

## Conclusions and Recommendations

The business relationships within an industrial sector, or between different sectors, are very similar to a living organism such as a plant or the human body. Food is taken in, digested, processed, absorbed, burned, and then discharged. If any one part or organ malfunctions, the organism has a problem.

It follows then that if any one business function fails, the entire operations will suffer. Activities such as purchasing, procurement, processing, production, sales, distribution, aftercare services are inter-related actions. An inefficient, unproductive relationship within or between any of these activities may lead to the decline and eventual termination of the business, which translates into a loss for society as a whole.

East Asia changed its industrial structure, shifting from a natural resource-based structure to an industry-based one through early policy directives that emphasized an outward-orientation in trade and investment. As a consequence of this change, the size and structure of industries as well as business establishments was fundamentally altered. The relative share of SEs, in terms of employment and output, shrank during the initial import-substitution period due to the favorable treatment of LEs. However, this lost share was recovered and ultimately increased during the economic liberalization period. The development of SEs was accelerated by government initiatives through fiscal and financial incentives. It was, however, the introduction of the subcontracting system that allowed industries to form efficient supply chains among subsectors which greatly benefitted the development and growth of SEs.

In Brazil and Mexico, however, the last thirty years have witnessed a continuing decline of SEs because of policies biased toward LEs and priority industries. Since Latin America's economic opening up is well under way, the SEs might rebound as they did in East Asia. Yet the market forces alone do not necessarily bring forth this result. It is vital that well-guided policies for SEs be formulated, primarily because

SEs have neither conventional access to financial resources nor ready access to new technology.

The development of supporting industries, namely, SEs which supply parts and components to MEs and LEs, is crucial to the development of modern industries. The creation of well-interwoven networks, in terms of flows of products and information, reduces costs and saves time, thereby assisting in the production of competitive, high-quality goods. This relationship is not only applicable between parts suppliers and assemblers, but also between export producers and large distributors or retailers, or between manufacturers and service industries.

The initial success of the *bolsa* system (subcontracting exchange service) in Mexico through the local chamber of industry in metalworking is very exciting (the same system was also tried in Brazil through SEBRAE). This system is well established in Europe, in countries such as Spain and France, so that its diffusion to Latin America is promising.

In the quest of increased quality and productivity, the in-house production measures of the Far Eastern method (FEM) will likely be highly beneficial if adopted in Latin America. Measures worth trying include quality control circles, continuous improvement, job rotation, and just-in-time inventory control. The applicability of these measures is universal. The essence of FEM is that information is shared among participants. This horizontal flow of information avoids segmented decision making, allowing participants to react quickly to contingencies and emergencies. With today's efficient supply chains, the standardization, uniformity, and synchronization of production is critical. Each parts-and-component firm must upgrade its performance to the required level of quality, price, delivery, and other services.

As is well-known in business and political spheres, macroeconomic stability is a requisite base for carrying out business activities. In this respect, governments must maintain sound economic policies on price, interest rates, wages, and exchange rates.

As free trade and free market forces blossom, goods, capital, (and labor) will move freely, crossing national boundaries according to comparative advantage. But comparative advantage is not a static notion. Investment moves according to factor prices and exchange rates, thus new economic ties are born. What is important to the middle-income countries like Brazil and Mexico (as well as Colombia, Venezuela, Argentina, and Chile) is their investment in neighboring countries to form multi-layered economic ties.

In summation, to succeed at the factory level in today's business climate, companies need to form human chains through horizontal information flows. At the industry level, the formation of factory chains, or intra- and inter-industry chains through subcontracting arrangements is necessary. And at the country level, the formation of country chains, or intra- and inter-regional chains through trade and investment is required. By creating or expanding these connections and chains, businesses, industries, and countries throughout the world will be able to provide products and services that are efficiently produced, of high quality, and are competitive in the world marketplace.

*Policy recommendations*

Since most measures designed to increase quality and productivity, particularly in-house production techniques, are brought forth through the efforts of the private sector, and are microeconomic in nature, the recommendations presented here will address only government-initiated measures, meaning those measures that address the larger economic picture.

(a) The nurturing of SEs and SMEs is fundamental to the development of a balanced industrial structure which in turn is a framework leading ultimately to more efficient production and higher competitiveness. Thus financial and fiscal incentives must be provided to these enterprises. However, this assistance should be furnished only in the initial stage because of the relatively high profit ratio that SEs ultimately generate. Once SEs have been set up, public assistance should no longer be necessary.

(b) The formation of supply chains is crucial. It is now known that subcontracting is more common in Latin America than what was earlier believed, even for firms not involved in exports. In this context, the *bolsa* system, which is the matchmaking of SEs and LEs, should be extended and widely adopted through indirect government support to chambers of commerce and industry or to other industrial associations.

(c) As to the training of workers, entrepreneurs prefer on-the-job training. However, for general education, additional support for technical high schools is necessary and demanded because skilled workers, particularly middle-level technicians, are in short supply. At the shop level, these middle-level technicians are a treasury of new ideas in the *kaizen* process. Governments must emphasize the strengthening of technical high schools and vocational courses.

(d) The middle-income countries function as both receptors and transmitters of investment and technology. Such countries as Mexico and Argentina should be prepared to shift its investment into neighboring countries in the near future as cost structure dictates. It is crucial for a region as a whole to form a "multi-tiered" interdependent structure. An external as well as an internal chain structure will enhance intra-regional trade through a new dynamic comparative advantage.

(e) In today's society, information and telecommunication systems advance very rapidly. Entrepreneurs (and consumers) now require the formation of industrial networks. Entities such as banks, trading houses, chambers of commerce and industry, consumer centers, government agencies must be connected, almost always electronically. New infrastructure to develop these information and telecommunication systems is of dire need. Governments must renovate outdated infrastructure systems. Without modernization success will be fleeting.