Enhancing the Role of SMEs in Global Value Chains

OECD

Enhancing the Role of SMEs in Global Value Chains

ORGANISATION FOR ECONOMIC CO-OPERATION AND DEVELOPMENT

The OECD is a unique forum where the governments of 30 democracies work together to address the economic, social and environmental challenges of globalisation. The OECD is also at the forefront of efforts to understand and to help governments respond to new developments and concerns, such as corporate governance, the information economy and the challenges of an ageing population. The Organisation provides a setting where governments can compare policy experiences, seek answers to common problems, identify good practice and work to co-ordinate domestic and international policies.

The OECD member countries are: Australia, Austria, Belgium, Canada, the Czech Republic, Denmark, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Japan, Korea, Luxembourg, Mexico, the Netherlands, New Zealand, Norway, Poland, Portugal, the Slovak Republic, Spain, Sweden, Switzerland, Turkey, the United Kingdom and the United States. The Commission of the European Communities takes part in the work of the OECD.

OECD Publishing disseminates widely the results of the Organisation's statistics gathering and research on economic, social and environmental issues, as well as the conventions, guidelines and standards agreed by its members.

This work is published on the responsibility of the Secretary-General of the OECD. The opinions expressed and arguments employed herein do not necessarily reflect the official views of the Organisation or of the governments of its member countries.

Corrigenda to OECD publications may be found on line at: *www.oecd.org/publishing/corrigenda*.

Foreword

The OECD Working Party on SMEs and Entrepreneurship (WPSMEE) has been studying the globalisation of SMEs since the mid-1990s. This process has recently been explored from the perspective of changes induced by globalisation to SMEs in global value chains (GVCs), as relationships among partners throughout the value chain are affected. Participation in GVCs may provide stability to SMEs and improve their productivity. However, to fully harness these potential gains, SMEs are challenged to upgrade their management, financing and technology. Co-operation within a network of upstream and downstream partners can help SMEs meet these challenges when the flow of information is transparent along the value chain, and when the rules of the game and fairness in business relations are respected.

During the course of 2006-2007 the Working Party carried out a study on enhancing the role of SMEs in global value chains. This study was in response to the 2004 Istanbul SME Ministerial Declaration where Ministers invited the OECD to consider *"enabling a better understanding of international value chains and the way in which SMEs can benefit from them."* The project analysed global value chains in five sectors where SMEs act as subcontractors or suppliers: *two manufacturing industries*: automotive and scientific and precision instruments; *two service industries:* software and tourism; and *one creative industry*: film production and distribution.

The report was prepared by Mariarosa Lunati, Senior Economist, SME and Entrepreneurship Division of the OECD Centre for Entrepreneurship, SMEs and Local Development (CFE) in co-operation with a Swiss research team led by Prof. Paul H. Dembinski (University of Geneva and University of Fribourg) and Fulvia Farinelli, Investment and Enterprise Competitiveness Branch, United Nations Conference on Trade and Development (UNCTAD). Alain Dupeyras, Head of the Tourism Unit of the SME and Entrepreneurship Division, developed input related to tourism issues, while Toru Ueno, SME and Entrepreneurship Division, oversaw the preparation of the Japanese input. The research project has been carried out under the supervision of Marie-Florence Estimé, Deputy Director of the CFE.

The study was partly funded by the Geneva International Academic Network (GIAN/RUIG), the Swiss State Secretariat for Economic Affairs (SECO) and the Japanese Ministry of Economy, Trade and Industry (METI). Several OECD members, and non-member economies participating in the *OECD Bologna Process on SME and Entrepreneurship Policies*, contributed to the project by undertaking case studies on specific industrial sectors. A steering group composed of representatives from Australia, France, Italy, Japan, New Zealand (Chair), the United States and the World Intellectual Property Organisation (WIPO) offered guidance throughout the study.

At the invitation of the Japanese Authorities, the Working Party also organised a global conference on "Enhancing the Role of SMEs in Global Value Chains" in Tokyo from 31 May to 1 June 2007. The abridged proceedings with selected remarks and presentations from the Conference, as well as the *"OECD Tokyo Action Statement for strengthening the role of SMEs in Global Value Chains",* which was the main output of the Conference, will be available on line.

The involvement of SMEs in global value chains is an essential dimension of the globalisation process. Globalisation will remain at the core of the analytical and policy work of the OECD Working Party on SMEs and Entrepreneurship to assist governments in enhancing SME competitiveness.

Sergio Arzeni
Director, OECD Centre for Entrepreneurship,
SMEs & Local Development

Acknowledgements

The present publication has been prepared by the OECD Secretariat, under the direction of Marie-Florence Estimé, Deputy Director of the Centre for Entrepreneurship, SMEs and Local Development (CFE). Damian Garnys and Elsie Lotthe provided technical and administrative assistance.

Table of Contents

The proceedings from the related OECD global conference
"*Enhancing the Role of SMEs in Global Value Chains*"
(Tokyo, Japan, 31 May–1 June 2007)
are available online at http://dx.doi.org/10.1787/472558038248.

Tables

Figures

Boxes

Executive Summary

The globalisation of production has reached an unprecedented extent, with the production of goods and services increasingly fragmented across enterprises and countries. If large and multinational companies (MNEs) of OECD countries clearly lead this process, small and medium-sized enterprises (SMEs) – their traditional partners, suppliers or distributors – are confronted by the diverse opportunities and challenges that arise from the new production context.

Although several aspects of globalisation are now largely understood, notably its main drivers, sparse information is available on the transformation undergoing the relation between large and smaller firms and the evolution of the role of SMEs in global value chains. This study, conducted by the OECD Working Party on SMEs and Entrepreneurship in co-operation with UNCTAD and Swiss academic partners, aims to enlighten this question.

The study collected data through more than 20 country/industry and country/enterprise case studies in five representative industrial sectors, which were selected to illustrate emerging patterns in manufacturing and service sectors where the value chains show a significant presence of independent or affiliate SMEs acting as subcontractors or suppliers. These included the automotive, scientific and precision instruments, software, tourism and cinema industries. The sectoral approach was adopted to take into account that globalisation affects different sectors in different ways and that the role of SMEs varies across sectors.

Globalisation of value chains brings opportunities to SMEs

Overall, the case studies support the argument that the participation in global value chains benefits SMEs. The reorganisation of production at the international level, through increased outsourcing and the development of global value chains, is having significant effects on small and medium-sized suppliers. New niches for the supply of products and services continuously emerge from the fragmentation of production, where small firms can quickly position themselves, exploiting their flexibility and their ability to move fast. Some key benefits include the following:

Participation in global value chains enhances SME internationalisation and growth. It provides SME suppliers access to global markets at lower costs than those faced by individual small-scale producers, due to the intermediation function assured by the contractor. Firms that have successfully integrated into one or more value chains have been able to expand their business, and gain stability.

Small firms that focus on multipurpose technologies have secured their position in the market by becoming specialised suppliers serving different global value chains, especially in manufacturing sectors such as automotive and precision and scientific instruments. Specialised and niche market SMEs are become conscious of their competitive strengths, which they associate in particular to the flexibility and quality of their offer (as in the precision and scientific instrument and software industries) or the personalised service (as in the tourism sector). Some of these firms have also succeeded in leveraging key assets from their lead partner, namely reputation.

SMEs increasingly choose to outsource, even offshore, non-core activities when this allows them to gain competitiveness from rationalisation of production and optimisation of resources allocation. In many cases, it is the decision to follow the contractor abroad that determines the offshoring strategy of SMEs.

Co-operation with partners upstream and downstream improves the small firm's efficiency. This is due to the substantial benefits in terms of information flow, technology transfer and learning opportunities. SMEs confirmed that the exposure to learning processes among partners in global value chains generates knowledge spillovers and stimulates human and technological capital upgrading.

Innovating and keeping up with new technologies are seen by SMEs as a requirement for their successful participation in global value chains.

Globalisation of value chains represents important challenges for SMEs

The increased opportunities for SMEs come along with serious challenges. Field work has revealed that:

Awareness and understanding of the structure and dynamics of global value chains by SMEs are generally insufficient, although unequal across firms and sectors. This seems to be a function of the sector and/or the position of the firm in the chain. Small firms in the automotive sector seem more apt to understand the structure of the value chain to which they contribute than the average SME in other sectors, for which the concept itself of value chain is not always easy to grasp. This is likely related to the complexity of the configuration of the value chain (as in the tourism or cinema industries). The fact that the SME serves very different industries (as is the case of suppliers in the scientific and precision instrument industries) or that it occupies a low position in the chain therefore there is limited knowledge beyond the surrounding environment (as is the case of some SME suppliers in the automotive sector).

A majority of SMEs across different industries are not able to identify their competitive strengths within the value chain, nor do they fully understand that this identification is important to optimise their participation in global value chains. Some of the firms interviewed explicitly pointed to the lack of time and resources to understand the evolving global context and devise a market strategy. This, in turn, translates into an insufficient ability to define the adequate business model to gain or reinforce a firm's competitiveness.

SMEs are mainly concerned with both the inadequate availability of managerial and financial resources, and the inability to upgrade, protect in-house technology, and to innovate. SMEs stressed that they do not have the critical dimension necessary to support R&D costs and the training of personnel. Lack of working capital is also an obstacle, in particular when faced with delayed payments from international partners.

Compliance with strict product quality standards required for participation in global value chains is difficult and costly. SMEs are often dissatisfied with the proliferation of private standards set by contractors and the fact that they differ one from another, alleging that this makes the costs of compliance even more burdensome.

SMEs want frameworks that assist them to better manage their intellectual assets, including through protection of intellectual property rights when appropriate. Several SMEs in the automotive and precision instruments industries reported that the current practice requesting complete transparency from sub-contractors on virtually every relevant aspect of their business has facilitated unfair business behaviour, consisting in the contractor passing to lower-cost competitors original designs and plans submitted by SME partners. However, the issue of intellectual property is not to be reduced to one of protection. For some SMEs, in fact, the realisation of value from their innovations comes from selling them to the market instead of keeping them in-house. For this reason, it is the overall management of intellectual assets that SMEs should target.

To move up the value chain, SMEs need to take up larger and more complex sets of tasks, which may range from contributing to product development and organising and monitoring the network of sub-suppliers (as in the automotive industry) to introducing organisational or marketing innovations (especially in the tourism and cinema industries). The lack of managerial capacity to deal with the complexity of these tasks, revealed by many SMEs interviewed, plays against their possibility of responding in a timely and effective manner to the challenges of globalisation.

Policy conclusions

As the globalisation of value chains presents both opportunities and challenges for SMEs, the case studies have tried to understand what SMEs expect from governments in the way of support in the evolving environment. The following points emerged:

- Across countries, many enterprises interviewed indicated that governments at the local or national level have provided them with little or no support for facilitating their participation in global value chains. This answer reflects the fact that many SMEs have a limited understanding of the global environment and therefore cannot easily identify policy initiatives facilitating their effective participation in global value chains. For instance, although the area of skill upgrading is certainly one of the most relevant for the successful integration of SMEs in global value chains, SMEs interviewed did not mention programmes in the field of SME training,
- In most of the case studies, two themes dominate SMEs' concerns: the need to improve technology and innovation capacity and the lack of adequate finance and human capital for this process.
- Other important areas include: the capacity to respond to standards and certification requirements; the ability to better manage intellectual assets, including the protection of IPRs when appropriate; the uneven bargaining power SMEs face with large contractors; and the support of diversification in activities to reduce dependence on one or a few customers.

In light of this, Governments could facilitate SMEs' gainful participation in global value chains through policy initiatives in specific areas:

Raising awareness of the potential of participation in global value chains. Many SMEs that are used to serving local markets may find it difficult to gain a good understanding of the advantages and potential of subcontracting. This also applies to the potential for SMEs to subcontract abroad part of their production, in order to improve their competitiveness through rationalisation of resources. Although the diffusion of ICT has made market intelligence easier for SMEs, their limited resources and lack of managerial capacities still hamper accurate information and analysis on the opportunities in foreign markets.

Increasing participation in global value chains through initiatives such as the facilitation of SME consortia for joint marketing or for entering joint bids, particularly in government procurement, or promotion schemes for potential suppliers.

Supplier financing. Gainful participation in value chains often requires substantial investments to acquire or develop superior production technologies and logistics systems, invest in human capital, or certify newly required standards. Moreover, suppliers normally receive incoming payments from their customers several weeks or even months after the delivery of orders, and contract enforcement and collection of payments may be a significant challenge for an SME. Policies aimed at improving SMEs' accounts receivables and facilitating SME financing can help small subcontractors to overcome liquidity problems, *e.g.* by contributing to the development of financial schemes such as factoring.

Promotion of technological upgrading is critical in order for SMEs to capture more value added from participation in global value chains. Policies in this area should aim to support training and capacity building via skill development programmes; to promote partnerships between SMEs and organisations overseas that can develop or transfer technology, products, processes or management practices; and to facilitate the technological upgrading through various financial schemes, such as credit lines for upgrading.

The lack of protection of intellectual property rights of SMEs in international markets has harmful effects on those small subcontractors that experience unfair behaviour by their customers. The negative impact is twofold. In addition to the direct damage created by deceptive business practices, small firms' incentives to innovate may be reduced if appropriation of economic benefits is threatened. Governments should consider including provisions for technology transfer from small subcontractors to MNEs within the context of the OECD Guidelines for Multinational Enterprises. At present, these guidelines only cover the transfer of technology and the need for protection of intellectual property rights of multinational enterprises as it is considered that MNEs are the main conduits of technology transfer across borders (*Section VIII. Science and Technology*, OECD Guidelines for MNEs, Revision 2000).

Facilitation of compliance procedures. The adoption of product and process standards has several well-known benefits for firms. It enables them to introduce new technology and integrate business practices that ameliorate their overall performance. However, different and concurrent standards can become barriers to transmission of information and to trade. Also, the costs of compliance to required standards are proportionally too high for small firms. The problem is aggravated when these firms have to cope with an increasing number of private standards set by customers in addition to mandatory ones. Governments should ensure that national certification systems do not impose an excessive burden on small firms and encourage SME participation in the standard-setting process. Initiatives such as group certification for small firms in local regions might also prove effective, if trust could be gained in the control mechanisms.

Promotion of skills development. The effectiveness of the aforementioned policy measures, to a certain degree, is contingent on having skilled human resources in SMEs. Participation in global value chains can accelerate SMEs' upgrading of human and technological resources, through technology and knowledge transfer and the implementation of new business practices. Conversely, participation may be demanding, to the extent that a threshold of capabilities could be necessary to successfully enter value chains. Policies that aim at raising technical and managerial skills in SMEs can booster integration of these firms into global chains.

Attracting foreign direct investment. FDI promotion policies may facilitate the integration of firms in global supply chains. Some policies can explicitly be designed to attract MNEs that would promote technology and knowledge transfer to local suppliers and subcontractors, whereas others may aim at helping established foreign affiliates to enter and/or upgrade into higher-value activities. After-care services offered to foreign investors influence the investors' decisions on linkage development.

Promoting the development of industrial clusters. Cluster initiatives allow for economies of scale and agglomeration, and also help develop an experienced local pool of skilled labour and a network of firms cooperating in complementary areas of specialisation. By doing so, they strengthen their competitive advantages in a sustainable manner and become attractive sites for quality FDI. In many cases, the presence of MNEs becomes crucial to integrate clusters into global value chains, and to strengthen their export capacity from the point of view of production and distribution.

Promoting the development of domestic industries and service networks in developing countries that are able to link effectively with international production networks, by promoting entrepreneurship and enhancing competitiveness at firm level through technology and business linkages. This calls for using official development assistance (ODA) more effectively to support developing countries efforts to undertake a wide range of proactive measures to promote trade and investment in an integrated way. To address these challenges at the multilateral level, besides the building of appropriate support for trade policy formulation for WTO accession and the negotiation of bilateral and regional agreements, there is need to enlarge the scope of the Aid for Trade to include support for the development of productive capacity.

Chapter 1. Introduction

While underway for decades, the globalisation process has recently accelerated, as shown by the substantial growth of world imports and exports since the 1980s and, more recently, of foreign direct investment (FDI). The way production of goods and services is organised has also changed. Most notably, the set of productive activities that leads a product from conception to market is increasingly spread across several enterprises and countries. While the reasons are known why such a complex organisation of production emerged, less evident are the effects that the globalisation of value chains has on small and medium-sized enterprises (SMEs), which are more followers than leaders in this process. This study is concerned with the issue of how globalisation of value chains and of large enterprises affects the role of SMEs as traditional partners, suppliers or distributors for larger firms. It explores the benefits of SME participation in global value chains, the challenges SMEs face, and proposes policy actions when appropriate.

This report is structured as follows: the introduction describes the notion of value chain and value chain analysis and explains the methodology of the study; Chapter 2 presents an overview of the changes in the organisation of production at the world level and identifies, on the basis of the existing literature, the main consequences of the globalisation of value chains for SMEs; Chapter 3 illustrates the main elements characterising the globalisation process in five industries selected for this study; Chapter 4 presents the findings of the case studies carried out in the five industries in several OECD and non-OECD member economies to investigate the degree of awareness, involvement and success of SMEs with respect to the participation in global value chains; and finally, the report concludes by highlighting policy recommendations.

The notion of the value chain

The phenomenon of globalisation of production can be usefully analysed through the notion of the industry value chain. The value chain model has been extensively used by researchers to map the linkages and networks at the firm and industry level and to analyse where value resides at these two levels. At the firm level, the basic model of Porter (1985) helps determine which specific activities give organisations a competitive advantage and build their value. The activities are divided into *primary activities* (those that enable the firm to fulfil its role in the industry value chain and hence satisfy its customers) and *support activities* (those which are necessary to control and develop the business over time and thereby add value indirectly). The effective management of primary and support activities generates margins for the firm. In other words, the organisation is able to deliver a product/service for which the customer is willing to pay more than the sum of the costs of all activities in the value chain.

The analysis of the value chain at the firm level is meant to investigate the creation of value within the firm, and to identify the points in the internal chain where the value can be more successfully created. An enterprise's value chain for competing in a particular industry is embedded in a larger stream of activities that are referred to in the literature as the industry value chain. This includes, upward, suppliers and, downward, distribution channels. A company able to manage effectively the entire industry value chain can gain a competitive advantage over its competitors. In light of this, one central issue in the value chain approach is that of value chain 'governance'. This term is used to describe all efforts aimed at systematically reducing any source of uncertainty in supply and demand through the active co-operation of the key actors in the value chain. By reducing uncertainty, information and trade flows are improved and overall costs reduced. However, this also means that some firms in the chain determine and impose the parameters under which others in the chain operate.

The representation of value creation as a chain, *i.e.* a sequence of activities performed one after the other, was essentially based on a manufacturing/retail view of industry. However, this model of the chain is less appropriate to represent an enterprise's activity and its relationships with customers and suppliers in many business sectors, particularly in service industries. Alternative models of value creation, called 'value configurations', have therefore been developed to describe and analyse firm-level value creation across a broad range of industries.[1]

While it is important to understand the purpose of the value creation analysis at the firm level, this study mostly deals with the notion of the value chain at the industry level and uses the term "chain" in a broad sense, by integrating the idea that the creation of value in some business sectors may be depicted by configurations other than a chain, *i.e.* as a network of activities and not a sequence. In this meaning, the notion of value chain permits the analysis of several critical aspects of the phenomenon of globalisation of production: the production process as a set of value-adding activities performed by separate entities; the fragmentation of activities across multiple enterprises and countries; the distribution of productive tasks along the chain; the type of co-ordination between firms in the chain, often involving asymmetry of power and information.

Also, the notion of a value chain highlights one specific aspect of the links between firms, which is the economic linkage of value addition in the full range of activities that are required to bring a product from its conception to its end use. Indeed value addition is key. It is mainly the pursuit of those productive activities with the highest return that make lead firms in the value chain decide on which activities to keep in-house and which to outsource. The distribution of tasks and the positioning of firms along the chain at stages corresponding to low or high value activities are largely determined by lead firms, and small firms rarely act as the lead firms of the chain.

Box 1.1. Value chain analysis: A tool for understanding competitiveness

The value chain model provides a tool to analyse sources of competitiveness at the firm and industry level. In the automotive sector, for instance, a company entering a value chain will initially begin by producing automotive parts based on blueprints received from companies higher up the chain. However, simply manufacturing automotive components does not have a high degree of value added. With time, the company should therefore acquire adequate skills in product development and design in order to specialise in activities within the chain that have more value added.

Methodology of the study

A sectoral approach was adopted to take into account that globalisation affects different sectors in different ways and that the role of SMEs varies across sectors. The project identified five representative industrial sectors to be analysed through country/industry and enterprise/country case studies. The five industries, which were selected to illustrate emerging patterns in manufacturing and service sectors where the value chains show a significant presence of independent or affiliate SMEs acting as subcontractors or suppliers, included:

Two manufacturing industries:

- *The automotive industry:* this industry has changed dramatically during the past 20 years, in particular as concerns the suppliers and distribution networks, where many SMEs used to play a an important role.
- *Precision and scientific instruments industry*: medium-sized enterprises in this industry still play a rather important role. However, as the markets are becoming more and more global the industry moves towards the provision of packages of "services-and-products" and the strategic role of large global players seems to increase.

Two service industries:

- *The tourism industry:* this industry has become global, with its major players extending their cooperation to reach small or medium sized local players (franchising, management contracts, global reservation systems, branding). The study covered several segments, namely the hotel industry, the tour operator industry, and the travel agency industry.
- *The software industry*: this is a recent industry and yet one of the most globalised, subject to rapid and fundamental changes in production and distribution. Along with large and multinational firms, SMEs have an important role in the market, including providing support tools and a constant flow of independent ideas and concepts.

One creative/entertainment industry:

- *The film production and distribution industry*: in this industry the complementarity between the content providers and the distribution channels is crucial. The methods of collaboration of these two sets of enterprises, their relative sizes and strategic strengths have changed dramatically with the spread of digital and telecommunications technologies in the 1990s.

Data for this project were gathered from two main sources: structured interviews with a limited number of large enterprises and their upstream and downstream partners for each of the selected industries; and country studies conducted through semi-structured interviews based on a questionnaire with a representative group of SMEs in the selected industries that explicitly or implicitly act as suppliers and/or distributors in global value chains. Overall, *the project undertook seventeen country/industry case studies and seven in-depth enterprise case studies.* The latter were co-ordinated by UNCTAD and included Colombia, Egypt, India, Mexico, Nigeria and South Africa. Table 1.1 shows the distribution of case studies by country and industry, while the list of case studies is presented in Annex A.

Table 1.1.Breakdown of case studies by industry and country

Manufacturing		Services		Creative industries	
Automotive	Australia Chinese Taipei Japan Spain Turkey India: Tata Motor Mexico: Volkswagen South Africa: Toyota	Tourism	Australia Austria German/Jordan Korea Poland Spain (Andalusia) Spain (Balearic Islands) Switzerland	Film production and distribution	Korea United States Colombia: RCN and Caracol Nigeria: Nu Metro
Precision and scientific instruments	Australia	Software	Turkey Egypt: Microsoft		

A reasonable level of homogeneity of the case studies was ensured through the use of the same questionnaire for the semi-structured interviews. In particular, the following core set of questions was put to the interviewees: *the awareness and understanding of the global value chains and its participants*; *the co-operation within the global value chains and linkages*; *the relevance of technological skill, standards and intellectual property rights*; and *the role expected from government*. As an additional precaution, the analysis of the findings has taken into account the following differences:

- *Research team*: The case studies have been carried out by researchers belonging to different types of institutions, namely ministries, universities, research institutes, and consultancies.
- *Country and sector*: The background context of each case study is determined by the specific conditions in the country and sector of reference.
- *Coverage/sample:* The number of firms interviewed for each case study varies from a few tens to a few hundred, although the average is around 20 enterprises. The criteria for the selection of the enterprises, however, were always based on the representativeness of the selected firms in the sector.
- *Period of time:* The case studies were completed in different periods of time, between July 2005 and April 2007.

The case study approach used for this project facilitated a greater understanding of the issues investigated and provided fresh insights on them. It is important to remember that the generalisation of conclusions from case study research requires due care.[2]