# Supply chains

Supply chains describe the network of activities involved in producing and getting a product or service to consumers. This includes design, production, marketing, distribution, and support to the final consumer. The supply chain is a system of organizations, people, activities, information, and resources involved in moving the product from supplier to the end customer. Value chains are “global” when the activities are carried out on a global scale, both within the firm (through FDI) and through contracts with foreign firms (through offshore outsourcing). Global supply chains are also referred to as ‘global value chains’ or ‘global production networks’.

Although the international segmentation of production is not a new phenomenon, during the last two decades supply chains have become increasingly global due to technological progress, reduced costs of transport and telecommunication, international trade liberalization, and changes in corporate strategies. Technological change has also led to a growing international fragmentation of value chains in some services which formerly could not be traded across borders: offshoring of business process services and information technology services is transforming the way companies do business (Engman, 2007). In addition, the fragmentation and international expansion of supply chains is no longer limited to lower end activities such as low cost manufacturing but increasingly includes higher value added activities such as R&D.

Under this scenario, business innovation strategies have to consider all stages of a firm’s supply chain, and not exclusively those that are internal to the firm but also those that occur in a firm’s network of external partners across industries and countries. Large firms are increasingly placing the supply chain at the center of their strategies to innovate, looking at suppliers not just as a source of production inputs but also of ideas. It is essential to efficiently coordinate supply chains by building closer network relationships with suppliers and partners to improve a firm’s responsiveness to changes in market demands. Another important implication of the emergence of global supply chains is that innovating firms from anywhere in the world, even small and medium-sized enterprises, can better exploit their competitive advantages by improving their links with global value chains.

While global supply chains are dominated by large multinational firms that play a critical coordinating role, the fragmentation and internationalization of supply chains has also acted as a catalyst for international knowledge diffusion, providing new opportunities for local capability formation in developing economies. However, learning from foreign sources of knowledge requires a significant level of absorptive capacity on the part of local suppliers and a complex process to internalize disseminated knowledge (Ernst and Kim, 2002). Moreover, several obstacles can hamper a country’s participation in supply chains, associated with its connectivity to international markets, with the ease of doing business in the country, or with the governance structure of the global supply chain and the power relationships between its members.

From a policy perspective, a key implication of the spread of global supply chains is that a country’s (or region’s) competitiveness depends on its capacity to link into global supply chains and upgrade its position over time. In order to succeed it is not necessary to develop vertically integrated industries; it is sufficient to specialize in specific stages of the supply chain (tasks or business functions). The position of a country in the global supply chain (downstream vs. upstream) influences a country’s competitive strategy and its opportunities for upgrading. Countries specialized in upstream activities contribute with the raw materials or with product design. Countries specialized in downstream activities focus on the final assembly of the products or on customer services. Countries specialized in activities in the center of the value chain tend to focus on standardized labor-intensive manufacturing, driven mainly by cost-competitiveness.

Improving a country’s connectivity with global supply chains is not only about reducing traditional barriers to trade, but also about trade facilitation (OECD, 2012). Supply chain barriers to trade may result from inefficient customs and administrative procedures, complex regulations, and weaknesses in infrastructure services, among others. According to a report released in 2013 by the World Economic Forum in collaboration with the World Bank and Bain & Company, reducing supply chain barriers could increase global GDP and world trade much more than reducing all import tariffs. Moreover, countries also need to shift the focus from traditional export barriers to import barriers: “a country’s competitiveness and ability to participate in global value chains depends as much on its capacity to efficiently import world class inputs as on its capacity to export” (Cattaneo et al., 2013). Indeed, a large share of imports is used as inputs for exports, so in order to become a major exporter it is also necessary to become a major importer.

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