



**United Nations
Conference
on Trade and
Development**

Distr.
GENERAL

TD/B/COM.3/EM.31/2
8 August 2007

Original: ENGLISH

TRADE AND DEVELOPMENT BOARD

Commission on Enterprise, Business Facilitation
and Development

Expert meeting on increasing the participation of developing
countries' SMEs in global value chains

Geneva, 18–19 October 2007

Item 3 of the provisional agenda

**ENHANCING THE PARTICIPATION OF SMALL- AND MEDIUM-SIZED
ENTERPRISES IN GLOBAL VALUE CHAINS**

Note by the UNCTAD secretariat

Executive summary

This note reviews the policy implications of enhancing the participation of small- and medium- sized enterprises (SMEs) in global value chains (GVCs). While policy measures may vary at the national level and by industry, the case studies conducted by UNCTAD confirmed the need to develop the supply capacity of SMEs and to upgrade their activities in order to maximize benefits from integrating into international production systems. They also highlighted the need for Governments of developing countries to review the existing SME and export promotion strategies to ensure that they are adjusted to the new realities and requirements of global markets. This note argues that an enabling business environment is a necessary precondition for SMEs to compete successfully on a global scale. Governments, business communities and international donors can play a role in assisting developing countries increase their productive capacities through the adoption of targeted GVC assistance programmes, preferably within public–private sector partnerships.

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I. INTRODUCTION

1. The Trade and Development Board agreed at its forty-first executive session (18–20 April 2007) that the Commission on Enterprise, Business Facilitation and Development should convene an expert meeting on “increasing the participation of developing countries’ SMEs in global value chains” (GVCs). To this end, the secretariat has prepared this issues note.
2. GVCs refer to the interrelated production activities performed by firms at different geographic locations (UNCTAD, 2006a). Although several aspects of GVCs are now better understood by policymakers, notably the key drivers and governance structure, the impact on SMEs in both developed and developing countries has not yet been thoroughly researched. A recent research project conducted by the Organization for Economic Cooperation and Development (OECD) Working Party on SMEs and Entrepreneurship, in co-operation with UNCTAD and Swiss academic partners, entitled “Enhancing the participation of SMEs into Global Value Chains”, aims to shed light on these issues.¹
3. The policy recommendations offered in this note are drawn from a variety of studies and sources. The main source is a series of case studies carried out by UNCTAD under a joint UNCTAD–OECD–University of Fribourg and Geneva research project. The case studies analyse the opportunities and constraints facing the local suppliers of transnational corporations (TNCs) operating in selected industries in developing countries. Policy recommendations are also drawn from the Tokyo Action Statement endorsed by OECD member countries at the Global Conference on Enhancing the Role of SMEs in GVCs, Tokyo, May 2007.
4. The key objective of this note is to present a set of policy options to assist developing countries’ SME suppliers to integrate into the global market. Effective GVC initiatives would require interaction between Governments and domestic and foreign companies. It is therefore important for Governments to establish strong communication channels with lead firms and other key actors in GVCs.

II. FINDINGS FROM UNCTAD’S CASE STUDIES

5. The case studies covered the automotive sector (i.e. Toyota in South Africa, Volkswagen in Mexico and Tata Motors in India), the software sector (i.e. Microsoft in Egypt and IBM in Vietnam) and the cinema and audiovisuals sector (i.e. Caracol in Colombia and NuMetro in Nigeria). The companies and sectors were selected to cover different regions and on the basis that they were either an emerging or competitive sector in selected host countries. For the study, a questionnaire was used to capture information on the following core issues: (a) the awareness or understanding of GVCs; (b) cooperation and types of linkages in GVCs; (c) the relevance of technological skills, standards and intellectual property rights; and (d) the role expected from Governments. These issues were applied in in-depth interviews with 10 to 15 suppliers in each selected TNC. These case studies look at structurally different sectors and therefore their findings cannot be generalized nor compared across industries. The findings are industry-specific, and they are influenced by industry structure, stages of industry development and the buying behaviours of lead firms in a given industry. The findings provide useful information on TNC suppliers in developing countries

¹ The Government of Switzerland through the Geneva International Academic Network (GIAN/RUIG) funded the research.

and indications of their requirements, and may thus help identify key policies for SME development.

A. The automotive components sector

6. The automotive components sector is dramatically affected by the development of GVCs. Several TNC car manufacturers use SMEs in developing countries as sources for automotive components. As TNC car manufacturers gain access to new markets, existing SME suppliers in developing countries will need to adapt to the demands of the international manufacturing giants. The overall trend in automotive manufacturing is one of consolidation. TNC car manufacturers are significantly reducing the number of suppliers in order to improve their competitiveness. They are increasingly relying on a limited number of first-tier suppliers who are able to provide auto components on a global scale at “original equipment manufacturing” (OEM) standards (UNCTAD, 2001). As this sourcing trend continues, first-tier suppliers increase in scale and become TNCs in their own right (Jürgens, 2003). This change has created a new dynamic in the industry and smaller local suppliers are forced to adapt.

7. The case studies reveal that many independent local suppliers have not managed to either link with global sourcing partners or upgrade their own capabilities to reach OEM status. While this inability has left some local SMEs behind, opportunities to become local suppliers in second-tier sourcing have emerged. To seize these opportunities, local suppliers need to respond to the expectations of TNCs and their OEM partners in terms of quality, supply standards and delivery times. As a whole, SMEs in the automotive component industry need to continue to upgrade their operations to maintain competitiveness both domestically and internationally. The following paragraphs summarize the highlights of the case studies:

1. Mexico

8. Volkswagen represents the second-largest car manufacturer in Mexico, following Nissan. Among the local suppliers interviewed, no local SME has been able to leverage its link to GVCs as a springboard for its own internationalization. In fact, these SMEs do not possess any specific competitive advantage in terms of technology. In addition, their ability to finance the internationalization process is very limited, as they barely manage to undertake the necessary upgrading in order to keep pace with the higher demands of their customers. Almost all the businesses interviewed confirmed that in Mexico the competition is high due to the decentralized operation schemes of TNCs. Large firms declared that in most cases they import inputs from abroad and add little value to their products locally. However, a few of them, namely FTE Mexicana and Johnson Controls, argued that they help their suppliers to increase the value added of local inputs (box 1).

Box 1. Cooperation between first- and second-tier suppliers of Volkswagen in Mexico

Firms that are first-tier suppliers of Volkswagen, such as FTE Mexicana and Johnson Controls, have helped second-tier suppliers to improve quality through certification ISO/TS 16949, which is the reference standard for quality management system in the automotive sector, based on ISO 9001. For the second-tier suppliers, it was problematic to meet quality requirements that were more demanding than local standards. Most first-tier suppliers in Mexico confirmed that their role in the global supply chain has expanded and deepened as they started developing second-tier suppliers. They became responsible in setting product specifications and providing advice to the Volkswagen plants on product management.

Source: UNCTAD case study, by Ruiz Duran (2006).

9. In addition, some TNCs mentioned that in order to help SMEs increase their participation in GVCs, support measures were added. Such measures include research facilities, support for certification, credit financing and training for export development. Finally, TNC managers expressed appreciation for the creation of a new industrial park in the vicinity of the Volkswagen Puebla plant, as well as three other parks established in the nearby state of Tlaxcala, where a large number of domestic suppliers are located. Volkswagen's network of suppliers in Tlaxcala encompasses 56 second- and third-tier suppliers, of which more than half are SMEs, employing almost 150,000 workers.

2. South Africa

10. Toyota has been South Africa's largest vehicle producer for some time, enjoying preferential access to local consumers thanks to the existence of high import tariffs. After South Africa's trade liberalization programme, which accelerated in 1994, a more open policy environment sought to encourage exports. However, Toyota South Africa (TSA) only recently began to explore export opportunities and joined Toyota Manufacturing Corporation's global sourcing system. This shift has allowed TSA to substantially increase its production. TSA established a plant to manufacture two models, Hilux and Corolla.

11. A key aspect of the restructuring process has involved increasing local value added. As the plant has shifted from producing seven different models, at relatively low volumes, to essentially two models at high volumes, it has managed, in some areas of the supply chain, to secure greater value added due to the high-volume component orders. All firms attested to growing levels of competition, in some cases facilitated by TSA seeking new suppliers that could meet more stringent technology, investment and quality standards. Most firms identified the most substantial competitive threats coming from either imported alternatives or from relocating transnational suppliers or their affiliates that owned original product or production technology. Even the two transnational-owned firms reported that it was not uncommon for operations within the same group, but located in different places, to compete for supply contracts. In this context, previous technology agreements have lost relevance.

12. SMEs felt that Government should pay more attention to skills development, immigration policy, investment incentives, technology development and labour law reforms. The bulk of the firms interviewed also believed that the Government should support inter-firm collaboration. In particular mechanisms such as the Benchmarking Club, put in place to reinforce the Durban Auto Cluster (DAC) which could be replicated.

B. The software sector

13. Software encompasses a vast array of products and applications. Many software products have a very low weight-to value ratio, which allows the relatively easy global relocation of segments of the production chain in different locations. In addition, control over technical standards is a critical factor that drives the development of GVCs. Leading firms can set standards which can lock in customers to their product lines. Software is also closely linked with telecommunication services, particularly with mobile phones and wireless. The software sector is made up of many SMEs with a few big players. These SMEs, particularly start-ups, typically employ less than 50 workers. The key factors for attracting foreign direct investment (FDI) in the software sector are the size of the domestic market, proximity to clients, the availability and scalability of the pool of skilled workers, and the types of existing software clusters.

14. Global software firms are the fastest growing in the world and often the most dynamic in terms of product and process innovation. They also provide the impetus to the growth of other sectors. Among developing countries, the main exporters of high technology and

information products and services include Brazil, China, India and Mexico. Egypt has the potential to join these ranks. The case study on Egypt revealed both its potential and the challenges its SMEs face in entering GVCs.

Egypt

15. The software industry has specialized in two areas: (a) firms that translate standard software products of leading brands into Arabic, including adapting the user interface; and (b) firms that offer a comprehensive support package to users of standard software in the region. This includes not only introducing and maintaining new software generations but also running call centres that support users of standard software, in particular the Microsoft product range. Egypt has many advantages as an offshore destination. The country is in the same time zone as Europe and boasts fibre-optic telecommunications with easy access to a very large telecommunications bandwidth that is much needed for outsourcing. Skills are available and labour costs are competitive. In addition, the software development market in the Middle East is growing very fast. The market is large enough to warrant custom applications and Arabic versions of major international software packages for users in Egypt and most of the Middle East.

16. Egypt dominates the regional market. More than 80 per cent of software development in the Middle East is performed by Egyptians either from Egypt or based in the Gulf. Competition among local companies is strong and drives a constant upgrading process, which has ultimately allowed some companies to attain the highest level of Microsoft's system accreditation. The case study shows that Egyptian partners have benefited from their association with Microsoft and they have leveraged that partnership to enter the Gulf market. Egyptian support partners are also serving Microsoft globally. However, many Egyptian firms lack the maturity to compete globally. Continued progress in software technology has also raised complex public policy issues such as access to information, national sovereignty and security, law enforcement and protection of the private sphere. In addition, the interviews highlighted the need to:

- (a) Establish a strong education system accompanied by ongoing vocational training in the private sector;
- (b) Initiate the build-up of clusters through science and technology parks with competitive tax and financial benefits for all firms, large and small alike; and
- (c) Create strong, formal linkages between national innovation and education systems within the country and internationally with "best practice" institutions.

C. The cinema and audiovisual sector

17. The major studios in the cinema industry simultaneously engage in four distinct business functions: financing, producing, distributing, and marketing and advertising of their film and television assets. Despite the dominant position of major Hollywood filmmaking studios, many SMEs are essential to the industry's operation, occupying important niches in the filmmaking and distribution process.

18. From top to bottom, the process is contract-driven. These contracts allow large and small enterprises to interact, usually on a project-by-project basis, and to opt out *ex ante* under normally well-defined stages and conditions. New technologies have also allowed the production of "realistic" animated movies, opening new options for production and post-production of conventional movies, for instance through the combination of human actors

and animated scenery. This has changed the structure of the value chain in cinema and TV, and created opportunities for new, specialized entrants.

19. The television industry has undergone profound change on the distribution side since the 1980s with the advent of satellite and cable television, which facilitated the proliferation of channels. This has spawned numerous local providers to distribute the media products. More recently, an important change was the move from analogue to digital formats in terrestrial satellite and cable distribution. For television providers, this is both a blessing and a curse. While it offers economic advantages, it also leads to an integration of “traditional” television distribution channels with more recent channels such as the Internet.

20. Two case studies have been carried out in the creative industries in Colombia and Nigeria.

1. Colombia

21. Colombia is one of the important suppliers of “telenovelas”, a television series format that has become popular in many countries, not only in Latin America. The popularity of these soap operas has contributed to the emergence of an audiovisual production industry in Colombia that generates what has been defined as a “highly sophisticated demand” (Porter, 1990). Companies interviewed in Colombia indicated that demand conditions from foreign customers are more stringent than local ones, and that there is a strong rivalry among local providers. The presence of a sophisticated demand is an important driver in the upgrading process of Colombia’s value chain in audiovisual production.

22. 3-D animation producers in Colombia act as first- or second-tier suppliers in the value chain. They are first-tier suppliers in the case of advertising agencies and national television channels, and second-tier suppliers in the case of post-production firms and national film producers. 3D-animation firms are fully independent regarding their choice of their own suppliers and production processes. Only in one case, a major United States-based television channel recommended the use of a supplier based in Brazil, but it was a recommendation rather than an obligation.

23. The level of interaction between clients and 3-D animation producers varies according to the type of client. Cluster development is occurring based on inter-firm cooperation and on geographical proximity. Among the key policy issues identified by firms interviewed are:

- (a) Promotion of local talent (most training for 3-D animation is provided by private universities and institutions, a major restriction for talented people who cannot afford high tuitions);
- (b) Tax reductions or credit facilitation for the acquisition of technology (hardware and software), since their end products are exported;
- (c) Lessening of visa restrictions imposed because of security issues, which hamper managers’ business travels; and
- (d) Facilitating employment of temporary foreign workers to benefit from their specialized skills from abroad.

2. Nigeria

24. SMEs are important players in the Nigerian film production and distribution industries. The country is the third-largest film producer after the United States and India, and the sector is dominated by SMEs. The diffusion of digital and communication technologies in the 1990s has accounted for its fast growth. Approximately 30 new titles are diffused every

week and an average film sells around 50,000 copies. A hit movie may sell several hundred thousand copies, at an average price of \$2 each, which is affordable for most Nigerians and allows producers to make a good return on investment. Currently, around 300 producers release between 1,000 and 1,500 movies per year. Nigerian directors are known to adopt new technologies as soon as they become available at an affordable price.

25. The case study investigates the Nigerian branch of a South African media company and the emergence of a Nigerian movie cluster called “Nollywood”, which draws on a number of native Nigerian movie stars. The Nigerian movie industry caters primarily to the local market, since movies are shot in different local languages, but English-speaking films are becoming increasingly popular. Movie content includes some of the usual types, such as romance, but also some more idiosyncratic, such as voodoo. The main distribution channels are videocassettes and video CDs. More recently, a South African media corporation, which holds the local monopoly for Hollywood movies, has entered the market. It runs the Hollywood movies on a small number of screens in shopping malls and distributes them on DVDs. The Nigerian Government encourages this corporation to support local movie producers. The company interviews revealed that the following bottlenecks are hindering SMEs: (a) lack of funding; (b) lack of organized industry and business associations; (c) inadequate skills and lack of professionalism; (d) lack of infrastructure; and (e) a weak distribution system.

26. Piracy is also a concern. The Government of Nigeria has committed to institutional strengthening of intellectual property protection. Key initiatives include increased funding for organizations such as the Nigerian Copyright Commission, the National Film and Video Censors Board, the National Broadcasting Commission and the Nigerian Film Corporation. The Minister of Information and National Orientation has created a fund for non-commercial films. However, these relatively recent initiatives will take time to develop positive results.

III. POLICY IMPLICATIONS

27. UNCTAD–OECD research provides useful insights in identifying priority areas for government intervention. There are obstacles that affect SMEs’ ability to enter GVCs both in developed and developing countries. These include: (a) the need to upgrade technology and innovation capacity; (b) the lack of adequate finance and human capital for this process; (c) the lack of capabilities to meet standards and certification requirements; (d) the necessity to better manage intellectual assets, including the protection of intellectual property rights (IPRs) when appropriate; (e) the difficult bargaining position SMEs face with large contractors; and (f) the need for diversification to reduce dependence on one or a few customers. Table 1 summarizes the policy issues which emerged from the case studies carried out by UNCTAD.

Table 1. Policy issues: Survey results

Case study	Policy issues
Automotive	
India – Tata Motors	SMEs need to improve their in-house technical capabilities, while maintaining the highest technical precision with efforts to reach a zero rate of rejection and honouring the delivery schedule. SMEs need access to the latest technical information and venture-capital for research and development R&D and new product development.
Mexico – Volkswagen	Local SME suppliers need greater support to undertake the learning process which allows them to meet global quality standards. SMEs would like to be represented in the bargaining process with Volkswagen in order to strengthen their position.
South Africa – Toyota	SMEs are concerned about their ability to upgrade and respond quickly in order to deliver products and production systems that are in line with expectations of Toyota in terms of quality and supply standards, and delivery times. SMEs draw attention to their need for increased skills development, investment, and technology development, as well as an increase in safety and security and improved infrastructure.
Software	
Viet Nam – IBM	SMEs are concerned with the slow implementation of the information and communication technology (ICT) development plan launched in 2005–2006. In particular, in the field of training, the reform implementation is slow and therefore local suppliers are failing to keep up with the demand. In general, SMEs consider that ICT training in Viet Nam is quite chaotic, and that some time will be needed before the necessary changes occur. In this respect, many expectations have been raised by the new 2006–2010 ICT development plan.
Egypt – Microsoft	In order to expand their market and growth, SMEs underline the need for a larger pool of qualified human resources, requiring a focused effort by the Government in higher education. Capacity-building activities for local companies to strengthen their management and technical capabilities would help equip them to compete more effectively. The general business environment could be improved by better delivery of government services and ensuring the enforcement of IPRs.
Film and audiovisuals	
Colombia – Caracol	SMEs would like to have a more business-friendly environment, including: (a) tax benefits for technology acquisition; (b) removal of travel restrictions for business purposes and restrictions on foreign workers in Colombia that hinder a firm's business development; (c) greater promotion of local talent; and (d) promotion of English language skills to facilitate companies' linkages with international television channels and networks.
Nigeria – Nu Metro	SMEs suffer from lack of basic infrastructure, which has led to high costs of doing business. Promotion of FDI, local investments and tax breaks would improve these financing difficulties. SMEs would like to see greater efforts to improve the regulatory environment, e.g. by more effective implementation of the laws protecting intellectual property.

Source: UNCTAD.

28. The table demonstrates that an enabling business environment is a necessary condition for promoting SMEs to integrate into the global market. A favourable business environment depends on stable macroeconomic policies and well-designed complementary policies in areas such as competition, international trade and investment, finance, labour and education, including human resources capacity-building for internationalization (OECD, 2007). The research also highlights the need for a coordinated approach by the different

institutions directly involved in building the enabling environment favourable to the integration of SMEs in GVCs. For policymakers, GVCs create a variety of challenges, and due to their nature and configuration, no single ministry can take charge of facilitating the integration of SMEs into GVCs. Formulating and implementing support programmes necessarily involve coordination between different ministries, and a close collaboration with the private sector and civil society.

29. The transparent and equitable application of laws and regulations together with streamlined and stable administrative procedures also represent an important pillar, encompassing bankruptcy laws, property rights, the tax system, the licence and permit system, standard compliance certification procedures and efficient dispute settlement procedures (OECD, 2007). However, there is also a need for Governments, the business community and international organizations to play a role in designing and implementing targeted assistance programmes to build capacity in SMEs, so that they can overcome the challenges of entering or upgrading their position in the GVCs. The following sections illustrate the main areas of policy intervention that may apply to GVC development initiatives.

30. The following sections review the main components of supply development programmes and policy measures that Governments can take to help SMEs better integrate into GVCs.

A. Skills development

31. One of the issues present through all the case studies is lack of adequate skills. For a sector such as 3-D animation in Colombia this is not surprising, since the sector and underlying technology are only emerging. What is mentioned in most of the case studies, however, is the delayed and inadequate response of public training institutions to new skills requirements and in some cases even to basic skills needs. The policy implications of the case studies in terms of skills development are not clear cut, as they depend on the status of the suppliers as well as the industry in which they are operating. In this respect, four different GVC scenarios can occur, which correspond to four different priorities in terms of the policy measures to be put in place.

32. The case study on car parts suppliers in South Africa illustrates the need for supporting companies under constant pressure, in a mature, globalized industry to continuously upgrade while at the same time reducing their prices. In this context, companies face the challenge of either meeting the substantial costs and risks of the internationalization process or being relegated to the role of second- or third-tier suppliers. To support SMEs that face such challenges, Government should ensure that adequate training facilities exist. Skill development centres that are flexible and responsive to the changing needs require support to provide SME employees the additional skills to serve the global market. In this respect, the South African approach is an example of best practice in responding to the needs of SMEs that constantly need to upgrade their workers' skills (box 2).

Box 2. The creation of Sectoral Training Authorities in South Africa

In 2004 the South African Government has re-launched the Sectoral Training Authorities (SETAs), a system meant to accredit training providers and their curricula, thus guaranteeing an adequate quality level. Each employer has to contribute to a sectoral training fund and can draw on this fund to pay for training courses. SETA represents an effort to create a skills development system that in principle is market-friendly and meant to respond to constantly evolving needs. Since the system depends neither exclusively or primarily on public sector training institutions, nor on government funding for training expenses, it has proven relatively robust against fluctuations in government budget allocations. However, companies revealed that it is a system that so far is not yet quite as agile and responsive as the business sector would like it to be.

Source: Meyer–Stamer (2007).

33. The case study on the car parts suppliers in Mexico points to the need for upgrading low-cost suppliers in mature industries, when an industry moves from the growth stage to the maturity stage and suppliers in the established locations start to suffer from a variety of cost disadvantages. Since buyers start to look for suppliers with a more favourable cost structure, an upgrading effort that aims at keeping domestic SMEs on the radar screen of global buyers must be based on the expectations and demands of buyers, as well as on the price structures of the SMEs' competitors. The main challenge is to put in place on-the-job training programmes for unskilled workers in special industrial zones such as the maquilas and provide a pool of sufficiently skilled workers who are willing to work at competitive wages.

34. To support emerging industries, policymakers should interact closely with lead companies and local entrepreneurs to create an enabling environment for start-ups and new economic activities. The demands on policymakers in terms of flexibility, agility and responsiveness are substantial. For example, the software sector in Egypt is connected to a GVC, though primarily at the downstream level, adapting existing software packages for the regional market. The challenge for Egyptian companies is to enter other segments of the software value chain, where, as the Indian experience shows, a much bigger potential for job creation and export earnings exists. For the Egyptian Government, an opportunity exists to further improve the education system in terms of agility and responsiveness, to tackle the serious skills shortages affecting the industry.

35. During the evolution of a new sector, virtuous circles are generated, such as in the Colombian 3-D animation case, where private trainers are starting to provide specialized and sophisticated training products. Governments can facilitate this process through demonstration effects, but they must be careful not to distort the market and damage the internal dynamism of the private sector. For example, the National University of Colombia recently offered the first postgraduate programme in animation in the country, and since then a trend towards an increased offer of 3-D animation private training courses took place. Indeed, in Colombia a clear opportunity exists to boost the growth of an emerging sector, thus further leveraging its strong position in the Spanish-speaking audiovisual market. In this respect, many firms see Proexport – the national trade and investment promotion agency – as the key institution to promote and position the Colombian 3-D animation business in international markets, through trade-fair participation and the organization of industry-specific events to promote local talent.

B. Technological upgrading

36. The case studies offer specific recommendations with respect to technological upgrading. Ultimately, the main trigger of innovation in SMEs is the foreign buyer or the lead firm in the GVC, which demands constant innovation from suppliers that want to remain in the GVC. Moreover, the lead firm will also indicate the overall direction of the innovation effort, both in process and product innovation. The most important action a Government can take to support SMEs to meet these requirements is the granting of incentives and the strengthening of the national innovation systems at a local, regional and sectoral level to develop R&D capacity. The active role played by the Egyptian Government in the country's rapid ICT growth is an interesting case (box 3).

Box 3. Government initiatives to support the ICT sector in Egypt

The Ministry of Communication and Information Technology (MCIT), has actively supported the ICT industry through various initiatives:

- (a) High Tech Business Parks (The Smart Village) have been established to provide enterprises with world-class infrastructures at a very reasonable cost.
- (b) Subsidies up to \$68 million are currently available to support training, marketing and technological development.
- (c) Partnerships have been made with major ICT firms such as Siemens, Alcatel and Cisco to train ICT engineering graduates.
- (d) Specific initiatives to make PCs available at a reasonable cost were undertaken (a PC for every student, household and teacher, etc.).
- (e) The "Free Internet" initiative to offer Egyptian users dial-up services to the Internet at the same cost as a local phone call (through a revenue-sharing agreement between Egyptian Internet Service Providers and Telecom Egypt).

Source: UNCTAD case study, by Assad (2007).

37. The Tokyo Action Statement (OECD, 2007) provides some practical measures to promote the capacity for innovation by local SMEs. These include:

- (a) Establishing logistic technology centres as demonstration and testing facilities to accelerate the rollout of supply-chain management technologies and processes, including the use of electronic tags for creating a seamless distribution network;
- (b) Facilitating the technological upgrading of products and processes through providing access to information on world best technologies and processes, and various financial support measures; and
- (c) Promoting partnerships between SMEs and organizations overseas that can develop or transfer world-leading technology, products, processes or management practices.

C. IPR protection

38. One of the issues covered in the survey was the relevance of IPRs. In some cases, in particular in the software industry in Viet Nam, the inability to enforce IPRs seems to be a major obstacle. In other cases, the issue was not considered to be particularly relevant by local SMEs. Interestingly, complaints were strongest in the car parts sector. Some OEMs do not have an ethical problem with handing blueprints of a component that has been developed by one supplier to another. The survey confirms that the majority of SMEs in developing

countries lack the necessary awareness and ability to fully protect and exploit their intellectual assets.

39. For SMEs in advanced economies, the link between innovation, intellectual property rights and funding is crucial. These SMEs not only need to protect their cutting-edge innovations from being copied, but also are dependent on IPRs to attract investment and commercialize their innovation (Jensen, 2005). The Tokyo Action Statement considers IPR reforms as essential to promote economic growth, and recommends Governments to enhance SMEs' value obtained from intellectual assets and intellectual property.

40. From a development perspective, evidence shows that strengthening IPR protection may have a positive impact on the attraction of FDI and technology transfer to developing countries (Lippoldt, 2005). Even though IPR protection is not a "silver bullet" for all development problems, the fact that a Government is starting to enforce copyright and anti-piracy laws may stimulate new economic activities, especially in emerging sectors. The box below illustrates the role played by the Nigerian Copyright Commission in reducing the high level of IPR violations in the cinema industry (box 4).

Box 4. Protecting IPRs in the cinema industry: The Nigerian case

The case study on the cinema industry in Nigeria revealed a strong need to reduce a high level of IPR infringements and violations. It is estimated that over 35,000 video clubs in the country rent out local and foreign movies without authorization. Piracy, especially counterfeiting, suffered a setback in recent years because of the aggressive strategies of the Nigerian Copyright Commission. Major efforts aimed at strengthening the regulatory environment include:

- (a) The approval of the Optical Disc Regulation, under the Nigerian Copyright Commission;
- (b) The establishment of the Motion Picture Council of Nigeria;
- (c) The "Nigeria in the Movies" initiative launched by the National Film and Video Censors Board;
- (d) The Strategic Action Against Piracy (STRAP) initiative launched by the Nigerian Copyright Commission, under which vigorous anti-piracy raids have taken place and pirated goods worth billions of dollars have been seized and destroyed; and
- (e) The revamp of the Video Rental Regulation by the Nigerian Copyright Commission to ensure all persons engaged in the business of rental, hiring, leasing and loaning comply with the guidelines and ensure that copyright owners receive due compensation for the use of their works.

Source: UNCTAD case study, by Ola (2007).

D. Quality and standards

41. Another issue that is highly relevant in the context of GVCs is compliance with standards. This refers both to product and process quality standards. Compliance with product standards can be verified by testing the product, while compliance with process standards requires regular audits of the production facility and is usually linked to process certification, e.g. ISO 9000. Some years ago, there was an expectation that generic standards such as ISO 9000 might be sufficient to guarantee consistent quality, but this proved not to be the case. Lead firms have been using a number of proprietary process standards or industry-specific standards. For SMEs, the cost of complying with many different standards, in particular regarding preparation for certification, can be substantial and sometimes unaffordable.

42. In advanced industrialized countries, elaborate systems of quality assurance, certification and accreditation have existed for a long time, and the cost related to this is relatively minor. Certification is an issue which is usually left to technical specialists and the

process is rarely perceived as a strategic variable. For instance, calibration of common measurement devices is conducted by specialized providers that operate in a competitive market where prices are low, often less than \$100 for an annual calibration. Likewise, numerous providers compete in the market for certification of quality management systems, and the cost of certification is limited to a few thousand dollars in the case of ISO 9000.

43. In many developing countries, the situation is quite different. Multi-layered certification, accreditation and calibration systems are only emerging. These specialized services are offered by monopoly providers at high cost. As a consequence, some developing countries have launched efforts to develop their national systems for certification, accreditation and calibration. What is alarming, though, is that many countries have not yet implemented a policy regarding standards, metrology and certification. This leaves companies in developing countries no option but to rely on costly experts and certification institutes based in industrialized countries (box 5).

Box 5. Reaching quality standards through international bodies in Mexico

The case of Volkswagen in Mexico shows that TNCs may be a key driver of technological development and quality upgrading. For example, in Puebla, Volkswagen imposed higher environmental rules and asked all its suppliers to become certified as clean plants by SGS European Quality Certification Institute. This has allowed the development of new standards for the Mexican industry, which started to then serve the United States market. Quality improvement also had positive side effects on overall exports, since the number of defects in production was reduced thanks to quality certification (ISO 9000, 2000, ISO/TS 16949, 2002). Volkswagen then started producing more sophisticated export models in Mexico.

Source: UNCTAD case study, by Ruiz Duran (2006).

44. In this context, Governments should focus on creating a regulatory framework that encourages the emergence of commercial providers who operate in competitive markets and thus drive down the price of services. The Tokyo Action Statement (OECD, 2007) proposed that Governments should support local suppliers undertaking the learning process, which allows them to meet global quality standards by:

- (a) Providing information and professional training to implement product quality standards required for exports;
- (b) Encouraging SME participation in the standard-setting process through the provision of information on standardization and accreditation activities;
- (c) Promoting the adoption of harmonized standards by TNCs in procurement procedures and the diffusion of that information to SMEs; and
- (d) Ensuring that national certification systems do not impose excessive burdens on small firms for compliance procedures and that group certification for small firms in local regions is promoted to lower costs while ensuring that there is trust in the control mechanisms as well as promoting labelling initiatives to give added, low-cost assurance.

E. TNC–SME linkages

48. The establishment of sustainable linkages between SMEs and TNCs is one of the most efficient ways to integrate domestic suppliers into GVCs. Not all developing countries, however, have been successful in promoting such linkages and in attracting foreign firms to invest in the local economy in the long term. The analysis of successful business linkages

programmes shows that linkages are dependent on the broader economic, social and cultural environment (UNCTAD, 2006b).

49. Governments can facilitate business linkages by improving the investment climate and providing strategic guidance and policy coordination. Specific promotion measures could target FDI aimed at strengthening the local absorptive capacity (UNCTAD, 2006c) as recommended in the São Paulo Consensus that recognized the importance for developing countries and economies in transition to “build stronger supply capabilities responsive to market demands, promote technology development and transfer, encourage enterprise networking, increase productivity and improve the competitiveness of their enterprises”.

50. From a technical assistance perspective, a variety of initiatives to promote linkages exists, from purely donor-driven and government-driven programmes, to public–private sector partnerships. For example, UNCTAD’s business linkage promotion programme is aimed at promoting the creation of durable and mutually beneficial partnerships between TNCs’ affiliates and large local companies on the one hand, and SMEs on the other, so as to enhance the productive capacity, efficiency, competitiveness and sustainability of their relationships. The programme is being implemented by a Business Development Services Centre as lead facilitator, typically UNCTAD’s EMPRETEC Centre, in collaboration with the local Investment Promotion Agency, selected TNCs and donors. There are also purely private sector-driven programmes, such as supplier development programmes carried out independently by TNCs in their own self-interest, and sometimes within their corporate social responsibility programmes. A well-developed entrepreneurship culture helps to build good quality local firms that can benefit from the presence of foreign firms. Appropriate technology and skills development also facilitate linkages.

Box 6. Tata Motors’s three-pronged strategy for linking with local suppliers

Tata Motors, the Indian automotive producer, is regarded as the leader in promoting the “ancillarization” of auto component suppliers, both at Jamshedpur and Pune, the two focal points for its manufacturing operations. Since 1962, its share in the manufacture of passenger cars and light and heavy commercial vehicles has been very significant. As India’s largest automobile exporter, it also has assembly operations in Malaysia, Bangladesh and South Africa. In 2004, it acquired Daewoo, a company from the Republic of Korea, manufacturing commercial vehicles.

To its well-knit network of local SME suppliers, Tata Motors offers a package of techno-economic support for vendor development, which includes the use of ICT and a value chain management (VCM) system. Tata Motors also took the lead in developing outsourcing components from the local SME suppliers. For the last three decades, it has been systematically developing and refining the system so as to encourage the suppliers to become global. Tata’s three-pronged strategy for developing linkages with local suppliers is based on the following pillars: (a) encouraging global technology partnerships (for components and systems); (b) improving capabilities and competencies (quality, productivity and cost); and (c) providing business opportunities (vendor rationalization).

Source: UNCTAD, 2005.

F. Clusters and territorial development

51. Business promotion activities and related policies are not only pursued by national Governments, but increasingly by local institutions. In a growing number of countries, local Governments and other actors develop economic initiatives, including cluster promotion. Such entities should also take into account the structure and evolution of GVCs to support the local suppliers. The survey shows that, for global buyers, clusters are easier to spot than an

individual producer. Clustered companies may also generate collective efficiencies that make them attractive for global producers (Meyer-Stamer, 2007).

52. For national Governments, it is important to encourage and support local economic development activities. Local actors are well placed to formulate and implement location- and cluster-specific promotion activities. For local actors, however, it is also important to operate globally, for example by sending out missions to investigate the demands of global buyers and by benchmarking their locations against comparable clusters elsewhere in the world. The Durban Auto Cluster in South Africa shows that successful results can be obtained by acting locally and thinking globally (box 7). Towards this goal, national Governments can, for instance, allocate funds to local development initiatives on a competitive basis, or offer capacity-building activities to local stakeholders (Meyer-Stamer, 2003).

Box 7. Stimulating cooperation in the Durban Auto Cluster in South Africa

Toyota suppliers in South Africa identified the Durban Auto Cluster (DAC), and in some cases the Benchmarking Club (operating in parallel to the DAC), as one of the more appropriate vehicles to facilitate inter-firm collaboration. Firms pointed to the considerable benefits they had gained from joint action. However, firms also felt there was a need to think about longer-term strategic interventions around which firms could collaborate. Such initiatives included specialist skills development in engineering and production management, as well as in product development. Apart from membership of the DAC, most of the firms belonged to at least another industry association. Among these, the National Association of Automotive Component and Allied Manufacturers (NAACAM) and the Steel and Engineering Industry Federation of South Africa (SEIFSA) have the largest number of subscribers. Firms saw these institutions as lobby groups, for example, in relation to negotiations or in relation to presenting industry views before various government forums. Whilst the associations did allow for some networking, they did not necessarily organize active inter-firm collaboration around matters related to meeting customer demands. However, it was the DAC and the Benchmarking Club that received the greatest endorsement from firms for their ability to add value. Some affirmed that if it had not been for the Benchmarking Club and the DAC, their company would not be able to survive or grow.

Source: UNCTAD case study, by Robbins (2006).

53. For Governments, a main challenge is to establish close communication with companies and clusters in growing industries that are already internationally connected. Such companies often do not entirely seek contact with Governments, which they sometimes perceive as an obstacle rather than a facilitator. There is little reason for them to lobby the Government for protection or support. Governments need to make an effort to build credibility within the private sector, to approach stakeholders in a constructive way, and to identify practical ways of providing support. The Tokyo Action Statement made specific recommendations for Governments to increase SME participation in GVCs through collective action and cooperation.

IV. CONCLUSIONS AND ISSUES TO BE ADDRESSED BY EXPERTS

54. Although it is difficult to establish common trends in the diversified universe of SMEs and across sectors and regions, the case studies provided new insights on increasing the participation and improving the performance of SMEs in GVCs. One result that stands out from the research is that successful participation in GVCs brings stability: small firms that are able to remain in value chain(s) despite keen global competition, or SMEs that succeed in “jumping on board”, are likely to witness an expansion of their business. This is

more often accompanied by upgrading of technological and human capital, as a result of a greater exposure and access to information, business practices and technologies. Cooperation within the chain is a key success factor that brings substantial benefits in terms of status, information flows and learning possibilities.

55. The case studies also suggest that the awareness of being part of a GVC is a function of the production activity in a given sector and/or the position of a firm in the chain. SMEs in the software sector, for example, are more apt to understand the structure of the value chain to which they operate than the average SME in other sectors, for which the concept of GVCs is not always easy to grasp. This is likely related to the complexity of the configuration of the value chain (as in the cinema sector), or to the fact that SMEs occupy lower positions in the chain, and therefore they have limited knowledge beyond the surrounding environment (SME suppliers in the automotive sector). Building awareness is an essential starting point of any government intervention to increase the participation of local suppliers in GVCs.

56. Overall, the large body of literature available on GVCs shows that in a globalized economy, competitive advantages can be created in any sector. Some developing countries have developed highly successful export sectors even in traditional commodities. Exports of horticulture or fresh fruits thrive because of their close ties with global buyers. Elsewhere, such as in Nigeria and in Colombia, audio-visual industries offer new interesting export opportunities. Thus, policymakers need to understand opportunities both in mature and emerging sectors in their economy that offer SMEs the potential to integrate into GVCs. It is important for developing country Governments to review their existing SME promotion and export promotion activities and to adapt them to the new reality and requirements of global markets.

57. Finally, domestic suppliers need to constantly upgrade and innovate to maintain their competitiveness when operating within GVCs. Governments which aim at increasing SME competitiveness need to develop long-term rather than short-term measures. Policy support could be provided for technological upgrading and for increasing domestic value added to achieve, maintain and upgrade international competitiveness in increasingly sophisticated products and services.

58. Experts at the meeting are invited to consider the following questions:

- (a) Would the business environment reforms alone be sufficient to increase the participation of SMEs in GVCs?
- (b) What other policy options could be considered to increase and maintain developing country SMEs' participation in GVCs?
- (c) How can Governments address SME supply-side constraints in their development plans, and how can donor agencies and private sector partners work together to relieve these constraints?
- (d) How can opportunities be created and capacity of local SMEs be strengthened to ensure successful participation and upgrading in GVCs?
- (e) What are the "best practices" in successful supplier development programmes? What policy lessons can be learnt from these practices?
- (f) What policies and institutions have been effective in promoting clusters and linkages between TNCs and local firms?
- (g) How can supplier development programmes incorporate the creation of clusters and linkages?

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