SECTION 43
QUALITY IN LATIN AMERICA

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FROM ECONOMY TO QUALITY

The industrialization process began to accelerate in Latin America in the late 1950s. At that time, business leaders responsible for results (company presidents, general managers, owners) became involved in management processes as never before. They were very interested and eager to learn about the elements of business management—marketing, finances, costs, and personnel. They had only a minor interest in quality control. Most of their time was devoted to lobbying the government on matters of trade and to negotiating on labor issues with very strong unions. The degree of their interest in any subject varied according to the then-current level of inflation, economic activity, price and salary controls, import duties, taxes on exports, foreign exchange controls, interest rates, and the probability of devaluation of the local currencies. The leaders also had to deal with the huge government-owned monopolies (all financed with big government deficits) on which their businesses relied for various vital products and services. The most important of these were oil (extraction, production, and distribution), utilities (electricity and water supply), communications, transportation, and steel. With so many monopolies under its control, government, also a major buyer, had many suppliers, thus exerting another form of influence on the economies of the region. Therefore, it is not surprising that business leaders were totally occupied with the effects of government regulations and controls.

At any given moment, a reliable indicator of which business factors were the critical ones was to be found in the categories of experience sought in the help-wanted advertisements in the newspapers. One day the advertisements might stress commercial experience; the next day, financial; the day after, government relations.

Latin America has a long history of able entrepreneurs who knew how to ensure the growth, profitability, and, even in difficult times, survival of their companies. Many of them did it with success, despite an uncertain and even hostile business environment.

Quality and excellence were not critical factors in the business environment of the period from 1950 to 1980. In that economic environment, industrial growth happened largely because of government protection; soft loans were available at terms that amounted to a subsidy to promote investments in local production during periods of high inflation and high import duties. With some exceptions, quality, both in products and services, was below international standards.

Quality control was a subject of interest only within the factory. The people who became the quality pioneers in Latin America were engineers and other technical professionals working in local factories. They became very interested in the manufacturing improvements being reported, mainly in the United States of America, and were eager to learn about the new techniques being credited for those improvements.

As early as 1959, the American Society for Quality Control (ASQC) and, later, the European Organization for Quality (EOQ) and the Japanese Union of Scientists and Engineers (JUSE) helped to develop new professional societies in Argentina, Brazil, Chile, Colombia, and Mexico. During the 1960s and 1970s, experts from the United States, Europe, and Japan belonging to these organizations and to the International Academy of Quality (IAQ) gave courses and participated in conferences that were supported by leading companies. But presidents and general managers did not attend. They did not regard quality as a critical business factor; indeed, it was difficult to dispute this opinion in a time of financial crisis.

In the years 1989 to 1992, when annual inflation reached 2500 percent in Brazil and 1700 percent in Argentina (where it peaked at around 96 percent per month in March 1992), the entire attention and energy of chief executives had to be focused on financial measures to preserve their enterprises. The price of inattention was bankruptcy. The legacy of the prevailing economic system was enormous deficits in government budgets, deficits in the balance of trade, and ongoing crippling inflation.

In the 1980s, Latin America went through dramatic changes. On the political side, military governments were replaced by democratic governments. On the economic side, governments were forced by the severe monetary crisis and the requirements of a highly competitive global economy to carry out economic reforms based on free-market principles.

The most important changes were

- Privatization of government monopolies
- Improvement of the national infrastructure, both in quality and productivity, in response to the needs of business
- Reduction of regulations
- Reduction of government budget deficits (to zero in some countries)
- Control of inflation at low levels
- Reduction of customs duties for finished products, raw materials, and equipment
- Opportunity for businesses to increase participation in international trade, due to trade agreements such as NAFTA (North American Free Trade Agreement, the trade agreement of 1993, which reduced trade restrictions among Canada, Mexico, and the United States) and MERCOSUR (the common market between Argentina, Brazil, Paraguay, and Uruguay), and to lower customs import duties on equipment and raw materials
- A significant increase in private-sector capital investments
- Introduction of government policies conducive to competitiveness.

Throughout the region, the fact that free elections brought democratic candidates to office was widely interpreted as a social consensus of support for these many changes.

The economic environment changed dramatically, and with it changed many rules of the game for business. Many companies and institutions did not survive the crisis; either their cultures changed dramatically or they were succeeded by altogether new companies. As the environment changed, the interest of most CEOs shifted from survival issues to strategies for improving business competitiveness. Quality, productivity, and cost became the key strategic issues. For the first time, presidents and general managers in many companies became directly involved in quality programs—within the company and at the national level. However, there are still many owners and CEOs to convince, especially in the millions of small- and medium-size companies (SMCs) that account for about 40 percent of the gross industrial product of Latin America and which employ around 60 percent of its work force.

According to a 1995 study: "In a nutshell…Chile and Argentina led the revival of Latin America" (*The World Competitiveness Report* 1995). Brazil, Colombia, Peru, and Mexico also showed significant economic improvements over the period 1990 to 1995. (Mexico suffered political and economic setbacks in 1994 and 1995, and is working its way back to health in these areas.)

THE EVOLUTION OF QUALITY: A COUNTRY-BY-COUNTRY REVIEW

The recent history of quality in Latin America is a history of four critical factors:

1. Business competitiveness
2. The economic climate
3. CEO involvement
4. Participation of quality professionals

ARGENTINA

The Business Foundation for Quality and Excellence (FUNDECE). In the early 1980s, some CEOs foresaw the changes that were approaching in the economy. In 1987, after meeting informally for a few years, they founded the Business Foundation for Quality and Excellence. Its mission is

1. To promote the improvement of the competitiveness of business through the implementation of formal quality efforts. FUNDECE emphasizes the importance of the commitment and involvement of CEOs.
2. To improve the quality of life through education, health care, and government services.

Membership in FUNDECE is open only to CEOs. Experience suggests that CEOs listen to and share ideas easily with other CEOs. Only CEOs can attend FUNDECE meetings. When nonmember organizations participate by special invitation, it is only the CEO who is invited. Sometimes high government officials are also invited.

Participants in the meetings value this policy of including only CEOs, as it reinforces the need to maintain the focus of discussion at the highest policy level. There have been a few occasions when second-level managers asked for permission to participate. The requests were always diplomatically but firmly refused. Some of those who were refused admission as lower managers later became presidents and, therefore, members of FUNDECE. One of them was elected to the Board of Directors. Those who had endured refusal as lower managers acknowledged that even at the time of refusal they felt the policy to be sound. In the author's opinion, anyone wishing to create an organization with a mission similar to that of FUNDECE should consider the implications of this restriction on membership.

As of 1995, the membership of FUNDECE comprised the presidents and general managers of 130 enterprises. Of the enterprises represented, about two-thirds are large (companies having 200 employees or more and sales of at least $US40 million for industrial companies, or sales of at least $US24 million for service companies) and one-third are SMCs (companies that do not meet the definition for "large"). The breakdown by company type is roughly 60 percent industrial, 40 percent service. Among large companies, there are two industrial companies for each service company; among the SMCs, the service companies are slightly more numerous than industrial companies. The industrial companies include Argentine affiliates of multinational companies such as IBM, General Motors, Hewlett-Packard, and Reckitt & Colman. There are also Argentine companies not necessarily well known outside the country. Service companies include such categories as private

universities, banks, insurance companies, office equipment providers, health care providers, advertising agencies, and accounting firms.

The Strategic Committee of FUNDECE—a group of presidents and general managers of major companies in Argentina—created the FUNDECE Strategic Model (Figure 43.1). This model serves as a basis for the yearly FUNDECE action plan.

The most important activities of FUNDECE are

- Monthly breakfast meetings for the sharing of experiences and ideas. During visits sponsored by FUNDECE, foreign experts [from IAQ (International Academy for Quality), ASQ (American Society for Quality), EOQ (European Organization for Quality), and JUSE (Japanese Union of Scientists and Engineers)] frequently participate in these meetings. The breakfasts are the dominant and most effective activity of FUNDECE.
- Special projects. Two projects currently under development are the creation of a consultant data bank and the establishment of a library to include a collection of reference cases. Part of FUNDECE's sponsorship of such projects is to assign and fund a project leader. Special projects is the second most effective activity of FUNDECE.
- Seminars for professionals, middle managers, and academia.
- Teleconferences, including the satellite broadcast of the National Quality Forum—the industry quality event cosponsored each year by ASQC and *Fortune* magazine.
- Management in Argentina of the ASQC certification system.

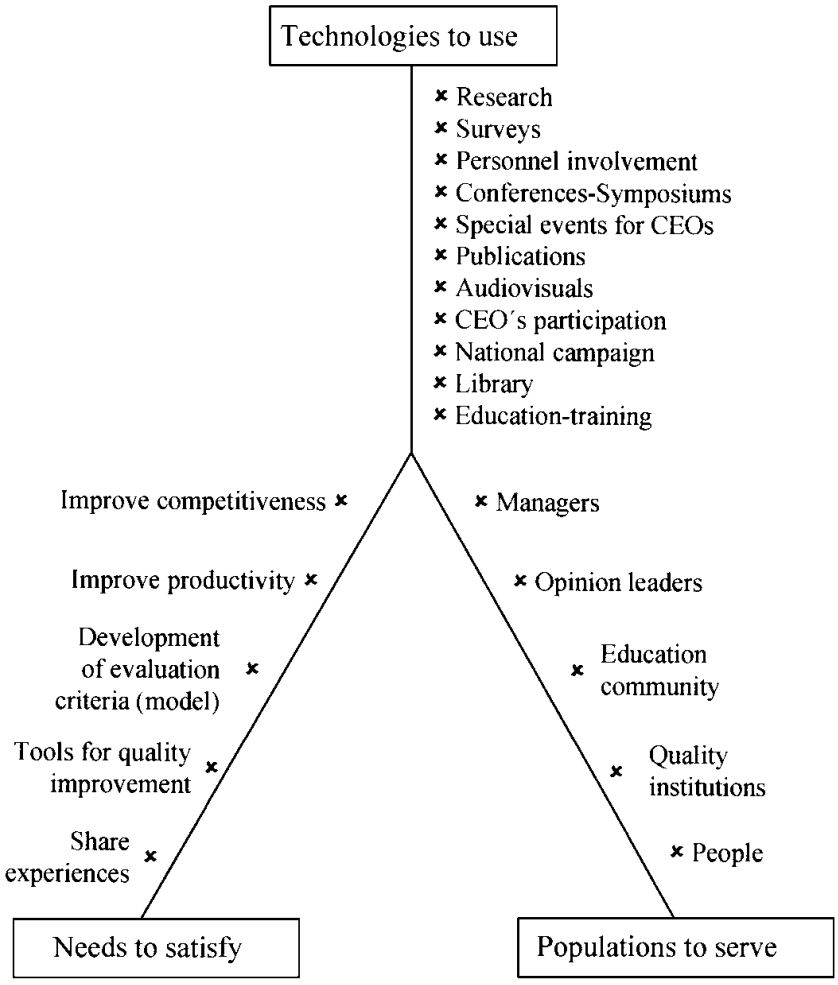

FIGURE 43.1 FUNDECE strategic model. (*FUNDECE, 1995.*)

- Publication of a newsfax with quality information, both local and international.
- Publishing of videos. These are videos developed by committees chaired by CEOs that include members from an advertising agency and other organizations. The videos feature such topics as quality implementation and problem diagnosis, and are for general business use, both for member and nonmember organizations. Also, in cooperation with the Argentine Advertising Council (an association of advertising agencies and other companies engaged in advertising) and the Argentine government, FUNDECE helped create two TV spot commercials on the subject of quality, for showing on all the country's TV channels.
- Close relations are maintained with international quality organizations—ASQC, IAQ, EOQ, EFQM (European Foundation for Quality Management), JUSE, and with national quality organizations, both in Latin America and the rest of the world.

Three FUNDECE Projects

The National Quality Award. In 1992, the government called upon FUNDECE to take a leading role in the promotion of quality in industry, services, education, and health care. The objective was to develop an efficient national infrastructure to carry out this promotion. Working with a commission in the legislative house of representatives, the first step was to create a national quality award. The award criteria would give business and other organizations the quality model. A FUNDECE project leader guided the efforts of a team that included members of the House of Representatives commission; Wayne Cassatt, then associate director of the Malcolm Baldrige National Quality Award in the United States' National Institute of Science and Technology (NIST); and members of FUNDECE affiliated with North American companies that had won the award in the United States (e.g., Xerox, IBM). That project leader became the managing director of the National Quality Award Foundation (FUNDAPRE), a private institution created by national law to manage the award for the private sector.

A separate award was established for the government sector, administered by the Secretariat of Public Function. The award criteria provide the quality model preferred by FUNDECE members and the government. Used in self-assessment, the criteria are effective tools, particularly if the scoring system allows for giving more weight to those items that are critical to the particular business assessing itself.

The Argentina National Quality Award began in 1994 with strong support from the government, FUNDECE, and the Malcolm Baldrige National Quality Award administration.

The major difference between the Baldrige and the Argentina Award was that FUNDECE insisted that the scoring of the Argentina Award stress business results. CEOs played a major role in establishing the criteria and weighting points. For some criteria, the points are closer to those of the Baldrige (for example, for customers and planning), and in others they are closer to Europe's (for example, for leadership, personnel satisfaction, social responsibility). All the comparisons are to 1992 data. Since then, weightings in all the national awards have been changed in response to suggestions and experiences of businesses involved in the awards. As of this writing, there is not yet much sharing of experience and ideas among the different national awards administrations. In 1996, at a meeting organized in Lima by Wayne Cassatt, the managers of the Award from Argentina, Brazil, Colombia, Chile, and Peru decided to hold an annual International Quest for Excellence meeting with the managers of awards and companies that won the award. The purpose of the meeting is to share experiences and results, as well as discuss new awards for education and health care. The first took place in Brazil in September 1997.

The Professional Institute for Quality. The CEOs identified the need for an organization in which their quality managers, their second-level managers of key areas (marketing, finance, etc.), and university professors could be trained, kept up to date, interchange ideas, do research, interact with similar organizations in other countries, and provide support to the National Quality Award and other future projects. To address this need, FUNDECE established a project to organize the technical arm of FUNDECE—a professional society to provide the "how to" of quality. The Argentina Professional

Institute for Quality and Excellence (IPACE) was founded for this purpose. The leader of the IPACE project is today its Managing Director.

The National Quality Movement. The 1995 FUNDECE project related to the need to focus the national effort for quality and excellence in key areas. Many institutions, both government and private, are working on this. In the sense that more people are becoming aware of the importance of quality, this is good. Still, there are areas where coordination is needed to help people and institutions move in the same direction.

Business leaders should assume the responsibility of leading the process of change for two reasons: (1) it is necessary to convince many more CEOs (CEOs will listen better to other CEOs) and (2) the CEOs' training and know-how is precisely to lead organizations and projects effectively. In the past, national quality programs failed because they lacked such leadership; professionals and government specialists led these programs in an economic environment where quality was not a critical factor for business.

In December 1994, FUNDECE initiated the creation of an integrated National Quality Movement (see Figure 43.2). It is composed of six key organizations: (1) FUNDECE; (2) FUNDAPRE; (3) IPACE; (4) The National Institute for Industrial Technology (INTI)—a government institution dedicated to giving assistance to industries, in technology and in metrology; (5) The Argentinean Institute for Materials Rationalization—the standards institution that also works on ISO 9000 certification; and (6) the General Secretariat of the President—dedicated to distributing information on quality, motivating the involvement and cooperation of major institutions interested in quality, and optimizing the effect of government actions.

The mission of the National Quality Movement is to coordinate major quality activities, to improve the effectiveness of the major programs of various government and private institutions, and to ensure that all organizations and businesses view quality as a national cultural value. To accomplish this mission requires a common vision and culture. It requires a suitable structure, sufficient resources, and coordinated strategies.

In Argentina, as in many other countries of the world, debate continues on the question of the correct national quality model. Some argue for adoption of the criteria of the national quality award; others support the ISO 9000 series of quality standards as a more suitable model for promotion. FUNDECE's view is that although ISO 9000 certification is sometimes necessary for commercial reasons and a good introduction to quality for newcomers, receiving ISO registration does not

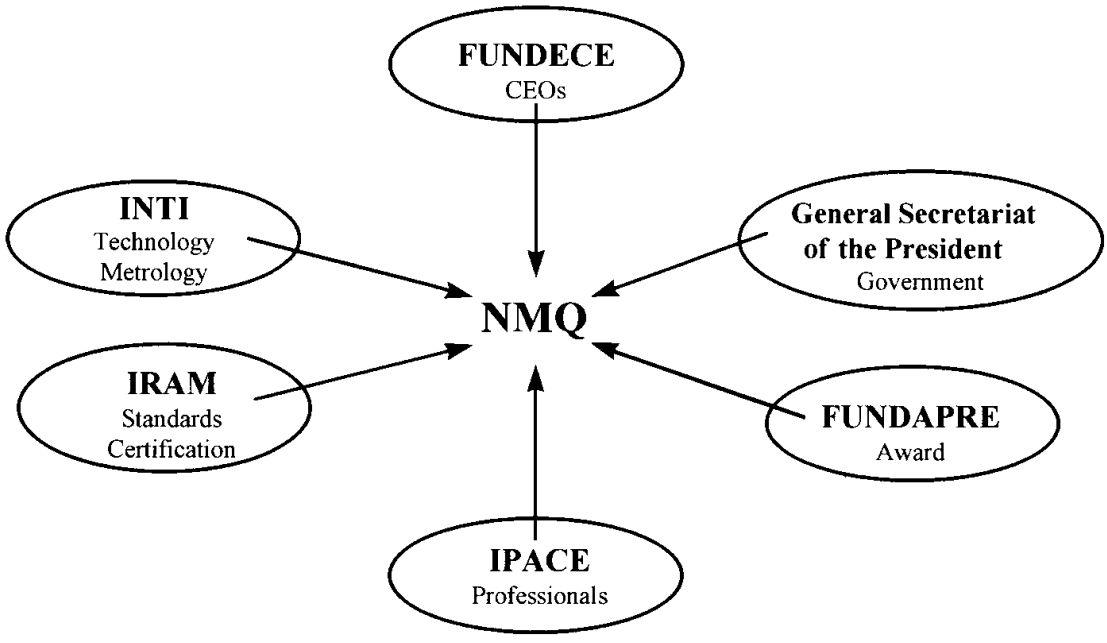

FIGURE 43.2 National movement for quality. (*FUNDECE, 1995.*)

necessarily result in acceptable quality levels in today's highly competitive world. Argentina has very few ISO 9000 certifications. However, in the period from March to November 1995 the number of certifications rose from 37 to 69, indicating that these certifications are on the rise, particularly for SMCs.

In the field of education, universities have shown interest in the subject and application of quality. Three university presidents are already members of FUNDECE. The Buenos Aires Institute of Technology offers a master's degree in quality; several other universities offer postgraduate courses in quality management. The Minister of Education is studying with FUNDECE and FUNDAPRE the recent developments in quality awards for educational institutions in the United States, such as those conferred by the NIST and the City of New York.

BRAZIL

There has been a significant increase in the participation of CEOs in quality programs since 1990, the year the government launched the Brazilian Program for Quality and Productivity (PBQP) as part of its program to modernize the Brazilian economy along the same lines as the other major countries in the region.

The PBQP is led by the government, with the participation of the following sectors and institutions:

- *Business:* The National Confederations of Industry and Commerce (CNI) and press, advertising, and radio and TV associations.
- *Professional societies:* The Brazilian Association for Quality Control and other societies representing consultants and specialists in fields that include human resources, research, standards, and industrial engineering.
- *Government institutions:* The National Institute for Metrology Standards and Industrial Quality, the Brazilian Service for Support of Micro- and Small Companies, the National Service for Industrial Training, and several others in the areas of deregulation, science and technology, and health.
- *Government companies:* Telebras, Electrobras, Usiminas, and Petrobras—huge monopolies in communications, electricity, mining, and oil.
- *Government offices:* The ministries of Economics, Education, Labor, Agriculture, and Health, and other groups dedicated to science and technology, education, and quality. The coordination structure of the PBQP, Figure 43.3, is a matrix of general subprograms and sector subprograms.

The general subprograms are

- Awareness and motivation—to promote quality in all sectors of society
- Development and promotion of modern management methods—to stimulate the adoption, by private and government business and by government services, of modern methods for managing quality and productivity
- Training of personnel concerning quality and productivity
- Technological services for quality—to improve the infrastructure of services such as standards, quality certification, metrology, tests, and technical information.
- Institutional coordination—to promote the coordination of activities for quality and productivity among government, industry, commerce, services, academia, and science and technology organizations

The sector subprograms are individual programs designed for specific sectors, such as industry, public administration, state government agencies, and so on. Each sector prepares a reference plan that includes:

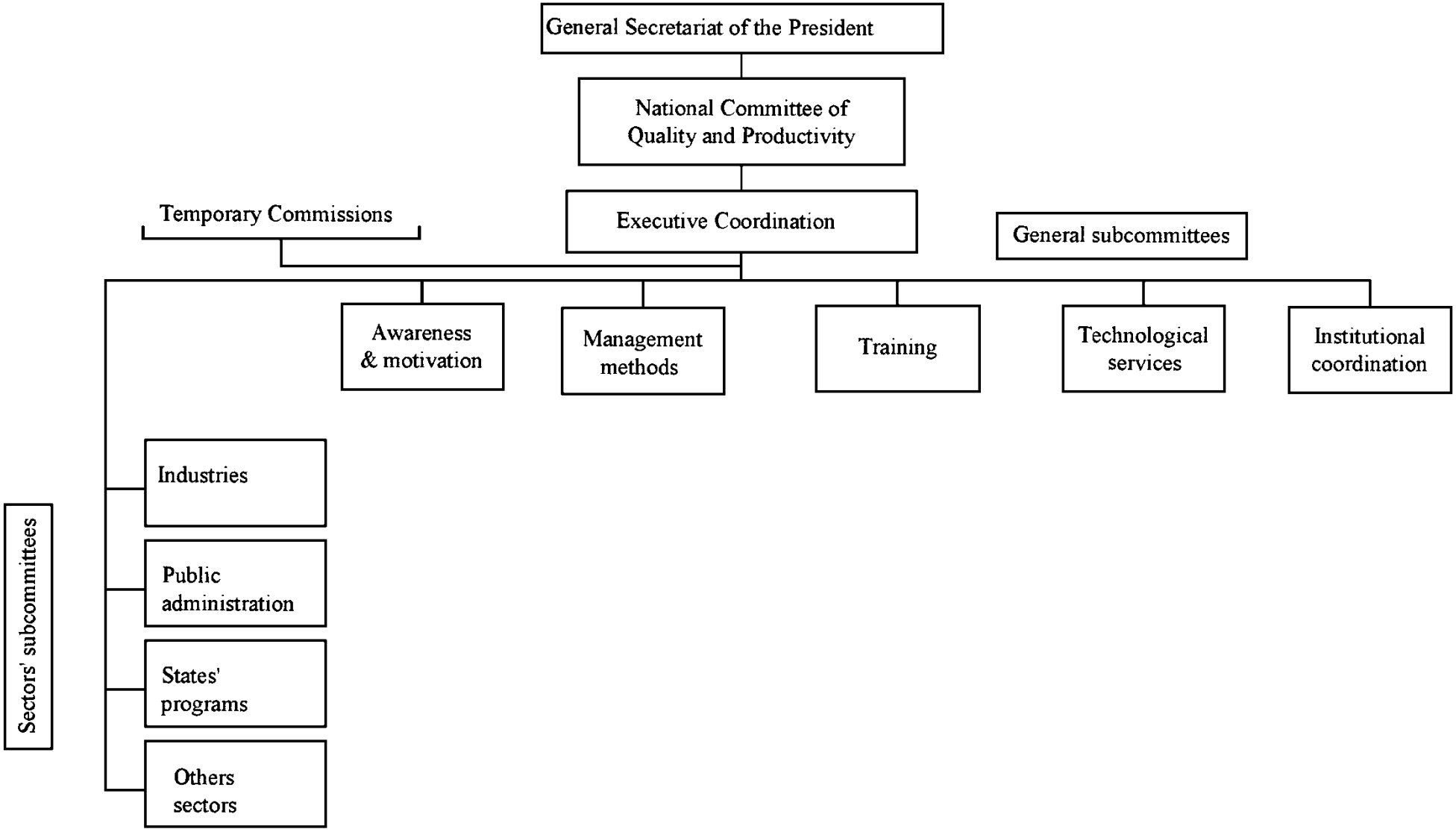

FIGURE 43.3 Brazilian program of quality and productivity structure. (*Industrial Policy Secretary, Ministry of Industry, Commerce and Tourism of Brazil, 1990.*)

- Quality and productivity diagnosis
- National and international trends in quality and productivity
- Objectives
- Strategies and action plans
- Proposed projects
- A management plan

The PBQP, through the National Quality and Productivity Committee (comprising four government officials and three representatives of private business designated by the government) provides a review of each sector subprogram as well as guidance in the creation of the sector support structure and in carrying out the subprogram. The PBQP was revised in 1995, Figure 43.4, adding the voices of consumers and workers to the coordination body. Development and publication of indicators was also included as a separate function. Supplier development and financial support were added to the general subprograms and tourism, agriculture and livestock, and services and commerce were added to the sector subprograms.

The most effective parts of the PBQP, as reported by the CNI and several CEOs, are the actions taken by the private sector, led by industries through their chambers, where each industry (e.g., chemicals, steel, leather) is represented by its own chamber. Each industry chamber has quality and productivity committees working for industry improvement and collaborating with the PBQP. Today 240 business and technical institutions are working on these programs under the industry sector subcommittees. CEOs are becoming increasingly involved in these activities.

The PBQP has made another contribution whose significance may be difficult for readers from outside the region to understand. Historically, national development programs throughout Latin America have focused on population centers—Buenos Aires, Rio, Mexico, etc. It has been a natural consequence of taking programs where there is a base of industry to build on. A frequent effect has been neglect of other geographic areas, especially rural ones. The PBQP program, however, has been effective throughout the country, with the involvement of the different states.

The major contributions of the PBQP to quality and productivity in Brazil are

- It increased collaboration between government and private institutions.
- It motivated the adoption of quality and productivity programs in many private companies.
- It provided a timely and reliable source of information to help business adapt to the new, highly competitive environment.
- It revealed a new role for business chambers, accustomed as they were to focusing on lobbying.
- It reinforced the importance of standards, metrology, and certification.
- It reinforced the importance of customer service.
- It promoted closer relations between customers and suppliers.
- It increased training efforts, and contributed to a change in management mentality.

Some weaknesses remain:

- Government leadership—the actions in place have little support in the various government departments
- A low rate of workers' union participation
- Poor coordination of program activities
- Insufficient infrastructure—privatization of government enterprises is necessary to improve the efficiency of the economic system in transportation, energy, and communications and to revise the role of government.
- A low rate of participation by universities and technology centers—These organizations have great potential, not yet realized, to support the efforts to improve quality and productivity.

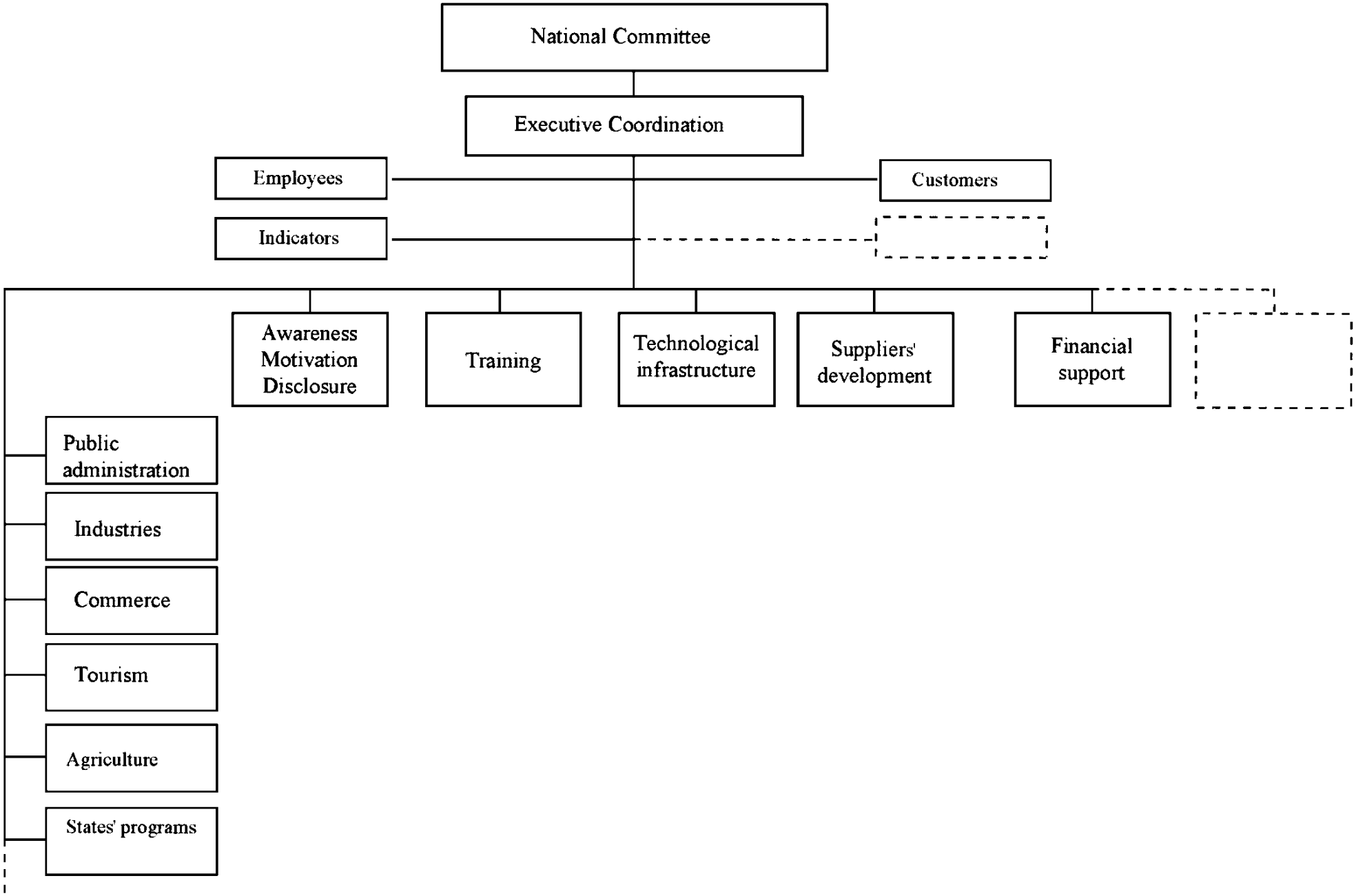

FIGURE 43.4 Brazilian program of quality and productivity structure PBQP 2000. (*Industrial Policy Secretary, Ministry of Industry, Commerce and Tourism of Brazil, 1995.*)

- Absence of design and innovation as topics in the programs
- Numbers of unconvinced executives, particularly within the SMCs
- The reduced resources available from the government

These efforts are reflected in increasing acceptance of Brazilian goods in international trade. Furthermore, in the period 1992 to 1994, industrial goods exported from Brazil accounted for a rising proportion of total value of goods exported—from 73.4 percent of total exports to 76.6 percent. (See Figure 43.5.)

This increase was especially impressive, considering that in the same period the world prices of the traditional commodities exported rose significantly. In the same period, Argentina showed a comparable increase—from 62.6 percent to 65.8 percent. The MERCOSUR agreement also had an influence on these results. With the elimination of tariff barriers between the member countries (Brazil, Argentina, Uruguay, and Paraguay), trading among these countries more than doubled, and many new investments have come into the area, induced by the incentive of a larger market potential.

Of all the countries in Latin America, Brazil has the most ISO 9000 certifications—over 1000 and increasing as of 1995 (63 percent of the total for the region). Brazilian companies see certification as an effective first step toward a quality program, or toward fulfilling a commercial need to export or to sell, in the local market, to certain major local companies.

As in the rest of the world, the emphasis is switching from satisfying the requirements of ISO 9000 to performance according to the criteria of the National Quality Award.

The Brazilian National Quality Award was initiated in 1992. As in other countries in the region, the award criteria derived, with minor adaptations, from the Baldrige Award model. The NIST supplied all the needed information regarding such matters as the award criteria, selection and training of examiners, selection of judges, code of ethics, evaluation process, etc. The Brazilian Quality Award Foundation, which administers the award, is supported mainly by private business. To date, the Foundation has trained about 1000 examiners and contributed improvements to the award process, such as a computerized system to simplify the evaluation of examiners. The Award is now presented by the president of Brazil.

CHILE

Chile was the first country in the region to carry out economic reforms, beginning in the early 1970s. These growing reforms have provided a very favorable economic environment for business, reflected in

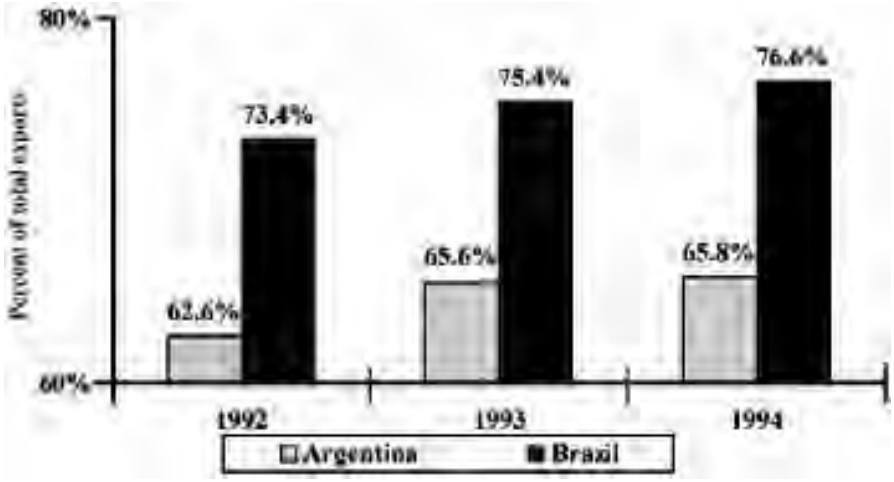

FIGURE 43.5 Industrial exports share of the total. (*Brazil: Secretary of Industrial Policy, Ministry of Industry, Commerce and Tourism, 1995; Argentina: National Institute of Statistics and Census, 1995.*)

renewed growth and prosperity. CEOs were able, for the first time in years, to concentrate their energies on managing their companies and increasing sales, particularly of exports to the United States, Europe, Asia, and elsewhere in Latin America. Some larger companies began investing in new factories in Argentina, Peru, and Brazil. Customer demands forced companies engaged in international trade—export of goods and investment in foreign plants—to incorporate quality management into their operations. As in the other countries of the region, many heads of smaller companies remain unconvinced of the relevance of quality to their operations. Even in those smaller companies which are growing rapidly toward international prominence, the CEOs have been reluctant to put energy into developing a national infrastructure to support quality; they judge it to be more important to spend the energy growing their own businesses. As of 1994, just a few pieces of quality infrastructure were in place:

- The Chilean Association for Quality, the organization for quality professionals, is very active in conferences, courses, and publications. There is very little participation by CEOs.
- Several universities offer postgraduate studies in quality management (Chile and Santiago). The Catholic University has a very active center for productivity and quality.
- The government provides both an excellent economic environment for SMCs and, through an industrial promotion institution, financial help for quality improvement programs. The Industrial Productivity Center, a private organization representing 3000 SMCs, administers funds for this promotional activity.

In 1995, a collaboration of government and some interested CEOs led to the founding of the National Center for Quality and Productivity. The Center is chaired by the Minister of Economics and comprises the heads of business organizations (CEOs in industry, commerce, and services), universities, several government departments, and representatives of workers' unions. Some leaders had seen a dangerous trend in the complacency and boastfulness with which some businesses reacted to small early successes. The reaction, they felt, revealed industry's failure to grasp the need for continuous improvement in the face of rapidly changing and highly competitive global markets. The Center was a response to what they thought was the need to develop further the infrastructure for quality, to create a model such as the Baldrige Award criteria, and to conduct research to identify the most successful quality tools for Chile.

The Center's first action (in 1996) was to present its first National Quality Award. The NIST collaborated in the development of the Award.

The organization, strategies, and plans of the National Center for Quality and Productivity are not available. The Center will probably be led by business and dedicated initially to improving the national infrastructure for education and training on quality, helping the introduction and implementation of ISO 9000 certification, and generating quality awareness, especially in SMCs.

COLOMBIA

National Quality Week began in Colombia in 1975; a national quality award has been presented annually since then. The leading private organization for quality is the Colombian Institute for Technical Standards (ICONTEC). The 15-member Board of ICONTEC contains 10 members from business organizations and 5 from government. Besides providing consulting and publication services and conducting training courses, ICONTEC serves as a registrar for ISO 9000. It is the interface between the government and private business for quality programs. Historically, business participation has largely been among second-level managers, but CEOs are becoming increasingly involved.

Other institutions focused on quality are the Colombian Association for Quality, the organization for quality professionals; the Colombian Association for Quality Circles; and several business and government organizations, including two in health care—Hospital Management (GEHOS) and Companies for Promotion of Health (EPS).

Future needs for quality promotion include involving SMCs and increasing opportunities for education and training.

MEXICO

In 1988, a group of major industrial and service companies came together to create the Mexican Foundation for Total Quality (FUNDAMECA) just a year after the need had been identified. Today, FUNDAMECA has a membership of more than 500 individuals and organizations. Membership is not limited to CEOs.

In 1989, in close cooperation with the Secretary of Commerce and Industrial Promotion, FUNDAMECA announced the creation of the National Quality Award. The first award was presented by the president of Mexico in 1990. FUNDAMECA has administered the award since its inception. In the same year, FUNDAMECA created the Mexican Association for Total Quality Managers, an organization for quality professionals.

In Mexico, CEOs mobilized for quality for the same reasons that had moved their southern neighbors to action: their companies needed to become competitive in the free market economy and within newly emerging common markets, especially NAFTA. Because of its proximity and participation in NAFTA, the United States participated in this mobilization through institutions such as the NIST, the Quality and Productivity Management Association, and the Interamerican Network of Quality and Productivity Centers.

The member companies of FUNDAMECA made significant progress during the early years, with many successes. There remains much to do to gain the involvement of the many companies not yet a part of FUNDAMECA.

Several Mexican universities, such as the Tecnológico de Monterrey, have postgraduate studies in total quality management. Years of intensive training of professionals both in Mexico and in the United States have resulted in the development of many capable professionals in the field of quality.

The economic crisis of 1994 and 1995 was a strong incentive for change, and Mexico has in place the necessary institutions for this process.

PERU

The National Society for Industry (SNI), founded in 1896, claims a membership today of 2000 Peruvian companies. The society began working on quality programs as early as 1980, but with no success, due to the economic environment at that time. When the economic changes affecting the region began to happen in Peru in 1991, SNI organized quality workshops and created a quality award. In 1992, the government made the award official. In that same year, the government and SNI founded the Center for Industrial Development, a private institution with strong ties to the government, to administer the award. In 1995, a joint team of government and SNI members worked with the NIST to incorporate lessons from the Malcolm Baldrige Award into Peru's award. CEOs of member companies of SNI provide the driving force of leadership in these organizations.

URUGUAY

Facing the new challenges of Uruguayan membership in MERCOSUR, Uruguayan CEOs founded the Uruguayan Association of Companies for Total Quality (AUECE) in 1993. By 1995, more than 50 CEOs were members of AUECE. FUNDECE (of Argentina) worked very closely with AUECE and helped stimulate its organization.

The National Committee for Quality, chaired by the Secretariat of the President of Uruguay, developed and manages the National Quality Award. The first award was presented in 1993 by the president of Uruguay.

AUECE, like FUNDECE in Argentina, is leading the Uruguayan quality programs.

CONCLUSIONS—FOUR CRITICAL FACTORS

Four critical factors underlie the emergence of quality in the countries of Latin America: business competitiveness; a favorable economic climate; the leadership and involvement of business leaders, especially the CEOs of business organizations; and the availability of capable quality professionals.

The first critical factor, competitiveness of business, is measured in comparative terms. In today's global economy, every company in the world with similar capabilities must be considered a potential competitor. Competitiveness is a measure of a company's ability to make and sell product against all their potential competitors in the global marketplace. Quality is an important determinant of that ability. The opportunities and challenges offered by common markets, such as NAFTA and MERCOSUR, combined with the importance of quality, are powerful motivators for individual businesses to improve quality performance. In turn, improved quality performance in these businesses exerts a positive effect on the country's aggregate quality performance.

The second critical factor for quality success is a favorable economic environment. Most of the countries in Latin America have been carrying out similar economic reforms since 1990. The economic environment is changing very rapidly toward open, free, and unregulated markets. Governments are aware that their policies must encourage competitiveness. Creating those policies means a new role for government, one that requires government to work with business rather than dominate it.

The third critical factor is the participation of CEOs, both in leading the quality improvement efforts within their own companies and in organizing and leading the larger effort within the country.

The fourth critical factor is to have the participation of capable professionals to support the implementation of the quality efforts.

To date, the major accomplishments in Latin America are the establishment of the national awards, a growing trend toward ISO 9000 certifications, and the collaboration of CEOs in establishing quality institutions at the national level. What remains to be done?

- Advance further in economic reform
- Convince the leaders of smaller companies to implement quality programs
- Improve the quality of education at all levels
- Include the quality sciences in the curriculum of universities
- Intensify training in quality at all levels and in all sectors
- Introduce the application of quality concepts and methodologies into sectors not yet affected

In Argentina, FUNDECE remains at the center of the quality movement, and serves as a model for other countries in Latin America. FUNDECE's major activities are designed to provide information to its members, to professionals (through IPACE), and to other sectors of society (through the National Quality Movement) about what is being done in quality in Argentina and in other parts of the world. FUNDECE maintains a sustaining membership in the ASQC as a means of helping its members participate in ASQC activities and of keeping them up to date in quality subjects.

An example of the impact of FUNDECE is the case of health care in Argentina, a sector that has not changed its traditional approach to quality in many years. There are today several health care organizations that participate actively in FUNDECE. These groups are gathering information and support to launch a quality initiative.

In other countries, organizations such as FUNDECE continue to provide the means to bring the latest developments in quality to various sector leaders, offering hope that the list of work yet to be done is more than a "wish list."

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REFERENCE

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