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“TQC ACTIVITIES OF TAKENAKA KOMUTEN CO., LTD.”

Summary of a speech to commemorate receiving the Japan Quality Control Medal for 1992



Toichi TAKENAKA
President,
Takenaka Komuten Co., Ltd.

1 Outline and features of our company

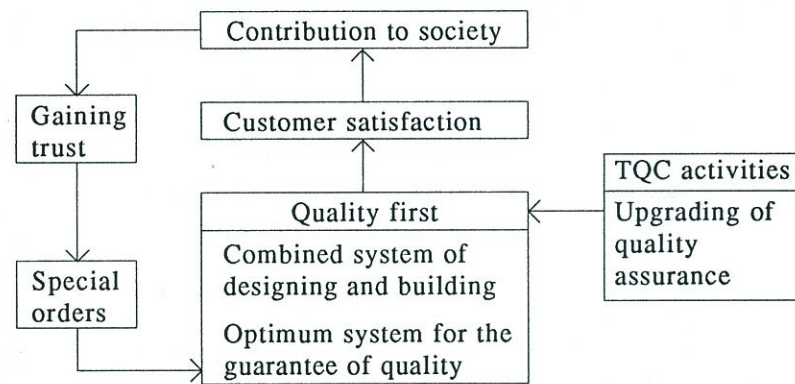
Takenaka Komuten traces its beginnings way back to the 15 year of Keicho, or 1610, in Nagoya, as a builder specializing in the construction of Shinto shrines and Buddhist temples. In the 32 year of Meiji, or 1899, we relocated our headquarters to Kobe, and we designated that year as the foundation of our firm as a modern corporation. Thus, 1992 marks the 93rd anniversary of Takenaka Komuten.

Businesswise, in 1991 we had a capital of ¥50 billion, had 16,000 employees and received ¥1,950 billion worth of orders. Our sales amounted to ¥1,480 billion, and our current profit came to ¥75 billion. Compared with 1979, the year when we were awarded the Deming Prize, Takenaka Komuten has grown 1.1 times with respect to the size of our workforce, 3.5 times in the amount of orders received, 2.7 times in regards sales amount and 5.0 times in the realm of current profit. Although our general offices are actually in Osaka, we have adopted the regional headquarters system, with Osaka and Tokyo functioning as dual head offices that control others located in Hokkaido, Tohoku, Nagoya, Hiroshima and Kyushu as districts. Focusing on our activities abroad, in 1960 we opened an office in the United States, one in Southeast Asia during 1964 and another in Europe in 1972. At present, we maintain 1818 overseas offices and have 31 foreign subsidiaries.

Takenaka Komuten has a number of managerial features. First of all, we specialize in construction,

which occupies 98% of our total business volume. Secondly, we stress consistency in design and actual building. After assessing the needs of the client-what is required to produce satisfaction-we function as a builder responsible for a total construction package, everything from concept renderings and architectural blueprints to putting up the building and adding the finishing touches. This gives us clearcut control at each construction stage and allows improved quality feedback of the data obtained at all stages. The ratio of this consistent design and construction system occupies roughly 60% of our work volume. Third, we stress technological development. In order to provide buildings with the best in quality, technology is indispensable. We give top priority to upgrading our technology together with design. Fourth, we attach great importance to special orders. Ever since the founding of our company, we have exerted efforts under the concept that gaining client confidence makes for the footing of business. The volume of special orders, which can be called the fruit of our endeavors, adds up to all of 80% of our total construction trade. Fifth and last, our stocks are not open to the public. This is so we can concentrate on maintaining high quality without overdue consideration given to the pursuit of profit. Incidentally, we refer to the buildings Takenaka Komuten has erected as “works of art” in this way emphasizing the importance of inheriting the spirit of ancient master carpenters and artisans, who formed our beginnings so every long ago.

Table 1 CONCEPT OF "QUALITY MANAGEMENT"



2 Quality management

Next I would like to introduce our "quality management," which forms the core of our overall management. Our company motto has it that, "We shall contribute to society by giving it the finest works of art at all times." Based on this concept, we constantly strive to improve the level of quality assurance among our architectural works of art, fully grasping the needs of our clients, with precedence shown to our consistent system of designing and construction. In this manner we are able to obtain client satisfaction and ultimately play a vital role in society. We call this kind of managerial behavior "quality management", which the chart shows in greater detail.

Ever since our establishment we have aimed at "quality first". To attain this ongoing goal, we considered it best that our consistent system of designing and building be used. Our architectural works of art resulting from the system most certainly would meet the satisfaction of our clients, at the same time contributing to society as a whole and winning for us even greater confidence. And that in turn would bring new orders. Constant repetition of this cycle remained the supreme directive imposed on our corporate management.

As our nation's economy progressed, the volume of our construction trade increased, giving rise to situations wherein not a few accidents and claims occurred. Against this background we looked for a new form of management, and found ourselves convinced that TQC would best serve the purpose. As a result, in 1976 we adopted TQC. Since that, it has become common knowledge to us that management based on the aforementioned business cycle with the addition of TQC stands as true "quality management".

On the other hand, I believe that the structure of quality management develops and changes in accor-

dance with the trends of the times. When TQC was first introduced at Takenaka Komuten, we were at a stage when TQC became integrated with the spirit of master carpenters of your, or the principle of producing fine works of architectural art. At the time we won the Deming Prize, we were in the process of developing our TQC activities by learning its management method and its practical application through actual experience.

Our present status is that, while conducting more vigorous TQC activities, we have adopted functional management with QCDS (quality, cost, delivery, safety) as our main objectives, and we've newly added an E (environment) to them, stressing the significance of the function of environment which has become a serious social problem. As to our fuller management plans as pointed out at the time we received the Deming Prize, after a considerable time spent for trial and error, we succeeded in having our corporate directors draft a long-range business strategy, which includes a follow-up called "vision management", and combined it with "quality management". Other worthy achievements in the meantime were that, when first taking up TQC, we succeeded in reforming our employee awareness scientific management methods, so that, when receiving the Deming Prize, we were able to stabilize our TQC activities, renovate our corporate structure and ameliorate quality assurance.

Now, 16 years after introducing TQC, we feel that it has become part of our physical constitution and that we have gained sufficient strength to survive the severe and agitated corporate climate confronting us in our present era. As for the future outlook of "quality management", we should spare no effort to evolve our enterprise, apart from the pursuit of prosperity, to become an organization fully justifying its existence with praiseworthy activities not only in Japan but throughout the world.

3 Third long-range strategy

When awarded the Deming Prize in 1979 we formed a long-range corporate vision to grow into the world's foremost construction firm in terms of both quality and quantity. By 1984, we had framed our first long-term strategical plan and set it in motion. Unfortunately, though, under severe economic conditions affecting our construction industry, called the "winter season for builders", we failed to attain our goal. The huge gap between the blueprint and the actual results rendered the plan meaningless. Our revised second long-term strategic plan, by contrast, dovetailed with Japan's unexpected sudden economic growth and displayed another broad gap between our target, that anticipated low economic growth, and the actual outcome.

Taking into consideration the major points of our two long-range plans and looking ahead at the year 2000, we have launched our third long-range strategy, adding the policy that it shouldn't be easily influenced by the economic climate near at hand. In it, as a leading firm for the creation of comfortable space, we have posed three main objectives: elevation, diversification and globalization. With respect to elevation, which in our definition means to elevate both quality, and height among the structures we erect, we shall make our architectural works of art "super-intelligent" by equipping them with sophisticated facilities and assemble "super-skyscrapers" as a collective form of architectural art, applying the utmost in qualitative improvement. Doing this, after all, falls within our domain of business. In the production stage of our works of art, we seek to upgrade productivity and safety, working to make buildings both higher and more "intelligent", while actively promoting complex production, automation, robotization and computer-integrated manufacturing.

As for diversification, we wish to expand the lines of business among our group enterprises to obtain better results by strengthening their network so as to conduct group management more effectively.

Regarding globalization, by restructuring and centralizing our existing overseas offices we hope to further the localization of each area, giving greater authority to each and thereby contributing more fully to the respective local communities. Our ultimate organizational chart will show that these overseas offices will be as equally placed as our domestic offices to enable belonging to the European, American or Asian districts, with a regional headquarters located in each area.

Meanwhile, as Japan's globalization advances, many enterprises owning foreign capital have started

up business operations in Japan. In this context, Takenaka Komuten has a solid corporate ground that has been receiving orders from companies with foreign capital. We are planning to increase the amount of orders gained using our specialty of the consistent designing and building system as a powerful sales tool. The accumulation of these measures amplified by the synergetic effect should enable attaining our year 2000 vision, that includes describing Takenaka Komuten as "Full of liberty and vigor, an attractive enterprise of global scale that creates culture and environment for the twenty-first century".

4 Future TQC activities

Next I'd like to present an overview of our TQC activities as planned for the future. In our third long-term strategy, our entire workforce will continue their efforts to fully assimilate the ways of TQC. In addition, as I explained, we'll reinforce our activities with the quadruple functions of QCDS plus the additive of E - environment - together with corporate ethics, cohabitation and coexistence, as well as enhanced employee satisfaction, all of which are essentials that corporations must effect in order to be successful.

Also, in challenging our vision for the twenty-first century, I intend to personally hold meetings of "QC Diagnosis by the President" 15 times a year, during which I'll judge the business conditions of our headquarters departments and offices individually. Furthermore, our "TQC Assessment Meetings", which we have begun with a view toward examining the activities of all departments and offices within our firm, will convene as many as 160 times a year, attended by all directors and vice presidents. By applying these courses of action we are trying to vitalize the basic functions of TQC.

In addition, we consider it necessary to rotate our business cycle, taking up small group activity of the problem-solving type with managers involved, and conducting individual QC diagnoses of our departments and offices. In this manner we shall be able to raise the level of our quality assurance to a great extent.

In conclusion, with the twenty-first century on our doorstep, we at Takenaka Komuten stand determined to evolve our concern as an enterprise that creates urban space with new culture and environment by swiftly reacting, strengthening and centralizing our activities to meet the changes of social trends, exercising such forms of strategy as elevation, diversification and globalization.

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“TQM AND ORGANIZATION INTELLIGENCE AT UNIVERSITIES IN JAPAN”



by Takehiko MATSUDA
President
Sanno College

Recently universities in Japan have shown a tendency to conduct self-examination and self-evaluation, which is a good thing. However, I regard it as disappointing that the trend is exterior generated, that is, the movement gained momentum in response to pressures from the outside world. It is regrettable that reforms or innovations observed in Japan have usually taken effect in this manner.

It is common knowledge that Japan has never been subjected to a revolution in the strict sense of the term. Since ancient times, reforms or innovations in our society resulted from foreign pressures. Long ago Japan's defeat at Ecchonkan, in Korea, led to the Reformation of the Taika Era, and the visit of Commodore Perry's "black ships" paved the way for the Meiji Restoration (1867-8). During post-World War II years the farmland reform under the direction of the US occupation forces and, more recently, the economic reform imposed to weather the oil crisis remain fresh in our memory.

Whenever these oppressions and crises came from the outside world, there was always great excitement among the populace, attended by conjectures and proposals as to the course Japan should take. Somehow or other, no matter how great the furor, within a few years it was absorbed by the society. This superb capacity to assimilate pressures from abroad can be observed in every aspect of our nation's society, right down to individual organizations. In short, we can say that the Japanese and their society and organizations are well suited to exterior-generated reforms or innovations.

However, what is far more desirable for renovation is the interior-generated type of reform, which originates from within the society or an organization. More, such reforms or innovations should be effected based on firm belief accompanied by justifiable methods. The same applies to reforms or innovations at Japanese universities, which even though exterior-generated at

the outset as an expedient or starting clue, should eventually be accomplished as the result of a belief or doctrine generated from within the institution.

As I have repeatedly experienced, reforms among universities of the interior-generated variety are extremely difficult to accomplish - almost like trying to lift the chair one is sitting on. But somehow we must do it. The environment that surrounds our nation's universities and the state of affairs within them are in dire straits, and the time is ripe for reform among these seats of higher learning. What we need are a firm belief in renovation, and a form of methodology that has objectivity and persuasive power.

From this point of view, we shall now discuss TQM (Total Quality Management) as a driving force to achieve university reformation.

Needless to say, TQM originated with quality improvement among commodities as its goal. And it proved successful in upgrading the quality of goods - even successful in "Total" management. The word total is important here since it is not limited to tangibles such as products, people and money, but also applies to intangibles, like technology (both specific and management varieties) and management itself (strategy, control and operations). What stands as vital is to systematically grasp the structure that links them all, the process that takes place within the structure, the behavior of persons and mechanisms that actuate the process, and the organization - personnel and machines that unite them.

What I mean by "systematically" has nothing to do with treating matters mechanically. As I mentioned earlier, organizations necessarily include human beings who form an essential element of any system, we must take this factor into consideration.

When applying the concept of TQM to universities, personal experience has shown that severe reprimands

can be expected on the order of, "What a shame that students must be treated like merchandise!" Indeed, each student is an independent individual gifted with his or her own intellect, sentiment and free will, hence differs greatly from a commodity that has no such lofty characteristics. This of course is quite true. But when considering the function aspect of an organization, there is little difference between a human being and a piece of merchandise. They remain alike in that they serve as an element in a system which trades the organization called a university (education) for money and energy in spiritual and material ways. It should be borne in mind, though, that only by paying due respect to human beings in the areas of intellect, sentiment and free will, can we build a single integrated system. This attitude alone can make TQM a "total" management method.

When observing universities from the aspect of "quality," the question arises concerning the quality of service universities provide for their students, their personnel and the society. Above all, the quality of students is highly significant.

It is a widely known fact that the number of students enrolled at a given institution conversely relates to student quality. Expressed another way, student quality declines as the number of enrollees increases. Under scrutiny by the public who believe this equation, universities are compelled to conduct their activities much like private enterprise in such areas as procurement (matriculation), production (instruction) and marketing (finding employment for) of students (graduates). Universities are also held liable for quality both in the process (curricula) and the process (achievement).

Were we to illustrate quality control activities as conducted by a university as an organization, it would look like what is shown in Chart 1.

In fact, at each stage or block of activities, proper functioning of organizational intelligence at various levels should be established as a premise. Organizational intelligence can be defined as a complex of interconnection or interaction, accumulation and integration of human and machine intelligence, including artificial intelligence, both of which are intrinsic in any organization.



Chart 1: Quality Control Activities at a University

This concept is based on the reality that an organization has its own collective working process just as a person has his or her own intellect in the inner workings of one's mind. It is not something too difficult to understand.

According to Chart 1, we see at each stage or block of quality control activities both the standards and contents or organizational intelligence as required for universities.

1 Quality strategy

From the viewpoint of quality, organizational intelligence must be present to support decisions concerning the treatment of interface, or interrelation, between universities and the environment that surrounds them. We live in an age when universities, while receiving a certain impact from their environment, must give in return an ecological impact, thus establishing a pattern of sociosematology-wise interconnection or interaction, to the environment, fortified with a certain mass of force. Here there must be organizational intelligence that determines which types and levels of students should be sent into society, with proper consideration for the spirit of the university, social demand, and the institution's resources. This forms the start of university education.

Research activities also influence the quality of universities, almost as strongly as their education itself. In this context, organizational intelligence must be present so as to build an efficient infrastructure of education and research.

2 Quality assurance

As we all know, universities are responsible for the quality of students they graduate. Universities that fail to fulfill this obligation in fields of scholarly attainment and discipline sooner or later will find themselves partitioned off. Giving close attention to this point demands organizational intelligence.

3 Quality design

Quality design is an engineering process that embodies the strategy of quality, and it forms the weakest part of QC in Japan. This is because the standards that QC intends to actualize and maintain are determined solely by specific demands. There is no statistical aspect to these standards, to which the majority of QC activities in our nation adhere as if the Golden Rule. There must be organizational intelligence that takes into account the designing of quality by which we should abide.

At universities the designing of educational activities falls into this category. Here the appearance of or-

ganizational intelligence which can make the designing efforts of the entire faculty a reality is anticipated.

4 Quality control

At universities quality control is a process that corresponds to the implementation of education and research, and it stands as a way to maintain and improve the standards submitted by quality design as explained in Item 3 above. Here the intelligence of organizational maintenance and that of organizational improvement needed to carry out matters that have been decided are expected.

5 Quality audit

If we apply the idea of the management circle as relating to quality, then quality design becomes the "Plan" stage of the circle, quality control collates with "Do," and quality audit comes under "See." Of course all of these steps can be included in the overall process of quality control.

At universities, self-examination that as much as possible evaluates the design and attainment degree of education and research from the standpoint of quality should be undertaken as a preliminary step.

In the world of private enterprise auditing, including that of both operations and accounts, is conducted based on a demerit marking system that assesses only what the organizations themselves did. At universities quality audit of education and research should be based on the opportunity form of audit conducted on opportunity oriented demerit and merit systems that determine whether they did or did not do what they should or should not have done. In this regard the introduction of organizational intelligence capable of promoting the above form of quality audit is highly desired.

6 Self-examination and self-evaluation

This is a matter that should be conducted during the stage of quality audit as described in the preceding. But it is hoped that sufficient organizational intelligence to administer opportunity oriented and future directed self-examination and self-evaluation can be introduced to universities not only in the aspects of education and research but also in operations, finance, accounting and personnel management, and even in areas of policy making and the planning of future projects.

As we have seen, it is possible to reform or innovate universities from their education and research fields to those of administration and management with a consistent form of philosophy selling them on the idea of TQM, that represents the principles of QC, which already has achieved worldwide success in the realms of commodities and service. To achieve this, it is impor-

tant that each university, as an individual organization, tries to enrich and improve its organizational sentence and volition, that control the "sentiment" and "will" of the institution, in addition to upgrading their organizational intelligence as already existing. ★

JUSE NEW DIRECTORS

We would like to announce that JUSE made a director's election at the board of directors and trustees on June 28. Each directors was appointed as follows;

Chairman	Kohei SUZUE
President	Yokichi MAEDA (Full-time)
Managing Director	Junji NOGUCHI (Full-time)
Director	Masao GOTO
Director	Saburo OHNISHI
Director	Jiro KONDO
Director	Sadao TAKAHASHI (Newly-appointed)
Auditor	Toshikatsu ISHIKAWA
Auditor	Koji MAEDA

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JUSE INTERNATIONAL SEMINARS

—FROM APRIL TO JULY 1993—



International Seminar on TQC
for TOP Management
—Spanish / Portuguese Course—
April 12 to 22, 1993
at Tokyo Hilton International Hotel
No. of Participants: 80



TQC Seminar for Brazil Top Management
May 31 to June 10, 1993
at Hotel Kowakien, Hakone
No. of Participants: 45



TQC Seminar for China Top Management
July 5 to 15, 1993
at JUSE Higashi-koenji Annex, Tokyo
No. of Participants: 38

JUSE INTERNATIONAL SEMINAR ON TQC FOR TOP MANAGEMENT

**—SPANISH COURSE—
WITH INDUSTRIAL VISITS**

Date: April 11~15 (Seminar), 18~21 (Plant Visits), 1994

Venue: JUSE Higashi-Koenji Annex (Seminar)

JUSE is planning the above seminar in April next year. All the details as participation fee and program etc. will be announced later on.

Organized by Union of Japanese Scientists and Engineers (JUSE)

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1993 QUALITY MONTH, November IN JAPAN

Themes for Quality Month

“Severe Environment Needs Ideas”

—Management reform through TQC—

“Creation begins with Wisdom and Analysis”

Events held during Quality Month

Nov. 5	Quality Control Conference for Consumer (Tokyo)
Nov. 1	Quality Control Conference for Consumer (Osaka)
4,5	Quality Control Conference for Service Industries
9	All Japan QC Circle Convention
10 to 12	Quality Control Conference for Foreman
15	Quality Control Conference for Top Management
15	1993 Deming Prize Awarding Ceremony
16 to 18	Quality Control Conference for Manager & Staff

*Lecture Meetings are held in 17 local cities.