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TASK DEPLOYMENT MANAGEMENT

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Background

A dozen or more times since 1991 I have been asked to sketch hoshin management to a CQM class or CQM member company class. These presentations have followed roughly the description of hoshin management in chapter 14, pp. 411-460 of *A New American TQM* by Shoji Shiba et al. (published by the Center for Quality of Management and by Productivity Press, Portland OR, 1993).

I have ended almost every one of those presentations with a class exercise that I believe clarifies a number of important concepts that lie within the description of hoshin management:

- the distinction between metrics and the targets for metrics

- the distinction between results metrics and process metrics

- the importance of planning the means for achieving a goal in addition to picking the goal itself

- the alternation of consideration of goals and metrics to clarify in one's own mind what one hopes to accomplish, i.e., creation of operational definitions for goals.

This class exercise has appeared to resonate with class participants ("Ah, now I begin to see how hoshin management works"; "This TQM stuff really does get you to look at things in new ways").

In this paper I sketch the class exercise I use to illustrate hoshin management (which I call the Task Deployment Management Exercise). I offer the exercise as a teaching aid that others might also find useful.

I also suggest that the exercise can be modified to be an appropriate *tool* for actually planning substantial projects that are not part of company-wide hoshin management. This later point is an elaboration of the thoughts expressed on pages 475-477 of *An New American TQM* in the section entitled "Using the Concept of Hoshin Management in a Department," which I reproduce below[1] for the convenience of the reader.[2]

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1 With permission of Productivity Press.

2 One might ask, "why not just use the hoshin management charts for such task planning?" The answer is that using the same charts for planning routine tasks could dilute the importance of their use in breakthrough planning for 1 or 2 company-wide hoshins per year.

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"Using the Concept of Hoshin Management in a Department

We mentioned that hoshin management provides an opportunity for managers to practice PDCA themselves. However, hoshin management as normally practiced includes participation of managers from throughout the company, interlevel catchball, and a month or two to make the yearly plan. To many U.S. managers, hoshin management appears complex and documentation-intensive, making them reluctant to try it.
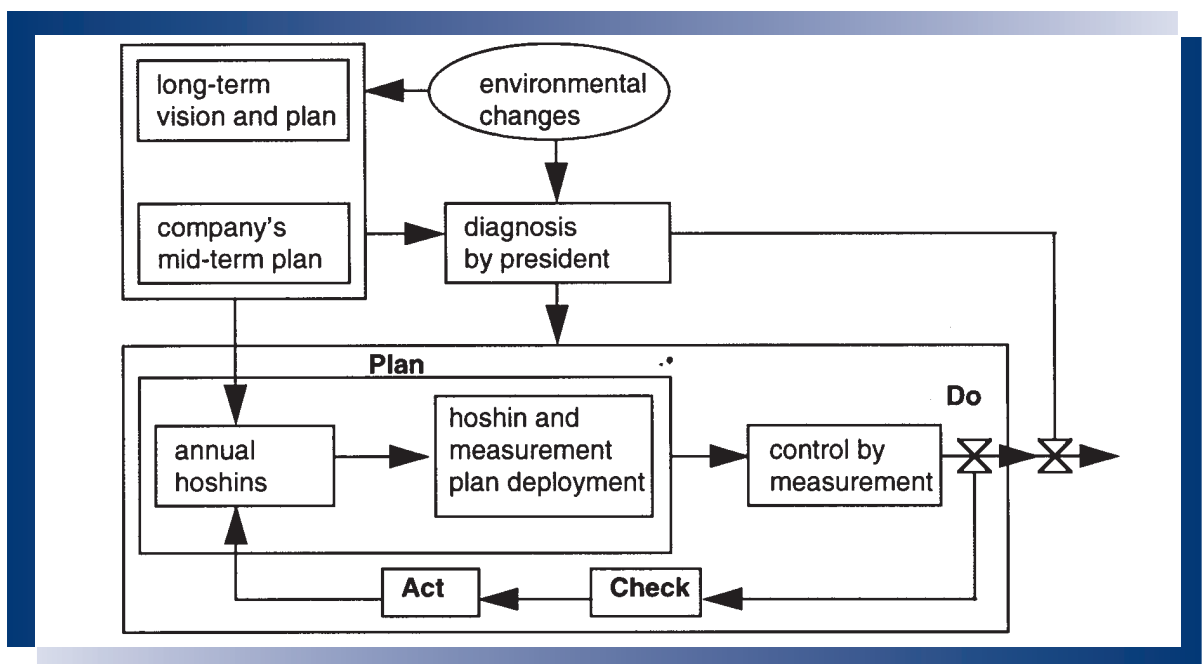
We have two observations on this. First, the empirical result—companywide improvement—is commensurate with the effort. Second, like so many TQM models, the hoshin management model is applicable at many levels. A company's first experience with hoshin manage-

ment doesn't have to be at a companywide level; a divisional or departmental team can apply the model to a planning task. Consider the hoshin management figure again (see Figure 15-7).

A department, for instance, has some longer-term (e.g., yearly) goals. As a result, they have decided that some specific significant task has to be accomplished ("significant" means a task that has several independent subtasks to be performed by individuals or groups). Such a task might be a marketing communications plan (e.g., advertising or brochures) for the year. Rather than doing interdivisional and interlevel catchball, the entire department planning team might get together to deploy this task (i.e., plan the subtasks and perhaps subsubtasks) and to develop an appropriate plan to control the subtasks (monitor adherence to the plan for

accomplishing the subtasks and monitoring results).

The departmental deployment of tasks and measurement parallels hoshin management as described in the previous section, except it is done on a more contained scale and with all of the managers participating. Thus, it should be a shorter and more straightforward process, requiring, for example, a day or a few days of planning. Approaching the planning of the task in this way has the benefits of the hoshin management system—a plan that closely targets accomplishment of the task (rather than one that is based on guesswork), and a system for taking data to discover what actually happened both with adherence to the plan and its results. This provides the necessary information to run the CAPD cycle, so that each annual plan for this task benefits from the previous year's experience."

Figure 15-7. Hoshin Management

The Task Deployment Management Exercise

In this explanation of the exercise, I'll alternate exercise instructions with commentary on what the exercise is showing and how it works out with classroom teams. A clean copy of the exercise without the commentary suitable for handing out an exercise in a class situation is available from the CQM Office, and at least in the short term will also be available for the taking on the CQM Web page.

Chart 1a--Task and Results Metrics

Task: _____

Revised task: _____

ResultsMetrics(units)	Validity	Feasibility	Priority	Target

Instructions for chart 1a:

A. Write down the task to be accomplished on the top of the page.

   For the examples below, suppose the task is "Plan and deploy the yearly employee training program."

B. Write down (brainstorm) possible results metrics (metrics, not targets) in the table.

   Be sure the metrics have units of measurement. Trying to figure out the units with which we will measure whether we have accomplished a task usually clarifies to ourselves what task we are attempting to accomplish. For example, some possible results metrics for the above task might be (some better, some worse) "Number of courses offered during the year," "Number of students taking courses during the year," "Average values of evaluations from course participants during the year," "Number of evaluations less than 'satisfactory' during the year," "Number of months during the year in which there was a course evaluation less than satisfactory," "Increase in company profits during the year," "Percentage of course participants who say they are using methods learned in courses two months after the a course has finished," etc.

C. Evaluate each results metric in terms of its validity to the task.[3]

   One of the hardest tasks in making an action plan is finding metrics that actually measure the purpose for which we are undertaking the task.

D. Evaluate each results metric in terms of feasibility of measurement.

   We also have to be able to actually make the measurement.

E. Select in the priority column the 1 or 2 results metrics which have the highest combined validity and feasibility (if necessary err on the side of validity).

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3 For this and all later evaluations, use the double circle, single circle and triangle notation to mean high, medium and low.

F. Do nothing with the target column yet.

It is best to avoid declaring unreachable targets; therefore, we wait to pick the results metrics until we understand the means better.

G. Clarify task statement if it feels like you should.

We often have a much better understanding of the task that we want to accomplish after considering in detail how we are going to measure it,

and therefore can revise our statement of the task accordingly.

H. Go to the instructions for chart 2. We will come to chart 1b at the end.

Chart 2--Means

Means of accomplishing the task	Impact	Feasibility	Priority	ID#

Instructions for chart 2:

Now it's time to think about the means by which we might actually accomplish the specified task. Too often task planning ends with declaring the goal, and leaving wishful thinking as the plan from there on.

A. Write down (brainstorm) possible means of accomplishing the task. Each means should be important and relatively independent of the other[4] means. Focus on the task to be accomplished, not the results metrics.

We need effective means to accomplish the task we have decided to accomplish; let's not

confuse ourselves at this point with trying to optimize performance against the results metric. For instance, for the example task specified above, means from chart 1b might include, "Find out what courses employees, particularly managers, feel we need," and "Develop or acquire, if necessary, the needed courses," "Train/qualify people who are going to teach courses this year," "Deliver courses," "Do follow-up coaching," etc.

B. Evaluate each means in terms of its impact on the task.

We want means that will really matter to the task.

C. Evaluate each means in terms of its feasibility of implementation.

In the priority column, note the numeric priority order of the few means which have the highest combined impact and feasibility (if necessary err on the side of impact). If we have a particularly "impactful" means, maybe we can find a way to it.

D. Number the selected means in the ID# column.

We are just putting ID numbers on the selected means so we can reference them later, e.g., M1, M2, ...

4 At this point hoshin management would likely use the 7-Steps to ascertain what problems prevent accomplishment of the task and then would find the means of removing these problems. For this exercise, we use the intuitive method of brainstorming means; for a real-life problem, fact-based methods should be used.

Chart 3--Process Metrics for Each Mean

Means#: _____

Description: _____

ProcessMetrics(units)	Validity	Feasibility	Priority	Target

Instructions for chart 3:

A. Make a copy of chart 3 for each means which was selected on chart 2, and on the top of each page write one of the means numbers and its description. Number each of the copies 3a, 3b, 3c, ... Follow the rest of the steps below for each copy of the page (i.e., for each of the selected means). [If so desired, these steps can be divided among the members of the team with different subteams working on each of the pages.]

B. Write down possible process metrics for the means (metrics, not targets) in the table. Be sure the metrics have units and be sure the metrics are measuring process and not results. Don't think about targets yet.

This is one of the most insight-generating aspects of the exercise. People often tend to generate more results metrics. Thinking in terms of the means to accomplish the results is apparently difficult. Suppose the means for which we are seeking a metric is "Train/qualify people who are going to teach courses this year"; then some possible metrics might be "Number of outside consultants interviewed each month," "Number of train-the-trainers courses offered each quarter," "Number of courses offered for which a train-the-training course was not available," "Number of trainers qualified for the year," "Number of coaches of trainers hired," etc.

C. Evaluate each process metric in terms of its validity to the means, i.e., does it really measure whether the means is being carried out.

D. Evaluate each process metric in terms of its feasibility of measurement.

E. In the priority column, select and number numerically the several process metrics which have the highest combined validity and feasibility (if necessary err on the side of validity).

F. Choose a target value for each selected process metric.

Chart 4—Process Metrics Monitoring Plan

Means _____

Process Metric Priority #	Monitoring Period	Pro-rated Target	Corrective Action

When all means have metrics and targets, go on to chart 4:

A. Make a copy of chart 4 for each instance page chart 3i, i.e., 4a, 4b, 4c,…

   Again, this work can be divided among team members if so desired.

B. On chart 4i, make a list of all the selected process metrics for the means and for each metric write down what its regular monitoring period will be and what corrective action should be taken if the metric is not on its

(pro-rated) target when it is monitored.

The pro-rated target somehow accounts for the passage of time. For instance, if the metric is "number of people hired over the year" and our target is 100 for the year, then the monthly target might be n*100/12 where n is the number of the month. The pro-rating might also be skewed to account for ramp-up of the process, e.g., 4 new hires in each of the first three months, 7 in each of the next four months,

and 12 in each of the last five months. The corrective action needs to be something other than "work harder," i.e., "drop some competing activity," "get more people assigned to the project," etc.

Now return to chart 1a

A. Select a target for each selected results metric.

Chart 1b--Results Metrics Monitoring Plan

Results Metric Priority #	Monitoring Period	Pro-rated Target	Corrective Action

Now go to chart 1b:

A. For each selected results metric, write down what its regularly monitoring period will be and what corrective action should be taken if the metric is not on its (pro-rated) target when it is monitored.

Regarding priority, see the comment above for chart 4.

Go to each copy of chart 3:

A. Assign someone to organize implementation of the means on this page and monitoring of its metrics.

In terms of the PDCA cycle, the above steps are all part of P. The D step of the PDCA cycle

is implementing the plan, and monitoring the metrics regularly, and taking appropriate corrective action.

In terms of the PDCA cycle, the following are the CA steps.

At the beginning of the next planning cycle, using all of the data accumulated from the metrics, do the following:

A. Calculate the size of the miss between the target and the actual for each of the metrics.

B. Analyze the process (the means and the targets) to understand the root causes of why the plan wasn't followed or the plan couldn't produce the desired results.

C. Decide on the key improvements which should be made to the task's process for use in the coming cycle business cycle, if the task is one that will be repeated.

D. Reflect on what the team learned from trying to use Task Deployment Management, strengths and weaknesses of doing Task Deployment Management, and what steps the team or individuals on the team will take to improve their next use of Task Deploy-ment Management.

Experience

As mentioned above, I have used the above exercise as an educational tool on a number of occasions, with good success.

I have also explicitly used essentially this method on a couple of occasions to plan a project. It seemed helpful in these cases.

I have used this method on numerous occasions as a mental

model to help me think about planning a project.

I will appreciate feedback from people who try to make use of this tool and their experiences with it.