

How Firm Benefits Influence Subcontracting Arrangements between Small and Medium Enterprises, and Large Firms in the Motor Vehicle Manufacturing Industry in Kenya

Beatrice Auko Okatch

Chair

Business Administration Department
Faculty of Commerce and Distance Learning
KCA University
P.O Box 56808-00200 Nairobi:
Kenya

Dr Elegwa Mukulu

Director

School of Human Resource Development
Jomo Kenyatta University of Agriculture and Technology
P.O Box 62000-00200 Nairobi:
Kenya

Dr Luke Oyugi

Senior Lecturer

School of Human Resource Development
Jomo Kenyatta University of Agriculture and Technology
P.O Box 62000-00200 Nairobi:
Kenya

Abstract

The purpose of this study was to determine if firm benefits influence subcontracting arrangements between large firms and small and medium enterprises (SMEs) in the motor vehicle manufacturing industry in Kenya in order to establish the reasons for the gap in those arrangements. The sector was chosen for the study because of the government's selection of the sector to promote subcontracting arrangements between small and medium enterprises and large firms in Kenya. Secondly, the sector was chosen because of the complexity of the motor vehicle industry with one motor vehicle comprising about 10,000 component parts, all of which would be difficult for one company to manufacture in-house. The research was mainly qualitative but quantitative data was also used. Content analysis approach was used to analyze the qualitative data and descriptive statistics to analyze the quantitative data. Data was collected from two of the three motor vehicle assembles in Kenya, nine out of thirteen franchise holders and 66 of the 72 component parts suppliers who are mainly small and medium enterprises. The results indicate that the level of subcontracting that takes place in the motor vehicle manufacturing industry is minimal. This is motivated mainly by a desire to remain in the good books of the government. The big enterprises are not willing to buy component parts from local suppliers and especially not local SME suppliers mainly due to the inability of the SMEs to supply quality products to schedule, lack of local suppliers for certain parts, the proliferation of makes and models and competition from imported second hand vehicles from Japan and Europe. The proliferation of makes and models also requires frequent technological changes which both assemblers and SMEs owners find difficult to keep up with. The study recommends that the government should reduce the age of imported second hand vehicles to not more than five years, find a way of compelling the franchise holders and assemblers to buy parts locally and put in place appropriate policies regarding the sector. SMEs should also acquire up to date technology and become more competitive.

Key words: Motor vehicle assemblers, franchise holders, subcontracting, large firms, Small and medium enterprises.

Introduction

One of the main determinants for the success of SME growth and development is the establishment of useful linkages between large enterprises and SMEs through subcontracting arrangements (UNCTAD, 2001; Kumar & Subrahmanya, 2007).

Subcontracting involves purchase-supply relationship where SMEs are the subcontractors who deliver product or service to the contractors, for the production requirements of the latter as per their specifications (Kumar & Subrahmanya, 2007). In this case the motor vehicle assemblers and franchise holders are the contractors while the subcontractors are the SME component parts manufacturers. The importance of SMEs to large firms in manufacturing is well documented, though more prominently in south East Asia than in African countries. Andersen (1999), reported that employment expansion of large firms attributed to the growth of small firms ranged between 40% and 53% for Korea, the Philippines, Turkey and Taiwan, and 67% and 70% for India and Colombia respectively, achieved mainly through subcontracting relationships. There is a possibility that these figures could be higher, considering that it is difficult to measure the subcontracting activity in many developing countries, due to the informality and lack of records in the SSE sector. It is also made difficult by the lack of a clear definition of the full extent of the varieties and impact of subcontracting. In other developing countries, assessment of the contribution of SMEs in real economic terms has been difficult due to the informality of the sector and due to the neglect of the sector by the government (ILO, 2005).

Small and medium enterprises (SMEs) play a predominant role in most developed and developing countries not only because of their number and variety and their involvement in all segments of the economy but more importantly, their role in employment creation (Baseline Survey, 1999; Thitapha, 2002; Kumar & Subrahmanya, 2007). The Poverty Reduction Strategy Paper (Republic of Kenya, 2001 – 2004), states that the potential of small and medium enterprises (SMEs) in both employment creation and raising incomes for many Kenyan families makes them an important element in the poverty reduction strategy. According to the Economic Survey (Republic of Kenya, 2008), overall, the economy generated 469 thousand new jobs in 2006 – 2007 financial years, an increase of 5.7 from the previous year. A large population of this labor force was absorbed in the informal sector which generated 418 thousand jobs. In the following year, the informal sector created 426.9 thousand new jobs in 2007 compared to 420.4 thousand jobs in 2006. An estimated 8, 33.5 thousand persons were engaged in informal sector economic activities in 2009, an increase of 4.9 per cent from the 2008 level. The sector has always provided the necessary employment interface between the modern sector and small scale farming and pastoral activities. The ease of entry into the sector has made it a fall back opening for those leaving training institutions as they await to join the modern sector, for those leaving the modern sector and for those who cannot secure formal employment due to lack of appropriate skills (Republic of Kenya, 2010).

However despite the important role of SMEs, the sector is plagued by a number of concerns. According to Thitapha (2000), SMEs, especially in developing countries, have been exposed to intense competition due to the accelerated process of globalization which brings out the need for SMEs to develop competitiveness for their survival as well as growth. SMEs, in general are constrained in terms of infrastructural sources such as technology, finances, marketing and human resources, gender inequality, limited access to information and limited linkages to large enterprises, among others, according to Sessional Papers No2 (Republic of Kenya, 1992; 2005). The ability of SMEs to compete in the global market depends on their access to these resources and those SMEs which have better access to these infrastructural resources are able to exhibit better economic performance (Jenkins et al, 2007). One of the main determinants for the success of SME growth and development is the establishment of useful linkages between large enterprises and SMEs through subcontracting arrangements (UNCTAD, 2001; Kumar & Subrahmanya, 2007). The contribution of SMEs to the economies of developing countries is mainly emphasized in manufacturing. International Labour Organization (2005), for example, shows that small scale enterprises made up 95% of all registered enterprises in the manufacturing sector of developing countries. Subcontracting relationships with large enterprises, provides SMEs with a better scope for accessing these resources, and offers them a short cut to enhancing productivity and other non-price determinants of domestic and international competitiveness (Meyn, 2004).

Large Enterprises

Globalization has generated both new markets and competitive forces for large firms. Constant pressure to reduce costs, shorten lead time and focus on core competences has driven firms to change their supply chain management strategies. Most large manufacturing companies now buy significant percentages of their inputs of both goods and services from other firms, with some spending as much as half of their revenues this way. Managing the supply chain for an optimal mix of cost, quality, flexibility and strategic advantages such as access to innovation is becoming an increasingly important source of competitive advantage (Hermann, 2005).

Cost pressure and presence in developing countries combine to create an interesting set of opportunities and challenges for Trans National Companies (TNCs). How to gain the local knowledge and contracts required for operating effectively? How to optimize cost, quality, flexibility and other considerations in the value chain? How to manage any social or political controversy surrounding company activities? How to preserve “social license to operate”? The message is clear. Companies need to be seen to be contributing and not simply exploiting (UNCTAD, 2006). There has, therefore, been an urgent need to forge stronger ties with the local communities in which these TNCs operate. While these challenges are particularly pronounced for foreign firms with alliances in developing countries, they are relevant to domestic developing country firms as well (ILO, 2005; Jenkins et al, 2007; Kumar & Subrahmanya, 2007).

In developing countries, business linkages with local SMEs, including procurement, distribution and sales, offer large firms an avenue through which to address some of these concerns. These relationships can allow large firms to reduce input costs while increasing specializations and flexibility. They can also increase local integration and “rooting:” providing access to local knowledge, and, by spurring growth and development in the local SME sector, bringing about positive social and economic impacts in the wider community. There are thus both competitiveness and corporate social responsibility arguments in favor of business linkages (Kumar & Subrahmanya, 2007). Large enterprises operating in developing countries can forge linkages with local SMEs in many different areas of their value chains. These opportunities may include procurement, agricultural out growers’ schemes, manufacturing, sales of financial services, information and communication technologies, distribution and retail outgrowing, non core functions and services franchising, leasing and subcontracting (UNCTAD, 2006).

Structure of the Motor Vehicle Assembly Industry in Kenya

The motor vehicle assembly industry in Kenya consists of four distinct categories of participants. The first category consists of the three assemblers: Kenya Vehicle Manufacturers (KVM), Associated Vehicle Assemblers (AVA), and General Motors East Africa (GMEA). The first two firms are contract assemblers while General Motors (EA), is a franchise holder as well as an assembler. GMEA is the only assembler that does not contract assembly services to anyone else. All of the assemblers have a government shareholding together with some of the major franchise holders in Kenya. The second category consists of 13 franchise holders, better known in Kenya as importers of the completely knocked- down- kits (CKDs). They hold licenses to import and assemble and distribute motor vehicles on behalf of principle car manufacturers in Japan France, Italy, United Kingdom, Germany and others. About half of these have some shareholding interests in at least one of the assembly plants. Also, there are distributors who merely provide outlets for major franchise holders.

The third category is the auto ancillary sub sector comprising a variety of independent SMEs who supply the industry with assembly and replacement parts. However, because the assemblers import as complete a CKD kit as possible and import most of the other inputs, this category has tended mostly to serve the replacement market. Yet it is in this category that prospects for a wide range of small enterprises are found. The fourth category consists of body fabricators who play quite a vital role in subcontracting in the motor vehicle industry in Kenya. The service and repair sub-sector constitutes a fifth category that, while vital for the industry, is not directly linked into the assembly or auto ancillary sub sectors. In Kenya, this latter category employs perhaps, the largest number of the small enterprise workers in the motor vehicle industry (Kenya Association of Manufacturers, 2006). The total installed production capacity of the three motor vehicle assemblers is 23,200 vehicles on batch basis. In the 2004, the total utilization of the assembly plants by the three assemblers was only 28.5%. The capacity of the three motor vehicle assembly plants is, grossly underutilized. This hinders subcontracting within the industry as local subcontracting depends on the amount of local assembly taking place.

Statement of the Problem

In no other industry has subcontracting been as extensively used as in the motor vehicle industry. One possible explanation for this could be that, apart from the service inputs, a typical vehicle model, for example, uses at least 10,000 different parts of components (Womack et al, 1990). Subcontracting, therefore, seems to be a logical production organization since no single manufacturer could possibly provide all these parts internally. It would appear, therefore, that the very nature of the technical process of motor vehicle manufacturing necessitates linkages involving several firms. The Government of Kenya has deliberately attempted to develop the assembly of motor vehicles by requiring assemblers to shift from semi knocked down kits (SKD) to completely knocked down (CKD) levels of assembly (Republic of Kenya, 1986).

Nevertheless, low demand for vehicles on the domestic front, and the absence of a long term strategy to foster transition from assembly to manufacture, have limited the growth of the sector and its ancillary sub-sectors. Currently, the sector is plagued by importation of cheap second hand reconditioned vehicles and a proliferation of makes and models.

Until the establishment in 1991 of the Kenya Subcontracting and Partnership Exchange (KSPX) to promote industrial subcontracting in the country, Kenya had not taken deliberate steps to utilize the linkages between large and small businesses. Recognizing the potential of the motor-vehicle industry for external sourcing and subcontracting activities, and in view of the successful experiences of this sector in industrial development in Europe (Becattini, 1991) and in Japan (Sato, 2000), the government selected the automotive industry as the pilot sub sector for the initial promotion of the Kenya Subcontracting Partnership Exchange (KSPX) activities and inter-firm linkages in industry. The KSPX was set up in 1991 by the Kenya government with the help of United Nations Development Programme (UNDP), to bring together large, medium and small enterprises in a formal interaction (UNDP/Republic of Kenya Project Document, 1990), and to build a data bank to facilitate these activities. It was expected that its linkages with the various membership organizations assisting business people will ameliorate this situation.

However, according to Sessional Paper No. 2 (Republic of Kenya, 2005) and the Private Sector Development Strategy Paper (Republic of Kenya, 2006 -2010), the current situation is that linkage between Kenya's SMEs and large firms is weak. As a result, Kenyan SMEs remain passive and underdeveloped. Research has shown that linkages between large firms and SMEs can enhance the growth and competitiveness of the latter and provide the much needed employment (McCormick & Atieno, 2002; Thitapha, 2002; UNCTAD, 2006; Kumar & Subrahmanya, 2007). Yet, firm to firm linkages in the form of franchising, leasing, production complimentaries, subcontracting and other inter-firm linkage opportunities between large firms and SMEs, is still untapped in Kenya (Masai,1991; Republic of Kenya, 1992; 2005; 2006-2010; Masinde, 1996). Despite the importance of business linkages in promoting the growth of SMEs, empirical research on subcontracting is inadequate. This paper is an attempt to narrow the information gap.

Previous research on subcontracting in Kenya has concentrated on other sectors namely: the Pharmaceutical Sector (Owino, 1991), the Metal Fabrication Sector (Oketch, Mitullah, & Atieno, 2002), the Garment Manufacturing Sector, (Ongile & McCormick, 1996), the Food Processing Sector (McCormick & Atieno, 2002). The only studies conducted on subcontracting in the motor vehicle sub sector in Kenya were done much earlier by Masai, (1991), and Masinde, (1996). No recent studies have been carried out. The study by Masinde (1996), points out that effort to rationalize the industry and encourage assemblers to procure some of their inputs locally through subcontracting had not been very successful. Yet there exists an inherent capacity for subcontracting arrangements in the industry and it is, therefore, important to explore the reasons for the reluctance of the assemblers and franchise holders to enter into subcontracting arrangements with local SMEs. This paper is an attempt to bridge that information gap.

Literature review

Benefits of Subcontracting to SMEs

Inter-firm linkages between vertically related firms involve coordination of the activities through continuous mutual exchange of information (Lall & Mortimore, 2000). These linkages are more important for less developed countries where technological capacity is limited and where the market itself cannot provide the necessary means for potential suppliers to reach an adequate level of technological and managerial competence. Economies of scale are ideally combined with the flexibility of small enterprises in supplier relations to have a well-balanced structure of enterprise sizes. SMEs can profit from this situation in a number of ways. Large enterprises, in addition to opening up new markets for SMEs, facilitating a regular receipt of payment and relieving SMEs development and marketing tasks, can be an important impetus for modernization and growth (Altenburg, 1999). The typical economic logic of large-small subcontracting lies in the fact that large firms can do some things better than small ones but other things less well (Berry, 1997).

The main constrains on SME development in developing economies are poor access to markets, market information, raw materials, capital, modern technology, managerial skills, sufficient production facilities and others. TNC parent firms, through subcontracting systems, may provide better access to these resources (Hayashi, 2005).

According to Hondai (as quoted in Hayashi, 2002), the main benefits SMEs can obtain from subcontracting transactions with large scale parent firms are: (a) the reduction of information and transaction costs through subcontracting ties, which includes easy and cheap acquisition from large scale parent firms of new technologies, product design, production process, management methods, marketing and input materials (b) the reduction of risks and uncertainty and an increase in expected rate of profit as a consequence of stable orders and better payment conditions and (c) the improvement of credit worthiness (Kumar & Subrahmanya, 2007). Inter-firm linkages are characterized by the diffusion of technology and skills to suppliers, customers and institutions with which they have direct dealings. Most industries have dense vertical networks of information exchange and cooperation to facilitate production, planning and technology development. Firms outsource components and services more than they ever did and they have more close collaboration with suppliers and buyers in their technological efforts. Globalization gives such collaboration an international dimension with supply contracts extending over national boundaries, suppliers following their customers overseas and having new suppliers operating in cheaper areas (UNCTAD, 1999).

Large Enterprises and Knowledge Transfer to SMEs

The comparative advantage of most developing countries lies traditionally in primary commodities and unskilled-labor-intensive manufactures. Over time, as they grow and accumulate these resources, it brings out the need for them to upgrade their primary and labor-intensive exports into higher value added items and they have to move into new, more advanced export-oriented activities. But this up gradation requires greater inputs of skill and technology. Countries can attain these objectives in several ways: by improving and deepening the capabilities of domestic enterprises, by tapping into large firms networks as conduits for trade, or by attracting FDI into export activities and upgrading these activities over time. These strategies may be complementary or alternatives. In most cases they are found together but different countries deploy different combinations of domestic enterprise-led and FDI - led export development (UNCTAD, 1999).

Inter-firm linkages are especially important in developing countries where technological capacity is often underdeveloped and where the market does not provide the means for potential suppliers to reach adequate levels of competence in technology or management (Iversson & Alvstam, 2004). Many large enterprises, also referred to in this study as Transnational Companies (TNCs), are setting up their production bases in developing countries where better conditions of manufacturing (mainly labor and infrastructural conditions) prevail to have advantages of productivity and distribution. Technology transfers from industrialized to these developing economies are to a large extent based on local inter-firm linkages arising from the regular production of these TNCs, and not just from more advanced R & D operations (Iversson & Alvstam, 2005). Various institutional mechanisms created by these assembler firms can play a major role in upgrading the skills of the suppliers, thus transforming the supply chain into a learning chain (Okada, 2004).

Trans National Companies transfer technologies in two ways: internalized to affiliates under their ownership and control, and externalized to other firms. Internalized transfer takes the form of direct investment and is, by definition, the preserve of large enterprises. Externalized modes of transfer by TNCs take a variety of forms: minority joint ventures, franchising, capital goods sales, licenses, technical assistance, subcontracting or original equipment-manufacturing arrangements. TNCs are not the only source of externalized technology, of course. But they are very important in high-technology activities and in providing entire “packages”, that is, technology together with management, marketing and so on, External technology transfers can have a high potential to contribute to technology upgrading, since local firm can more easily absorb, adapt, improve the acquired technology, given that they have the capabilities to undertake efficient earning (UNCTAD, 1999).

Backward linkages involving subcontracting can provide one of the major benefits that developing countries seek from large enterprises in the form of stimulation of local firms as suppliers of components and semi-processed goods and materials as per the specification of the large enterprises. These linkages can play a major role in the creation, growth and technical development leading to the independent existence of the linked enterprises (Kumar & Subrahmanya, 2007). But large enterprises demand high levels of technological capabilities and other performances from the suppliers and hence domestic suppliers face tougher competition from international supplier companies that follow their large enterprise customers abroad. A major share of the local procurement by large enterprises in developing countries is from their traditional “follow-source” suppliers, headquartered in the industrialized countries (Iversson & Alvstam, 2004; Meyn, 2004).

But at the same time, large enterprises accepting the institutional preconditions of host countries of choosing local suppliers to be present in the local market, investigate whether some of the imposed local suppliers, through technological transfers, can be upgraded to become global suppliers within the internal production network of the large enterprises (Iversson & Alvstam, 2005). The most important decision for large enterprises regarding the linkages is sourcing: the purchase of inputs, components and services from local as opposed to foreign suppliers. Sourcing decisions of foreign firms depend only on relative cost, quality and delivery, and reliable information on supplier capabilities. All other things being equal, firms prefer local procurement because proximity lowers transaction costs, allows for close monitoring and gives greater flexibility in changing specifications and developing new inputs. Face-to-face contacts with suppliers are essential where building of trust through direct interaction is crucial because of tight technical specifications and quality of products and processes. For these reasons, as long as the costs of doing so are lower than resulting savings, firms invest in helping local suppliers upgrade their technology (UNCTAD, 1999). Large enterprises that can be powerful sources of demand for the output of local SME suppliers can be more effective than linked domestic firms in enhancing capabilities and quality of these suppliers to international levels by transmitting technical or market information, skills, finances and other forms of assistance. Benefits that TNCs transfer in terms of financial, technological and human resources will provide the supplier firms access to state-of-the-art technologies and to large international markets (Lall & Mortimore, 2000).

Technological assistance can be mainly of two categories: for product related technology and process related technology (UNCTAD, 2001). Product-related technology transfers include the provision of propriety product know-how, product designs and technical specifications, technical consultations with suppliers to help the latter master new technologies and regular feedback on product performance. Process-related technology transfers include the provision of machinery and equipment, technical support in product planning, quality management, inspection and testing, and advice on tooling, maintenance, production layout and operations. Moreover, large enterprises can also transfer organizational and managerial know-how related to inventory management, delivery and logistical systems. Large enterprises may also offer training to their suppliers and assist them by sharing business information, not only their own business plans, but also on general technical, market and business matters (Aw, 2001). Large firms can continue the upgrading of management and organization systems in host countries through beneficial spillover effects on local firms (suppliers, buyers and competitors). This has been particularly noted for Japanese large enterprises investing in other overseas countries and it is also true of developing host countries where foreign investors have often triggered the adoption of modern management techniques (Lall & Mortimore, 2000). Subcontracting linkages between host firms and large enterprises are of great importance to the developing countries because they provide a means of diffusing valuable knowledge throughout the economy not only through direct flows to the linked firms but also by ways of spillovers to other firms in the economy. Spillovers can take place through demonstration effects, mobility of trained labor, enterprise spin-offs and competition effects (UNCTAD, 2001).

Technological assistance provided by large enterprises to small, inexperienced suppliers has more impact on performance as compared with the same assistance to large, experienced, international suppliers with substantial in-house resources (Iversson & Alvstam, 2004). Hence SMEs of developing countries should make use of the assistance that they are able to receive through subcontracting relationship with large enterprises for their development. According to Aw (2001), a study done on subcontracting in Taiwan, China, established that even small firms are able to subcontract the production of many of their components. This means that they do not have to spend much on fixed assets such as machinery, which in turn, reduces the cost of exiting the market.

Benefits of Subcontracting in the Motor Vehicle Industry

Many researchers have investigated the role of SMEs in the economic development of a country and some of the studies have analyzed the role of inter-firm linkages, especially subcontracting, in the development of SMEs. Based on experiences in East Asia economies, Hayashi (2005), consolidates the major benefits extended to SMEs through subcontracting relationship with large enterprise firms as follows: a) guaranteed purchase of parts and components produced by SME supplier over a long period of time; b) provision of raw materials and intermediate inputs contributing to a saving in scarce working capital for SMEs and provision of technical assistance and second-hand equipments to SMEs enabling them to improve on quality, cost and delivery of products. Hayashi (2002) indicated the positive role of vertical inter-firm cooperation, involving subcontracting, in improving productivity of Indonesian SMEs.

Small and medium enterprises with limited human and financial resources have difficulty to acquire technology, develop markets and arrange financing by themselves. Collaborative inter-firm linkages with large firms help SMEs to overcome these limitations. Deardorff and Djankov (2000), exploring the importance of subcontracting as a source of knowledge transfer and increase efficiency for the Czech firms, found out that there was a positive correlation between subcontracting and knowledge transfer which resulted in increased firm efficiency. Iversson and Alvstam (2005), using the study of suppliers of AB Volvo in four countries, revealed the evidence of technology transfer to domestic suppliers even when follow-source suppliers have captured the dominant part of the local purchases by the foreign TNC. Even relatively, short-term relationships can generate important benefits for domestic suppliers when long-term relationships are very much important for close, inter-firm learning and collaboration between customers and suppliers (Kimura, 2001).

Iversson and Alvstam (2004), using the study on the business relationship of Volvo Trucks, and its suppliers, showed that the technological assistance given by contractor to suppliers to the long term improvement of the suppliers with enhancement of productive and flexibility. Volvo contributed to improved performance of suppliers by introducing international quality product and processed standards, helping them to meet more stringent requirements. Most important areas in which Volvo gives assistance is in the introduction of new product technology and designs along with new process technologies leading to improved product and process quality. Improved technological competence can also spill over to process technologies used for the production of components supplied to other customers and to production layout as a whole. Volvo's assistance had improved suppliers' relations with other customers and good-will and reputation benefits of being an approved Volvo supplier have enhanced customer base. By gaining access to new components and raw materials and through the experience gained from manufacturing new customer-specific components, the suppliers also strengthened competitiveness in India as well as export markets.

The introduction of stringent international quality standards and new process technologies to first-tier suppliers was also passed on to second-tier suppliers, thereby contributing to long-term improvements among the small companies that make up the lower tiers of Indian auto-component sector. A report by UNCTAD (1999), based on the empirical study from India, Peru and Morocco, indicates that backward linkages by large enterprises can be important to a developing economy for increasing local production and upgrading local industrial capacity by way of transfer of technical knowledge to small local suppliers and upgrading of their products. Okada (2004), revealed the significant role that inter-firm linkages played in fostering workers' skill of domestic suppliers, particularly small firms of India in the globalization era. Changes in the patterns of skill development of suppliers reflect the formation of close supplier relations entailing performance-based reciprocity, similar to the Japanese model. Frequent interactions between customers and suppliers through various channels ensured rapid information flow leading to quick diffusion of knowledge, skills and values among suppliers. This type of collaborative reciprocal relationship between assemblers and suppliers transformed the supply chain into a learning chain.

Firms should develop innovative capabilities for their survival in the era of global competition. Firms rely on their internal capabilities and or their external linkages as the sources of innovation. Technological innovation capabilities of a firm have a positive effect on competition performance of that firm (Yam, et al, 2004). Empirical evidence shows that large firms tend to rely more on internal factors like formal R&D and accumulated technology (Yin and Zuscovitch, 1998) while small firms rely more on external linkages with customers and suppliers for their innovations (Lee, 1995). Soderquist et al. (1997), based on the study of innovation in French SMEs, consider demands placed on business by customers/clients, close working relationship with a key customer, and input from their own R&D department as the most relevant sources for successful innovation in product/service.

Rothwell (1991) explains, based on the data on SMEs of UK that subcontract, that manufacturing can be an important means of gaining access to new production technologies for many small firms and can enable firms to innovate products requiring new production techniques, without having to invest initially heavily in expensive, sophisticated production equipment. Most of the SMEs, which are basically subcontractors for other companies, do not perform R&D in any formal sense and much of their technology is derived from their customers. Engaging in external technical and other linkage activities can increase the technical, market and managerial know how of the small firm and can form an important part of its overall innovatory activities leading to competitiveness (ILO, 2005).

Methodology

The overall objective of this study was establish if firm benefits have any effect on subcontracting arrangements between small and medium enterprises (SMEs) and large firms in the motor vehicle manufacturing industry in Kenya so as to establish the reasons behind the gap in subcontracting in Kenya. The specific objectives were: 1) to establish the benefits derived by large firms from the subcontracting arrangements; 2) to establish how small enterprises benefit from subcontracting arrangements with large firms; The study adopted mainly a qualitative approach although some quantitative data was also included. Kothari (2005) states that typically, qualitative research is concerned with the assessment of attitudes, opinions, demographic information, conditions and procedures. The purpose is to portray an accurate profile of events or situations. The approach provides an insight into attitudes of the parties involved in subcontracting. The qualitative data was analyzed using conceptual content analysis. Content analysis is a qualitative research tool used to determine the presence of certain words or concepts within the text. It uses inductive reasoning by which certain words, patterns, concepts, phrases, themes emerge from raw data. Kombo and Tromp (2006), propose use of themes to analyze qualitative data. Gaskill (2001) used the same approach. The theme categories evolved during data collection but the researcher ensured that the categories are relevant to the research questions of the study. Descriptive statistics was used to analyze the quantitative data. A census was conducted on the 88 businesses in the motor vehicle manufacturing industry consisting of three motor vehicle assemblers, 13 franchise holders and 72 component parts suppliers (mainly SMEs and a few large companies engaged in supplying the first two groups with component parts). Managers of two assembly plants and of nine franchise holders were interviewed. 66 suppliers filled and returned questionnaires. The study was conducted between November, 2009 and July 2010.

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Large Enterprises and Knowledge Transfer to SMEs

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Over time, as they grow and accumulate these resources, it brings out the need for them to upgrade their primary and labor-intensive exports into higher value added items and they have to move into new, more advanced export-oriented activities. But this up gradation requires greater inputs of skill and technology. Countries can attain these objectives in several ways: by improving and deepening the capabilities of domestic enterprises, by tapping into LEs networks as conduits for trade, or by attracting FDI into export activities and upgrading these activities over time. These strategies may be complementary or alternatives. In most cases they are found together but different countries deploy different combinations of domestic enterprise-led and FDI - led export development (UNCTAD, 1999). Inter-firm linkages are especially important in developing countries where technological capacity is often underdeveloped and where the market does not provide the means for potential suppliers to reach adequate levels of competence in technology or management (Iversson & Alvstam, 2004). Many large enterprises, also referred to in this study as Transnational Companies (TNCs), are setting up their production bases in developing countries where better conditions of manufacturing (mainly labor and infrastructural conditions) prevail to have advantages of productivity and distribution.

Technology transfers from industrialized to these developing economies are to a large extent based on local inter-firm linkages arising from the regular production of these TNCs, and not just from more advanced R & D operations (Iversson & Alvstam, 2005). Various institutional mechanisms created by these assembler firms can play a major role in upgrading the skills of the suppliers, thus transforming the supply chain into a learning chain (Okada, 2004). Trans National Companies transfer technologies in two ways: internalized to affiliates under their ownership and control, and externalized to other firms. Internalized transfer takes the form of direct investment and is, by definition, the preserve of large enterprises. Externalized modes of transfer by TNCs take a variety of forms: minority joint ventures, franchising, capital goods sales, licenses, technical assistance, subcontracting or original equipment-manufacturing arrangements. TNCs are not the only source of externalized technology, of course. But they are very important in high-technology activities and in providing entire “packages”, that is, technology together with management, marketing and so on. External technology transfers can have a high potential to contribute to technology upgrading, since local firm can more easily absorb, adapt, improve the acquired technology, given that they have the capabilities to undertake efficient earning (UNCTAD, 1999).

Backward linkages involving subcontracting can provide one of the major benefits that developing countries seek from large enterprises in the form of stimulation of local firms as suppliers of components and semi-processed goods and materials as per the specification of the large enterprises. These linkages can play a major role in the creation, growth and technical development leading to the independent existence of the linked enterprises (Kumar & Subrahmanya, 2007). But large enterprises demand high levels of technological capabilities and other performances from the suppliers and hence domestic suppliers face tougher competition from international supplier companies that follow their large enterprise customers abroad. A major share of the local procurement by large enterprises in developing countries is from their traditional “follow-source” suppliers, headquartered in the industrialized countries (Iversson & Alvstam, 2004; Meyn, 2004). But at the same time, large enterprises accepting the institutional preconditions of host countries of choosing local suppliers to be present in the local market, investigate whether some of the imposed local suppliers, through technological transfers, can be upgraded to become global suppliers within the internal production network of the large enterprises (Iversson & Alvstam, 2005).

The most important decision for large enterprises regarding the linkages is sourcing: the purchase of inputs, components and services from local as opposed to foreign suppliers. Sourcing decisions of foreign firms depend only on relative cost, quality and delivery, and reliable information on supplier capabilities. All other things being equal, firms prefer local procurement because proximity lowers transaction costs, allows for close monitoring and gives greater flexibility in changing specifications and developing new inputs. Face-to-face contacts with suppliers are essential where building of trust through direct interaction is crucial because of tight technical specifications and quality of products and processes. For these reasons, as long as the costs of doing so are lower than resulting savings, firms invest in helping local suppliers upgrade their technology (UNCTAD, 1999). Large enterprises that can be powerful sources of demand for the output of local SME suppliers can be more effective than linked domestic firms in enhancing capabilities and quality of these suppliers to international levels by transmitting technical or market information, skills, finances and other forms of assistance. Benefits that TNCs transfer in terms of financial, technological and human resources will provide the supplier firms access to state-of-the-art technologies and to large international markets (Lall & Mortimore, 2000).

Technological assistance can be mainly of two categories: for product related technology and process related technology (UNCTAD, 2001). Product-related technology transfers include the provision of propriety product know-how, product designs and technical specifications, technical consultations with suppliers to help the latter master new technologies and regular feedback on product performance. Process-related technology transfers include the provision of machinery and equipment, technical support in product planning, quality management, inspection and testing, and advice on tooling, maintenance, production layout and operations. Moreover, large enterprises can also transfer organizational and managerial know-how related to inventory management, delivery and logistical systems. Large enterprises may also offer training to their suppliers and assist them by sharing business information, not only their own business plans, but also on general technical, market and business matters (Aw, 2001). Large firms can continue the upgrading of management and organization systems in host countries through beneficial spillover effects on local firms (suppliers, buyers and competitors). This has been particularly noted for Japanese large enterprises investing in other overseas countries and it is also true of developing host countries where foreign investors have often triggered the adoption of modern management techniques (Lall & Mortimore, 2000).

Subcontracting linkages between host firms and large enterprises are of great importance to the developing countries because they provide a means of diffusing valuable knowledge throughout the economy not only through direct flows to the linked firms but also by ways of spillovers to other firms in the economy. Spillovers can take place through demonstration effects, mobility of trained labor, enterprise spin-offs and competition effects (UNCTAD, 2001). Technological assistance provided by large enterprises to small, inexperienced suppliers has more impact on performance as compared with the same assistance to large, experienced, international suppliers with substantial in-house resources (Iversson & Alvstam, 2004). Hence SMEs of developing countries should make use of the assistance that they are able to receive through subcontracting relationship with large enterprises for their development. According to Aw (2001), a study done on subcontracting in Taiwan, China, established that even small firms are able to subcontract the production of many of their components. This means that they do not have to spend much on fixed assets such as machinery, which in turn, reduces the cost of exiting the market.

Benefits of Subcontracting in the Motor Vehicle Industry

Many researchers have investigated the role of SMEs in the economic development of a country and some of the studies have analyzed the role of inter-firm linkages, especially subcontracting, in the development of SMEs. Based on experiences in East Asia economies, Hayashi (2005), consolidates the major benefits extended to SMEs through subcontracting relationship with large enterprise firms as follows: a) guaranteed purchase of parts and components produced by SME supplier over a long period of time; b) provision of raw materials and intermediate inputs contributing to a saving in scarce working capital for SMEs and provision of technical assistance and second-hand equipments to SMEs enabling them to improve on quality, cost and delivery of products.

Hayashi (2002) indicated the positive role of vertical inter-firm cooperation, involving subcontracting, in improving productivity of Indonesian SMEs. Small and medium enterprises with limited human and financial resources have difficulty to acquire technology, develop markets and arrange financing by themselves. Collaborative inter-firm linkages with large firms help SMEs to overcome these limitations. Deardorff and Djankov (2000), exploring the importance of subcontracting as a source of knowledge transfer and increase efficiency for the Czech firms, found out that there was a positive correlation between subcontracting and knowledge transfer which resulted in increased firm efficiency. Iversson and Alvstam (2005), using the study of suppliers of AB Volvo in four countries, revealed the evidence of technology transfer to domestic suppliers even when follow-source suppliers have captured the dominant part of the local purchases by the foreign TNC. Even relatively, short-term relationships can generate important benefits for domestic suppliers when long-term relationships are very much important for close, inter-firm learning and collaboration between customers and suppliers (Kimura, 2001).

Iversson and Alvstam (2004), using the study on the business relationship of Volvo Trucks, and its suppliers, showed that the technological assistance given by contractor to suppliers to the long term improvement of the suppliers with enhancement of productive and flexibility. Volvo contributed to improved performance of suppliers by introducing international quality product and processed standards, helping them to meet more stringent requirements.

Most important areas in which Volvo gives assistance is in the introduction of new product technology and designs along with new process technologies leading to improved product and process quality. Improved technological competence can also spill over to process technologies used for the production of components supplied to other customers and to production layout as a whole. Volvo's assistance had improved suppliers' relations with other customers and good-will and reputation benefits of being an approved Volvo supplier have enhanced customer base. By gaining access to new components and raw materials and through the experience gained from manufacturing new customer-specific components, the suppliers also strengthened competitiveness in India as well as export markets.

The introduction of stringent international quality standards and new process technologies to first-tier suppliers was also passed on to second-tier suppliers, thereby contributing to long-term improvements among the small companies that make up the lower tiers of Indian auto-component sector. A report by UNCTAD (1999), based on the empirical study from India, Peru and Morocco, indicates that backward linkages by large enterprises can be important to a developing economy for increasing local production and upgrading local industrial capacity by way of transfer of technical knowledge to small local suppliers and upgrading of their products. Okada (2004), revealed the significant role that inter-firm linkages played in fostering workers' skill of domestic suppliers, particularly small firms of India in the globalization era. Changes in the patterns of skill development of suppliers reflect the formation of close supplier relations entailing performance-based reciprocity, similar to the Japanese model. Frequent interactions between customers and suppliers through various channels ensured rapid information flow leading to quick diffusion of knowledge, skills and values among suppliers. This type of collaborative reciprocal relationship between assemblers and suppliers transformed the supply chain into a learning chain.

Firms should develop innovative capabilities for their survival in the era of global competition. Firms rely on their internal capabilities and or their external linkages as the sources of innovation. Technological innovation capabilities of a firm have a positive effect on competition performance of that firm (Yam, et al, 2004). Empirical evidence shows that large firms tend to rely more on internal factors like formal R&D and accumulated technology (Yin and Zuscovitch, 1998) while small firms rely more on external linkages with customers and suppliers for their innovations (Lee, 1995). Soderquist et al. (1997), based on the study of innovation in French SMEs, consider demands placed on business by customers/clients, close working relationship with a key customer, and input from their own R&D department as the most relevant sources for successful innovation in product/service. Rothwell (1991) explains, based on the data on SMEs of UK that subcontract, that manufacturing can be an important means of gaining access to new production technologies for many small firms and can enable firms to innovate products requiring new production techniques, without having to invest initially heavily in expensive, sophisticated production equipment. Most of the SMEs, which are basically subcontractors for other companies, do not perform R&D in any formal sense and much of their technology is derived from their customers. Engaging in external technical and other linkage activities can increase the technical, market and managerial know how of the small firm and can form an important part of its overall innovatory activities leading to competitiveness (ILO, 2005).

Results and discussion

The production capacity of two of the three motor vehicle assembling plants in Kenya is clearly underutilized (see Table 1 below) pointing to a gap in subcontracting arrangements between SME suppliers and their large firm buyers. Could firm benefits be a contributing factor to this?

Table 1: Plant capacity utilization of General Motors (EA) and Kenya Vehicle Manufacturers (2009)

Name of Assembling plant	Installed Capacity	Vol. of Assembled vehicles (2007)	Capacity Utilization %	Vol. of Assembled vehicles (2008)	Capacity Utilization %	Vol. of Assembled Vehicles (2009)	Capacity Utilization %
GMEA	7,100	2,629	37	2700	38	1993	28%
KVM	6,600	1,108	17	980	15	900	13.8%
Totals	13,600	3,737	54	3680	53	2893	41.8%

Benefits of Subcontracting to buyers

The objective of the study was to establish the benefits derived by both large firm buyers and their SME component parts suppliers in the motor vehicle manufacturing industry in Kenya. As established by the study, large firms derive minimal benefits from engaging in subcontracting arrangements with local SMEs hence their reluctance to source locally. Although the managers of the large firms indicated that local sourcing reduced cost in terms of machinery, equipment and personnel required for in-house production, leaving the franchise holder/assembler to concentrate on the core business. Decisions to externalize or internalize transactions were made not necessarily with cost reduction in mind, but because of the need to remain in the good books of the government as a way of ensuring access to import licenses for the supply of CKD kits. However, even in cases where cost was an important consideration, for example, in the case of choosing between alternative suppliers, the actual selection of the supplier was not predicted on lower costs, but rather on who was willing to supply on the terms stated by the buying firm, particularly those assuring the buyer of good quality products, delivered on time and who could cope with technological demands of the buyer.

It appears that the major benefit derived by large firms who source locally is the lead time required between making an order and delivery for use in the production system. Sourcing from foreign suppliers requires, on average, three to six months lead time, yet the fluctuations in demand are significantly shorter than three months. At the same time, opportunities for holding large inventories in CKDs are limited. This means that it is difficult to respond quickly the fluctuations in demand patterns since inputs (including CKD kits) have to be built into the production system at least three months in advance. This situation implies that franchise holders and assemblers have a critical internal incentive to source locally as much as possible. Another benefit of local sourcing was that some local parts were more suited to the poor status of our local roads. An example of this is leaf springs which can withstand the poor condition of the local roads better than imported ones. They therefore make the vehicle more suitable for local use to end users specifications. Local sourcing also means avoiding the tedious documentation involved in importation of parts. Local parts are also cost effective to use as pointed out by several of the managers interviewed because of the low quality of the Kenya shilling which makes importation of parts costly. Local sourcing is also beneficial because the assembler/franchise holder do not have to pay import duty.

Benefits by SME suppliers

SME suppliers benefit from the subcontracting arrangements than do large firms. Almost all the suppliers admitted that the franchise holders and assemblers assisted them in some way (see Table 2). To the majority (77%), the assemblers and franchise holders provide a much needed market for their goods. This was followed by 21% who indicated that the assemblers and franchise holders provided them with training, technical assistance and promotion of business. The other forms of benefits include credit assistance to meet the contract, a number were provided with machinery while a small percentage (6%) indicated that they had not received any help from the buyers.

Table 2: Benefit of subcontracting to the SMEs

	Large Firms	Medium Firms	Small Firms	Distributors & Stockists	Dealers, Sales & Service	Manufac-turing	Total
Provide steady business/market	26%	12%	39%	18%	18%	41%	77%
Provides capital	8%	2%	12%	8%	6%	18%	21%
Marketing/Promotion of business/Advertisements and/or compliments and technical assistance	6%	3%	12%	3%	5%	14%	21%
Provides Training	2%	3%	8%	5%	3%	5%	12%
Offer credit/efficiency	0%	0%	6%	2%	2%	3%	6%
Does not help at all	2%	0%	5%	2%	0%	5%	6%
Provides machinery	2%	2%	2%	3%	0%	2%	5%
After sales/supplies services & repairs and research for expansion	3%	0%	0%	0%	0%	3%	3%
Total	33%	12%	55%	23%	21%	56%	100%

The SMEs were, apparently, not satisfied with the various ways in which the assemblers and franchise holders aided them. They wished the buyers could offer more help than currently provided (this is summarized in Table 3). This leads the study to conclude that suppliers, especially SME suppliers, feel that their fate is in the hands of the buyers. They feel that if they have to do better, help has to come from the government, the franchise holders or assemblers. This kind of attitude does not augur well for the SMEs in the country. The push to stay competitive and survive in a business world that becomes more competitive by the day due to globalization should originate with them.

Table 3: Other ways in which the suppliers want benefit from the arrangements

	Large Firms	Medium Firms	Small Firms	Distributor & Stockist	Dealers, Sales & Service	Manufacturing	Total
Priority to local products and giving prolonged contracts to sustain us in the business	11%	2%	11%	3%	3%	17%	23%
Provide market research and technical training through seminars etc on new technology and feedback on products performance for improvement	6%	5%	6%	5%	3%	9%	27%
Facilitate/guarantee loans and/or make up front part payment upon orders	0%	0%	5%	0%	0%	5%	5%
Adherence to contractual obligations and control of price fluctuations	2%	0%	2%	0%	2%	2%	3%
Prompt payment upon delivery of goods and services	0%	0%	3%	2%	0%	2%	3%
Total	18%	6%	26%	9%	8%	33%	50%

Discussion of Major Findings

This study revealed that one of the major benefits that SME suppliers derive from the large firms was that large firms provided a steady market for their products. This concurs with the findings of a study carried out in East Asia economies by Hayashi (2005), which found that one of the major benefits extended to SMEs through subcontracting relationship with LE firms is guaranteed purchase of parts and components produced by SME supplier over a long period of time. Some SME firms in Kenya such as LSHS, Impala Glass Ltd, Megh Cushions Ltd and Chloride Exide are some of the suppliers that have had a steady relationship with buyers in the motor vehicle industry for a very long time. Hayashi (2002) indicated the positive role of vertical inter-firm cooperation, involving subcontracting, in improving productivity of Indonesian SMEs. Small and medium enterprises with limited human and financial resources have difficulty to acquire technology, develop markets and arrange financing by themselves. Collaborative inter-firm linkages with large enterprises help SMEs to overcome these limitations. Deardorff and Djankov (2000), exploring the importance of subcontracting as a source of knowledge transfer and increase in efficiency for the Czech firms, found out that there was a positive correlation.

These findings are supported by the findings of this study which established that SME suppliers are given technical specifications, and designs from the parent company by the franchise holders so that they can copy the design to specification, and improve their product quality. This translates into knowledge transfer from large enterprises to SMEs at the end of the day. Iversson and Alvstam (2004), using the study on the business relationship of Volvo Trucks, and its SME suppliers, showed that the technological assistance given by contractors to suppliers led to the long term improvement of the suppliers with enhancement of their productivity and flexibility. Kenyan SMEs, as this study established, are not really given technological assistance by large enterprises, but as mentioned above are assisted with designs and samples to copy. Volvo contributed to improved performance of suppliers by introducing international quality product and processed standards, helping them to meet more stringent requirements. This goes for Kenyan suppliers as well, as established by this study.

Before a local supplier can be awarded a contract, the buyer ensures that the supplier can meet the parent company standards and specifications. In GMEA, for example, there is a supplier evaluation form used for analysis of suppliers before a contract is awarded.

A report by UNCTAD (1999), based on the empirical study from India, Peru and Morocco, indicates that backward linkages by large enterprises can be important to a developing economy for increasing local production and upgrading local industrial capacity by way of transfer of technical knowledge to small local suppliers and upgrading of their products. Okada (2004), revealed the significant role that inter-firm linkages played in fostering workers' skill of domestic suppliers, particularly small firms of India in the globalization era. Changes in the patterns of skill development of suppliers reflect the formation of close supplier relations entailing performance-based reciprocity, similar to the Japanese model. Frequent interactions between customers and suppliers through various channels ensured rapid information flow leading to quick diffusion of knowledge, skills and values among suppliers. This type of collaborative reciprocal relationship between assemblers and suppliers transformed the supply chain into a learning chain. The findings of this study does not quite concur with above results as it found that although the relationship between buyers and suppliers in Kenya is not collaborative but adversarial, the frequent interaction between the two sides results in rapid information flow resulting in quick diffusion of knowledge skills and values among Kenyan SME suppliers.

As Rothwell (1991) explains, based on the data on SMEs in the UK that subcontract, manufacturing can be an important means of gaining access to new production technologies for many small firms and can enable firms to innovate products requiring new production techniques, without having to invest initially heavily in expensive, sophisticated production equipment. Most of the SMEs, which are basically subcontractors for other companies, do not perform R&D in any formal sense and much of their technology is derived from their customers. The findings of this study concur as the SME suppliers in the study admitted that they benefit from the R&D done by the large firms.

Conclusions

To achieve more lasting solutions, institutional and policy support is required to improve the assemblers' confidence in the capabilities of suppliers, particularly SMEs. The government must take measures to rationalize the industry and remove policy and institutional impediments which make small suppliers riskier and more expensive for the assemblers. The proliferation of makes and models must be controlled, while providing institutional support for small firms in the ancillary sub sector by removing impediments in the import licensing system. Further, smaller firms need to understand the principal reasons why large firms are reluctant to deal with them. For these local small firms to benefit, the government must focus on removing the policy impediments which prevent the assemblers from using local suppliers of parts, components and services.

Assemblers and franchise holders, therefore, appear to have little incentive to procure their requirements locally, particularly from small manufacturers, unless the government intervenes. Yet, according to current thinking, government should reduce its regulatory role in industry, and should, instead, provide a conducive policy and institutional framework for the sector. The current dependency of the motor industry on the government legislation requiring assemblers to procure certain items locally is a manifestation of the fragile relationship between buyers and suppliers in the sector and the lack of commitment of large buyers towards supplier development, owing to lack of incentives. It is apparent that there is need for incentives within the sector's environment itself, rather than government regulations and controls. This may have been a sound strategy in the business environment prevailing ten or more years ago, but it is no longer feasible in an environment where market forces predominate.

Recommendations

The following specific recommendations can be made. The minimum age of imported second hand vehicles should be changed from the current eight years to five years. Such vehicles will be more expensive and people will be motivated to buy locally assembled vehicles as Motor vehicle assemblers should be encouraged to use local suppliers and locally manufactured products and only import those parts that are not available locally. This should involve specific efforts to motivate assemblers and franchise holders to source voluntarily from local SMEs. The study revealed that it is the perceived inherent weakness of the capacity of local SMEs that has that has hindered more linkages with them. One of the most important starting points is an evaluation of the supply side of the ancillary sector in order to highlight the weakness of the suppliers as perceived by the buyers.

Comments by respondents regarding their perception of SME suppliers, in the words of one manager are that “they are ineffective and insufficient for our needs”. Approaches which have helped ameliorate such deficiencies in other countries include strategies which reduce the atomization of small firms through networking and clustering at industry and enterprise levels. In Kenya, this is even more critical, given the atomization and weakening of small firms, particularly African owned small firms. It was interesting to note that all suppliers in this industry are Asians. The only African was the one given space in the assembly yard at GMEA to make and supply seats for locally assembled vehicles. Thus, in strengthening the supply side as well as motivating the buyers to source locally, policies must be put in place to address the institutional frame work to strengthen the capacity of SME component suppliers.

There is need for the government to support the sector by sourcing all its major vehicle requirements locally. These include not just the Government ministries but also its major departments. By so doing, it would not just be the assemblers, but many downstream producers of components for local assembly and spare parts would also benefit from such a policy. This would also indirectly support upcoming small scale operators in the informal sector, which would have a cheaper for their spare parts requirements, arising out of the support given to local component manufacturers to produce at higher capacities. Stiff competition due to the massive importation of second hand motor vehicles, which started with liberalization of the economy in 1993, has reduced the capacity utilization in vehicle assembly plants drastically. A major loophole has been the valuation method used to determine the dutiable value, which leads to under- invoicing. There is need to make the valuation clear and transparent.

The government must provide guidance within a sound, well articulated industrial policy, for industrial development in general, and the development of the motor vehicle industry in particular. As things stand, it is difficult to identify a specific and coherent policy towards the sector. It is therefore the role of the government, in consultation with the concerned parties, to set out the policy aspirations. Also, it is critical that the participants of the sector come together regularly to decide how best to develop the sector within the articulated policy framework. A supporting environment must be put into place. The study revealed that while large firms have an inherent capacity to outsource from local firms, there were no incentives in the environment to encourage this. For example, the proliferation of makes and models continues to prevent a rationalization of production organization in the industry. This is aggravated by the importation of cheap second hand vehicles. In turn, the parts and components sub sectors are not able to cope with the complexity and variety of requirements of the replacement market. Consequently, it is difficult to accumulate experience to meet the quality standards demanded by assemblers and franchise holders. If this vicious cycle is to be broken, it is imperative that the rationalization programme proposed in the 1980s be enforced seriously, and the importation of cars be limited.

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