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Performance improvement of management systems — Guidelines for small group improvement activities

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Foreword

This Japanese Industrial Standard has been established by the Minister of Economy, Trade and Industry based on the provision of Article 14, paragraph (1) of the Industrial Standardization Act in response to a proposal for establishment of Japanese Industrial Standard with a draft being attached, submitted by Japanese Standards Association (JSA), an accredited standards development organization.

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Performance improvement of management systems — Guidelines for small group improvement activities

0 Introduction

0.1 General

In order to continuously create new value by linking the customer and the society needs to organizational technologies, it is necessary to solve the problems and achieve the tasks that arise with the change in needs and technologies. In order to do so, everyone working for that organization should participate in the activities with a high level of motivation, closely cooperate with one another, and hone and utilize their respective abilities through the activities.

However, there could be organizations with diverse employees, some of whom may not show interest in the activities in the said organizations. Communication could also be found wanting. In addition, in spite of spending a lot of time on education and training, learning curve of some of them may not improve and their potential abilities may not have shown results. “Small Group Improvement Activity” is the method conceived to overcome such difficulties. “Small Group Improvement Activity” is the basic activity to link problem solving and task achieving with human development and workplace energization. The organization’s growth and development depend vastly on the quality of such activity. Therefore, it is desirable that they be practiced in all the departments and all the layers.

This Japanese Industrial Standard summarizes the fundamental principles of small group improvement activities and guidelines for systematically promoting small group improvement activities, in order to provide a basis for the spread and development of small group improvement activities.

No corresponding International Standard has been established at this point.

0.2 Consistency with other standards

This Standard is designed with the aim of small group improvement activities and intended to be used independently; however, this Standard may be used with consistent group of such standards as **JIS Q 9023** for policy management, **JIS Q 9026** for daily management, **JIS Q 9027** for quality assurance by process and **JIS Q 9024** for procedures and methodology for continual improvement to complement each other.

Annex A shows the role of policy management, daily management, small group improvement activity and quality assurance in Total Quality Management (hereafter referred to as TQM). Also, this Standard is designed to be used as a supporting technique for the construction and operation of quality management for achieving sustainable success, specified in **JIS Q 9005**.

0.3 Relation with JIS Q 9001 and JIS Q 9004

This Standard is designed to be used as a supporting technique for an organization to effectively and efficiently operate the management system on the basis of **JIS Q 9001** and **JIS Q 9004**.

0.4 Compatibility with other management systems

This Standard has not been prepared as a specific supporting technique for such management systems as environmental management, occupational health and safety management, and financial management, but may be used as a supporting technique to improve the performance of these management systems.

1 Scope

This Standard specifies the fundamental principles and the guidelines on organizational promotion, concerning practicing small group improvement activities, one of the main activities of quality management. This Standard can be applied to any size of organization. Also, it can be applied not just in manufacturing but in all types of workplaces such as R&D, sales, after-sales service and administration. In addition, it can be applied not just in the manufacturing industry but various industries including the service industry.

2 Normative reference

The following standard contains provisions which, through reference in this text, constitute provisions of this Standard. The most recent edition of the standard (including amendments) indicated below shall be applied.

JIS Q 9000 *Quality management systems — Fundamentals and vocabulary*

3 Terms and definitions

For the purpose of this Standard, the terms and definitions given in **JIS Q 9000**, and the following apply.

3.1

small group improvement activities, small group activity

activities to enhance knowledge, skill and motivation level of members as well as contribute to achievement of purpose of the organization by forming a small team having common purpose and diverse knowledge, skills, viewpoints, ideas, authority etc. and carrying out maintenance-plus-enhancement, improvement and innovation

Note 1 to entry Small group improvement activity includes activities by improvement teams and QC circles.

3.2

improvement team

small groups formed to solve or achieve important problems or tasks of the organization

3.3

QC circle

small groups where frontline workers continuously carry out maintenance-plus-enhancement and improvement of quality of product, service and process

Note 1 to entry In QC circle activities, the purpose is not only to improve customer satisfaction and contribute to the society, but also to attain ability enhancement and self-actualization of members, and to create a pleasant, vibrant and satisfying workplace.

3.4

improvement

activities that set targets higher than the current level for products and services, processes, systems etc., identify problems or tasks, and carry out problem solving or task achieving in order to enhance performance

3.5

problem solving

a series of activities that specify the cause behind a problem, take countermeasures to correct them and confirm the effect

Note 1 to entry Sometimes the improvement including task achieving is called problem solving without distinguishing the problem and the task.

3.6

task achieving

a series of activities that set a target and achieve it by building and operating processes and/or systems

3.7

QC Story, procedure for improvement

basic procedure to pursue improvements logically and scientifically based on data and to carry them out effectively and efficiently

3.8

self-actualization

recognize, develop and reveal the possibilities within self

3.9

total employee involvement

all members of the organization are aware of their role in the organization and actively participate in and contribute to activities to achieve the organization's objectives

Note 1 to entry Generally, all the members of an organization should be taken into consideration, but it is necessary for each organization to decide who all to include.

4 Organizational promotion of small group improvement activities

4.1 General

Small group improvement activities are spontaneously practiced in an organization that has abundant talent. However, in a normal organization, there are large variations from department to department, such as they may or may not be practiced. In some cases, people who have no practical experience and do not understand the basics become managers, resulting in a vicious circle where the basics are not practiced. In order to get out of this situation and practice problem solving and task achieving in every department of the organization, and to develop people with the necessary abilities and motivation, such as quality assurance, policy management, daily management, and quality management education and training, etc., it is recommended to promote small group improvement activities as an organization.

To promote small group improvement activities, it is necessary to understand its fundamental principles in advance. Annex B shows the fundamentals of small group improvement activities.

4.2 Promotion mechanism

It is desirable to build a mechanism fit for the status of the organization to promote small group improvement activities, practice them as per that mechanism, and periodically review and improve it. It is necessary to understand that promotion that is not based on a mechanism often fails with the change of person, even if it seems to be successful in the short term.

When considering the mechanism for promotion of small group improvement activities, the following elements need to be taken into considerations :

- purpose of promotion,
- promotion organization,
- selection of problems/tasks,
- formation of small groups,
- implementation of improvement activities (improvement procedures/techniques and operation of small groups),
- enhancement of ability,
- deployment of the results obtained,
- promotion of level of improvement activities, and
- evaluation and review of promotion mechanism.

Small group improvement activities are to be conducted as an organization, and it is important to clarify their purpose and the division of role and cooperation with other activities. In addition, there are many things that need to be undertaken for the promotion of small group improvement activities. It is necessary to clarify who is to do what, assign responsibility and authority as necessary, and create an organization for

promotion. Furthermore, in order to promote activities by individual small groups, it is important to build a system for registration of problems/tasks that are being addressed, grasp and support the progress of activities, utilize the results obtained through the activities as an organization, evaluate ability enhancement and contributions to activities and provide opportunities for mutual learning through presentations.

4.3 Top management's role

Small group improvement activities fail because human resources are not nurtured in the short term. Promotion from a mid-term/long-term perspective is necessary. For that, it is important that the top management of the organization has a good understanding.

First, it is recommended for the top management of the organization to position small group improvement activities as an important pillar in business and to declare its organizational promotion. In addition, it will be better to incorporate items related to promotion of small group improvement activities and items that should be addressed by small group improvement activities into the organization's annual policy, to install a promotion office after securing the necessary management resources (budget, people, activity time, etc.) and ensure reporting on the problems/tasks that are being worked on and their progress status, to attend presentations and report meets on activities, and to check the status of activities in each department during top management diagnosis.

If the top management of the organization practices the above, managers of each department will also get interested in small group improvement activities, deploy organizational policies to their own department, select problems/tasks, form small groups, support improvement activities, practice development of necessary abilities and deploy the results obtained. This will ensure that small group improvement activities are continuously practiced in all departments of the organization.

4.4 Representative types of small group improvement activities

4.4.1 General

There are various types of small group improvement activities but if one arranges them focusing on the following 2 axes, they can be divided into 4 types as shown in Table 1. A person may belong to small groups of different types at the same time.

- a) **Workplace-wise type vs Cross-functional type** A small group of people who are doing the same or similar work in the same workplace, or a small group organized by people who work across workplaces or have different occupations.
- b) **Continuous type vs Time bound type** A small group that continues to work on different problems/tasks after solving a problem or achieving a task, or a small group that is disbanded after solving a problem or achieving a task.

Table 1 Representative types of small group improvement activities

Type	Description
A. Workplace-wise and continuous type	Frontline workers from the same workplace form a small group, take up the problem/task from their own workplace, and work on solving or achieving it. Small group is retained even after a problem is solved or a task is achieved. They play an important role not only in improvement but also in activities for maintenance-plus-enhancement. For instance, QC circle, TPM circle, JK (abbreviation of Japanese word indicating autonomous management) circle, CS circle.
B. Workplace-wise and time bound type	In order to solve an important problem or achieve an important task of a specific department, a small group with managers and staff of the department at the core is formed. It is disbanded after the problem is solved or the task is achieved. For instance, project or task team of each department.
C. Cross-functional and continuous type	Those concerned with specific business result or specific technology of the organization form a cross-functional small group spanning multiple departments and solve problems, or achieve tasks related with concerned business result or technology. The small group is retained even after solution to the problem or achievement of task. For instance, safety committee or XX technical review committee.
D. Cross-functional and time bound type	A cross-functional small group is formed by people having advanced specialized knowledge or skills to solve a problem/achieve a task that is difficult to solve/achieve by a specific department alone. The small group is disbanded after solution to the problem or achievement of task. For instance, cross-functional team, Six Sigma team.

Four types of small group improvement activities mentioned in Table 1 are common in terms of “Challenging problems and tasks in small groups”, “Improvements based on QC approaches, procedures and techniques” and “Enhancing abilities and energizing the organization”, which are shown in Annex B; however, they have their respective characteristics. For instance, A type i.e. “workplace-wise and continuous type” has the convenience of doing the activity on a common base namely, the “workplace (place where one works)” and is suitable for mid-term/long-term perspective such as human resource development. However, the drawback is that the scope of the problem/task becomes narrow. On the other hand, D type “cross-functional and time bound type” which is at the opposite end of the A type has the advantage that one can have the optimal members for the problem/task and is suitable for any initiative that cannot be carried out by one department alone. However, its drawback is that one success is unlikely to lead to the next. Therefore, an organization should not carry out only one type of activity, but it is important to promote multiple types simultaneously depending on the purpose.

4.4.2 Team improvement activities

When promoting 4 types of small group improvement activities mentioned in 4.4.1, it is better to have a separate promotion system for each, as the problems/tasks taken up and participating members might differ.

In cross-functional and time bound type or workplace-wise and time bound type

small group improvement activities (hereafter referred to as team improvement activities), since the team does not exist before, it is necessary to have a mechanism where a team is formed from required members depending on the problem/task. Top management or managers should be able to exhibit leadership based on deployment of the policy of the organization. Moreover, as the team is disbanded after a problem is solved or a task is achieved, it is necessary to evaluate the ability of each individual so as to use them when forming another team. Members who participate in the activities are persons who have acquired abilities and specialized knowledge in a specific area. Therefore, it is better to link evaluation of team improvement activities with personnel evaluation (promotion) and presentation and report meets should be positioned as the place for horizontal deployment of the results obtained or exchange of information.

4.4.3 QC circle activities

In workplace-wise and continuous type small group improvement activities (hereafter referred to as QC circle activities), after having put in place the system to form circles based on workplace or job, support should be provided to each circle for selecting the problem/task (referred to as theme in QC circle activities) and challenging problem solving or task achieving. When selecting the theme, it will be better to include problems/tasks that tend to get ignored by those not involved in that process in the list of prospective themes. In addition, since the team continues to function even after a problem is solved or a task achieved, there is a need to arrange for a system so that the circle grows by targeting higher level of activities (for instance, self-evaluation or QC circle diagnosis.). In principle, it is an activity closely linked with the workplace and all those who work there participate in it. Therefore, it will be better to think of evaluating the QC circle activities separately from personnel evaluation which is carried out based on the abilities to carry out the process one is responsible for as per the plan, and they should rather be evaluated by commendation based on presentation and report meets.

Below, Clause 5 and Clause 6 discuss these two small group improvement activities respectively and specific guidelines for their promotion are presented.

5 Promotion of team improvement activities

5.1 General

Team improvement activities are time bound compared to the QC circle activities mentioned in Clause 6, which are continuous type. Here, it is required that members who are most suitable for the problem/task targeted are brought together and results are produced in a time bound manner. Basic approach for team improvement activities is shown in Figure 1. Organizational policy (priority issues, objectives and means) is deployed and the problems/tasks to be taken up by each layer/department become clear. Among these problems/tasks, with respect to those that are difficult to take up by the existing organization, improvement teams are formed comprising members that have the required abilities. Improvement teams formulate activity plans, autonomously challenge problems/tasks and report or present the results obtained. Teams are disbanded once problems are solved or tasks are achieved but the results obtained

through team improvement activities (effective means/countermeasures or related area-specific technologies) are deployed/utilized at the organizational level. In addition, results of reflections/review of activities are put to use for the next policy and its deployment, identification of problems/tasks, team formation, education, training etc. Further, members who have participated in team improvement activities are assessed based on their contributions to the activities and commended, and become candidates for the next team improvement activities through receiving more advanced education/training and getting qualified as experts.

Such activities are usually carried out as a part of policy management but if they are left to each department, they will depend on the abilities of the concerned manager. Moreover, there are times when these activities do not progress well due to inter-departmental wall. Therefore, in order to introduce, deploy and ingrain team improvement activities, along with leadership of the top management, various systems for their promotion are needed. When thinking about the promotion system, there is a need to alter the focal points depending on the stage, i.e. introductory, deployment and making ingrained stages (refer to Table 2).

During the introduction stage, since top management's leadership has a big impact, top management should declare about the introduction of team improvement activities and make the purpose of activities known to everyone. In addition, in the case the scope of introduction of team improvement activities is big, along with institution of promotion organization to manage on the whole, it is desirable that promotion office is established in each division, site or function (R&D department, sales department, etc.) as subordinate organization. And on top of it, system to challenge problems/tasks that directly contribute to achievement of business/organizational objectives based on policy management should be strengthened. In addition, in order to definitely solve/achieve the problems/tasks taken up and link them to results, education and training system should be developed and the system to register problems/tasks should be put in place. Moreover, it is also necessary to create forums to report about the results obtained so as to effectively use them as an organization, have commendation systems for teams that have obtained the results to enhance the enthusiasm of the participants and set management indicators to evaluate how much team improvement activities are contributing to the achievement of business/organizational objectives. Moreover, during the introduction stage, it is important to enhance the enthusiasm for improvements by creating a database for the success stories and sharing them across the organization. To do so, one should not only challenge problems/tasks that are difficult to solve/achieve at the present stage but even those problems/tasks that are comparatively less difficult but their results can be easily understood by everyone if solved and achieved. They would then feel affinity for improvement activities which can be taken up to make further improvement activities.

Deployment stage is the time when improvement activities are spread across the organization. With this, the scale of education and training also increases. Thus, there is a need to develop and implement the education and training system so that more number of people can carry out team improvement activities. To do so, it is necessary to clarify the role played by team improvement activities in human resource develop-

ment and build the environment for many people to proactively participate in education and training. In addition, during this stage it is important to proactively challenge cross-functional and more difficult problems/tasks and horizontally deploy the obtained results across the organization. On the other hand, below mentioned factors that hamper these activities should also be made visible.

- a) Separation of work and improvement activities, as is evident from the statement “I have no time for improvement, as I am busy with my work”.
- b) A problem/task needs to be solved and achieved through cross-functional approach but there are not enough team members who can take up such problem/task.
- c) Identified problem/task is too big or vague.
- d) Leadership and management layer does not perform its role.

In order to eliminate such impeding factors early on, along with continuously monitoring the indicators that measure the results of improvement activities, it is necessary to observe the actual status by visiting the place where improvement activities are being carried out. In addition, obtaining information from the promotion offices of R&D department, sales departments etc. can also be useful.

During the making ingrained stage, environment to carry out team improvement activities on daily basis should be created. The promotion organization should try to confirm from the indicators that show the results of improvement activities, information from each department-wise promotion office, workplace visits etc. that improvement activities are in line with the purpose and progressing as per the expectation. After having confirmed, suitable means should be examined and implemented, if there are problems.

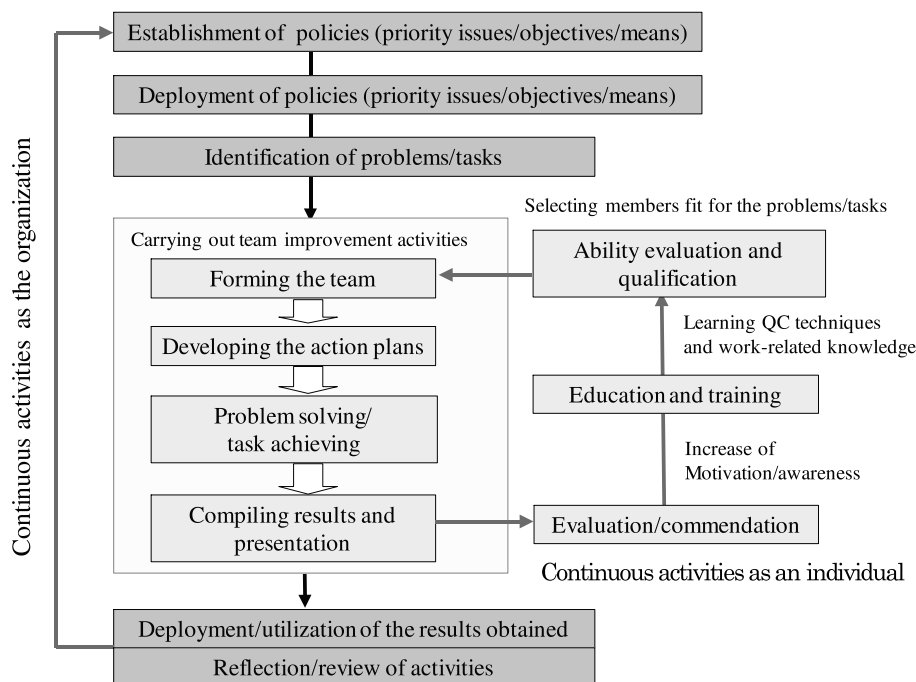


Figure 1 Basic approach to promoting team improvement activities

Table 2 Focal points of promotion in the introduction, deployment and making ingrained stages of team improvement activities

Stage	Focal points for promotion
Introduction	- Declaration about introduction of team improvement activities and informing everyone about the purpose - Development of promotion system - Deploy problems/tasks and groom managers who are capable to form improvement teams - Strengthening of the system to identify problems/tasks based on policy management - Development of the education and training system on improvement procedures and techniques for people who are going to carry out team improvement activities and grooming of specialists for carrying out improvements - Creation of forums to put the results obtained into work as an organization - Setting of management indicators to evaluate contribution to the organization
Deployment	- Development of the education and training system and implementation of education and training based on it so that a wide-range of people can carry out team improvement activities - Articulation of the role performed on human resource development front - Challenging broad-based and cross-functional problems/tasks involving multiple departments and practicing more challenging activities - Strengthening of horizontal deployment of the results obtained
Making ingrained	Making team improvement activities a routine affair

5.2 Clarify the purpose

The foremost purpose of team improvement activities is total optimization, and by solving various problems and achieving various tasks that have been identified based on policy management and daily management, to satisfy customer and social needs and create new value for the customer. When introducing and promoting team improvement activities, it is necessary to set a specific purpose for contributing to the organization through the improvement activities while aiming at creation of customer value as the foremost purpose. If improvement activities are introduced and promoted without the purpose having being articulated or without having adequate understanding and sharing of the purpose across the organization, the activities themselves become the purpose and become perfunctory and the expected results become hard to achieve.

Specific examples of purpose could be as follows :

- a) Achievement of mid-term/long-term business plan and annual policy
- b) Development of attractive products/services
- c) Dramatic increase in products/services/operation quality
- d) Improvement in productivity, reduction in cost, curtailment of delivery time, and/or securing safety
- e) Enhancement of organizational ability and strengthening of inter-departmental collaboration
- f) Grooming of experts having abilities to discover problems/tasks, and solve problems and achieve tasks.

By setting a specific purpose, the methods to select problems/tasks that ought to be solved/achieved (refer to 5.4) and form the teams (refer to 5.5) also get fixed. Moreover, it also becomes possible to set indicators that capture the results of activities and grasp the progress status as a whole.

Top management's leadership is most important for introduction and promotion of team improvement activities. Therefore, even when setting a specific purpose, priority should be given to the wish of the top management. However, it is not desirable to impose the purpose unilaterally in top-down manner to the lower levels. It is necessary to take the circumstances surrounding the organization and assessing the strengths and weaknesses of the organization, and then arrive at a final agreement based on discussion between the senior leaderships and share the purpose across the organization.

Along with the purpose, the scope of departments/layers that need to carry out the team improvement activities should be determined. For instance, whether all departments/locations will introduce and promote them, whether only domestic or even overseas locations will carry them out, whether all layers including top and middle management will do them or only general staff will do them. While fixing the scope of team improvement activities, it is necessary to take into account the purpose of activities and make them consistent. To maximize the results of team improvement activities, it is usually better that all departments and all layers participate in it. By bringing all

departments and all layers in the scope of activities, it will be possible to take up cross-functional problems/tasks and solve/achieve them based on cross-functional teams. In addition, it will also be possible to take up the problems/tasks coming from both policy management and daily management.

5.3 Create the promotion organization

In order to introduce, deploy and establish team improvement activities, it is necessary to constitute the promotion organization that covers the scope of activities. When constituting it, it is better to clarify what role the committees, departments, and sections that make up the promotion organization have. Depending on the role assigned to each one of them, the required personnel system can also be finalized.

The three main roles of the promotion organization for team improvement activities are as follows.

- a) Planning, proposal and execution of policies and means for introducing, deploying and establishment of team improvement activities.
- b) Arrangement and offering of steps and methods for improvement.
- c) Grasping the implementation status of improvement activities and elimination of impediments.

In any of these three roles, it is necessary to reflect the actual situation of the workplace where team improvement activities are actually conducted while reflecting the intention of the top management of the organization. When considering the promotion organization, it is necessary that the three roles are fully fulfilled.

An example of the promotion organization is shown in Figure 2. The team improvement activity promotion committee is constituted by the top management and the leadership layer of the organization, and it grasps the promotion status of team improvement activities and decides the policy. In response to this policy, the department responsible for overall promotion formulates the specific plan for overall promotion and deploys it. Also, it grasps the progress status in each department and reports to the committee. The section responsible for promotion in each department carries out promotion in each department based on the overall promotion plan. Moreover, it grasps the impediments in each department and reports to the department responsible for overall promotion.

Regarding the department responsible for overall promotion and sections responsible for promotion in each department, there are cases where a new department/section is created or an existing department/section is made responsible. When creating a new department/section, it is better to ensure that the promotion itself does not become the purpose. On the other hand, when an existing department/section is entrusted with the task, it is better to assign to the department/section in accordance with the purpose of the team improvement activity. For instance, if the purpose is to achieve a business plan, it is desirable to assign it to a department/section that has adequate understanding of business issues on a daily basis, such as corporate planning department. Also, if the purpose is to improve the product/service or operation quality, it is desirable

ble that QA department is assigned it. However, it should be noted that the time spent on other work will slow down the promotion work.

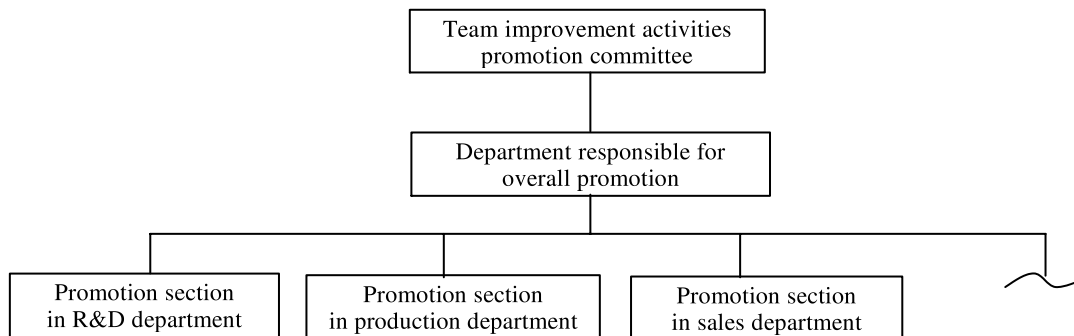


Figure 2 Example of promotion organization for team improvement activities

5.4 Select the problem/task

In team improvement activities it is important what kinds of problems and tasks are taken up. It depends on the purpose namely, “what will be achieved through team improvement activities”. The promotion organization should preferably examine the selection method and make it widely known so that the problems/tasks are taken up according to the purpose such as achieving the mid-term business plan and annual policy, developing attractive products and services, and dramatically improving the quality of products, services and operation, and solved and achieved smoothly.

As for the problems/tasks to be tackled in team improvement activities, those related to business issues of the organization or those that directly contribute to the achievement of the organization’s objectives should be taken up in the top-down format. Among the problems/tasks that were identified during policy deployment in accordance with the policy management mechanism, managers at each level should take up those that need to be addressed, not by the existing organization but by forming improvement teams. In such cases, projects could be formed at the company level or at the division level, department level, or section level. The higher the level, the wider the scope of improvement, and it should be a cross-sectoral problem/task that spans many departments so that greater results can be expected.

If there are wide-range problems/tasks to be challenged and there are many related departments, attention should be paid to the following impediments :

- a) It takes a long time to develop a solution, which makes it difficult to maintain the motivation of team members.
- b) Multiple issues are intertwined and one does not know from where to start the analysis.
- c) Solution becomes abstract.

For this reason, the problem/task should be broken down into smaller problems/tasks, and a team should be formed for each problem/task. In addition, it is desirable to work

on solutions simultaneously and achieve the overall objective. In this case, existing departments/sections may be asked to take up some of the broken-down problems/tasks. An example of broken-down problem/task is shown in Figure 3.

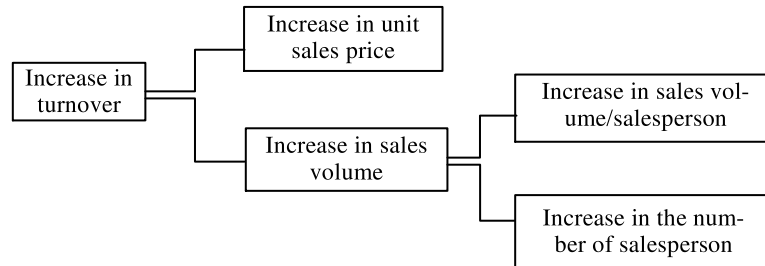


Figure 3 Example of broken-down problem/task

While each department/section performs daily tasks, problems/tasks may arise such as inability to produce results as planned, poor work efficiency, and repeated troubles caused by identical causes. The managers of each department/section should take up the problems/tasks that are adjudged to be fit for improvement teams and initiate team improvement activities. These problems/tasks are not as broad in scope of improvement as the problems/tasks obtained through the policy management system, but execution of solutions is quick and reliable if they are taken up by teams.

After selecting the problems/tasks to be addressed, it is better to define each problem/task specifically.

a) **Significance and necessity for taking up problems/tasks** It is important to clarify the reason “why we should tackle this problem/task now”, explain the importance and urgency of the problem/task to be addressed to the relevant persons and departments/sections, and prioritize the initiatives. To be more precise, clarify the following :

- 1) What is the upper level policy?
- 2) How much it will contribute to the achievement of the upper level policies and the policies of own department/section?
- 3) What is the specific negative impact caused by the existence of this problem/task?
- 4) What kind of troubles could occur if this problem/task is ignored?
- 5) What will improve if this problem is solved or task is achieved?

b) **Target** It will be better if the level to be achieved through improvement (target value) and the basis for it are clarified. It is necessary to clarify the time of achievement along with the target value. To be more precise, clarify the following :

- 1) Improvement level and why that level is being targeted.
- 2) By when that level needs to be achieved.

c) **Scope of improvement** If the scope is unclear, wide-range discussions about it will

occur when the team examines the problem/task, and efficient discussions within the team will be hindered. Specifically, clarify the following :

- 1) Scope of the work process.
- 2) Is it only domestic or also includes overseas?
- 3) Are there any budgetary constraints or preconditions?

In administrative indirect departments/sections, it may be impossible to set the target value quantitatively. In that case, it is better to document the desired shape in detail and share it with the relevant persons and departments/sections.

By clearly defining problems/tasks, the direction of solution/achievement can be matched with the relevant persons and departments/sections, and motivation for solution/achievement can be fostered. It is important to match this direction when solving problems and achieving tasks in teams composed of multiple people with different knowledge, skills, viewpoints, ideas, authority etc. This is particularly important for cross-functional problem solving and task achieving, where inter-departmental interests tend to be at stake.

5.5 Form the team

The improvement team is organized by managers at each level who are responsible for setting up problems/tasks and solving/achieving them (hereafter referred to as project owner). Project owners nominate leaders who are responsible for analyzing problems/tasks to be addressed, planning the means, and grasping effects.

The leader needs to be able to lead the team on the problem/task. For this reason, he/she is required to be familiar with the contents of problems/tasks, related work, and how to proceed with improvement activities. In addition, the leader should be able to bring together members with different knowledge, skills, viewpoints, ideas, authority etc. and use their abilities to the maximum possible extent.

The merits of challenging problem solving/task achieving by a team are as follows :

- a) Discussion for effective solutions from various perspectives of its members is possible.
- b) Since it consists of members from relevant departments, implementation of solution is faster and more reliable.
- c) Members can grow individually through communication with various members.

Therefore, a team should ideally have 5 to 8 members. If the number is too small, the synergistic effect produced from different opinions among members will get limited. Conversely, if the number is too large, it will be difficult for members to speak and active exchange of opinions will be difficult. If there are too many members in a team, one should consider further subdividing the problem/task.

The kind of members that make up the improvement team has a major impact on the success or failure of team improvement activities. Team members should be gathered from the departments/sections that need to solve the problem or achieve the task. In