

## Japanese miracle versus thirty-six years of excellence in American searching groping

~ Ph. D. Associate Professor **Cristina Raluca Popescu** (*The Bucharest University of Economic Studies, Bucharest*)

E-mail: [popescu\\_cr@yahoo.com](mailto:popescu_cr@yahoo.com)

~ Ph. D. Professor **Gheorghe N. Popescu** (*The Bucharest University of Economic Studies, Bucharest*)

E-mail: [popescu\\_gh\\_cafr@yahoo.com](mailto:popescu_gh_cafr@yahoo.com)

~ Ph. D. Associate Professor **Veronica Adriana Popescu** (*Commercial Academy of Satu-Mare, Satu-Mare*)

E-mail: [popescu\\_va@yahoo.com](mailto:popescu_va@yahoo.com)

**Abstract:** *The paper Japanese miracle versus thirty-six years of excellence in American searching groping presents the way in which a country which can ensure the necessary from own resources only to the limestone and sulfur, having a hardworking population, highly disciplined, proud and persevering has managed to install in the consciousness of the world an undeniable phenomenon called Japanese miracle.*

*In this paper the authors tried to decipher some of the mechanisms that have made the great achievements of Japanese. The authors believe that being forced to start from scratch, the availability and openness that they had in order to learn from others, especially from the best managers of the moment, but also from their mistakes enhanced by the consistency and perseverance of not doing sacrificing quality, represented the main factors of success.*

*The Japanese have used like nobody else the oil crisis as a great opportunity, by restructured and modernized their economy, while their total dependence on raw materials forced them to be imaginative into collaborations of all kinds and become very performant. No one before them has harnessed more the new technologies communications, coordination and mainstreaming.*

## 1. Introduction

The country which can ensure the necessary from own resources only to the limestone and sulphur, having a hardworking population, highly disciplined, proud and persevering has managed to install in the consciousness of the world an undeniable phenomenon called Japanese miracle. We tried to decipher some of the mechanisms that have made the great achievements of Japanese. We believe that being forced to start from scratch, the availability and openness that they had in order to learn from others, especially from the best managers of the moment, but also from their mistakes enhanced by the consistency and perseverance of not doing sacrificing quality, represented the main factors of success.

The Japanese have used like nobody else the oil crisis as a great opportunity, by restructured and modernized their economy, while their total dependence on raw materials forced them to be imaginative into collaborations of all kinds and become very performant. No one before them has harnessed more the new technologies communications, coordination and mainstreaming.

## 2. Openness and availability versus ignorance, or: "no one can be a prophet in his own country"

About the Japanese economic miracle was written into the seventh decade of the last century, an entire literature impregnated with wonder at the speed with which Japan defeated and occupied military had risen from the ashes of the last world war to regain a prestigious place among the main industrial powers of the world.

In our approach we try to decipher the key decisions that made the difference. The

essential element in our opinion was the opening, the availability and preference for quality and well done things.

We will evoke the architect of Sony (originally called Ibuka), Masaru Ibuka, who in 1945 rented a store from the Tokyo city center, who had a former telephone switchboard, bombed and torched, and with seven employees and \$ 1,600 of personal savings began a hard and unpredictable work.

In spite of the great difficulties of the beginning, of struggle for survival, Ibuka had enough energy and time to define his belief that certainly does not lack options: ethics (we will remove any source of dishonest profit), progress (the application of advanced technology in people's lives), and overtaking performance (we will focus on skill, performance and individual character so that everyone can give his best in terms of skills and understanding).

After 1946 total disorganization situation faced by Japan create big problems of American occupation authorities. The situations being critical, USA decide to take all necessary steps to strengthen and restructure Japanese industry and services. General Douglas MacArthur, committed to public education including through radio, recruits Homer Sarasohn (American engineer specializing in Radio Engineering and subsequently Quality Management) to restore the telecommunications industry from Japan after the damage sustained during the Second World War.

In 1946 he also founded the Japanese Union of Scientists and Engineers (JUSE) organization with an important role in the promotion of quality control under the patronage of which has been created in 1949 "Quality Control Research Group" (QCRG),

with very precise intention to provide support to directors of companies in their activity by managing the production and services.

Between the members QCRG can be found professors K. Ishikawa, S. Mizuno, T. Kogure, who have had an important role by educating and preparing business leaders, helping them to understand the power of quality control program.

From 1946 to 1950, H. Sarasohn lead Civil Division of Communications - Civil Communications Section (CCS), helping Japan in the recovery, repair and installation of equipment, materials and components including the achieving necessary to restart the factories, reinstatement of laboratory equipment tests (ETL).

For better organization, H. Sarasohn decides to apply management and quality control methods in the U.S. sector, introducing stringent quality standards for products. Sarasohn sets including one quality management education program for top executives in Japan.

Moreover, on his return in the United States Sarasohn recommends W. Edwards Deming (American statistician, professor, author, lecturer and consultant recognized) to support a seminar in Japan on the theme about statistical control of quality, especially with one of his first initiatives of QCRG group was the development of such a course (Quality Control Basic course), whose importance and power was easily understood by the Japanese.

In addition, in the early 1950s, the magazine publication "Statistical Quality Control" (SQC) has been a key tool in promoting control techniques in Japan, Japanese industry knowledge gradually advanced unexpectedly.

The Lecture Series of "all day long" type (which lasts all day), held in the '50s Japan for eight days, began with the one in which Deming focused on philosophy quality and on clarifying the role of statistical methods in quality control, he being the man who invented management process statistical control, giving managers the means to determine when to intervene in an industrial process.

The concept introduced of "design cycle of the product" (product design cycle) differs from the process management - later known as the PDCA cycle type ("Plan-Do-Check-Act").

Deming emphasized five key points of this work:

- -Product design based on appropriate models;
- -Implementation and testing it in both laboratory and production line;
- -The launch of product on the market;
- -Product testing by the customer, so that, on the basis of marketing research to identify users opinion about it, and the reasons for which the product was not purchased (the opinion of non-users);
- -Redesigning the product due to consumer reaction across the relationship between quality and price.

At his conference "of introduction" Deming stressed the differences between inspection and quality control, pointing out that they were much discussed since 1939 by W.A. Shewhart (American physicist, engineer and statistician, sometimes known as the father of statistical quality control) inspection (check the reception quality and / or delivery) with a post-procedural role, while acknowledging quality control - in terms of cyber command and control - is considered exclusively a process of management technology.

The first result is reflected in the concern of many Japanese companies in order to introduce the statistical techniques of quality control (the years 1951-1954), originally applied only on finished products.

Through these seminars, Dr. Deming taught executives, managers, engineers and researchers in Japanese industry, the basics of statistical of quality control. His teachings have left a deep impression in the minds of participants and were a boost to implementation of quality control in Japan, then in the early stage of recovery.

Dr. W.E. Deming generosity to donate its copyright backed up seminars on Japanese Institute JUSE, was very well received by the Japanese as a sign of appreciation and friendship; later they used them in order to finance the prize that bears his name, through acknowledge its merits and commemorates his help to promote the continuous development of quality control in Japan.

J. M. Juran (Romanian-born American, engineer and management consultant), invited to Japan in 1954, promotes the idea that quality control should be seen as a management tool and not just a technical problem. The concept of quality control must be introduced in an organization from the highest level, based on a well-defined strategy.

To promote the quality control, JUSE promoted a number of courses such as: QC Middle Management Course Basic QC for Top Management Course, QC Introductory Course, Design of Experiment Course, Sensory Test Course, Basic Course Reliability QC Executive Course, Introductory Reliability Course, Reliability Management Course, etc.

Kaoru Ishikawa (Japanese chemical engineer, theorist of organizational quality)

assessed the quality of personality in Japan, develops theories of American experts Juran, Deming and Feigenbaum, launching the concept of involving all departments of the organization in achieving quality, based on the idea that the participative management is essential.

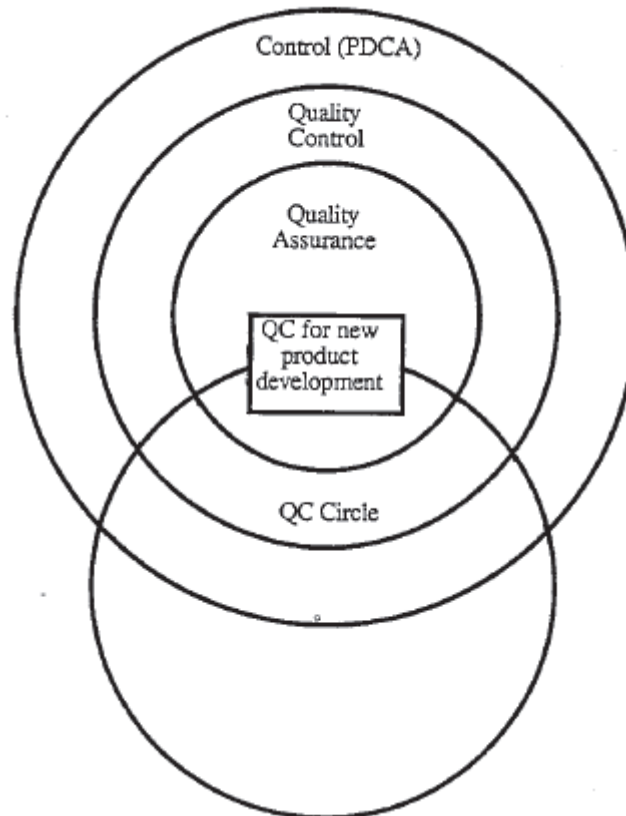
The research activity continues, Professor Kaoru Ishikawa, managing to establish of quality control circles (quality control circles), later called "quality circles", widespread and valued subsequently in Japan. The basic components of "Company Wide Quality Control" are: quality assurance; ensure quality and cost control; ensure control quantities and delivery dates.

The inner circle of quality assurance is the core of the concept CWQC. The term quality refers primarily to control the development of new products. Any control measures, on the second level, considering all the activities with impact on quality and compliance with estimated costs.

The third circle symbolizes the surveillance procedures of how the company is performing all activities in order to prevent deficiencies extremely important in achieving high quality products, aiming, while retaining the required quantities and delivery dates predetermined.

Ironically, we can say that the most important precursors of quality management are considered the Americans: Walter Shewhart, W. Edward Deming, Joseph M. Juran, Armand V. Feigenbaum, Philip B. Crosby, who joined them much later, the Japanese: Kaoru Ishikawa, Taguchi, etc.. One of the developer's ideas of performance assessment at the individual concerned and aligning objectives at individual performance with organizational level was Peter Drucker,

Figure no. 1 - The basic components of Company Wilde Quality Control (CWQC)



Source: Kaoru Ishikawa, *What is Total Quality Control? The Japanese Way*, Ed. Prentice-Hall Inc., Englewood Cliffs, New York, 1985

who introduced the concept of management by objectives, since 1954 included in his book "The Practice of Management".

The explanation was obvious: while the Japanese are at crossroads in great difficulty, and have shown their entire opening and availability in learning, adaptation and application of quality concepts promoted even by Americans experts sent to Japan's economy recover, Americans proved reluctant and even uninterested in applying the new concepts of total quality management, while failing to understand the usefulness and value that it would be able to generate companies.

Union of Scientists and Engineers of Japan (JUSE), decided in 1951 to set and to grant "Annual Award for Quality WE Deming" as recognition of illustrious U.S. personalities merit in quality management, whose contributions to the development of theory and methods for improving product quality industrially manufactured boosted Japanese industry.

1960 is the inaugural year for Japan national campaign for quality, November being designated the month of quality, during which activities and events designed to promote quality control.

The lack of coherence found in the approach to quality JUSE determined from 1962, to set up the first quality circles. These circles were composed of small groups of workers, partners and even leaders, directly concerned in improving the production system, to solve problems they faced in their work, receiving and exchanging information between them based on the experiences that they can share.

Surprisingly, the idea took shape, was successful, even reaching between 1980-1990 to have approximately 250,000 quality circles.

### 3. Restructuring versus protection

The existence of quality circles proved beneficial, contributing to a better involvement of leaders in the management, greater accountability of subordinate employees, the existence of good communication between all levels participating in creating an environment where quality being understood to the true value required a continuous development and improvement.

Oil shock, after the proclamation of the embargo and oil prices in 1973 did not put Japan issues of other nature than to other industrialized countries. But put these issues in more dramatic due to the extent of 88-90% dependence on external sources of energy and more than 99% of oil consumption.

Market fluctuations and the economic crisis imposed organizational environment to constantly change the approach to business. Ministry of International Trade and Industry of Japan was concerned consistently restructure the economy (Ionescu, B.; Ionescu, I.; Tudoran, L.; Bendovschi, A., "Traditional accounting vs. Cloud accounting", 2013, pp 106-125).

So instead of basic industries, energy intensive strongly developed in the era of oil was gradually taken by the computer industry, integrated circuits, aviation, electrical and electronic medical uses. The fact is that the first time, government, employers, trade unions and research institutes, have join their efforts to achieve reduced consumption of raw materials and energy required to obtain one unit of finished product.

A decisive role towards reducing energy consumption and research on new energy sources was played by The Institute of Energy Economics, founded in 1966. The performance of restructuring and modernizing the economy can be supported by the following: steel industry, the largest consumer of energy 19% national consumption in 1974 has reduced the share to 15.6% in 1979; energy consumption per ton of steel was reduced by 10% from 1974 to 1980; energy consumption per unit of petrochemical decreased by 13% from 1973 to 1977; energy consumption per ton of cement during 1970-1977 decreased by 21.6%; Between 1973 and 1977 it achieved a 20% reduction in the production of alumina and aluminum refining 2.8% and continued reductions in the period 1978-1985 with a further 14% and 3.4%; and so on.

In the early 1980s the automobile warfare with the United States and Western European countries the main trade unions and major car manufacturers demanded official action to limit or voluntary restraint of Japanese imports in total contradiction with liberal economic platform.

Some companies from United States and Europe before a lucid analysis of the real causes of Japanese successes have built a contagious as Japanese competition. Were raised among others: lack of fair play Japanese

competitors; undervaluation of the yen; dumping policies; social dumping; Japanese the protectionism on the import of spare parts and machines; Japanese protectionism by neo requirements too severe pollution and safety rules; and so on Literature has removed all these allegations substantiated by the force of facts and reality. It is evident that the causes must be sought elsewhere. Refusing to learn from an initial failure does nothing to turn this failure into a deadlock.

#### 4. Horizontal collaboration and specialization versus immediate profit

To ensure continuity and regularity of supply, large commercial companies which have central role not only in promoting exports and ensuring imports determines its policy of implantations, develop cooperative relationships with national companies, including through joint investments.

By way of example can be mentioned: the U.S. market providing soya scrap metal, coal, cotton, wood, chemicals, industrial equipment, etc., the initially large commercial houses created as representative offices, became later companies American law or subsidiaries; the speed with which they were exploited opportunities is legendary<sup>1</sup> by which Japan secured term over 48% of the high quality iron in Australia in the early

<sup>1</sup> According to the work reported by Costin Murgescu: "Japan in the world economy", Scientific and Encyclopedic Publishing House, Bucharest, 1982, in 10 minutes after they have been informed that it was discovered a new iron ore in Australia, they already started the debate, after one week a delegation of specialists and decision makers are on the ground, and in a month they know the reality and they were prepared to base their decisions.

1960s; by using the same policies for exploration and learning through the commercial offices, Japanese companies expanded their market shares which they hold in the Bay Area so by increasing exports of general equipment, electrical and telecommunications equipment, cars, trucks, precision instruments, radios, televisions, etc., but also by winning long-term outlets for the construction of refineries, petrochemical complexes, power plants, desalination of sea water, ports, airports, capturing solar energy, etc.

Coherent, dynamic and imaginative policy of Japanese companies during their 70s can join the pragmatic management practices of American and Western European fame that, with few exceptions, have promoted the principles of specialization and reducing the costs through mass production.

#### 5. The rediscovery of excellence

Tom Peters, author of the best-selling book "In Search of Excellence" published in 1982, expresses the main ideas on solving business problems, work in which he tries to empower the decision makers of a company level, encouraging personal responsibility as response to the "New Economy" that take shape around the world.

Through its urges Americans to not despair because their organizations achieve excellence. Along with Richard Pascale he urged Japanese companies to analyze and learn from their lessons. In 1981 Richard Pascale, in his book "The Art of Japanese Management", makes a comparison between the Japanese company Matsushita and the U.S. Company ITT, trying to highlight the differences in approach to management.

American business characteristics of excellence have been identified following observations and analysis by U.S. economists, among which there can be mentioned: Thomas Peters, Robert Waterman, Richard Pascale, and Anthony Athos. Studying about 50 large American companies, they have qualified them as business excellence. In order to identify success factors, the specialists mentioned conducted an analysis of their financial performance, interviewing some of the leaders and their employees, studying carefully all articles published in the last 25 years on their work seen from all points of view.

These factors, identified as generators of success in literature are valued as basic features of an enterprise of excellence. In addition, economists have shown that to fit in the category of enterprise excellence, financial performance is necessary to confirm the prestige gained purpose they developed six specific indicators of performance.

Of these, three are measures of growth and wealth creation, and the three other measures of operating profitability.

Modeled after Deming Prize, Malcolm Baldrige National Quality Prize was introduced in the U.S. by law in 1987. Baldrige Award, recognizing excellence alone ensures

performance for both public organizations and private ones in the U.S., brings winner annually designated a special prestige, being assimilated to a national record. The award is administered by the Baldrige Excellence Program, managed by the National Institute of Standards and Technology (NIST), an agency of the U.S. Department of Commerce. Annually may be awarded three prizes for each of the six areas: manufacturing, service, small business, health, education and non-profit sectors, i.e., more than 18 awards per year. Malcolm Baldrige Award is awarded by the President of the United States in a special ceremony in Washington DC.

In 2010, the program name was changed to Baldrige Performance Excellence Program to reflect developments.

**Acknowledgement:** Cristina Raluca Popescu is currently Associate Professor PhD. at the University of Bucharest, Bucharest, Romania and PhD. student at her second PhD. in Management at The Bucharest University of Economic Studies, Bucharest, Romania. For Cristina Raluca Popescu the contribution to this paper is the result of the work done during the Doctoral School of The Bucharest University of Economic Studies, Bucharest, Romania, in the field of Management

---

## REFERENCES:

1. Collins, Jim; Porras, Jerry, *"Business built to last"*, București, Curtea veche, 2006;
2. Lyons, Nick, *The Sony Vision*, New York, Crown, 1976;
3. Ionescu, Bogdan; Ionescu, Iuliana; Tudoran, Laura; Bendovschi, Andreea, *"Traditional accounting vs. Cloud accounting"*, Proceedings of the 8th International Conference Accounting and Management Information Systems AMIS 2013, pp 106 -125
4. Ishikawa, Kaoru, *What is Total Quality Control? the Japanese Way*, Ed. Prentice-Hall Inc., Englewood Cliffs, New York, 1985



5. **Morita, Akio**, *Made in Japan*, New York, Dutton, 1986;
6. **Murgescu, Costin**, "Japonia în economia mondială" ("Japan in the world economy"), Editura științifică și enciclopedică, București 1982
7. **Peters, Thomas; Waterman, Robert**, *In Search of Excellence*, 1982
8. \*\*\* Baldrige National Quality Program, "2012-2013 Criteria for Performance Excellence", accessed on 05.02.2010, <http://www.baldrige.nist.gov/>