MANAGERIAL ROLE FOR QUALITY IMPROVEMENT

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SUMMARY

Among important management indicators of quality, cost and productivity, quality has a far more human character. An appeal of quality improvement by the managers is more easily sympathized and accepted by the subordinates than either to cut cost or to raise productivity. Improving quality in creative ways can lead to lower cost and higher productivity.

Quality improvement is the effective way to provide human satisfaction factors in our work, and it is the key to unlocking the secrets of motivation. Leadership is not to separate planning from execution but it is persuading the group members to accept the common aims of the group, displaying tenacity and patience while the goals are approaching and appropriately coaching and encouraging the group members.

1. INTRODUCTION

In order to satisfy customer demands and to cope with quality competition in the global market, improvement of quality is indispensable. For improving quality, problem-solving approach is employed. Masaaki Imai (1986) talked in his book "KAIZEN" that KAIZEN (improvement) starts with a problem or, more precisely with the recognition that a problem exists. Where there are no problems, there is no potential for improvement. A problem in business is anything that inconveniences people downstream, either people in the next processes or ultimate customers. The problem is that the people who create problem are not directly inconvenienced by it.

It goes without saying that quality, cost , and productivity are important management indicators for companies. It is essential from the business-management perspective to keep improving and maintaining not only quality, but also to reduce cost and to raise productivity. Why

do we pick up quality improvement first? Some of us are afraid that when we improve quality cost goes up and productivity goes down. Is this way of improvement appropriate and acceptable? We should start our discussion from this point.

It is very clear in our mind that displaying leadership of managers is indispensable for solving problems and improving quality.. However, we are likely to be hard put to provide an answer to the question of what exactly leadership means. It is often an abstract concept, and the problem lies in how to pin it down in concrete forms and actually put it into effect.

Juran (1981) summarized the characteristics of QC practiced in Japanese industry that have led to Japan's revolutionary improvement in quality. They are

(1) A massive quality-related education and training program
(2) Annual programs of quality improvement
(3) Upper management leadership of the quality function

Again it is seen that the upper managers' leadership is indispensable for performing all these three items.

2. DEFINITION OF PROBLEM

Resultant problem. One example is cited. At the QC committee of a company it was discussing that what kind of annual programs the company should pick up for the coming next year. One of the members suggested "promotion of standardization" as one of the program items. Since the other members also felt that their company's standardization program was less advanced than its competitor, this proposal was adopted. The committee decided to establish 50 new standards and review and revise 80 existing standards as the annual targets for the standardization promotion drive. Upon checking at the end of the year, it was found that, thanks to the efforts of everyone involved, both of these targets have been achieved.

Why did this company choose "promotion of standardization" as an annual program item? Was it simply because it was lagging behind in its standardization efforts and its existing standards were inadequate? No it was not. Doubtlessly it was because its product defect rates and rework rates were higher, no reductions were being seen in the number of late deliveries, and customer complaints as a consequence of the incomplete and inadequate standardization resulted in a situation that urgently needed to be rectified. Achieving the standardization targets mentioned

above would be meaningless unless these problems were solved as the result.

Problem-solving approach should be used to tackle the problems resulting from such superficial topics. If the resultant problems are not clearly identified, the countermeasures taken against "backwardness in standardization" will go no further than "promotion of standardization." It will not lead to a solution of the real background problems. Clarifying the resultant problems in this way enables us to set specific and useful objectives. This in turn makes it easier for us to identify in concrete terms the results achieved and the remaining problems at the subsequent checking stages.

Comparison with "other values." After we have identified the resultant problems, we collect and analyze the data that express them quantitatively. It is particularly important to stratify these data and use them to prepare Pareto diagram at this stage. It shows us where to set our priorities when solving problems. Comparing Pareto diagrams prepared before and after the solution of a problem enables us to identify the areas where our improvement efforts were particularly effective and check whether or not our attempts to prioritize really worked. It also allows us to identify the remaining problems and get ready to rotate the PDCA cycle effectively.

It is also important to compare the actual data describing the resultant problems with "other values" such as targets, theoretical values, results achieved on similar processes, and results achieved by competitors. Any gap between our actual results and these "other values" represents the problem or the improvement that we wish to achieve. This gap can of course be either positive or negative. We tend to pay attention to only one side of these as in the case of benchmarking, but we should also look at the other side of the coin.

No problem is problem. We may also tend to assume that we are free of problems if we can find no great disparity between our actual results and these "other values." When this happens, however, we should ask ourselves why there is no marked difference and consider whether these "other values" are in fact suitable objects of comparison. It is commonly said that not having any problems is itself a problem; whenever we think we have no problem, we should inquire closely as to whether this is really so. A problem was defined above as a gap between the ideal and the reality. People are always sensitive to problems (or inconveniences created by problems) caused by other people, yet insensitive to the problems and inconveniences they cause on the other people. The best way to break the vicious circle of passing the buck from one person to another is for every individual to resolve never to pass on a problem to the next process.

3. QUALITY FIRST PHILOSOPHY

After the end of the Cold War in 1989, many socialist countries switched from centralized, planned economies to free-market economies. Thus the momentum towards an increasingly open and globally competitive marketplaces now has an unstoppable force. We should not forget that quality is the key to competitiveness in these opening markets and that quality has become a fundamental way of managing any business anywhere for market growth and profitability.

Features of quality. In connection with this consideration, we would like to have a look at the meaning of quality. We know first of all that quality is distinguished from the other equally important management indicators, cost and productivity, by the following features. (Kondo, 1988)

(1) Its history (in other words, its relationship with human beings) is far longer.

(2) It is the only one of the three factors to be of common concern to both manufacturer and customer.

Because of these unique attributes, quality has a far more human aspect than either cost or productivity. This property of quality arises from the fact that we feel a deeper connection with it than with either cost or productivity. While we may stress the importance of establishing "quality culture," (Hildebrandt,et al., 1991) we do not commonly use the terms of "cost culture" or "productivity culture." An appeal by managers to improve product quality is more easily sympathized and accepted by the subordinates and harder to refuse than a call to cut cost or to raise productivity. It may probably derive from this special nature of quality. Improving quality differs from reducing cost or raising productivity in that it pleases the internal customers within the company (downstream) and its external customers in the market as well as the people actually engaged in doing it.

Furthermore, we know from our own experiences that improving quality in creative ways can lead to lower cost and higher productivity, although the converse is not necessarily true. When cost is reduced in creative ways or productivity is increased by creative methods, does quality necessarily improve? I do not deny that examples of this kind may exist, but they must be extremely rare.

Attractive quality and must-be quality.(Kano et al., 1996) In addition to reducing cost by improving "must-be quality," it is often possible to create new markets, expand the share in the existing market and thus increase profitability of the company by seeking out "attractive quality" (which is often forgotten about because customers have abandoned hope of obtaining them or do

not realize that they want them), verifying their effectiveness, and taking positive steps to incorporate them into the product and service. In some cases, it is also possible to boost sales of similar products through the synergistic effect.

As already stated, quality is a common concern of manufacturer and customer. However, it often happens that both parties view quality from different perspectives. This kind of problem can occur when surveying the customer satisfaction with a product's "attractive quality." Sometimes the manufacturer does not adequately investigate what kind of quality its customers really want, but merely uses guesswork to list quality it imagines customers find attractive, and then measures customers' preference for the quality on this list. Such an exercise can easily end up as a "product-out" type of satisfaction survey, not a survey of true customer satisfaction of "market-in" type.

Quality as human satisfier. When people were poor, work and money were extremely closely linked; people need money to provide basic necessities such as food and clothing in order to survive. Money is indispensable for diminishing our dissatisfiers. However, as our lifestyles become more affluent and society becomes more advanced, the value of money in relation to work decreases rapidly. Though money is effective for getting rid of "human dissatisfiers." it has no effect on providing "human satisfiers." If we persist in the belief that work consists of nothing more than earning money, it will often lead to an increase in the absentee rate of workers. We need money in order to live, but is our work really nothing more than a way of making money? There are other rewards apart from money that make us want to do good and worthwhile work. We call them as "human satisfiers."

The story about three masons is well-known. On being asked what they are doing, the first mason replied, "I am a mason," while the second mason said, "I work for $15 a hour." The third mason gave the following answer: "I am building a cathedral which is to stand here for many years and which is to serve as a spiritual place of rest." The answer of the third mason concerns the quality which is more intrinsic and can further be deployed into detailed items. Quality is an element of the human satisfiers. Investigating them more deeply and specifically is undoubtedly the key to unlocking the secrets of motivation. This problem will become more and more important in the affluent 21st century.

4. MANAGERS' LEADERSHIP

In addition to the previously mentioned three characteristics of quality improvement activities in

Japanese industry that had led to the revolutionary improvement in quality, Juran (1991) also identified eight lessons that can be learned from American companies that have applied for Malcolm Baldrige National Quality Award as effective ways of achieving a quality revolution. These lessons are:

(1) Stretch goals can be met.
(2) The "Big Q" concept must be adopted.
(3) Clear ownership of multifunctional processes must be assigned.
(4) An infrastructure for improvement must be created.
(5) A lot of work is required.
(6) Upper managers must personally lead the effort.
(7) The Taylor system must be replaced.
(8) Quality goals must be incorporated into the business plan.

It is again evident that upper-management leadership is indispensable for quality revolution.

What exactly leadership means. Although we may be clear in our mind that effective leadership is indispensable for the success of TQM, we are still likely to be hard put to provide an appropriate answer to the question of what exactly leadership means. It is an abstract concept, and the problem lies in how to pin it down in concrete forms and actually put it into effect. What we can say at this stage is that leadership appears to be different from simply issuing orders – the "shut up and do as I say" approach – which many of us were subjected in the past. There certainly was a time in the past when this approach was effective. The Taylor system that proved so effective in establishing mass production systems at the beginning of the 20th century is the case in point. However, a precondition for this system almost 100 years ago was the employment of poor, low-skilled immigrant labor, and this is the very reason why piecework payment system was such an effective tool.

Participation and leadership. Today, the social climate has changed drastically. As people's educational levels and lifestyles have improved, the value of money in relation to work, and consequently the effectiveness of the piecework payment system has declined remarkably and rapidly. At the same time, people are exercising their individuality more and more, and worker participation in industries has become a powerful social trend.

In such times, the task of managers naturally becomes more difficult. Whether or not we like it, workers' desire to participate in planning and managing their own work is bound to continue intensifying at present and in the future. Moreover, the shop-floor autonomous management

activities are being adopted by more and more companies as their employees' capabilities improve, and in fact, they are already producing far better results than originally anticipated. As employees' self-confidence improves in this way, it is only natural for their desire to participate in planning and management to grow. The leadership of managers we are considering here is the type we need in times when more and more workers want to participate in this way.

Before discussing exactly what leadership is, let us think a little about what is implied by participation. The separation of planning and execution (Juran, 1973) as seen in the Taylor system has two serious adverse effects. First, it fails to make use of the qualities of the employees charged with carrying out the work; and second, it diminishes their sense of responsibility for its successful execution. Participation, on the other hand, if it is carried out correctly, makes good use of people's qualities and at the same time gives
them a strong sense of responsibility for getting the work done.

In a system such as business firms, the work that must be done in order to achieve the common aim of the business owners and its work force is split up
and divided among various functions, departments, and individual employees. The principle of autonomous management is for each individual employee or small group of employees to keep on rotating the PDCA cycle in relation to the particular tasks for which they are responsible. The secrets of success in this are for managers to devise and implement systems that allow employees to rotate their PDCA cycles even more quickly and effectively and to give their subordinates appropriate guidance and encouragement relating to the daily work carried out within these systems.

Common aims and "dream". Leadership means convincing one's subordinates to accept the group's common aims and to go all out to achieve them. The specific functions of leadership therefore include persuading subordinates to accept the common aims and agree that they are worthwhile, displaying tenacity and patience while the goals are being reached, and guiding, developing, and encouraging subordinates. We can therefore list the following preconditions for effective leadership:

(1) Leaders must have a "dream" (a vision and shared goals).
(2) Leaders must have the strength of will and tenacity of purpose to do whatever is necessary to realize the "dream." They must be able to exercise patience and perseverance.
(3) Leaders must be able to win the support of their group members. For this to happen, the "dream" must be sufficiently worthwhile and beneficial to society and acceptable to the group members.

(4) Leaders must be able to do more than the group members can do for themselves. They must act when the group members cannot (in other words, they must be able to lead in the crises), and they must foster capable members.

(5) Leaders must always succeed, but they must never sacrifice the group members in order to do so.

(6) Leaders must be able to give the right advice to the group members at the right times.

We may not instantly be able to furnish ourselves with all of these qualities, but it is vital that we keep them in mind and make a continuous effort to acquire them.

Establishing common aims of the group is the most indispensable condition for the success of teamwork. Some managers feel, on the other hand, that as people become more and more individualistic, it is becoming increasingly difficult to find a "dream" that they sympathize with and establish this as the group's common aim.

Existing well in the world. On the other hand, people participate in society in groups such as families, communities, sports clubs, companies and so on. Each of these has its own raison d'etre and it is extremely desirable for its aims to be acceptable to all its members and beneficial to society. Moreover, these activities must not be merely simple, mechanical and repetitive, but also be rich in variety and help us exercise our creative abilities. Such activities bring out our human qualities and stimulate our desire to work. Companies that "exist well in the world" (Okusa, 1985) are the companies that fulfill these conditions, and in addition to an appropriate amount of salaries, this is what make them attractive to their employees and to young college graduates who wish to join them. This is because it is easy for people to buy into these kinds of conditions and thereby gain a sense of pride in their work. Quality alone cannot of course satisfy all these conditions, but to the contrary, it is impossible to speak of them without talking about quality.

In addition, every human being has the desire to improve; we all compare our present situation with what it could be and try to progress by identifying problems and solving them. Above all, in a group such as a business corporation that is oriented toward achieving specific goals, it is always possible to find a particular "dream" that we can persuade our colleagues to share if we go back to the basic philosophy, or mission and vision, of the organization and ponder it. The foremost quality a leader needs is the ability to convince his or her group members of the importance of realizing a particular "dream" and persuade them to accept it.

When trying to achieve a common goal, it is better not to start simply by holding up the

final target as the goal to be achieved. A more practical approach is to set relatively easy intermediate targets and rotate PDCA cycle as these are gradually attained, allowing everyone to share in the joy of achievement at the same time as continually trying to improve their abilities. In general, the more people suffer in the course of achieving their shared aims, the greater their joy in achieving them. In fact, difficulties tend to spur our ingenuity to overcome them. This kind of effort naturally leads to creativity and, in turn, improve our abilities.

Competitive mind. Our desire to improve is closely related to the very strong sense of competition all social beings have, whether actively displayed or concealed. This kind of competitive mind exists not only among rival groups but also among members of the same group. This kind of competition should of course be based on the spirit of "fair play" ideally seen in sports. Moreover, it is important to avoid suppressing this competitive drive, since doing so would hamper people's desire for improvement. Rather we should concentrate on avoiding any competition that contravenes the spirit of fair play. Fair competition, together with teamwork, will then take place among group members. These correspond respectively to mutual trust among group members and what Nishibori calls "cooperation among people of different characters."

5. CONCLUSION

Problem-solving approach is essential for quality improvement. This approach begins from the definition of problem. Among the important corporate management indicators, quality, cost and productivity, quality has a far more human character, and an appeal of quality improvement is more easily sympathized and accepted by the employees than either to cut cost or to raise productivity. Improving quality in creative ways can lead to lower cost and higher productivity. Quality improvement is an effective way to provide human satisfiers in our work, which is the key to unlocking the secrets of motivation.

Leadership of managers is indispensable for the quality revolution. Leadership is not the "shut up and do as I say" type approach, but it is persuading the team members to accept the common aims of the group, displaying tenacity and patience while the goals are approaching and appropriately coaching, developing and encouraging the team members.

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