How to Make a Team Work

Maurice Hardaker and Bryan K. Ward

Harvard Business Review

How to Make a Team Work

Maurice Hardaker and Bryan K. Ward

Anyone who has ever run a business or organized a project has discovered how hard it can be to get the whole team on board to ensure that everyone knows where the enterprise is heading and agrees on what it will take to succeed.

At IBM we've used a method for some years that helps managers do just this. The technique, which we call PQM or Process Quality Management, grew out of many studies with customers to determine their needs and from internal studies as part of IBM's business quality program. PQM has been used successfully by service companies, government agencies, and nonprofit organizations, as well as manufacturers.

In PQM, managers get back to the often overlooked basics of an endeavor. IBM has had many successes abroad by paying attention to such details.

IBM Europe's manufacturing arm relied heavily on PQM when it launched a series of changes including continuous-flow manufacturing. First the vice president of manufacturing and his team made sure they understood the task ahead. Then they focused on

Maurice Hardaker is a senior consultant with IBM's International Education Centre in La Hulpe, Belgium, He has advised the boards of directors of many of IBM's customers. Most recently he has been working with senior management in IBM's program for business process quality management.

Bryan K. Ward is a senior consultant in the Systems Management Consultancy Group of IBM United Kingdom. He advises senior management of IBM customers about business planning and information technology strategy and works with senior management of IBM UK on business-related topics.

new priorities for the company's major materials-management processes. As a result of their decisions, changes cascaded through the manufacturing organization's work force, leading not only to better interplant logistics but also to smooth introduction of continuous-flow manufacturing among IBM's 15 European plants. As this happened, manufacturing cycle times and inventory levels improved, costs dropped, quality rose, and the company became more flexible in meeting customer demand. That may not be the end of the rainbow, but it's not bad from a two-day PQM session.

PQM has also been the starting point for many IBM customers of a host of management decisions in such areas as strategy formulation, funding, human resource management, marketing, and resource allocation for large, complex projects. Often a PQM study is undertaken because something has happened—someone sees a new opportunity, a new technology, or new competitors. But it is useful any time.

PQM does not differ radically from other planning processes: we identify goals and the activities critical to their attainment, and we provide a way to measure success. But PQM demands an intensive one- or two-day session at which *all* the key managers concerned agree on what must be done and accept specific responsibility.

There's no guarantee that a unit will achieve its mission, of course. That requires competent follow-through by the entire organization. But PQM lays the groundwork for such success. And at least all the key players start off facing in the same direction.

Gather the team

PQM begins with a person who is the leader of the management team—the boss, the one whose job depends on getting the team's mission accomplished. He or she should then involve everyone on the immediate management team and no one else—nobody missing and no hitchhikers. At most there should be 12 people, since more than that is just too unwieldy. And if even one member of the team cannot attend the study, wait. PQM requires a buy-in from everyone not only to identify what is needed but also to commit to the process.

By management team we usually mean a formal group of managers, a board of directors, say, or a divisional vice president and his or her top managers. But the team can also be a collection of individuals drawn from various sectors of the company for a specific project, like the team brought together at IBM to introduce continuous-flow manufacturing. In either case, the mission is normally too large or complex for one person, so the boss collects or inherits a team to work on it.

PQM demands spontaneity, so even though the boss convokes the team, a neutral outsider should lead the discussions. The leader could be a consultant or a manager or an officer from elsewhere in the company. What's important is that leaders not be the bosses' subordinates and that their livelihood should not depend on achieving the mission. Furthermore, the discussions are best held off premises; at the office, secretaries can fight their way through steel doors to deliver "urgent" messages.

Finally, and perhaps this goes without saying, the boss had better be ready to accept challenges to the status quo. We have presided at a few disasters where, despite assurances of open-mindedness, the boss turned the study into a self-justifying monologue. Fortunately, this is rare; it's a terrible waste of time.

Understand the mission

The first step in the PQM effort is to develop a clear understanding of the team's mission, what its members collectively are paid to do. *Collectively* is important. A marketing vice president and a finance vice president will have different ideas about their separate functional missions. But when they meet together as part of the management team, they should know their jobs as members of that team.

If the mission statement is wrong, everything that follows will be wrong too, so getting a clear understanding is crucial. And agreeing on a mission may not be as easy as it may at first seem. People in well-run companies and government agencies tend to know their job descriptions, the benefits package, and their own job objectives. But even at the top, their ideas about the organization's mission are often pretty vague—to make profits or something like that. In part, this reflects the nature of management teams. People are appointed, stay a while, do their jobs, and move on; each team includes long-serving members, new arrivals, and new leaders. As a group, they may never have articulated their mission to one another. A PQM study makes them stand back and ask fundamental questions like "Do we really understand our business well enough to form a mission statement?"

Our advice is to make the mission statement explicit—nail it to the wall. It shouldn't be more than three or four short sentences. For example, the following is a mission statement for one of IBM Europe's units:

"Prepare IBM World Trade Europe Middle East Africa Corporation employees to establish their businesses.

"Organize high-level seminars for IBM customers and make a significant contribution to IBM's image in Europe.

"Demonstrate the added value of the International Education Centre through excellence in advanced education, internationalism, innovation, and cross-functional exchanges."

The unit's mission statement defines the boundaries of the business (Europe, the Middle East, and Africa) and the customer population (all IBM employees within that area plus senior people from IBM's customers). It says what has to be done and says that achievement will be measured by the unit's demonstrable impact on IBM business successes, customer satisfaction, and company image in Europe.

The mission should be clear enough to let you know when you have succeeded and are entitled to a reward. "Increase profits" is not a rewardable mission. How much of an increase?.5%? 5%? 50%? But "generate positive cash flow" might well be a rewardable mission for a management team nursing a sick company. We did a study with one IBM customer whose mission was quite simply to survive until next year. It had a well-planned strategy for the future but a rough patch to negotiate for the next 12 months.

Once a team has defined its goal or mission, it could go straight to identifying its critical success factors (CSFs), the things it will have to do to succeed. But in our experience that's premature. At this point, few teams are relaxed enough to do the free associating needed to pinpoint their real CSFs. They are fixed on what they know and on today's problems, not on new possibilities.

To break out of old ways of thinking, we suggest

a 10–minute brainstorming session in which team members list one-word descriptions of everything they believe could have an impact on achieving their mission. The usual brainstorming rules should apply:

Everyone should contribute.

Everything is fair game, no matter how crazy or outrageous.

Nobody is permitted to challenge any suggestion.

The facilitator should write everything down so the team can see the whole list.

While thinking about these dominant influences, each member should focus intently on the team's mission. Members should look inside and outside their bailiwicks, sometimes far outside to factors like national characteristics or public policy issues. The dominant influences that turned up in a brainstorming session for a Spanish company, for example, included the socialist government, the Basques, the Catalonians, regionalism, terrorism, and the mañana syndrome. Typically a team's list will contain 30 to 50 diverse items ranging from things like costs and supplier capabilities to jogging and the weather.

Spell out your goals

Now the team should be ready to identify the critical success factors, a term used for many years in corporate planning to mean the most important subgoals of a business, business unit, or project. Here we define CSFs as what the team must accomplish to achieve its mission.

Consensus on these aims is vital. In one study, the top 10 managers in 125 European companies were asked individually to identify their companies' 5 most critical objectives. The minimum number from each company would be 5; the maximum, 50. Managers of the 40 most profitable companies agreed on 6 to 12 objectives. For the 40 worst companies, the range was 26 to 43. In other words, the top executives of the poor performers had no shared vision of what they were trying to do, while just the opposite was true of the successful companies' leaders. Significantly, a few years after the managers of one worst category company had agreed on its critical objectives, the company moved into the most profitable group.[1]

---

[1]"Strategy and Innovation in the Firm," an unpublished study conducted in 1973 by Charles-Hubert Heyvaert, University of Leuven, Belgium.

Like the mission, CSFs are not the how to of an enterprise, and they are not directly manageable. Often they are statements of hope or fear. The list in the first part of the *Exhibit* is typical. In a sense, every CSF should be viewed as beginning with the words "We need. . ." or "We must. . ." to express buy-in by all ("We") and agreed-on criticality ("need" or "must").

In naming its CSFs, a team should be guided by the necessary-and-sufficient rule. That is, the group must agree that each CSF listed is *necessary* to the mission and that together they are *sufficient* to achieve the mission. This is a stringent requirement. The CSF list must reflect the absolute minimum number of subgoals that have to be achieved for the team to accomplish its mission.

The seven CSFs in the *Exhibit* are designed for a fictitious enterprise that sells consumer products in the United States. It's a mature market, and the company's market share and profitability have eroded. The CEO's mission statement for this business might read:

"Restore market share and profitability over the next two years, and prepare the company and marketplace for further profitable growth."

To accomplish that mission, the management team must achieve all seven CSFs over the next two years. That's what we mean by necessary and sufficient.

In addition, each CSF must be devoted to a single issue—pure in the elemental sense, like hydrogen or gold. The word *and* is verboten. The team has to struggle to reduce its list honestly; it can't succumb when some creative manager says, "Why don't we combine numbers three and seven so we reduce product cost *and* improve morale?"

The list should be a mix of tactical and strategic factors. If the factors are all strategic (increase market share to 15% by 1992, for example), the business might founder while everybody concentrates on the blue skies ahead. Equally, if all are tactical (reduce the delivered cost of product ABC to $20.50 by year end), the business could kill itself on short-term success. The ratio depends on several considerations, of course, including the nature of the business unit doing the study. A regional sales office would likely have more tactical CSFs, while a corporate headquarters would have an almost entirely strategic list.

The maximum number of CSFs is eight. And if the mission is survival, four is the limit—you don't worry about whether your tie is straight when you are drowning. There is no magic about eight. It just seems to be the largest number of truly critical goals that a management team can focus on continuously.

Our rules on number and absolute consensus may be tough, but they work, and it's essential to follow them. Whenever we have been persuaded to relax either rule, we have ended up with a mess, a list of moans rather than the truly visceral issues affecting the business. If someone cries, "We can't agree, let's vote," don't do it. Insist on consensus; highly paid, experienced, businesswise people should be able to agree on what's vital to their business, after all.

Reaching agreement on the CSFs usually takes from one to three hours. The longest time we've seen was a day. In that case, the team was composed of the heads of nine quasi-independent business units and managers from headquarters. Understandably, they had a tough time reaching consensus.

Find what matters most

The third step in PQM is to identify and list what has to be done so that a company can meet its critical success factors. This might mean being more responsive to the market, exploiting new technologies, or whatever else is essential to accomplish the CSFs.

Ask almost any management team for a list of its business activities or processes, however, and you will often get a set of bland descriptions like maintenance or sales or customer service. These aren't business processes. They don't describe what is actually done in the business.

We recommend a more rigorous approach, one that draws on our necessary-and-sufficient rule. As with the CSFs' relation to the mission, each process necessary for a given CSF must be indicated, and together all those processes must be sufficient to accomplish it.

Other rules we find useful are:

Each business process description should follow a verb-plus-object sequence.

Every business process should have an owner, the person responsible for carrying out the process.

The owner should be a member of the management team that agreed to the CSFs.

No owner should have more than three or four business processes to manage.

To show how these rules work, think about the process "measure customer satisfaction," listed as P2 in the *Exhibit.* This process has an action verb and an object of the action. It can have an owner, and its quality or performance can be measured. Is this process currently being done? By whom? How often? How well? How well are competitors doing it? Since each team member shares collective respon-

sibility for the affected CSFs, the entire team should be interested in the answers. But only one person owns that process—commitment by all, accountability by one.

"Bill customers" is another example of a business process—and it differs a lot from "invoicing," which is usually the title on the billing-office door. Invoicing is a simple process; bill customers describes a much richer field for disaster. Many functions contribute to billing: sales, field engineering, accounting, legal, distribution, and information services. But the person responsible for the actual invoicing is rarely one who can coordinate all the activities needed to get an accurate, understandable, complete invoice at the right time and at the lowest cost. The invoicing manager isn't likely to have a broad enough view of the business or the power to effect needed change. The result is often customer dissatisfaction, bad cash flow, a lot of arguing and finger pointing, and low morale—in other words, poor competitiveness.

Once identified as an important process, however, billing customers can be assigned to a member of the management team, who will then be responsible for its performance.

Now suppose we have a complete list of important business processes, each of which has an owner. The list is exclusive, since a process has to be important to be there. But it still needs ranking to identify the most critical processes, those whose performance or quality will have the biggest impact on the mission. This is the penultimate stage of our PQM.

First place the processes and the CSFs in random order on a matrix as shown in "Charting a project" in the *Exhibit.* Then focus on the first critical success factor—in our example, "best-of-breed product quality"—and ask this question: Which business processes must be performed especially well for us to be confident of achieving this CSF? The object is to single out the processes that have a primary impact on this particular CSF. Many business activities will touch on it, of course; what you're after are the essential ones.

The facilitator fills in a box on the chart for each critical process identified for this CSF. In the *Exhibit,* for example, our team has listed "measure customer satisfaction," "monitor competition," "measure product quality," and seven other processes for its first CSF. Then the list must pass the sufficiency test. If all these activities are performed well, will the team achieve its first critical goal? If the team answers no, then it must identify what else is needed.

This is usually the stage at which teams begin to be really creative, looking beyond what is already being done and breaking new ground. There's a check, though, because each new process added for sufficiency must also have an owner within the man-

Exhibit   Turning a mission into an agenda

Charting a project — Business processes vs. Critical success factors

Critical success factors (columns):
Best of breed product quality · New products that satisfy market needs · Excellent suppliers · Motivated, skilled workers · Excellent customer satisfaction · New business opportunities · Lowest delivered cost · Count · Quality

Business processes	Count	Quality
P1 Research the marketplace	3	C
P2 Measure customer satisfaction	4	D
P3 Advertise products	3	B
P4 Monitor competition	6	D
P5 Measure product quality	5	C
P6 Educate vendors	4	E
P7 Train employees	6	C
P8 Define new product requirements	4	C
P9 Process customer orders	2	B
P10 Develop new products	6	B
P11 Monitor customer complaints	3	D
P12 Negotiate manufacturing designs	5	D
P13 Define future skill needs	3	C
P14 Select and certify vendors	5	C
P15 Promote the company	3	C
P16 Support installed products	3	B
P17 Monitor customer or prospect's business	3	E
P18 Announce new products	3	C

Graphing makes priorities clear — **Number of critical success factor impacts**

	E	D	C	B	A	Impacts
						7
	P4	P7	P10			6
	P12	P5 / P14				5
	P6	P2	P8			4
	P17	P11	P1 P18 P13 P15	P3 P16		3
				P9		2
						1
						0

Quality scale (Quality scale):

Zone 1
Zone 2
Zone 3

E Embryonic stage
D Bad
C Fair
B Good
A Excellent

P = business process number

agement team. So it has to be important enough to feature on the matrix.

The team then repeats this process for each CSF in turn, being careful to apply the necessary-and-sufficient test before moving on to the next CSF. Then the number of CSFs that each process affects is totaled and placed in the count column on the right-hand side of the matrix.

By now the chart is a valuable document. The management team has agreed on its mission, on the subgoals, or CSFs, required to accomplish the mission, and finally, on the things that must be done to achieve those goals. Moreover, while each CSF is owned collectively by the entire team, each business process is owned by an individual member. Only one more step remains—identifying the most critical processes.

If companies had unlimited resources, each process could have equal attention for resources and management focus. But in practice, of course, manag-

ers' time and resources are always limited. So next pinpoint those activities that warrant the most attention.

Clearly, the most important processes are those that affect the most CSFs. ''Monitor competition,'' for example, affects six of the seven CSFs, so it is a strong candidate for scrutiny. But to get a meaningful ranking for management's attention, we also need to know how well each process is being performed.

In our PQM studies, we use a subjective ranking, which is entered in the quality column on the matrix. A = excellent performance, B = good performance, C = fair performance, D = bad performance, and E = informal or embryonic performance or indicates a process that's not performed at all. It may seem surprising, but we hear very few arguments about process quality. By this stage in the PQM process, the managers are really working as a team.

''Graphing makes priorities clear,'' the second part of the *Exhibit,* shows the best way we've found to help the team translate its rankings into an action plan. The quality of each process is plotted horizontally and the number of CSFs the process impacts is plotted vertically. Then the team divides the graph into zones to create groups of processes. We can see immediately that Zone 1 contains the most critical processes. All the processes are important, by definition. But the higher risk (or higher opportunity) processes are found in Zone 1. These activities need the team's closest attention if the company is to improve market share and profitability within two years.

Follow-through

That's the PQM process—one way to conduct what is, in truth, a never-ending journey to zero defects.

But as we said up front, PQM requires follow-through. Decide the nature of the improvement needed, and establish relevant process measurements. Then apply the needed resources for the appropriate improvements.

We cannot stress follow-through enough. The decisions reached by the management team must cascade throughout the organization. And always there are surprises. During one PQM process, it was discovered that not only was the process ''define management responsibilities'' one of the most critical at that time, it was also agreed that it was just not being done. This is the kind of function that everyone assumes is being done and someone else is doing it. Yet its poor performance (or nonexistence) can be a major inhibitor to success. The CEO immediately accepted ownership of that process and responsibility for its quality improvement.

We recommend revisiting the CSF list about once a year or whenever a significant change has taken place in a team's mission, its makeup, or the marketplace. In a year's time, the mission usually stays the same, but the critical success factors and the most critical processes usually don't. Some of the processes will have moved from Zone 1 to Zone 2; others will be newly critical.

If a company's CSFs remained constant while all of its business processes were being attended to, it would end up with zero-defect processes—and a justified reputation as a highly competitive company. But all kinds of things can alter a company's mission and goals: government, competitors, reorganization, new technology, new opportunities, the marketplace. And when you change the CSFs, you necessarily change the grid.

The next time a new matrix is produced, however, the business should be stronger and more flexible. If PQM has been applied, fewer existing processes will fall in quality category D or C. The average quality of business activities will be higher, and the biggest focus will be on new categories, the E processes, that the new CSFs demand. Eventually, you may even find that all your basic business activities are clustered in category A. Then the only changes a new CSF list will provoke are those responding to a changing environment. Such adaptability is the ultimate goal of PQM.

But does this mean the list of important processes is getting longer and longer and the matrix deeper and deeper? Not necessarily. Over time, what was once a most critical process will become sufficiently stable and well performed to allow its ownership to be delegated. And that's as it should be.