclusión.

Muestra analizada en la Tesis Doctoral

En esta subsección, indicamos el tipo de muestra utilizada en los estudios empíricos de la Tesis, siendo dicha muestra descrita en detalle en cada capítulo. En la Tabla 1 recogemos, para cada capítulo, las industrias que hemos considerado y los datos de las pymes que forman parte de ellas en términos de su tamaño, para lo que hemos seguido los criterios de la Comisión Europea (2014) con respecto al número de empleados.

Tabla 1. Descriptivos de la muestra

Estudio	Categorías	Tipología de empresas (todas de origen europeo)	Número de empresas
Capítulo 4* (cualitativo)	Tamaño de empresa (núm. empleados)	Micro (menos de 10)	1
		Pequeña (entre 10-50)	4
		Mediana (entre 50-250)	-
	Industrias	Manufactureras tradicionales	5
		Avanzadas	-
Capítulo 5 (cualitativo)**	Tamaño de empresa (núm. empleados)	Micro (menos de 10)	-
		Pequeña (entre 10-50)	2
		Mediana (entre 50-250)	4
	Industrias	Manufactureras tradicionales	6
		Avanzadas	-
Capítulo 6 (cuantitativo)	Tamaño de empresa (núm. empleados)	Micro (menos de 10)	3
		Pequeña (entre 10-50)	58
		Mediana (entre 50-250)	153
	Industrias	Manufactureras tradicionales	116
		Avanzadas	98

Notas: *Entrevistas también con una asociación industrial y dos representantes institucionales públicos (local y regional). **Entrevista también con un empleado de la oficina de Valencia (la principal en España) de una multinacional logística para tener más información contextual.

Fuente: elaboración propia

La Tesis Doctoral se centra, principalmente, en los llamados sectores manufactureros tradicionales (SMT), que serían aquellos considerados como menos avanzados o tecnológicos (*e. g.*, industrial del textil tradicional, del mueble, etc.). Nos

centramos en estos sectores ya que son muy relevantes en términos económicos porque incluyen a un número considerable de empresas, por lo que son críticos también en términos sostenibles, y porque las empresas de estas industrias tienden a enfrentar mayores limitaciones internas debido a su perfil menos tecnológico (Villar et al., 2020). Por todo ello, son relevantes para nuestra investigación ya que los agentes externos a las empresas podrían ser más clave para promover su competitividad en este caso. Además, los SMT tienden a caracterizarse también por su atomización; es decir, normalmente concentran un número importante de pymes. Esto suele conllevar tendencias hacia su concentración, normalmente en clústeres, lo que nos ofrece también la posibilidad de estudiar las estrategias de mejora competitiva desde perspectivas tanto de arriba a abajo como de abajo a arriba (*i.e.*, "*top-down*" vs. "*bottom-up*"). Asimismo, dado que la Tesis se centra en las pymes de países desarrollados, nos centramos en SMT en el contexto de España, un país donde las pymes representan una parte importante del tejido empresarial (representando, por tanto, el contexto Europeo en cierta medida) (Muller et al., 2019); donde los SMT tienen una presencia reseñable; y donde el entorno institucional está bien desarrollado, por lo que su influencia potencial en la actividad industrial de las pymes es considerable (De Marchi, 2012; OECD, 2019). Al mismo tiempo, aunque las empresas de los SMT se vieron negativamente afectadas por la globalización (debido a la entrada de nuevos competidores más eficientes, por ejemplo), también fueron capaces de sobrevivir y, aquellas que lo consiguieron, tendieron a internacionalizarse, a menudo a través de las CVG. Por todo ello, las pymes de estas industrias constituyen un entorno empírico adecuado para responder a los objetivos de esta Tesis Doctoral.

Más concretamente, dentro de los SMT consideramos industrias relacionadas con el sector de hogar, como por ejemplo las del mueble, iluminación, grifería y relacionados, o las textiles, entre otras. Estos sectores son representativos dentro de los SMT y cumplen con las características que mencionábamos más arriba. Sin embargo, por ser especialmente adecuada a los objetivos de la Tesis, damos algo más de importancia a la industria textil en algunos capítulos empíricos (sobre todo, en los cualitativos). Este sector cumple con nuestros criterios al incluir un número considerable de pymes; al estar altamente conectado con las CVG, así como con su entorno local; al ser, al menos potencialmente, una industria altamente contaminante y con problemas sociales a nivel empleo; y al ser competitiva a pesar de las dificultades que enfrenta en un mundo globalizado. No obstante, en el capítulo 6 incluimos también industrias consideradas más avanzadas en nuestra muestra porque, al ser un estudio cuantitativo, queremos poder comparar entre sectores para obtener resultados más generalizables.

Técnicas utilizadas en la Tesis Doctoral

En esta subsección, presentamos los métodos concretos que hemos utilizado en cada capítulo de la Tesis, aunque los explicamos con más detalle en cada uno de esos estudios. En general, la Tesis sigue un enfoque positivista en lo que a su parte empírica se refiere. Así, los dos primeros estudios emplean métodos cualitativos en estas líneas, mientras que el último emplea métodos cuantitativos, tal y como recogemos en la Tabla 2.

Tabla 2. Resumen de las metodologías empleadas en la Tesis Doctoral

CAPÍTULO	METODOLOGÍA
Capítulo 3. "Avanzando la mejora competitiva sostenible de las empresas en las CVG: desarrollando un marco integrado para los factores, procesos y resultados de la mejora competitiva".	Revisión sistemática de la literatura
Capítulo 4. "CVG en la era post-COVID-19: Una perspectiva de red sobre la resiliencia y mejora competitiva de las pymes".	Cualitativa – caso de estudio múltiple
Capítulo 5. "'*Reshoring'* hacia el mercado de origen y más allá en pymes manufactureras tradicionales: respuestas a un entorno cambiante y consecuencias sobre su mejora competitiva".	Cualitativa – caso de estudio múltiple
Capítulo 6. "Análisis cuantitativo sobre la mejora competitiva sostenible de las pymes manufactureras tradicionales".	Cuantitativa – regresión lineal múltiple

Fuente: elaboración propia

Con respecto a los capítulos 4 y 5, utilizamos estudios cualitativos ya que las preguntas son del tipo "cómo" o "por qué"; es decir, nos interesa conocer los procesos subyacentes que están teniendo lugar, dando así respuesta a nuestras PI. Este tipo de metodología permite a los investigadores estudiar los fenómenos sociales en su entorno natural, siendo capaz de proveer de explicaciones suficientemente completas y siendo adecuada para "*abrir la caja negra*" del fenómeno bajo estudio (Doz, 2011: 583). También es una metodología que permite acomodar diferentes paradigmas filosóficos y estilos de investigación (Bansal y Corley, 2011). En este sentido, el positivismo es el paradigma más extendido en ciencias sociales (Bonache, 2021), también en el área empresarial como puede ser el campo de Negocios Internacionales. Investigadores como Eisenhardt (1989) y Yin (2014) se encuentran entre los más relevantes dentro de este paradigma, que es a su vez el que ofrece más guías para realizar estudios de corte cualitativo. Así, desde una posición positivista, en términos epistemológicos partiríamos de centrarnos en buscar relaciones entre los elementos de un fenómeno para entender, explicar y predecir lo que ocurre en la realidad social

(Burrell y Morgan, 1979; según Bonache, 2021). Así, debido a que este paradigma asume que existe tan solo una realidad independiente del investigador (Yin, 2014), adoptamos un rol objetivo que entiende que la realidad puede ser entendida a través de variables, constructos y relaciones entre ellos; es decir, modelos (Bonache, 2021). Por todo ello, al aplicar el método del caso de estudio bajo este paradigma, en nuestra investigación buscaremos desarrollar proposiciones y teoría, que llevarán al desarrollo de hipótesis a testar en futuros estudios cuantitativos (Eisenhardt, 1989).

En este sentido, en la Tesis seguimos la definición de caso de estudio de Piekkari et al. (2009: 569), según la cual estos serían "*una estrategia de investigación que examina, a través del uso de diferentes de fuentes de información, un fenómeno en su contexto natural, con el propósito de 'enfrentar' la teoría con el mundo empírico*". De esta manera, en nuestros casos de estudio partimos de un marco teórico inicial o modelo preliminar sobre el cual desarrollamos nuestra PI, y como la lógica subyacente a la investigación sería la búsqueda de patrones generalizables, preferiremos el estudio de casos múltiple, así como la triangulación de los datos (Gibbert y Ruigrok, 2010). Es por todo ello que, en los capítulos 4 y 5, nuestro proceso de investigación será más bien estructurado: siguiendo a la formulación de la PI, seleccionaremos los casos; crearemos un protocolo de estudio; accederemos a estos casos; desarrollaremos un análisis interno de los mismos; a continuación, compararemos los casos buscando patrones; y, para terminar, desarrollaremos proposiciones que expliquen la realidad bajo estudio y que conduzcan a modelos y futuras líneas de investigación.

Finalmente, en el capítulo 6, aplicamos una metodología cuantitativa porque nuestra PI es del tipo "qué"; es decir, con este estudio queremos explorar qué efectos

tienen diferentes elementos en la mejora competitiva sostenible de las pymes. En este sentido, utilizamos una regresión lineal múltiple, ya que está técnica encaja con el objetivo del estudio, su PI, y las características de los datos que hemos recogido. En concreto, "*una regresión lineal múltiple es una técnica estadística genérica utilizada para analizar la relación entre una sola variable dependiente y varias variables independientes*" (Hair et al., 2010: 151). Esto es adecuado a nuestro estudio ya que nuestra variable dependiente (*i.e.*, la mejora competitiva de las pymes) es continua (aunque se divide en cinco tipos de mejora competitiva, por lo que calculamos un modelo para cada uno) y estamos analizando como se verá afectada por diferentes variables independientes (que incluyen tanto varios tipos de gobernanza privada como mecanismos empleados por instituciones públicas). Por supuesto, también incluimos variables de control en el estudio, respetando la adecuación del número de variables al tamaño muestral (en el capítulo 6 damos más detalles al respecto).

ESTRUCTURA DE LA TESIS

La Tesis Doctoral se estructura en siete capítulos que pueden dividirse en tres áreas distintas: la parte teórica, que incluye los capítulos 2 y 3; la parte de estudios empíricos, correspondiente a los capítulos 4, 5 y 6; y las conclusiones, que se reportan en el capítulo 7. El capítulo 2 recoge las teorías que dan apoyo a nuestra investigación y, como indicábamos más arriba, el capítulo 3 recoge la revisión sistemática de la literatura sobre la mejora competitiva a nivel empresa, mientras que los capítulos 4, 5 y 6 son de corte empírico y son interdependientes. Dividirlos de esta manera nos permite formular preguntas más concretas y recoger y analizar los datos de la manera más adecuada, tanto teórica como metodológicamente. Así, con los resultados de estos estudios, podemos formular conclusiones más sólidas y, finalmente, responder a la PI

general de la Tesis Doctoral. A continuación, describimos brevemente el trabajo reportado en cada capítulo.

El capítulo 2 introduce el marco analítico de las CVG, yendo desde sus orígenes hasta el momento presente, incluyendo asimismo una sección sobre la internacionalización y el desarrollo competitivo de las pymes. Este capítulo también incluye una introducción a las teorías subyacentes a la literatura de CVG, así como la descripción de las teorías que apoyan los estudios empíricos de esta Tesis y cómo encajan en el campo de las CVG.

El capítulo 3 presenta la revisión sistemática de la literatura que realizamos sobre los diferentes factores y mecanismos que afectan a la mejora competitiva a nivel empresarial. Este estudio considera los actores pertenecientes tanto al nivel internacional de la CVG como al nivel local en el que estas cadenas se insertan también. Así, contribuye al campo de las CVG al cubrir huecos de investigación distintos a los de revisiones previas. En concreto, recogemos de manera sistemática todos estos mecanismos y su efecto en la mejora competitiva empresarial, lo que nos lleva a resultados que pueden contribuir al desarrollo de escalas para futuros estudios cuantitativos sobre CVG y a identificar nuevas líneas de investigación para las cuales proponemos PI, teorías y metodologías concretas.

El capítulo 4 incluye el primer estudio empírico de la Tesis. Utilizando una metodología cualitativa de estudio de casos, en este artículo analizamos el efecto de las relaciones institucionales y de las redes empresariales en la resiliencia de las pymes frente a la crisis provocada por la COVID-19 y su mejora competitiva sostenible en una situación disruptiva. Los resultados muestran cómo las redes locales,

fundamentalmente representadas en el clúster industrial del que forman parte estas pymes, permitieron a estas empresas que eran proveedoras en CVG recuperarse del shock a través de estrategias de innovación que llevaron a una serie de mejoras competitivas. En este sentido, los actores privados a nivel local, así como los actores colectivos del clúster y las instituciones, fueron clave al facilitar el flujo de recursos y conocimiento necesarios para que las pymes pudieran sobrevivir a la crisis y, al mismo tiempo, hacerse más competitivas.

El capítulo 5 también utiliza el método de estudio de casos para estudiar un fenómeno relativamente más actual y su efecto en la mejora competitiva sostenible de las pymes: el "*reshoring*" o relocalización empresarial. Adoptamos un punto de vista teórico basado en redes, igual que en el capítulo 4, y nos centramos en los antecedentes del fenómeno y las estrategias en las que este se materializa. Además, siendo esta la parte más importante del estudio, recogemos evidencia sobre las consecuencias de este fenómeno para la mejora competitiva sostenible de las pymes, evaluando cómo puede servirles para recuperar control en sus cadenas y mejorar su posición, así como hasta qué punto es realista esta estrategia para reindustrializar las economías desarrolladas.

El capítulo 6 reporta los resultados de nuestro último estudio empírico, que emplea métodos cuantitativos para obtener resultados más generalizables. En él exploramos el efecto de diferentes elementos y tipos de gobierno, incluyendo aquellos de carácter institucional, en varias estrategias de mejora competitiva por parte de las pymes de países desarrollados. En este sentido, nos centramos en las mejoras de corte sostenible, tanto social como medioambiental.

Finalmente, además de la sección de conclusiones de cada estudio, la Tesis termina con el capítulo 7, donde recogemos los principales resultados del proyecto que son transversales al mismo y responden a la PI general. Asimismo, en esta sección del documento incluimos las implicaciones de nuestra investigación, tanto académicas como empresariales e institucionales.

CONCLUSIONES

El objetivo general de esta Tesis Doctoral era analizar cómo podía promoverse la mejora competitiva sostenible de las pymes de países desarrollados que operan en CVG. Este objetivo se dividía en tres subobjetivos más específicos a tratar en diferentes estudios interdependientes. En esta sección, repasamos las conclusiones, contribuciones (académicas y prácticas) y limitaciones (así como las futuras líneas de investigación asociadas a estas) de cada capítulo, reportándolo también de manera transversal a toda la Tesis para dar respuesta a su PI principal.

Capítulo 3: Avanzando la mejora competitiva sostenible de las empresas en las CVG: desarrollando un marco integrado para los factores, procesos y resultados de la mejora competitiva

El capítulo 3 estudia el actual estado del arte dentro del campo de CVG en relación con los efectos que tienen diferentes factores, en diferentes niveles, en la mejora competitiva de las empresas participantes en CVG. Para ello, llevamos a cabo una revisión sistemática de la literatura cuya motivación principal parte de la falta de más estudios en este campo de conocimiento que sinteticen de manera sistemática estos factores, con sus mecanismos de actuación específicos, y sus efectos en estrategias de mejora competitiva concretas. Otras motivaciones de las que nace este estudio es la falta de consenso con respecto al efecto de algunos de estos mecanismos (*e. g.*,

Goerzen et al., 2021), así como la falta de más estudios de este estilo enfocados en la mejora competitiva a nivel empresa, pues estos serán los actores que llevarán a cabo estas estrategias en primer lugar, extendiéndose, solo después, sus efectos a otros niveles (*e. g.*, la cadena, la industria, el país, y/o la región).

Así, en respuesta a la PI de este estudio, nuestros resultados indican que, en primer lugar, la gobernanza privada a nivel vertical o internacional sí tiene un papel clave como determinante de la mejora competitiva empresarial, pero su efecto varía de manera significativa dependiendo del tipo de estructura de gobierno. Observamos que los mecanismos específicos en los que se operacionalizan estas estructuras son varios y que el uso de unos u otros es determinante en los procesos y resultados de las diferentes estrategias de mejora competitiva. Así, concluimos que aquellas estructuras basadas en estándares – normalmente, las cautivas, cuyos mecanismos habituales son el uso de códigos y la vigilancia mediante auditorías – promueven estas estrategias solo de manera limitada, especialmente cuanto más complejas son, incluso pudiendo llegar a conducir hacia desmejoras en cuanto a estrategias de carácter más sostenible. En su lugar, las estructuras basadas en la colaboración cercana y activa – como la gobernanza de tipo relacional – son las cruciales para promover los caminos más avanzados de mejora competitiva, como podría ser la creación de nuevos productos, incluyendo también las estrategias de tipo sostenible. En segundo lugar, nuestros resultados también confirman que los factores relevantes para la mejora competitiva empresarial van más allá de las empresas líderes en las CVG, incluyendo también a agentes sociales y públicos, así como privados a nivel local u horizontal, pues estos también tienen autoridad suficiente para ejercer su gobierno en la cadena y cuentan con mecanismos que pueden ser más efectivos que los de la gobernanza privada a nivel

de la cadena. En este sentido, estos son mecanismos que van más allá de exigir estándares y que ayudan a construir capacidades empresariales para poder desarrollar diferentes estrategias de mejora competitiva. Estos agentes también son clave, especialmente a nivel horizontal, para contrarrestar los efectos negativos que algunas estructuras de gobierno por parte de las empresas líderes pueden tener en estas mejoras competitivas, lo que es clave cuando hablamos de estrategias de corte social y medioambiental. Finalmente, nuestros resultados también nos llevaron a concluir que la investigación futura de este tema en el campo de las CVG debe hacer más uso de teorías mejor establecidas, preferiblemente del área de dirección de empresas o "*management*" (especialmente si se va a estudiar a nivel empresa), y que todavía se requiere integrar más los factores impulsores de la mejora competitiva empresarial tanto desde el enfoque arriba-abajo y el de abajo-arriba para obtener resultados más completos.

Todos estos resultados, que contribuyen a dar respuesta a la PI de este estudio, nos llevaron a formular nuevas líneas de investigación. Primero, al proponer el concepto de mejora competitiva sostenible en este capítulo, propusimos que los estudios futuros se centren en esta perspectiva integradora de la mejora competitiva empresarial, de tal manera que no solo se trate de obtener un rédito económico, sino que también incluya mejoras de carácter social y medioambiental. Así, podríamos estudiar el desarrollo de estrategias con resultados positivos tanto económicos como sostenibles, lo que sería clave para promover empresas y cadenas más respetuosas con el entorno. Al incluir diferentes motivadores de estas estrategias a diferentes niveles, también estaríamos promoviendo estudios con una perspectiva más completa. En segundo lugar, ya que la mayoría de la investigación se ha centrado en el contexto de

las economías en desarrollo, propusimos realizar más estudios en el contexto de los países desarrollados, pero en empresas distintas a las líderes de las cadenas, porque estas también son clave y los resultados obtenidos podrían variar con respecto a la literatura preexistente. Creemos que, en este sentido, las pymes ocupan un papel crítico al ser actores clave tanto en el plano económico como en el sostenible, debido a que son la gran mayoría del tejido empresarial en muchos países y a su papel como proveedoras en muchas CVG, por lo que necesitaríamos más estudios sobre este tipo de empresas. Finalmente, también concluimos que necesitamos más investigación cuantitativa en este campo de conocimiento para generalizar relaciones entre constructos y así avanzar la literatura. En este sentido, sugerimos el uso de más datos primarios, ya que pueden ser más adecuados para medir las estrategias de mejora competitiva con precisión, especialmente al analizarlas a nivel empresarial.

Capítulo 4: CVG en la era post-COVID-19: una perspectiva de red sobre la resiliencia y mejora competitiva de las pymes

Nuestro objetivo en este capítulo era estudiar cómo podían responder a las disrupciones asociadas a las cadenas las pymes de países desarrollados que operan en CVG a través de clústeres, y cuáles eran las consecuencias en términos de su mejora competitiva. Responder a esta cuestión, junto con el capítulo 5, contribuye a contestar la segunda PI de la Tesis: cómo influyen diferentes mecanismos de cooperación en la mejora competitiva sostenible de las pymes de países desarrollados. En términos teóricos, este capítulo se posiciona en las literaturas de CVG y sobre clústeres y resiliencia, al tiempo que utilizamos una perspectiva de redes para explicar nuestros resultados. Metodológicamente, desarrollamos un estudio de casos múltiple para responder a nuestra PI. Esto nos lleva a desarrollar diferentes proposiciones y un

modelo de proceso que, al tener en cuenta tanto el nivel internacional/vertical como el local/horizontal, contribuyen a extender la literatura.

En cuanto a las conclusiones de este capítulo, nuestros resultados indican que la disrupción provocada por la pandemia del COVID-19 impulsó tanto a las pymes como a su contexto local –, el clúster, en este caso – a activarse, favoreciendo la supervivencia de las pymes y su desempeño. Los actores colectivos del clúster (*e.g.*, la asociación sectorial del textil) fueron cruciales en este sentido, al igual que lo fueron las instituciones públicas a nivel local y regional. Estos agentes contribuyeron a agrupar los recursos del clúster y de las pymes, lo que permitió a estas empresas reconfigurarse para adaptarse a la crisis, impulsando así su resiliencia y, en consecuencia, sus trayectorias de mejora competitiva, principalmente en términos de desarrollo de nuevos productos, entrada en nuevos sectores y mejora de sus procesos, también de forma sostenible. En resumen, los principales factores externos a las pymes que explican este éxito fueron: la infraestructura institucional del clúster, que proporcionó a las pymes un amplio conjunto de conocimientos y recursos; y las entidades locales de apoyo, que facilitaron las relaciones de colaboración, el flujo de conocimientos y el acceso a los recursos necesarios para adaptarse y llevar a cabo estrategias de mejora competitiva.

Con respecto a la PI de este capítulo, concluimos que las relaciones locales a nivel de clúster fueron cruciales para impulsar la resiliencia de las pymes y, en última instancia, también su mejora competitiva, incluso siendo la literatura previa en el campo de los clústeres no concluyente al respecto. Observamos así que la clave residía en las acciones tomadas tanto por los agentes empresariales como por los actores institucionales, lo que demuestra que es crucial ampliar esta perspectiva de red para

apreciar los procesos y mecanismos en juego que ayudan a las pymes a adaptarse a los contextos de crisis y, a su vez, a ser más competitivas. Esto también demuestra la importancia de integrar más el nivel horizontal de las CVG en estos estudios. En cuanto a la segunda PI de la tesis, concluimos que los mecanismos de cooperación son clave para promover la mejora competitiva sostenible de las pymes, pero que deben ir más allá de los vínculos privados y las subvenciones financieras para que sean eficaces. Asimismo, observamos que los roles más "suaves" desempeñados por algunos de estos actores externos a la empresa pueden ser incluso más importantes como impulsores de la mejora competitiva sostenible de las pymes. Estaríamos hablando de, por ejemplo, roles como creadores y coordinadores de relaciones privadas y público-privadas, o como puentes de conocimiento (Corredoira y McDermott, 2020).

Capítulo 5: "Reshoring" hacia el mercado de origen y más allá en pymes manufactureras tradicionales: respuestas a un entorno cambiante y consecuencias sobre su mejora competitiva

En este capítulo, investigamos cómo se materializa la decisión de relocalizar en el caso de las pymes de países desarrollados y cuáles son las consecuencias de esto para su mejora competitiva. De nuevo, junto con el capítulo 4, con este estudio contribuimos a responder la segunda PI de la Tesis. En términos teóricos, posicionamos esta investigación en las literaturas de CVG y "*reshoring*", al tiempo que usamos la perspectiva de redes para explicar nuestro estudio y, metodológicamente, desarrollamos un estudio de casos múltiple que nos lleva a extender la literatura mediante el desarrollo de diferentes proposiciones a partir de nuestros resultados.

Dichos resultados muestran que, primero, la decisión de relocalizar no es tan directa o sencilla como pueda parecer. Es posible que no pueda ocurrir en todas las

industrias o CVG debido a que, por ejemplo, en ciertas ocasiones no es posible o deseable relocalizar porque todavía existen ciertas ventajas asociadas a la deslocalización de actividades específicas (normalmente relacionadas con cuestiones de eficiencia). Si bien algunas disrupciones han impulsado estas estrategias igualmente, esto no implica que la relocalización vaya a ocurrir de manera extensiva ni que vaya a cambiar drásticamente las estructuras de las CVG, ya que también deben considerarse diversas contingencias. En este sentido, las posibilidades de relocalización varían según la industria, incluso dependiendo de la sección de la cadena, y también varían en términos de los recursos y capacidades de las pymes. Con respecto a esto último, también concluimos que el modelo de negocio empresarial es un factor importante para decidir si relocalizar o no; en concreto, las estrategias basadas en la diferenciación tendieron a impulsar la decisión de relocalizar. En segundo lugar, si bien las instituciones tienen un papel potencialmente clave en el fomento de esta relocalización, no todas las industrias reciben la misma atención; por lo tanto, el "*reshoring*" depende en gran medida de la disposición y las capacidades de las pymes, así como de su motivación estratégica y las posibilidades de recuperar de forma realista ciertas actividades. En tercer lugar, nuestros resultados mostraron que las estrategias de relocalización podrían adoptar más formas que aquella basada en la Inversión Directa Extranjera (IDE), por lo que ilustramos que se trata de una opción disponible incluso para empresas con recursos más limitados. Esto último es crucial porque, si bien las estrategias de relocalización se vinculan siempre con cuestiones de control, esto indica que puede haber propósitos más allá del deseo de minimizar los riesgos relacionados con la cadena de suministro que, por otro lado, siempre van a existir. Por ejemplo, estos objetivos podrían incluir la reducción de distancias para una

ser más sostenible; la recuperación de cierto grado de soberanía en la cadena al aumentar el valor como proveedor, con la posibilidad de acceder a vínculos más relacionales; la mejora de la cadena mediante la producción de mejores productos o nuevos; la ejecución de mejores procesos o el desarrollo de mejoras relacionadas con la sostenibilidad; o mejorar el servicio prestado a los grandes distribuidores mediante el aumento de la capacidad de reacción.

Así, en respuesta a nuestra PI, concluimos que la decisión de relocalizar, aunque no sea la panacea, puede manifestarse en muchos tipos de estrategias, lo que es especialmente relevante para el caso de las pymes ya que, generalmente, no han realizado operaciones previas de IDE; y que, además, sus consecuencias para la mejora competitiva sostenible de las pymes son positivas. Por lo tanto, confirmamos que las decisiones de relocalizar dan lugar a un amplio espectro de estrategias y que esto representa una posibilidad para las empresas más pequeñas que buscan fortalecer su posición y competitividad en las CVG. Con respecto a la segunda PI de la Tesis, este estudio también ilustra que los mecanismos de cooperación basados en vínculos relacionales con actores tanto empresariales como no empresariales son clave para promover la mejora competitiva sostenible de las pymes, incluso si también cuentan con su propia motivación estratégica interna. Específicamente, las redes de nivel horizontal continuaron siendo las más relevantes, sobre todo cuando se refieren a empresas locales auxiliares y actores de tipo institucional. Estos últimos agentes funcionaron como proveedores de conocimientos y recursos que fueron clave para que las pymes se reubicaran y mejoraran competitivamente (aunque, a veces, las pymes percibían que las instituciones estaban desconectadas de la realidad empresarial).

Capítulo 6: Análisis cuantitativo sobre la mejora competitiva sostenible de las pymes manufactureras tradicionales

En este capítulo, investigamos qué papel desempeñan diferentes factores y actores, especialmente los agentes institucionales, en la mejora competitiva sostenible de las pymes de los países desarrollados. Para ello, utilizamos la Teoría Institucional y el enfoque empresarial de redes para explicar nuestros resultados, que fueron obtenidos mediante un estudio de corte cuantitativo. Este último consistió en una regresión lineal múltiple y puede considerarse en cierto modo exploratorio, dada la falta de constructos bien establecidos en el campo de las CVG porque la investigación cualitativa ha sido más abundante hasta la fecha.

A pesar de ser bastante exploratorios, como indicamos, nuestros resultados coinciden con algunas investigaciones previas en el área de CVG, aunque son contrarios a otras. En este sentido, concluimos que la gobernanza vertical privada no siempre influye positivamente en la mejora competitiva sostenible de las pymes, incluso aunque estas estén ubicadas en países desarrollados. Esto dependerá del tipo concreto de estructura de gobierno, como también han mostrado trabajos previos, porque los mecanismos utilizados serán diferentes. No obstante, también dependerá del tipo de estrategia de mejora competitiva. Por ejemplo, los sistemas de gobierno relacionales parecen funcionar mejor porque se basan en la cooperación explícita y cercana. A su vez, algunas estructuras de gobierno pueden funcionar mejor que otras cuando la estrategia de mejora competitiva es más compleja, como cuando implica la creación de nuevos productos o está más relacionada con la sostenibilidad (lo que puede requerir la colaboración con más partes de la cadena). Sin embargo, también obtenemos algunos resultados un tanto sorprendentes con respecto a las estructuras

cautivas, que preveíamos que tendrían una influencia más limitada en estas estrategias de mejora. Estos resultados, un tanto contraintuitivos, podrían estar relacionados con el hecho de que este estudio se realizó en el contexto de un país desarrollado; es decir, una posible explicación podría ser que, a pesar de ser pymes supuestamente con recursos limitados, al pertenecer a una economía desarrollada podrían estar mejor preparadas para implementar estrategias de mejora competitiva, incluyendo las sostenibles, lo que podría explicar por qué la gobernanza cautiva puede funcionar bien. Esto vuelve a reforzar nuestro argumento sobre la importancia de realizar estudios en estos otros contextos y para este tipo particular de empresa. Además, observamos que las mejoras competitivas podrían tener lugar a pesar de los efectos negativos de algunas estructuras de gobernanza privadas, algo que también han argumentado otros investigadores (*e. g.*, Murphree y Breznitz, 2020). En este sentido, al analizar el rol de las instituciones como facilitadoras, demostramos que sus acciones también podrían favorecer la mejora competitiva sostenible de las pymes, pero que, en algunos casos, el mecanismo empleado no es efectivo e incluso puede tener un efecto negativo. Una posible explicación podría ser que estas medidas deban adaptarse mejor a las necesidades concretas de las pymes.

De esta manera, y en general, nuestros resultados muestran que el efecto de diversos factores en la mejora competitiva sostenible de las pymes puede variar según el contexto, lo que respalda nuestro argumento de que es necesario realizar más estudios sobre estos actores, especialmente en las economías desarrolladas. En cuanto a nuestra PI, concluimos que diversos actores tendrán distintos efectos en la mejora competitiva sostenible de las pymes, dependiendo de la estrategia específica a desarrollar y de los mecanismos empleados; y que no solo se trata de considerar las

estructuras de gobierno privadas a nivel vertical, sino de combinar esta perspectiva con el nivel horizontal, que puede ser clave para la mejora competitiva sostenible de las pymes a través de distintos roles.

Conclusiones sobre la PI general de la Tesis Doctoral

La PI general de la Tesis Doctoral era: ¿cómo se puede promover la mejora competitiva sostenible de las pymes de países desarrollados que operan en CVG? Para responderla, hemos desarrollado cuatro estudios diferentes e interdependientes. En este sentido, consideramos el papel de los actores externos a las pymes y a la cadena, tanto a nivel internacional como local, dado que las pymes y las CVG se insertan en varios contextos. Por lo tanto, partíamos de la base de que la clave para ampliar el campo de las CVG residía en integrar mejor las dimensiones verticales y horizontales de estas cadenas, considerando también a actores cruciales menos estudiados.

De esta manera, a partir de las conclusiones de cada estudio, respondemos a esta PI: para promover la mejora competitiva sostenible de las pymes de los países desarrollados que operan en CVG es crucial (a) considerar los niveles tanto verticales como horizontales de las cadenas, ya que las pymes están profundamente arraigadas en ambos y estos afectarán sus estrategias de mejora competitiva, tanto desde una perspectiva de arriba-abajo como de abajo-arriba; (b) considerar de manera integrada las formas de gobernanza privadas junto con las estructuras de gobernanza públicas a nivel local, ya que funcionan simultáneamente; (c) fomentar enfoques de gobernanza basados en la colaboración, tanto en las esferas privadas como públicas; (d) y promover roles más allá de la regulación y los mecanismos de facilitación en el caso de actores de tipo institucional, ya que pueden ser clave como intermediarios de conocimiento para estimular la mejora competitiva sostenible de las pymes.

Contribuciones e implicaciones para la literatura y los investigadores

Con la Tesis Doctoral contribuimos, principalmente, a la teoría y la literatura sobre CVG dentro del campo de Negocios Internacionales, aunque también aportamos contribuciones a otras literaturas relacionadas con el tema de investigación.

Con el capítulo 3, contribuimos a la literatura de CVG (*e. g*., Gereffi et al., 2005; Gereffi y Lee, 2016) de cinco maneras distintas, principalmente. En primer lugar, insistimos en la necesaria distinción entre procesos y resultados de las estrategias de mejora competitiva, ya que esto contribuiría a obtener resultados más completos. En segundo lugar, proponemos el concepto de mejora competitiva sostenible como una forma de estudiar estas trayectorias de competitividad de bajo una perspectiva integradora. De hecho, en los capítulos empíricos de esta Tesis ya trabajamos siguiendo la lógica de este término. En tercer lugar, aportamos un modelo que integra todos los impulsores externos e internos de las mejoras competitivas, mostrando así cómo afectan a los diferentes procesos de mejora a través de diferentes mecanismos y cómo puede conducir esto a diferentes resultados, tanto directos (para la empresa) como indirectos (para el país, la CVG, etc.). En cuarto lugar, dado que nos centramos en recopilar los mecanismos específicos utilizados por cada factor impulsor, contribuimos proporcionando material que puede ayudar a desarrollar escalas para la investigación cuantitativa de las CVG. Finalmente, también contribuimos a la literatura al proponer nuevas líneas de investigación, para las cuales aportamos nuevas PI específicas y teorías y metodologías adecuadas para abordarlas.

Con el capítulo 4, contribuimos al campo de las CVG y a la investigación relacionada con la COVID-19 dentro de este (*e. g*., Gereffi, 2020; Belhadi et al., 2021; Pla-Barber et al., 2021), así como a la literatura sobre clústeres relacionada con las

disrupciones (*e. g*., Delgado y Porter, 2017; Cainelli et al., 2018; Cainelli et al., 2019b; Behrens et al., 2020). Al proporcionar más evidencia empírica, profundizamos en los procesos que explican los posibles efectos positivos de la ubicación en un clúster en la resiliencia de las pymes frente a las perturbaciones de las CVG, así como las consecuencias positivas que esto puede tener para su mejora competitiva sostenible. Al fundamentar nuestro estudio en la perspectiva de redes, también contribuimos a una mayor integración de los contextos privados y públicos, especialmente a nivel horizontal, para explicar cómo esto contribuye a desarrollar las capacidades de las pymes para adaptarse, sobrevivir y mejorar en términos competitivos.

En el capítulo 5, contribuimos a la literatura sobre CVG y relocalización, principalmente, al avanzar en la conceptualización de las estrategias de "*reshoring*", en términos de sus determinantes y tipos de procesos; al proporcionar una tipología actualizada de estas estrategias, así como de sus facilitadores y barreras en el caso de las pymes; y, lo que es más importante, al mostrar las consecuencias que esta estrategia puede tener para la mejora competitiva sostenible de las pymes. Finalmente, demostramos que la estrategia de relocalización puede materializarse de diferentes formas que la convierten en una posible opción para recuperar cierto grado de control incluso en el caso las pymes, que suelen considerarse como empresas de recursos más limitados, y que las barreras para emprender o no esta estrategia pueden residir más en la disposición de los líderes de las CVG o incluso en el mercado final, por ejemplo. En este sentido, los actores institucionales podrían ser clave para enfrentar estos límites.

Finalmente, con el capítulo 6 contribuimos al campo de las CVG tanto teórica como empíricamente. En primer lugar, mostramos el efecto de la gobernanza tanto vertical como horizontal en la mejora competitiva sostenible de las pymes. Explicamos

tal efecto combinando los paradigmas de la Teoría Institucional y la perspectiva de redes, enriqueciendo así la literatura sobre CVG. En segundo lugar, aportamos evidencia cuantitativa al campo de las CVG, que aún carece de más estudios de este tipo y, de hecho, demostramos esta necesidad al obtener algunos resultados que contradicen trabajos previos. A su vez, también como continuación de nuestro estudio del capítulo 3, analizamos el efecto de mecanismos específicos empleados por estos gobernadores privados y públicos, contribuyendo así la investigación sobre CVG al mostrar cómo podría abordarse una de las futuras líneas de investigación que propusimos. En tercer lugar, al enfocar nuestro estudio desde el nivel empresarial, también contribuimos a enfatizar este nivel de análisis, que es donde se inician las trayectorias de mejora competitiva, cuyos resultados se extienden a otros niveles a partir de ahí. Finalmente, mostramos cómo los datos primarios pueden ser cruciales para analizar adecuadamente estas trayectorias de mejora (*i.e.*, según su definición en la literatura sobre CVG), ya que los datos secundarios sólo pueden funcionar como aproximaciones y también pueden ser limitados en el caso de actores como las pymes.

Contribuciones e implicaciones para las empresas e instituciones

Los resultados y conclusiones de los capítulos empíricos de esta Tesis Doctoral representan también contribuciones tanto para los empresarios como para las instituciones.

En concreto, el capítulo 4 presenta evidencia del efecto positivo que los clústeres tienen como impulsores de la supervivencia, la resiliencia y la competitividad de las pymes. Para los directivos, esto demuestra el potencial que las estrategias de innovación, las inversiones de capital, la colaboración interempresarial y las interacciones público-privadas tienen para contribuir a construir las capacidades de las

pymes, propiciando así su mejora competitiva sostenible. Para los responsables políticos y las instituciones en general, describimos mecanismos que favorecen la competitividad de las pymes, yendo más allá de la asistencia financiera y la regulación para considerar también otras funciones, como su papel como proveedores de conocimiento y como puentes entre el sector privado y la esfera pública. El capítulo 5 muestra que la estrategia de relocalización puede ser viable para las pymes, contribuyendo así al ámbito empresarial al aportar opciones estratégicas que permitirían a las pymes recuperar cierta soberanía sobre sus cadenas, estimulando su competitividad sostenible al mismo tiempo. A su vez, nuestros resultados y conclusiones también evidencian el rol clave que las instituciones pueden desempeñar con el diseño de mecanismos a medida para reindustrializar sus regiones, lo que requiere primero promover la mejora competitiva sostenible de las empresas. En el capítulo 6, mostramos que las pymes pueden mejorar competitivamente a través de diferentes vías y aportamos evidencia de cuáles son los tipos de relaciones y mecanismos institucionales que habría que buscar para favorecer estas mejoras. Para los responsables políticos, evidenciamos cómo funciona un mecanismo específico que suelen utilizar, lo que nos lleva a argumentar que sería necesario tomar también medidas más directas y relacionales, mejor adaptadas a las necesidades de las pymes.

Finalmente, al centrarse en la mejora competitiva de las pymes y la integración de las vías de mejora económica, social y ambiental y cómo estas pueden impulsarse desde diferentes perspectivas, esta Tesis Doctoral también contribuye a áreas específicas de los Objetivos de Desarrollo Sostenible (ODS). Más concretamente, contribuimos al objetivo 9 de los ODS: "construir infraestructuras resilientes, promover la industrialización sostenible y fomentar la innovación"; al objetivo 12:

"garantizar modalidades de consumo y producción sostenibles"; y al objetivo 13: "adoptar medidas urgentes para combatir el cambio climático y sus efectos".

Limitaciones de la Tesis Doctoral y futuras líneas de investigación

Con respecto al capítulo 3, es posible que hayamos perdido algo de información en la búsqueda bibliográfica debido a que las oportunidades de mejora competitiva podrían haberse abordado desde más perspectivas y conceptos que podríamos no haber considerado. Al mismo tiempo, en este estudio no incluimos literatura de la llamada "gris", como sí han hecho otros trabajos anteriores. Esto abre una vía para continuar esta línea de investigación mediante la incorporación de más trabajos empíricos que podrían arrojar aún más luz sobre el tema. A pesar de ello, seguimos ofreciendo un marco que extiende la literatura sobre CVG y sus conceptos, mostrando posibles líneas de investigación futuras partiendo de este marco.

En cuanto al capítulo 4, nuestros resultados se ven influenciados por la naturaleza de la disrupción analizada y el sector específico de las pymes agrupadas en el clúster que estudiamos. Si bien creemos que las claves del funcionamiento de los procesos analizados son generalizables, esto abre la puerta al estudio de PI similares, aunque en otras circunstancias. A su vez, futuras investigaciones podrían analizar nuestras proposiciones desde una perspectiva cuantitativa para determinar la generalización de nuestros resultados. Finalmente, considerar una muestra más amplia podría extender nuestros resultados para completar nuestras explicaciones o incluso ofrecer argumentos alternativos.

En relación con el capítulo 5, abogamos por la realización de más estudios cualitativos sobre la relocalización y la mejora competitiva empresarial, aunque en

diferentes sectores o contextos para así completar nuestra perspectiva del fenómeno, dado que nos centramos en las pymes de un entorno específico. A su vez, consideramos que ha transcurrido suficiente tiempo para acceder a datos sobre la relocalización y la mejora competitiva empresarial, de modo que también se pueden estudiar nuestras proposiciones en este sentido. Además, seguimos sugiriendo la utilización de datos primarios, ya que la relocalización no es tan fácil de evaluar a nivel de empresa con datos secundarios. Todo esto permitiría estudiar cuán probable es el desarrollo de estrategias de relocalización de forma realista y, por lo tanto, su utilidad real para impulsar la competitividad empresarial y la reindustrialización de las regiones occidentales.

Finalmente, en el capítulo 6, a pesar de centrarnos en la mejora competitiva sostenible, en su medición tan solo podemos aproximarnos a ella. Es decir, no conectamos las diferentes trayectorias de mejora tanto como desearíamos dada la falta de mediciones bien establecidas para ellas. En el futuro, estos constructos podrían desarrollarse más, en un esfuerzo por promover estudios que favorezcan la sostenibilidad en general. A su vez, futuros trabajos cuantitativos podrían estudiar más factores reguladores de las CVG distintos a los que hemos analizado, incluyendo también más mecanismos en el modelo, para evaluar cómo estos pueden o no contribuir a la competitividad sostenible de las empresas, así como para explorar las posibles conexiones entre ellos. También sería muy interesante añadir impulsores internos a estos futuros estudios, ya que hemos observado que las pymes de los países desarrollados, a pesar de su tamaño, tienden a poder implementar estrategias de mejora competitiva sostenible por sí mismas.

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