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Microfoundations of global value chain research: Big decisions by small firms

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Abstract

In this study, we introduce a unique longitudinal dataset from the Italian Ministry of Economy and Finance Annual Survey (IMEFAS) to assess how micro and small enterprises (MSEs) partake in the global economy by tapping into global value chains (GVCs). The results of the empirical analysis show that the great majority of micro and small enterprises are unable to establish direct links with GVCs. However, two sub-categories of subcontractors and branded producers were able to accomplish upgrading and partake in GVCs after the 2008 economic crisis. For both groups of firms, strategies implemented in domestic value chains contributed to their future participation in GVCs. By identifying small firms' value chain decisions associated with their ability to access GVCs directly, this study sheds light on the microfoundations of GVCs. It paves the way for the future intersection of small business economics and GVCs, two areas of research that have seldom talked to each other.

Keywords

Global value chains, micro and small enterprises, subcontractors, branded producers, upgrading, Italian clothing and footwear industry

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Introduction

In the last 15 years, researchers from fields as varied as economic geography, international business, and strategic management have taken great interest in the global activity of micro and small enterprises (MSEs). Their growing activity in the global economy has enabled MSEs to contribute to their nations' economic growth, employment and prosperity, hence becoming a key topic in both academic and managerial debates (Coviello and Munro, 1995; Holmlund and Kock, 1998; Reynolds, 1997; Matlay et al., 2006; Dabić et al., 2019). Going global is no longer deemed a mere strategic option for smaller firms; rather, it has become a necessary condition to sustain their long-term competitive advantage and survive in a highly volatile global economic landscape. For this reason, understanding how MSEs expand their business globally represents a crucial topic for scholars, managers and policy-makers alike.

Going global is particularly difficult for smaller organizations, since they generally lack internal resources and competencies (Beamish, 1999; Jarillo, 1989). To overcome resource limitations and capability shortages, small firms frequently establish inter-firm partnerships with third parties and partake in cross-country networks. Indeed, the network approach has become particularly popular in the field of small business economics in recent years and is considered an effective pattern of internationalization for MSEs (Coviello and McAuley, 1999). It also adds to the discussion of indirect or intermediated internationalization, since when MSEs are not able to go global directly, the only alternative is to link to a global player operating in the same locality (Acs and Terjesen, 2013; Terjesen et al., 2008). However, the network approach typically does not consider the analysis of the discrete value chain stages an MSE needs to assess when it establishes global linkages. In order to explore value chain-specific dynamics, the business network approach needs a finer-grained comprehension of the rules and factors underpinning the functioning of global value chains (GVCs), which are inescapably a main field of operations for small firms today.

Parallel to the network approach in the field of international entrepreneurship, a new framework started to take shape in the late 1990s, notably the GVCs approach (Gereffi, 1999, 2018). Especially interested in the formation and governance of production chains across countries (Bair, 2006), the GVC framework changed the way scholars, practitioners and policy-makers assess and understand international trade and inter-firm relationships in today's globalization. More specifically, GVC approach stemmed from the understanding that the global integration of markets was no longer limited to multinational corporations' foreign direct investment (FDI), but rather from the expansion of GVCs that may involve non-equity network ties (Giovannetti et al., 2015). Similarly to networks, GVCs are only partially coordinated through equity forms of governance (Gereffi et al., 2005) and generally identify the particular transaction occurring between a buyer and a supplier within a specific GVC. Over the years, the GVC approach has been used to investigate numerous matters pertaining to the globalization of industries and has been enriched by contributions from a variety of perspectives, including business studies in recent times (Khan et al., 2020; Ponte et al., 2019).

However, as the GVC approach gained momentum, new methodological dilemmas arose. Two of the most pressing issues are the need to quantify the economic value generated and distributed in GVCs and understanding the micro dynamics underpinning firms' interactions and performances in GVCs. Few studies have explicitly investigated the role of small firms in GVCs through a systematic empirical approach, mostly due to the lack of reliable datasets. Looking at this second research gap, we contend that such a limitation is hindering a thorough understanding of small firms' behavior in GVCs and the factors and conditions enabling their participation in GVCs over time and across space. Especially for smaller firms, shedding light on the process whereby they can link up with GVCs and improve their performance represents a key aspect in the study of the intersection of GVC and local production systems.

In this article, we argue that assessing the strategies of MSEs in local and GVCs through a comprehensive empirical approach can improve the understanding of how small businesses compete in

the global economy. More specifically, the goal of this contribution is to assess: (1) the specific value chain activities small producers focus on to sustain their competitiveness; (2) the capabilities of MSEs to partake in GVCs; (3) the combination of factors that favors MSEs' transition from local to GVCs. Shedding light on these aspects will offer a more nuanced perspective of how small firms compete in GVCs and how they contribute to the evolution of a GVC.

To shed further light on the three aspects, we introduce a novel longitudinal dataset comprising firm-specific information on MSEs with a yearly turnover equal or below 7.5 million euros. The dataset we rely on comes from the Italian Ministry of Economy and Finance Annual Survey (IMEFAS) and provides information about the specific value chain strategies MSEs have implemented between 2008 and 2015, such as the coordination of pre- and production activities, outsourcing strategies and "downstream" decisions.

The information available through the dataset allows us to operationalize on the actual strategies that MSEs implement in GVCs, hence offering for the first time a comprehensive empirical perspective about how MSEs compete in global production chains. As far as GVC studies are concerned, a quantitative analysis of MSEs' strategic decisions in GVCs permits a finer-grained understanding of the micro-dynamics underlying the evolution of GVCs. This very contribution paves the way for a more systematic intersection between the GVC framework and the small business economics, two research disciplines that have seldom talked to each other in recent years. While the study of small firms can enrich our comprehension of the factors underpinning GVC evolution, a GVC perspective offers a more systemic analysis of how MSEs create and sustain their competitive advantage in a globalized economic scenario.

Our findings suggest that the specific set of pre-conditions influencing small producers' participation in GVCs varies depending on the strategies implemented in domestic value chains. More specifically, a higher propensity to outsource production tasks and the ability to invest in higher value-added production activities are two key pre-conditions for both small subcontractors and branded producers to enter GVCs. In addition, data analysis suggests that a critical factor supporting subcontractors' ability to partake in GVC stems from their evolution from highly specialized to "full-package" producers.

Overall, the main findings emerging from this study highlight the role played by functional upgrading in supporting small producers' participation in GVCs: contrary to previous contributions, which suggest that this specific type of upgrading is crucial for increasing the competitiveness of firms already operating in GVCs (e.g. Blazek, 2016), our results indicate that functional upgrading in domestic production chains is a fundamental pre-condition for MSEs seeking to enter GVCs.

The results of our empirical analysis provide important insights for scholars, policy makers and practitioners alike. We present and discuss the theoretical and practical implications as well as the limitations of our study in the concluding section of the article. The following two sections are dedicated to the literature review and the development of three propositions; next, we discuss the research methods used in the empirical analysis. Finally, we present the main findings of the study and discuss their contribution and limitations.

Literature review

Participating in today's globalized economic landscape is a necessary strategy for every successful firm. Especially for MSEs, access to the global market represents a key strategy to sustain their competitiveness and longevity. Zahra et al. (2000) contend that establishing a global dimension is a necessary step to ensure a firm's entrepreneurial growth and returns, while Buciuni and Mola (2014) regard the need to expand globally as especially critical for organizations competing in limited domestic markets or pursuing niche strategies. Expanding globally might be quite difficult for MSEs since they generally lack financial resources and managerial and operational

capabilities (Pickles et al., 2006). For this reason, MSEs' global growth tends to rely on others' resources and takes place through the establishment of inter-firm linkages in business networks (Dicken and Hassler, 2000; De Marchi et al., 2018). The network approach used by MSEs contrasts with the strategy of large multinational enterprises (MNEs), which typically internationalize through equity modes of entry.

According to the network perspective, MSEs' global development is contingent on their ability to establish and nurture interorganizational partnerships over time, rather than any firm-specific advantage (Axelsson and Easton, 2016). Rogers (2004) argues that network linkages enable the innovation strategies of smaller firms, especially when they engage with manufacturing activities. In recent years, the way small firms enter and compete in the global economy has been increasingly investigated outside the traditional network approach. For instance, in a study on the internationalization of small and medium-sized firms, Giovannetti et al. (2015) discuss the positive relationship between firms' participation in value chains and their internationalization.

Value chain studies explicitly focus on the buyer-supplier relationship, hence shedding light on the input-output mechanisms whereby small firms participate in and contribute to complex production systems. Over the past two decades, the GVC framework has emerged as a new and effective approach to investigate how production is organized globally, what players undertake specific value chain activities, and how the value is generated and retained by them (Gereffi, 2018). However, the diffusion of GVCs has had complex effects on the performance of small firms in the global economy. On the one hand, the sophistication of value chains has created higher entry barriers for smaller firms, especially for those lacking previous international experience (e.g. Majocchi et al. 2005; Schweizer 2012); on the other hand, the global fragmentation of value chains has opened up new opportunities for smaller firms, supporting their international expansion into new sectors and markets and enhancing their innovation potential by linking them to new sources of knowledge (Reddy et al. 2020; Ryan et al. 2020). Agostino et al. (2020) argue that MSE participation in GVCs leads to greater efficiency, although this gain is especially noteworthy for suppliers in the so-called "relational" GVCs, where tacit information is exchanged between buyers and suppliers with unique capabilities in a trust and reputation-based relationship.

Assessing how MSEs can partake and compete in GVCs requires a thorough analysis of whether and how they accomplish upgrading over time. In the GVC literature, upgrading refers to "the process by which economic actors—nations, firms, and workers—move from low-value to relatively high-value activities in global production networks" (Gereffi et al., 2005). Upgrading is particularly relevant for smaller organizations, as their competitiveness in GVCs critically depends on larger buyers' decisions (Buciuni et al., 2014). According to Blazek (2016), this issue is even more acute for small suppliers, which frequently join GVCs as second and even third-tier suppliers. Such positioning makes them particularly vulnerable to the sourcing decisions of larger players, particularly when their purchasing strategy is driven by the price factor.

There are multiple ways through which firms can achieve upgrading in GVCs. According to Humphrey and Schmitz (2002), these include product upgrading, process upgrading, functional upgrading, and intersectoral (or chain) upgrading. The way smaller producers and suppliers accomplish upgrading in GVCs has been documented by numerous studies to date (Giuliani et al., 2005; Schmitz, 2006). Most of the existing contributions, however, tend to look at firms located in developing countries (Bernhardt and Pollak, 2016; Morris and Staritz, 2014; Ponte and Ewert, 2009), whereas limited attention is devoted to the upgrading trajectories of smaller producers in developed economies (Agostino et al., 2015; De Marchi et al., 2014; Giunta et al., 2012). This, in our view, represents a first important vacuum in the existing GVCs literature.

Of the four upgrading typologies, functional and chain upgrading, which both imply the acquisition of new capabilities to take over high value-added functions or enter new value chains

(Gereffi, 2019), are generally more difficult to achieve for MSEs and hence are even more important to assess. According to Blazek (2016), they might entail significant investments and can be limited by larger buyers' intention to protect their core business. Furthermore, existing studies documenting how MSEs achieve functional upgrading in value chains are scarce. The lack of studies explaining how MSEs achieve functional upgrading in GVCs represents a second main reason to focus on this specific typology of upgrading, since it limits our understanding of how MSEs can partake and remain competitive in GVCs over time. Finally, acquiring and developing new capabilities in existing or additional value chain activities is a key strategy to establish linkages with global buyers (Ponte and Ewert, 2009), particularly when micro and small producers seek to participate in GVCs. As such, assessing functional upgrading requires an explicit analysis of inter-firm relationships, a condition that is central in the study of MSEs' competitiveness.

Overall, we contend that for MSEs accomplishing functional upgrading in GVC is easier said than done, and yet it remains fundamentally important for their competitiveness. This strategy is particularly problematic for small producers that generally lack internal resources necessary to invest in new activities and have limited access to external capital. For this reason, assessing MSEs' upgrading and shedding light on the conditions underpinning functional upgrading is especially important if we are to understand how small producers partake in GVCs and contribute to their evolution over time and across space.

Proposition development

In recent years, the study of the upgrading opportunities available for small producers in the global economy has been enriched by the development of a new research agenda at the intersection of GVCs and industrial districts (De Marchi et al., 2014, 2018; Giunta et al., 2012). Building on the seminal contributions of Schmitz and Nadvi (1999) and Humphrey and Schmitz (2002), this new line of research offers several important insights about the evolution of local production systems and their firms in the global economy. Small suppliers in Italian districts were generally established as subcontractors for local lead firms. Over the years, this specific condition led to their specialization in a narrow set of production activities, which became a distinguishing feature of the Italian industrial districts model (Breznitz and Buciuni, 2015). As local lead firms entered GVCs, numerous small suppliers followed them and became second and third-tier suppliers in new value chains. However, to partake in GVCs small district producers had to invest in technology and optimize their production processes, therefore achieving product and process upgrading over time (Buciuni and Pisano, 2018). At the same time, they remained specialized in production activities and seldom invested in intangible functions 'downstream' like marketing and distribution.

Within this scenario, the bulk of small Italian producers kept investing on sustaining their production expertise in the attempt of preserving and enhancing their competitive advantage over time. This offered lead firms the possibility to rely on specialized networks of producers performing the entire range of production activities within localized production systems (Breznitz and Buciuni, 2015). While lead firms focused on pre- and post-production activities, production-focused small producers provided MNEs with a full range of production activities to fulfill the requirements coming from the global market (Buciuni and Pisano, 2021). A notable example of this phenomenon is discussed by Buciuni and Pisano (2018) in their analysis of innovation development in the upscale footwear district of Riviera del Brenta (Italy). In this context, lead firms are generally brand-name global brands like Armani and Louis Vuitton which operate in the district through direct investments in production activities as well as through multiple relationships with independent micro and small producers. Major global brands develop new designs internally and then rely on dense networks of highly specialized producers for the manufacturing of new models. Local MSEs specialize in a variety of production functions and provide global lead firms with a full-range

of value chain tasks like cutting, stitching, assembly, and prototyping hence resembling a full-package producers. Overall, the entire production chain is performed locally, while new innovative inputs are brought in by global brands. Over the years, this process contributed to the evolution and sophistication of local production systems, while at the same time enhancing the competitiveness of small producers by connecting them to global buyers. Building on the more recent strain of studies at the intersection of industrial clusters and GVCs, and recognizing the importance production keeps playing in small producers' upgrading strategy, we advance the following proposition:

Proposition 1: MSEs seeking to enter GVCs sustain their competitive advantage by acting as full-package producers and performing the whole range of value chain tasks.

A useful approach to gauge firms' upgrading in value chains comes from the so-called "smiling curve" model as elaborated by Mudambi (2008). According to this model, firms partaking in GVCs can increase their competitiveness and economic performances by moving into relatively high-value pre-production functions—such as product development, design, R&D—and post-production functions—such as logistics and distribution. The same model considers basic stages in production (e.g. final-product assembly) as a low value-added activity and therefore suggests that manufacturers seeking to upgrade in GVCs might vertically integrate into full-package production or outsource simple production activities to third parties.

The logic of focusing on intangible activities and delegate production activities to independent suppliers is well documented in the international business literature (Dedrick, 2010; Vivek et al., 2009), and it has become a mainstream strategy for the modern MNE. However, an opposing view developed in recent years suggests that the control of production activities can still be a source of competitive advantage for developed-economy firms participating in GVCs (Buciuni et al., 2014; Buciuni and Pisano, 2018). The "make or buy" dilemma has long been discussed in the business literature and it has recently expanded into the GVC field of study. Whether firms should outsource manufacturing activities or not represents a key question that a growing number of GVC scholars have addressed in recent years, especially those interested in the impact of global production networks on the competitiveness of local industries (Pisano and Shih, 2012). However, most of the existing contributions focus on the sourcing strategies of lead firms and their key suppliers, with limited or no attention dedicated to small and micro producers operating as second and even third-tier suppliers.

Little therefore is known about the sourcing strategies of MSEs and whether outsourcing can represent a strategic option to increase their competitiveness and allow them to partake in GVCs. Generally, MSEs are deemed too small to even consider the outsourcing option, which requires distinctive purchasing, logistics and operational capabilities. This leads to the implicit assumption that performing internally key manufacturing activities represents the most effective and perhaps the only option available to small producers seeking to enhance their competitive advantage and enter GVCs. Although partially echoing Proposition 1, this assumption is not tautological. Proposition 1 addresses what activities MSEs focus on in a value chain, but it does not shed light on how specific value chain tasks are performed. A specific production task can be performed internally or delegated to a third party (locally or globally), or both. As a result, we contend that supplying a certain range of inputs to a buyer does not necessarily entail that a small supplier must produce all of them in-house. Indeed, outsourcing some production tasks to third parties can still represent a viable strategy for those small producers, even when their core business focuses on production. This, for instance, is a common practice followed by larger organizations that deal with temporary peaks of production or seek to diversify the risk associated with investing in in-house production exclusively (Zirpoli and Becker, 2011). However, the lack of empirical studies assessing MSEs' outsourcing decisions and the recognition of the complexities

associated with small firms' implementation of articulated sourcing strategies led to the formulation of the following proposition:

Proposition 2: MSEs tend to perform value chain activities in-house instead of outsourcing them to third parties.

Small producers' aim to perform a wide range of production tasks and their limited involvement in outsourcing practices are the two assumptions advanced by the first two propositions. These, however, do not rule out the possibility for MSEs to design and implement value chain strategies to help them accomplish functional upgrading over time. In fact, as illustrated by several studies investigating the participation of Italian firms into GVCs, when expanding internationally small producers tend to focus on functional upgrading by investing in additional activities proximate to their original core business (Buciuni et al., 2014; De Marchi et al., 2014). Particularly in traditional Italian industries like furniture, footwear and clothing, small producers' upgrading contributed to the transformation of local production systems into local innovation systems. Within these innovative territories, product innovation is generally incremental and takes place through close collaborations between global lead firms and local production firms (Buciuni and Pisano, 2021). Contrary to the pharmaceutical or automotive industries, where innovation is conceived and generated through global innovation networks (Cooke, 2013; Parrilli et al., 2013), in the Italian clothing and footwear sectors the ability of local producers to upgrade their capabilities and support lead firms' innovation strategy became a distinguishing feature of their value chain strategy.

For small producers, investing in innovation-supporting activities is particularly convenient when innovation development is process-embedded (Pisano and Shih, 2012) and therefore takes place through the entire chain of production activities. To support lead firms' process-embedded innovation, MSEs are required to invest in product development activities like prototyping and modeling, hence building on their existing production knowledge. As a result, we would expect small producers to accomplish functional upgrading by investing in innovation-supporting activities rather than expanding "downstream" through investments in distribution, retail or other intangible functions. A tangible example of this model can be found in the fashion sector. As illustrated by Buciuni and Finotto (2016), the high entry barriers existing in the global fashion market create an incentive for small producers to invest and expand their competences in complementary value chain activities upstream, like for instance prototype development (Buciuni and Finotto, 2016). Overall, undertaking new value chain tasks in innovation-supporting activities seems a viable strategy for small producers seeking to improve their competitiveness and ultimately partake in GVCs. Building on this assumption, we therefore propose the following proposition:

Proposition 3: MSEs seeking to enter GVCs are expected to accomplish functional upgrading by investing in innovation-supporting value chain activities.

Data and methods

The empirical investigation conducted in this paper aims to provide new insights on MSEs' GVC strategies by focusing on a sample of Italian businesses extracted from the IMEFAS database. This dataset fits the scope of our investigation for three main reasons. First, it contains a large number of MSEs that are generally excluded from the most commonly used micro-data sources, despite representing the backbone of the secondary sector in several developed countries, such as Italy (Canello et al., 2017; Canello, 2017). Second, the database allows one to identify and track the establishment of both backward and forward links with GVCs over time. Following such an approach, it is

possible to classify MSEs according to their different forms of GVC participation (Golini et al., 2018). Third, the database contains detailed information on the entire production process of all firms, which permits us to identify the type of activities performed by MSEs and to assess the preconditions that are more likely to be associated with the decision to participate in GVCs.

The sample used for our analysis consists of firms specialized in clothing and footwear production[1] with an annual turnover between 100,000 euro and 7.5 million euro. This empirical setting is appropriate for our investigation for two main reasons. First, footwear and clothing manufacturers operate in a highly fragmented sector, characterized by a large number of small-sized competitors and a vertically disintegrated production system (Scott, 2006). Second, since the 1990s the entire fashion industry has undergone a process of progressive internationalization that has affected both large MNEs and small businesses (Abernathy et al., 2006; Kalantaridis et al., 2008; Palpacuer, 2006). On the one hand, the reduction of trade barriers and the creation of a more transparent investment environment has allowed more producers to access international markets through exports and horizontal FDI. On the other hand, the decline in international transaction costs has opened up new opportunities to outsource production abroad, fostering the diffusion of subcontracting agreements with Original Equipment Manufacturers (OEMs) located in low wage countries (Gereffi and Korzeniewicz, 1994). The rise of offshore contract manufacturers generated substantial competitive advantages for buyers in most developed economies, thanks to their ability to provide high-quality products at lower prices (Bair and Gereffi, 2001; Gereffi et al., 2005; Tokatli and Kızılgün, 2009). In the Italian fashion industry, relocation processes were primarily influenced by the short-term perspective to curb production costs and minimize risks and sunk costs (Amighini and Rabellotti, 2006). In this respect, non-equity forms of production internationalization, such as offshore outsourcing, were often preferred in that they required limited investments in customization compared to captive offshoring (Cutrini, 2011).

Our empirical analysis is based on the assumption that MSEs are a diverse group of entities, which differ in terms of their make or buy decisions, their position in the value chain and their GVC strategies. Therefore, we propose a classification that accounts for such structural differences. First, we discriminate footwear and clothing producers according to their position in the value chain. We identify the two following categories of manufacturers:

- *Branded producers*: MSEs specialized in the production and sale of branded (final) products;
- *Subcontractors*: MSEs specialized in subcontracting activities for final firms (first-tier subcontractors) and for other subcontractors (lower-tier subcontractors).

For all domestic producers classified in one of these two macro-categories, we then evaluated how their GVC status evolved during the 2008–2015 period. Using this approach, it was possible to discriminate between firms that were not involved in any direct form of GVC participation and firms that engaged in one of the following three forms of GVC participation:

1. *Forward GVC participation*: the firm established predominant links with one or more foreign clients;
2. *Backward GVC participation*: the firm started outsourcing one or more activities to subcontractors located in a foreign country; and
3. *Backward and forward GVC participation*: the firm simultaneously established predominant links with one or more foreign clients and outsourced one or more activities to subcontractors located in a foreign country.

The criteria used to identify each firm typology are summarized in Table 1.

Table 1. A typological classification of MSEs based on GVC participation strategies.

Firm typology	Criterion	Status	Type of GVC participation	Criterion
Branded Producer	>50% of revenues from branded final products	No GVC participation		
		GVC participation	*Backward*	costs of outsourcing production abroad greater than zero
			Forward	more than 50% of revenues from exports
			Backward and Forward	more than 50% of revenues from exports + costs of outsourcing production abroad greater than zero
Subcontractor	>50% of revenues from subcontracting activities	No GVC participation		
		GVC participation	*Backward*	costs of outsourcing production abroad greater than zero
			Forward	more than 50% of revenues from exports
			Backward and Forward	more than 50% of revenues from exports + costs of outsourcing production abroad greater than zero

Findings

Patterns of MSEs' evolution in the Italian clothing and footwear industry

As highlighted in the previous section, the Italian clothing and footwear industry has undergone major transformations in the last two decades. Historically, these sectors have benefited from the widespread presence of industrial districts, where MSEs could reap the productivity benefits associated with the presence of external economies of scale and low transaction costs (Schamp, 2005; Scott, 2006; Canello and Pavone, 2016). During the last two decades, the fashion industry has faced severe challenges associated with a number of global economic transformations, including the admission of China to the WTO in 2001, the phasing out of the Multi-Fiber Agreement in 2005, and the financial crisis in 2008. The combined effect of these factors has generated opportunities for a small number of large buyers, while negatively affecting the great majority of micro and small producers (Sammarra and Belussi, 2006; Belso-Martínez, 2008; Mariotti et al., 2008; Canello et al., 2017).

The IMEFAS database allows us to sketch an accurate picture of how these recent developments have affected MSEs performance. The dynamics for the 2008–2015 period (Table 2) show a significant decline in employment levels (−29.9%) and a reduction of 16.5% in the total amount of

Table 2. Structural dynamics of MSEs in the Italian clothing and footwear industry, period 2008–2015 (turnover >100,000 euro).

		2008	2009	2010	2011	2012	2013	2014	2015	Var. %
Total firms	Number of firms	18,571	16,624	16,475	16,449	15,761	14,983	15,048	14,024	−24.5%
	Employment	157,692	140,632	131,507	130,517	126,159	118,706	117,674	110,547	−29.9%
	Revenues (m. euro)	15,843	13,588	14,405	15,021	14,248	13,836	13,978	13,231	−16.5%
Branded producers	Number of firms	6331	6099	6012	5908	5686	5391	5215	4887	−22.8%
	Employment	56,163	54,491	50,847	49,221	47,713	44,432	42,339	38,965	−30.6%
	Revenues (m. euro)	8500	7618	8022	8292	7739	7448	7307	6867	−19.2%
Subcontractors	Number of firms	12,240	10,525	10,463	10,541	10,075	9592	9833	9137	−25.3%
	Employment	101,580	86,189	80,707	81,145	78,493	74,306	75,364	71,592	−29.5%
	Revenues (m. euro)	7343	5970	6382	6729	6509	6387	6671	6363	−13.3%

Source: Authors' elaborations on IMEFAS data.

Table 3. Structural dynamics of the Italian clothing and footwear industry, period 2008–2015.

		2008	2009	2010	2011	2012	2013	2014	2015	Var. %
Total firms	Number of firms	54,642	50,762	47,661	48,665	48,068	46,295	44,878	44,100	−19.3%
	Employment	347,254	318,317	302,178	299,270	300,988	287,306	287,718	287,749	−17.1%
	Revenues (m. euro)	60,278	49,102	54,197	59,334	55,855	55,988	57,061	56,232	−6.7%

Source: Authors' elaborations on Eurostat data.

revenues generated by micro and small producers. These patterns are in line with official data provided by the Eurostat's Structural Business Statistics (SbS) database. Table 3 confirms the severe downturn experienced by the fashion industry and highlights the extensive coverage provided by the IMEFAS database: our sample of firms accounts for more than 50% of the total employment and more than 30% of the total revenues during the considered time span.[2]

One of the main benefits of Table 2 is the possibility to track the evolution of MSEs' performance depending on their position in the value chain. The data show the presence of similar patterns for branded producers and subcontractors, with a slightly sharper decline in revenues (−19.2%) and employment (−30.6%) for the former group and higher failure rates (−25.3%) for the latter. These dynamics seem to contrast with previous empirical evidence, suggesting that subcontracting firms are not necessarily more affected by the negative consequences of economic crises and structural shocks. A number of GVC studies have demonstrated that the structure of most value chains allows buyers to transfer their non-diversifiable risk to the vulnerable members of the network (typically lower-tier subcontractors), generating a snowball effect that negatively affects subcontractors (Alessandria et al., 2011; Altomonte et al., 2012). The dynamics reported in Table 2 suggests that, for small producers, operating as a branded producer is not necessarily a winning strategy (Table 3).

In such a challenging environment, most MSEs displayed a limited propensity to exploit international opportunities and join global production networks. As shown in Table 4, the vast majority of both branded producers (76.6%) and subcontractors (93.8%) performed all their business functions within Italy's national borders throughout the entire period considered. This tendency confirms the widespread perception that MSEs generally lack the resources and managerial expertize to overcome the hurdles associated with internationalization, displaying limited ability to acquire and process external knowledge, overcome institutional barriers and establish durable production and distribution networks abroad (Melitz, 2003; Giovannetti et al., 2015).

The risk averse attitude of most MSEs contrasts markedly with that of a small share of producers that were able to participate in GVCs during the same period, establishing backward and/or forward links with foreign GVC partners. These newly internationalized businesses joined a group of peers (1239 branded producers and 652 subcontractors) already engaging in GVC activities before 2008 (Table 4). The analysis of MSEs strategies revealed a stronger propensity among smaller producers to choose forms of forward GVC participation, whereas the establishment of subcontracting relationships abroad was found to be less frequent. This pattern is probably justified by the relevant organizational transformation required to engage in production internationalization activities compared to sales-oriented internationalization (Maskell et al., 2007). Within the group of firms entering GVCs in the period considered, a small share of producers stood out for their ability to engage with both forward and backward GVC participation, establishing links with foreign clients and foreign suppliers at the same time. Interestingly, such complex upgrading strategy was pursued by branded producers as well as subcontractors.

Assessing MSEs' value chain strategies

The present section discusses the structural characteristics of each MSE group in the year preceding their involvement in GVCs. By focusing on the structural profile of small producers before they entered GVCs, we were able to identify a set of strategies more commonly associated with the decision to establish backward and/or forward links with global players. The first part of the analysis identified strategies related to how the production process is carried out and how the outsourcing process is performed by each group of producers. For this purpose, the different stages of the production process for each industry were aggregated and the following macro-phases were identified:

- Product development: pattern/marker making, grading, product development and industrialization, modeling, etc.

- Manufacturing: cutting, weaving, etc.
- Assembling: lasting, stitching, etc.
- Finishing: quality control, boxing, etc.

A correspondence table between the macro-phases and the specific activities for each industry is provided in the Appendix. Following such a classification, we identified a smiling curve resembling that proposed by Mudambi (2008) (Figure 1). We expect the initial and final stages of the production process to be more often associated with higher value added, whereas manufacturing and assembling phases are not deemed equally rewarding in terms of value creation, given the lower skills and more intense global competition associated with performing those activities.

The analysis of the value chain strategies was performed separately for branded producers and subcontractors, since they occupy different positions in the value chain. The results of the analysis are reported in Figures 2 to 5: for each quadrant, a bar is associated with a specific combination of activities that are performed internally (Figures 2 and 4) or outsourced (Figures 3 and 5) by each MSE typology.[3] Specifically, the analysis of the data reported in Figures 2 and 4 allowed us to address Proposition 1:

> **Proposition 1:** MSEs seeking to enter GVCs sustain their competitive advantage by acting as full-package producers and performing the whole range of value chain tasks.

The assessment of this proposition requires analyzing branded producers (Figure 2) and subcontractors (Figure 4) separately. As far as the former group of MSEs is concerned, Figure 2 reveals that the percentage of domestic branded producers operating as "full-package" producers is similar to that of

Table 4. MSE typologies in footwear and clothing industry, 2008–2015 period.

Firm typology	Status	GVC participation type	Number	% of total (by typology)	Revenues	Employees
Branded producers	GVC participation before 2008	–	1239	13.0%	2,102,545	11.7
	No GVC participation	–	7301	76.6%	1,052,120	7.1
	GVC participation between 2008 and 2015	*Backward*	175	1.8%	1,759,659	9.8
		Forward	728	7.7%	1,275,226	8.3
		Backward and forward	83	0.9%	2,592,583	14.2
Subcontractors	GVC participation before 2008	–	652	3.3%	1,957,388	12.7
	No GVC participation	–	18,427	93.8%	471,739	6.6
	GVC participation between 2008 and 2015	*Backward*	217	1.1%	1,554,544	11.3
		Forward	306	1.6%	1,152,114	10.5
		Backward and forward	39	0.2%	3,444,879	13.8

Source: Authors' elaborations on IMEFAS data.
Note: Values for firms that did not upgrade are averages for the years in which they are active.

branded producers which entered GVCs as "full-package" manufacturers in the period considered (2008–2015). Our analysis indicates that 41% of domestic branded producers adopted a "full-package" strategy, compared to 44% of branded firms which entered GVCs via backward participation and 42% of branded producers which entered GVCs via forward participation. The tendency to perform the entire set of production activities is more visible among branded producers which partook in GVCs by establishing both backward and forward links (56%). However, the number of firms belonging to this category accounts for less than 1% of the entire population of firms. Overall, we contend that performing a wider range of production activities does not seem to represent a condition that differentiates domestic from globalized branded producers. This strategy, however, seems to be more commonly adopted by a smaller and specific category of branded producers, which entered GVCs through the establishment of backward and forward linkages in the value chain. The analysis of subcontractors' production strategy reveals a different scenario. As reported in Figure 4, the percentage of firms operating as "full-package" producer is substantially higher in the categories of subcontractors which participated in GVCs. While only 14% of domestic subcontractors can be considered "full-package" suppliers, 32% of subcontractors which entered GVCs through backward participation perform all production phases in-house. This percentage increases in the categories comprising subcontractors entering GVCs via forward participation (45%) and those with both forms of participation (34%). As a result, Proposition 1 is confirmed for subcontractors. For this typology of MSEs, performing a wider range of production activities seems to be a pre-condition for their future participation in GVCs. Interestingly, this condition is particularly important for subcontractors which entered GVCs through the establishment of forward linkages (notably with global buyers). This evidence suggests that evolving into "full-package" producers represents an important step for small subcontractors which aims to establish relationships with international buyers.

We then assessed Proposition 2 by looking at the outsourcing strategies of the MSEs included in the dataset. As for the analysis of Proposition 1, we gauged MSEs strategies by looking at branded producers and subcontractors separately (Figures 3 and 5, respectively).

Proposition 2: MSEs tend to perform value chain activities in-house instead of outsourcing them to third parties.

The analysis of the data presented in Figures 3 and 5 led to a rejection of Proposition 2 for both branded producers and subcontractors. As far as branded producers are concerned (Figure 3), we observed that the tendency to outsource production activities is higher in those firms which entered GVCs. Specifically, while 37% of domestic branded producers do not outsource any production phase, this percentage drastically decreases for branded producers partaking in GVCs (21% for branded producers entering GVCs via backward, 18% via forward, and 9% via both). Conversely, and supporting this evidence, only 14% of domestic branded producers outsource all four production phases, compared with 21% of branded producers entering GVC backward, 35% of branded producers entering GVC forward, and 41% entering GVCs both backward and forward. Overall, outsourcing one or more production phases is a strategy more frequently pursued by those branded firms which managed to partake in GVCs, particularly through the establishment of linkages with global buyers in forward activities. Proposition 2 does not apply to subcontractors either. For this typology of firms, we observed a stark difference in the outsourcing propensity of domestic firms compared with that of firms participating GVCs. While in the former group only 4% of the population is engaged with outsourcing activities concerning the four main macro phases (Figure 5), in the latter the percentage of firms outsourcing all the production tasks ranges from 18% of the firms entering GVCs via backward participation to 23% of the firms partaking GVCs via forward participation. For subcontractors which partook in GVCs via backward and forward participation the percentage of firms outsourcing all production phases

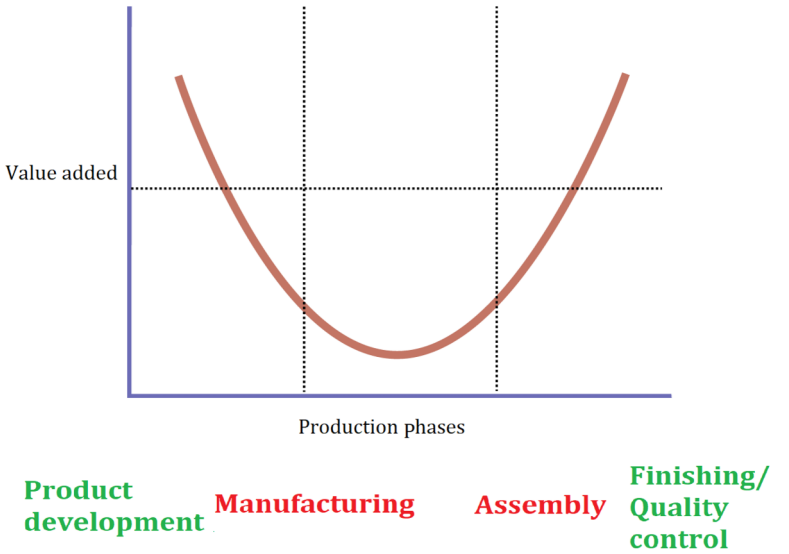

Figure 1. The production process in clothing and footwear production.

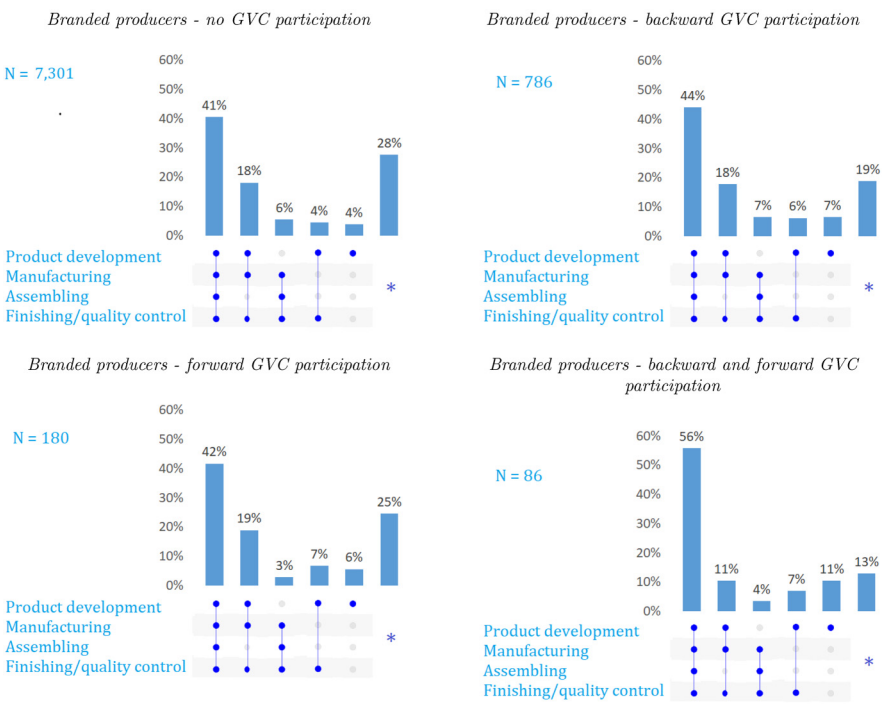

Figure 2. Value chain strategies, branded producers—insourced activities.

increases to 37%. This trend is confirmed by the analysis of subcontractors which do not outsource any production task. 53% of domestic subcontractors fall into this typology of firm, while only 25%, 22%, and 10% of subcontractors participating in GVCs adopted the zero-outsourcing strategy. In addition to rejecting Proposition 2, these results indicate that

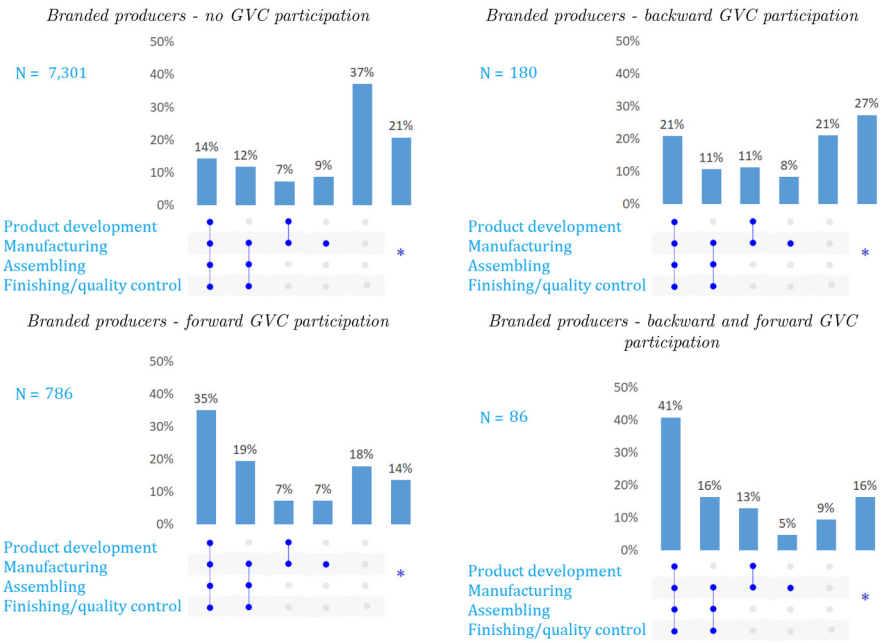

Figure 3. Value chain strategies, branded producers—outsourced activities.

the strategy to outsource one or more production tasks is more frequently adopted by small producers which later entered GVCs. For both categories, branded producers and subcontractors, the propensity to outsource production tasks is more evident in those producers which entered GVCs via downstream. As for Proposition 1, this indicates that outsourcing one or more production activities is more common among those MSEs engaged in forward and/or backward GVC participation.

For the assessment of Proposition 3, we followed the same logic adopted in the analysis of the previous two propositions, carrying out two separate analyzes, one for branded producers and one for subcontractors.

Proposition 3: MSEs seeking to enter GVCs are expected to accomplish functional upgrading by investing in innovation-supporting value chain activities.

As illustrated in Table 5, branded producers which in the following year entered GVCs reported a value added per employee considerably higher than that of domestic branded producers (32.6 thousand euro, compared to 35.1, 38.1, and 40.3 thousand euro, respectively). The gap is even wider in the subcontractors category: indeed, domestic subcontractors generated a value added per employee of 32 thousand euro, whereas the other three groups displayed values of 39.8 (backward GVCs participation), 40.6 (forward GVC participation), and 44.1 thousand euro (both backward and forward GVC participation). Therefore, for both branded producers and subcontractors, the capacity to generate a higher value added per employee was detected in firms which later participated in GVCs. Such metrics indicates the ability of these firms to increase their productivity and economic performances, a condition that can be accomplished when firms invest in higher value-adding functions, like innovation-supporting activities.

The second part of Table 5 ("knowledge intensity") offers a more nuanced perspective of firms' investments in innovation-supporting activities. Specifically, investments in product

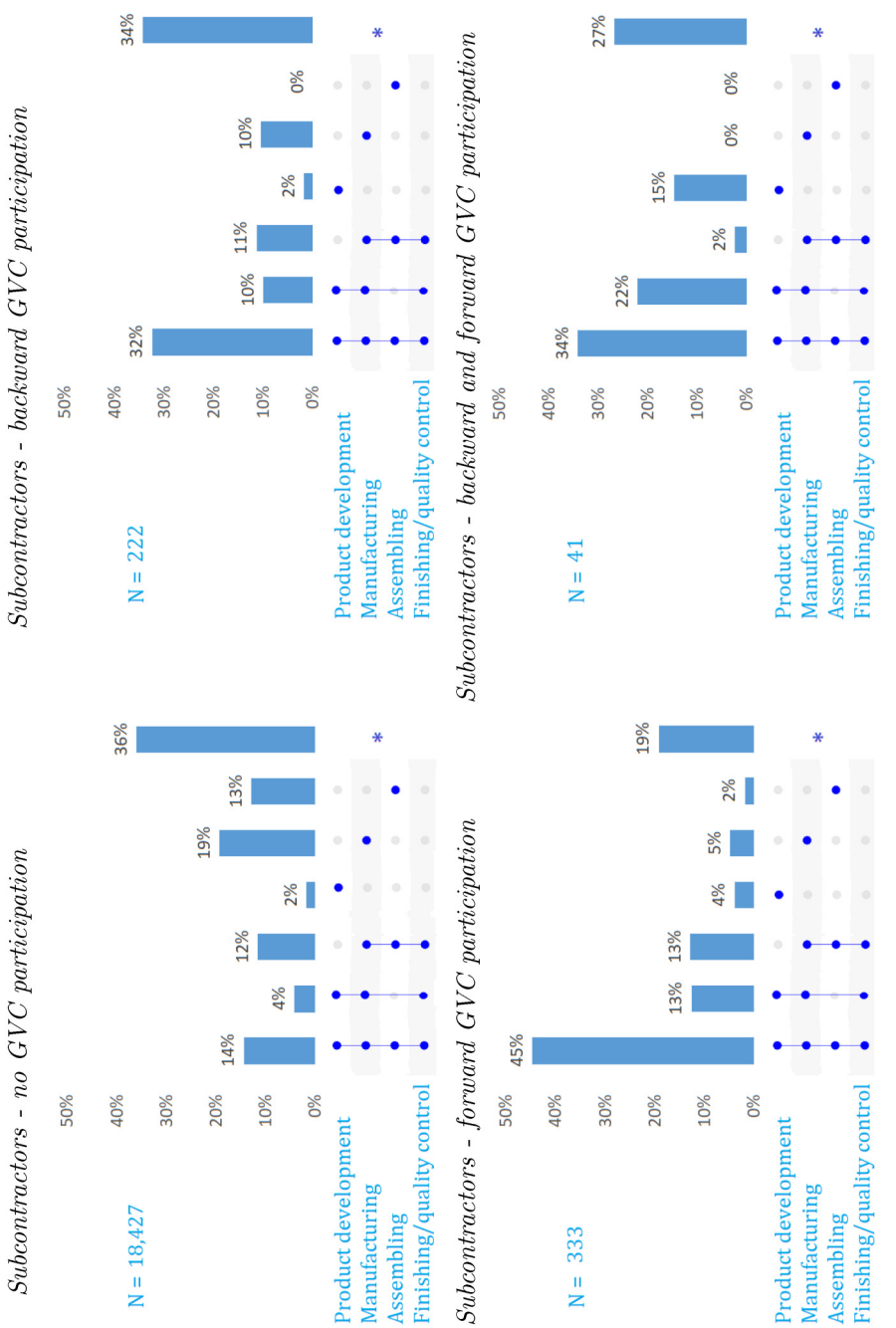

Figure 4. Value chain strategies, subcontractors—insourced activities.

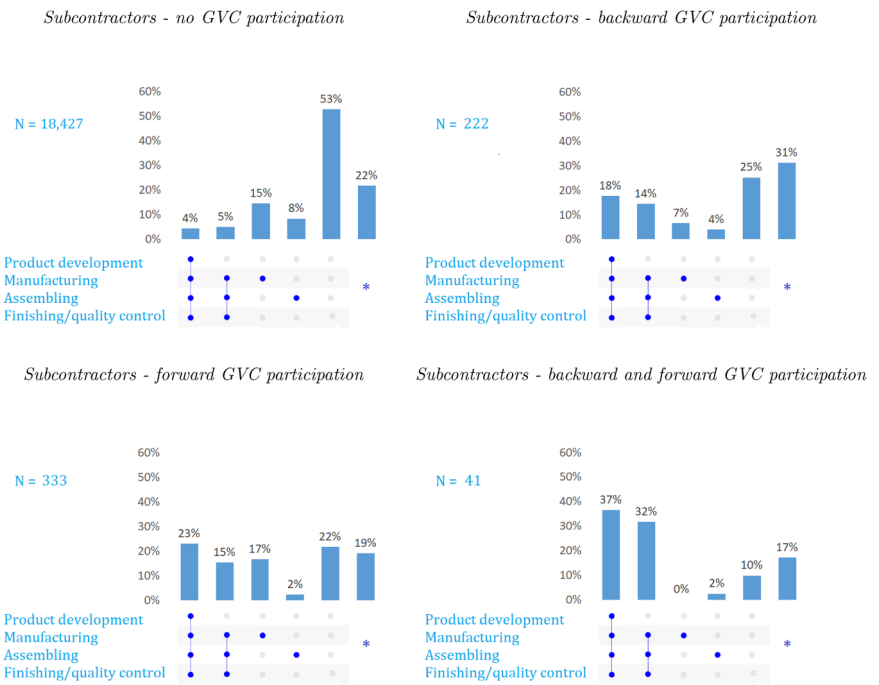

Figure 5. Value chain strategies, subcontractors—outsourced activities.

development functions like prototyping and modeling are substantially higher in both branded producers and subcontractors which later entered GVCs. While in the branded producers category the difference between domestic and internationalized producers is negligible, it increases substantially in the subcontractors category. Here, only 28% of domestic subcontractors engage in product development, whereas 50%, 75%, and 87% of internationalized subcontractors routinely perform innovation-related activities. This evidence supports Proposition 3 and confirms that investing in innovation-supporting activities represents a significant pre-condition for MSEs seeking to enter GVCs. Moreover, the data presented in Table 5 corroborates the assumption that investments in higher value-added activities tend to occur in innovation-supporting activities, such as prototype development and modeling. Corroborating this claim is the figure indicating the use of CAD-CAM machinery, a type of equipment used for the development of new products. While only 26% of domestic branded producers reported the use of CAD-CAM machinery, 36%, 24%, and 39% of internationalized branded producers declared to use it internally. As for subcontractors, the adoption of CAD-CAM machinery is sporadic in the domestic subcontractors category (12%), while it increases significantly in the three internationalized subcontractors categories (25%, 28%, 41%). Overall, this evidence indicates that functional upgrading in innovation-supporting activities can enhance MSEs' participation in GVCs, both via downstream and upstream.

The main findings of our investigation are summarized in Table 6.

Conclusions

The findings presented in this article shed light on the major transformations that occurred in the Italian clothing and footwear industry and their value chains after the 2008-2009 economic

Table 5. Strategic profile of firm typologies—clothing and footwear production, period 2008–2015.

	Branded producers				Subcontractors			
	No GVC participation	Forward GVC participation	Backward GVC participation	Backward + forward GVC participation	No GVC participation	Forward GVC participation	Backward GVC participation	Backward + forward GVC participation
Economic performances								
Number of employees	7.8	***10.3***	***9.8***	***17.4***	7.7	***10.2***	***11.4***	***17.1***
Revenues	1,171,203	***2,152,863***	***1,658,606***	***4,024,230***	548,463	***1,815,189***	***1,678,801***	***4,170,200***
Value added per employee (th. euro)	32.6	***35.1***	***38.1***	***40.3***	32.0	***40.6***	***39.8***	***44.1***
Operating margins (% of revenues)	6.9	***2.4***	5.4	***3.0***	3.9	***4.0***	6.2	***1.0***
Access to credit	83%	89%	85%	***95%***	69%	***89%***	***87%***	***97%***
Knowledge intensity								
Average cost per employee (th. euro)	29.1	***32.7***	***31.0***	***34.9***	26.4	***33.6***	***31.5***	***37.1***
Product development (prototyping, modeling, etc.)	75%	82%	83%	87%	28%	***50%***	***75%***	***87%***
Use of CAD-CAM machinery	26%	***36%***	***24%***	***39%***	12%	***25%***	***28%***	***41%***
Production process								
Stock turnover rate (n. of days)	252	228	***166***	***160***	98	***118***	***114***	***119***
Number of activities implemented internally	7.6	8.1	8.5	9.3	3.8	***5.7***	***7.9***	***9.0***
Number of activities outsourced to domestic suppliers	4.2	***7.5***	***6.7***	***11.5***	1.8	***5.9***	***6.0***	***9.7***
Domestic outsourcing costs (% of total costs)	13%	23%	18%	21%	18%	***39%***	22%	***27%***

Table 6. Summary of the main findings.

Proposition	Branded producer	Subcontractor
P1: MSEs seeking to enter GVCs sustain their competitive advantage by acting as full-package producers and performing the whole range of value chain tasks	Not supported	Supported
P2: MSEs tend to perform value chain activities in-house instead of outsourcing them to third parties	Not supported	Not supported
P3: MSEs seeking to enter GVCs are expected to accomplish functional upgrading by investing in innovation-supporting value chain activities	Supported	Supported

crisis. The general picture emerging from the empirical analysis shows that the great majority of MSEs have been negatively affected by the global evolution of the fashion industry, experiencing high failure rates and a significant decline in employment levels and revenues. In this respect, the performances of branded producers have not been significantly different from small subcontractors. The dynamics presented in section 4 contrast with previous empirical studies and suggest that, for a small firm operating in this industry, being a branded producer is not necessarily a winning strategy (Cagliano and Spina, 2002).

In this article, we claim that one of the possible explanations of the negative performance of footwear and clothing producers is the inability of most MSEs to exploit the opportunities offered by the global economic environment. The empirical findings show that only a handful of MSEs were able to swim against the tide, enhance their competitiveness and eventually establish new links with players operating in GVCs. The primary aim of this analysis was to understand what value chain strategies allowed some MSEs to partake in GVCs and contribute to the evolution and sophistication of local production systems.

The unique structure of the IMEFAS database allowed us to identify and assess value chain decisions small producers made before entering GVCs. More specifically, our longitudinal analysis sought to detect and isolate specific strategic decisions that could explain why a small number of producers differentiated themselves from the bulk of MSEs and were eventually able to tap into GVCs. Moreover, by focusing on MSEs behavior in the year preceding their transition from a domestic or local value chain to a GVC, we were able to identify a set of characteristics that were already in place when small producers started to partake in GVCs.

The findings presented in this study suggest that the ability of a group of small producers to partake in GVCs stems from a few distinct strategies they implemented in their domestic value chains. These strategies allowed them to increase their competitiveness, accomplish functional upgrading in domestic value chains and ultimately participate in more sophisticated GVCs. More specifically, the empirical analysis indicates that a higher propensity to outsource production and to invest in innovation-supporting activities is associated with small subcontractors and branded producers' ability to enter GVCs. In addition, data analysis suggests that a critical factor supporting subcontractors' ability to partake in GVCs comes from their evolution from highly specialized to "full-package" producers.

Overall, one of the most important findings emerging from this study highlights the critical role played by functional upgrading in supporting small producers' participation in GVCs: contrary to previous contributions, which suggest that this specific type of upgrading is key to support the competitiveness of firms already operating in GVCs (Blazek, 2016, 2018), our results indicate that functional upgrading in domestic production chains represent a fundamental pre-condition for MSEs seeking to enter GVCs. By elaborating and testing three propositions, we were able to provide

an in-depth assessment of some GVCs micro dynamics that have been largely overlooked by existing studies in the GVC field of study. In particular, we contend that the analysis of MSEs' value chain strategies represents a starting point for future studies at the intersection of GVCs and small business economics. We hope our results will encourage more studies to be dedicated to the fragile yet fundamental engine of most GVCs, that is micro and small producers. Expanding our understanding how MSEs compete and participate in GVCs will offer important insights on the competitiveness and sustainability of local production territories in developed economies.

Our findings carry important implications for practitioners and policy-makers too. As far as practitioners are concerned, identifying the value chain decisions associated with firms' ability to partake in GVCs offers a detailed picture of the sources of competitive advantage for small firms competing in today's global economy. We hope these insights will trigger a fuller conversation between small firms' owners and employees and academics, two categories of professionals that seldom have found ways to cooperate. Regarding policy-makers, the results of our study indicate specific areas of intervention in support of small firms' competitiveness and future prosperity. Not surprisingly, supporting MSEs' investments in technology and high value-added activities, and facilitating their access to credit identify specific and concrete spaces for future policy intervention.

This article has some limitations. First, while the IMEFAS database allows us to discriminate between branded producers and subcontractors, it did not offer us the possibility to identify the specific position each subcontractor occupies in its value chain. Therefore, we were unable to determine when a subcontractor supplies a final good producer (first-tier subcontractor) or another subcontracting firm (lower-tier subcontractor). This data limitation prevents us from analyzing the heterogeneous dynamics that affect the different sub-groups of subcontractors (Elola et al., 2013). Second, the study presented in this article suffers from generalizability issues, in that it provides evidence about two labor-intensive industries. Different findings could emerge if the focus was on capital-intensive industries, where MSEs participation in GVCs and upgrading patterns are likely to be affected by other factors. Finally, the dataset we relied upon offered in-depth information about micro and small producers with a yearly turnover below 7.5 Million Euros. We recognize that this group of firms does not include the entire population of small firms, and leaves out firms with a yearly turnover comprised between 7.5 and 10 million Euros per year.

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Notes

1. See Table A1 in the Appendix for further details on the list of ATECO codes included in the analysis.
2. Note that the activity codes of these two aggregates do not completely overlap: Eurostat data refer to NACE codes C14 (manufacture of wearing apparel) and C15 (manufacture of leather and related products),

whereas our sample only includes firms operating in the economic industries listed in Table A1 in the Appendix.

3. In each quadrant, we group the combinations of activities that are performed by less than 5% of the MSEs in the last bar (the one marked with an asterisk). Note that the number of firms in the three upgrading categories is slightly different from that reported in Table 4. The reason is that, in some cases, the same firm implements an upgrading strategy more than once during the 2008–2015 period, as the consequence of intermittent internationalization strategies.

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Appendix

Table A1. Activity codes (ATECO) included in the sector studies used for the analysis.

Sector study	ATECO code
D07A—Manufacture of hosiery garments	14.19.21—Manufacture of shoe fabric without plastic sole
	14.31.00—Manufacture of knitted and crocheted hosiery
	14.12.00—Manufacture of work wear
	14.13.10—Manufacture of other outerwear
	14.14.00—Manufacture of underwear
D07B—Manufacture of wearing apparel and accessories	14.19.10—Manufacture of other wearing apparel
	14.19.29—Manufacture of sportswear
	14.39.00—Manufacture of other knitted and crocheted apparel
	32.99.11—Manufacture of protective wear
	15.20.10—Manufacture of footwear
	15.20.20—Manufacture of leather parts and components for footwear
D08U—Manufacture of shoes and shoe components and parts	16.29.11—Manufacture of wooden parts and components of footwear
	22.19.01—Manufacture of rubber parts and components for footwear
	22.29.01—Manufacture of plastic parts and components for footwear

Table A2. Correspondance table: Production phases/sub-phases by sector.

Macro-phases	D07A—hosiery production	D07B—apparel production	D08U—Footwear production
Product development	Style/design	Style/design	Style/design
	Modeling	Modeling	Modeling
	Product development	Product development	Prototyping
	Marker making	Marker making	Product development
	Product industrialization	Product industrialization	Product industrialization
Manufacturing	Cutting	Cutting	Heel injection
	Weaving	Weaving	Heel punching
	Mending	Embroidery	Heel wrapping
	Ironing	Ironing	Insole preparation
		Mending	Insole cutting
		Washing	Bottom stock trimming
			Trimming on cork
			Turning on wood
			Plastic material injection
			Coating
			Heel
			Hand cutting
			Automatic cutting CAD

(continued)

Table A2. (continued)

Macro-phases	D07A—hosiery production	D07B—apparel production	D08U—Footwear production
			Upper punching Upper dyeing Binding Ironing Bonding Welt sewing Silk-screen printing Accessories inclusion
Assembling	Lasting	Lasting	Stitching—ago working Stitching—Blake method Stitching—Ideal method Stitching—Goodyear method Stitching—Saint Crispin method Stitching—California—slip-lasting method Real mocassin Injection working Vulcanized working Reversed welt sewing
Finishing/quality control	Labeling	Labeling	Quality control
	Quality control	Printing Quality control Technical finishing Aesthetic finishing	Finishing Boxing