

Small and Medium Enterprises' Competitiveness through Global Value Chains

Davide Del Prete

Sapienza University of Rome

Giorgia Giovannetti

University of Florence and European University Institute (EUI)

Enrico Marvasi

University of Florence and European University Institute (EUI)

In the past twenty years, production has been increasingly unbundled and shared across different countries at different levels of development. This fragmentation was triggered by falling transport costs, a reduction in trade barriers, the ICT revolution and the 'servicification' of the economy. Trade, especially of intermediate goods, and foreign direct investments have increased substantially, with important shifts in their composition and in global patterns of specialization (Koopman et al., 2014). This expansion of global production networks has increased the opportunity for small and medium-sized enterprises (SMEs) in developing and emerging economies to enhance their competitiveness.

Thanks to the division into individual tasks, SMEs do not necessarily need to develop the domestic capacity to perform all major production steps nor the expertise to export; they now have the opportunity to better exploit their comparative advantage by entering a value chain as (specialized) suppliers or as subcontractors, even several levels down from the ultimate buyer (Humphrey & Schmitz, 2002). The tasks involved can be highly complex, spanning from manufacturing to logistics and transportation (Baldwin & Venables, 2013).

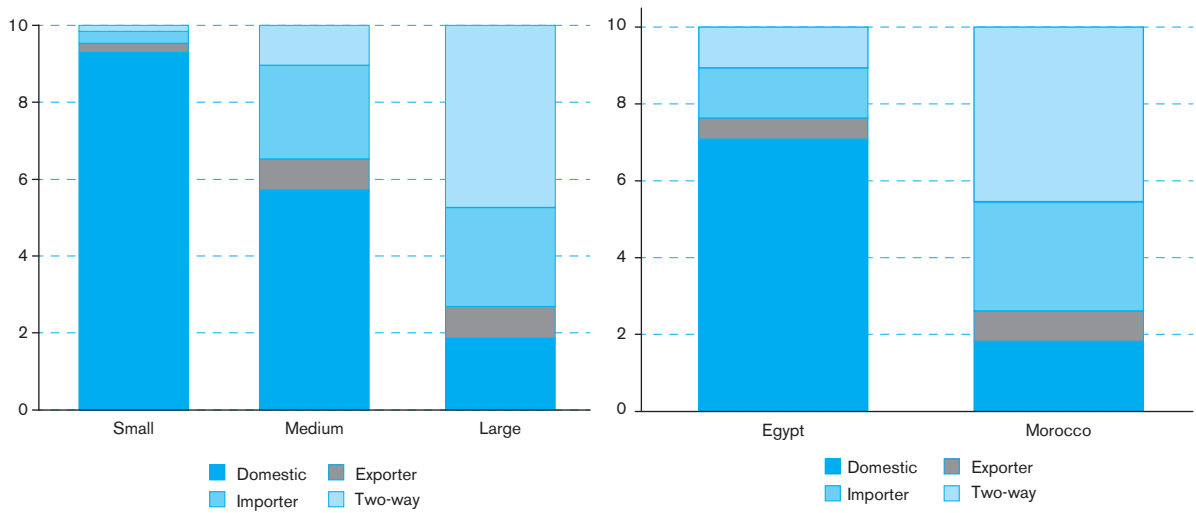
These developments, together with the increasing complementarities between goods and services, imply that any successful trade policy should explic-

itly consider the goods-services nexus, and 'think value chains,' as clearly pointed out by Hoekman (2014). Another important implication is that the evolution of global market shares, in many cases, is no longer a suitable indicator of a country's competitiveness and there is a need for new statistics to account for firms' activity at the global level.

Recent studies show that shifting the focus from traditional market shares (gross exports) to shares in value added does not change the overall picture much; however, the story behind the gains or losses in market share may differ quite substantially (Benkovskis & Wörz, 2015). Against this background, Giovannetti et al. (2015), analyzing the Italian case, argue that joining international supply chains may trigger an increase in productivity and competitiveness for smaller and less productive firms, by providing incentives and opportunities to upgrade their technical capabilities.

Participation in a supply chain and cooperation within a network of upstream and downstream partners can also enhance interfirm and intrafirm information flows and learning possibilities, and introduce new business practices and more advanced technology, in turn enhancing growth. Hence, to increase country and business competitiveness, the reallocation of resources from less productive activities to new and more connected ones is crucial. This note discusses some of the potential benefits of supply chain participation for SMEs. The discussion is based on new empirical evidence for North African firms, which represent a relevant but still understudied case. While there are large potential gains for the area, firms have not been able, so far, to fully integrate into international production networks. In what follows, we examine internationalization modes of North African firms and discuss certain policy implications related to the new patterns of value-added trade.

CHART 12 Internationalization Mode and Size

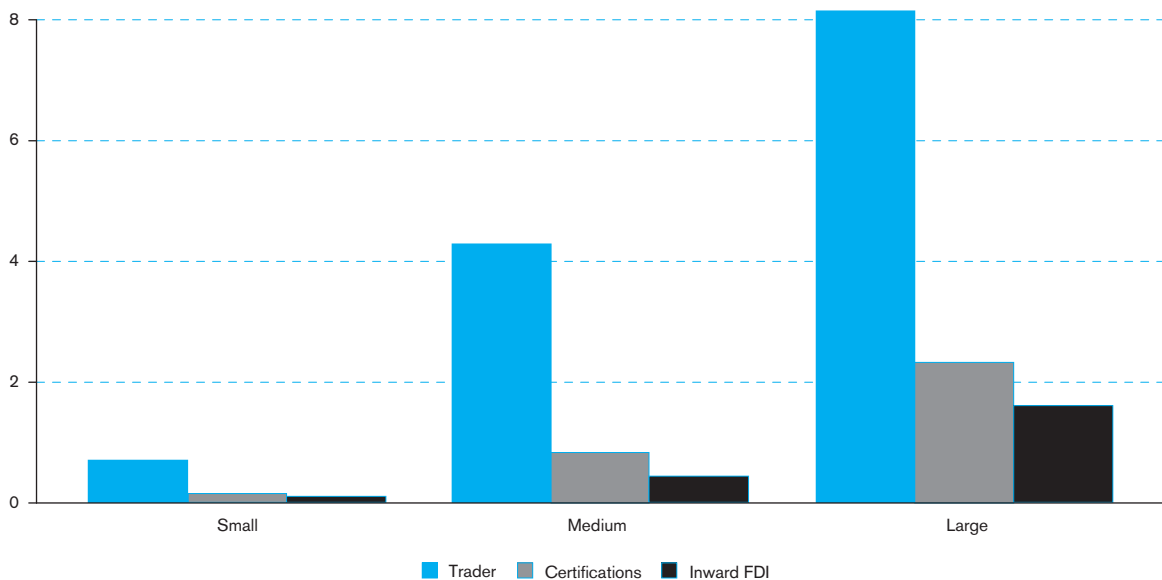


Global Value Chains: New Opportunities for North African Firms

Since the mid-nineties, several developing and emerging countries, especially in Asia, have been able to exploit the new opportunities offered by the participation in global value chains (GVCs). Unlike Asian countries, and China in particular, North Africa has not been able, so far, to intercept the main

changes in trade patterns nor enter massively into global networks. Despite a relatively good geographic and logistics positioning, most North African firms, especially the smaller ones, have mainly remained 'local,' producing at home and for the domestic market. Their involvement in GVCs is still limited and mostly in low value-added phases. Alternative indicators of value chain participation suggest that North African involvement is rather lim-

CHART 13 Certifications, Ownership and Size



ited (Del Prete et al., 2016a). Factors often cited for their limited participation are inadequate infrastructures, a lack of reliable information, and a high degree of uncertainty in contract enforcement. This, in particular, can generate distrust between parties from different countries, especially on the North and South shore of the Mediterranean Sea, limiting their willingness to engage in transactions where suppliers must often customize their production to the specifications of particular buyers.

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But as China and other Asian countries move up the value chain, North African countries may have the opportunity to become the next hub of labour intensive production and expand technological sectors. Participation in international supply chains provides chances to diversify production and trade, and is associated with learning, technology transfers, and, often, knowledge spillovers, much needed in North Africa.

In what follows, we discuss the supply chain involvement of firms from selected North African countries included in the original World Bank Enterprise Survey database. The dataset provides information on a panel of 930 manufacturing firms in Egypt and Morocco active in 2004 and 2007, and certain characteristics, such as size, ownership, trading status and performance (see Del Prete et al., 2016b, for a detailed description).

A first analysis of the data suggests that, like firms from other countries, North African firms are characterized by different modes of internationalization, involving different levels of complexity between domestic and foreign status.

Chart 12 shows that, not surprisingly, the share of traders tends to increase with the firms' size (small firms have from 5 to 19 employees, medium between 20 and 99 and large above 100). Smaller firms are more likely to only serve the local market, while as size increases, international linkages become more complex, as suggested by the higher share of two-way traders, i.e. import-export firms. This confirms a well-known finding of the trade literature, according to which larger firms perform relatively better, are more prone to paying the sunk costs of internationalization and have a higher propensity to reach further afield and more developed markets (Mayer & Ottaviano, 2008).

Chart 13 shows that larger firms are also more likely to be foreign-owned and possess internationally recognized quality certifications (e.g. ISO 9000 or 14000, or HACCP).

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Importantly, internationally recognized certifications and standards are increasingly regarded by multinationals as necessary features that guarantee and signal the ability of the firm to meet the quality levels typically required in vertically fragmented production processes (Beghin et al., 2015; Del Prete et al., 2016b). This is becoming more and more relevant given the increasingly complex buyer-supplier relations in the exchange of customized inputs, which entail firms operating on a global scale to develop a very high level of coordination along the chain. In order to participate in global production networks, firms have a clear incentive to afford the cost and apply for internationally recognized certifications, and sometimes this is not even an option. Nadvi (2008) argues that compliance with international standards is now a *sine qua non* condition for entry into globalized networks, and this is even more true for firms in develop-

TABLE 9 Certification and Internationalization Mode

	Exporter	Importer	Two-way	FDI	Domestic
Not Certified	0.05	0.15	0.19	0.06	0.61
Certified	0.16	0.34	0.34	0.20	0.16
Total	0.06	0.17	0.21	0.07	0.56

	Domestic	Trader	Total
Not Certified	61.0	39.0	100
Certified	16.1	83.9	100
Total	55.8	44.2	100

	Domestic	Trader	Total
Not Certified	96.7	78.2	88.5
Certified	3.3	21.8	11.5
Total	100	100	100

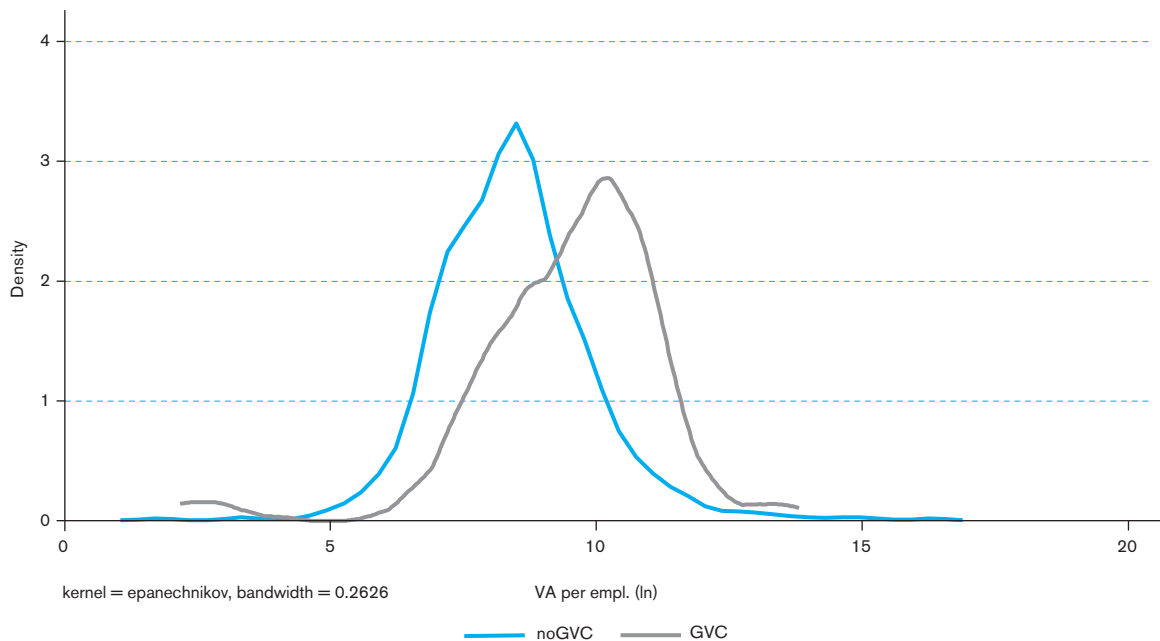
ing countries, whose production is often considered of lower quality. Hence, certified international traders, especially in developing countries, are likely to be operating in a value chain, which allows us to identify GVC participation through certifications.

Not surprisingly, summary statistics show that the share of internationalized firms is always higher among certified firms. On the one hand, quality certifications tend to be strongly associated with internationalization, as 84% of certified firms are also international traders. On the other hand, certified firms are only 22% among traders, while 97% of domestic firms are uncertified and possibly not (yet) involved in GVCs. Overall, almost all certified firms

are also internationalized, although certifications seem to capture a specific feature characterizing only some of the traders (Table 9).

The fact that GVC participation requires firms to meet specific standards is already a sign that certified firms are likely to perform better than others. Moreover, when firms join a global production network, they can further benefit from increased specialization, economies of scale and knowledge spillovers, thus improving their performance. This is shown in Chart 14, in which the productivity distribution of firms in GVCs is shifted to the right compared to that of other firms, suggesting higher levels of productivity.

CHART 14 Productivity and GVC



Conclusion

Different countries, sectors and firms participate in GVCs to different degrees and in different ways. Recent findings for developing countries that are not yet fully integrated into GVCs, such as North Africa, show that there are very few and specific successful examples of beneficial participation, namely, the aeronautic industry for Airbus, and the automotive, textiles, agri-food and phosphate industries (Del Prete et al., 2016a). The evidence at the firm level is in line with these stylized facts, and shows that smaller firms may greatly benefit from GVCs, but may also find it more difficult to setup the required capacity, especially in terms of standards compliance.

GVCs therefore need appropriate policies. On the one hand, information gaps have to be reduced by promoting environments that facilitate information exchange between firms

Two main policy implications can be drawn. Regardless of a firm's position in the chain, minimum quality and reliability requirements must be met. The buyers' sourcing strategies are constantly revised to improve these elements of their supply chains. The complexity and heterogeneity of quality standards and certifications has become a major barrier, in particular for SMEs in developing and emerging countries, adding a significant cost to trade. Upstream firms supplying intermediate inputs to several destinations may have to duplicate production processes to comply with conflicting standards, or to incur burdensome certification procedures multiple times for the same product (Miroudot et al., 2013). In this area, international regulatory cooperation (convergence of standards, certification requirements and mutual recognition agreements) can alleviate the burden of compliance and enhance firms' competitiveness.

For GVCs to have a positive impact on firms' productivity and countries' competitiveness, adequate preparation is required. Human capital development

can be tailored to the needs of particular segments of the value chain; specialized skills, often associated with industries such as information technology, electronics and pharmaceuticals, but also needed for some phases in more traditional industries, are a prerequisite for involvement in high value-added stages. Policies designed to support education and technical training therefore represent an important tool to increase the gains from global production. When the proper environmental, regulatory and endowment conditions are met, GVCs can become an important means for linking developing countries to global production and trade, potentially supporting export propensity for SMEs, with possible positive consequences on employment and growth. GVCs also trigger a change in the existing links between currency depreciation and exports: in the presence of backward linkages, it is likely for a depreciation to increase the cost of imported intermediate inputs used in final-good production, thus lowering the competitive gain of the exchange rate difference. With forward linkages, on the other hand, a depreciation increases the competitiveness of downstream producers, which stimulates demand for their goods. Hence, when a firm is in a GVC, the way exchange rate fluctuations affect competitiveness is different to how they would be affected traditionally.

On the other hand, there is the need to decrease the regulations and tariffs that are magnified with multiple crossings of borders

GVCs therefore need appropriate policies. On the one hand, information gaps have to be reduced by promoting environments that facilitate information exchange between firms (suppliers) in the industry or across industries. Some information gaps can be addressed by improving visibility through certifications, as suggested by the fact that most of the certified firms are also traders and are likely to be involved in GVCs. It is also known that most firms in international production chains screen potential suppliers for compliance with relevant standards. On the other hand, there is the need to decrease

the regulations and tariffs that are magnified with multiple crossings of borders. Available policies aimed at internationalization and GVC participation also need to directly involve SMEs. Skill upgrading programmes are often not perceived as facilitating involvement into global markets as the effect tends to be indirect. Finally, there is a need to develop local infrastructure and business environments, and help local clusters to become part of regional and global value chains.

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