**A PERFORMANCE MANAGEMENT
MODEL FOR TEAM-BASED SETTINGS**

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Abstract

Based on recent research at CEO, this paper lays out a model of performance management systems in team-based knowledge work settings. A model of performance management is presented and applied to business units, teams, and individuals in team-based settings. Recommendations are made for how to carry out the processes of defining, developing, reviewing and rewarding performance at the multiple levels.

A Performance Management Model for Team -Based Settings

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This paper is meant to help organizations that are using teams or that are changing to a team-based environment to establish performance management practices that are appropriate. The emphasis is on the elements that must be considered in designing such practices, not on the process of design itself. The paper describes what those performance management practices must look like. It begins with a definition of what performance management is, followed by a discussion of who should do performance management in team-based settings. The paper then presents a detailed description of each of the four major performance management processes -- defining performance, developing for performance, reviewing performance, and rewarding performance. Each process description is accompanied by principles to be followed and descriptions of general practices that might be followed to carry out that process in team-based organizations. Performance management practices are described for managing both team and individual performance.

The content of this paper is based on the performance management research carried out at the Center for Effective Organizations over several years. In more recent years this research has been part of a larger study of team-based knowledge work organizations.

What is Performance Management?

In this section we give a brief overview of performance management. Subsequent sections will go into more detail about how performance management can be applied to teams.

There are many models of performance management in the literature. The one used here we have developed and tested in organizations in a number of studies, including our studies of teams in non-routine settings. It is best thought of as a way to conceptually keep track of all the issues and practices that fall under the domain of performance management.

Performance management is the set of processes that have to be done in order to make sure that what people do and work at in the organization will obtain the results that the organization needs. These processes can be put into four categories: defining, developing, reviewing, and rewarding. Figure 1 illustrates these
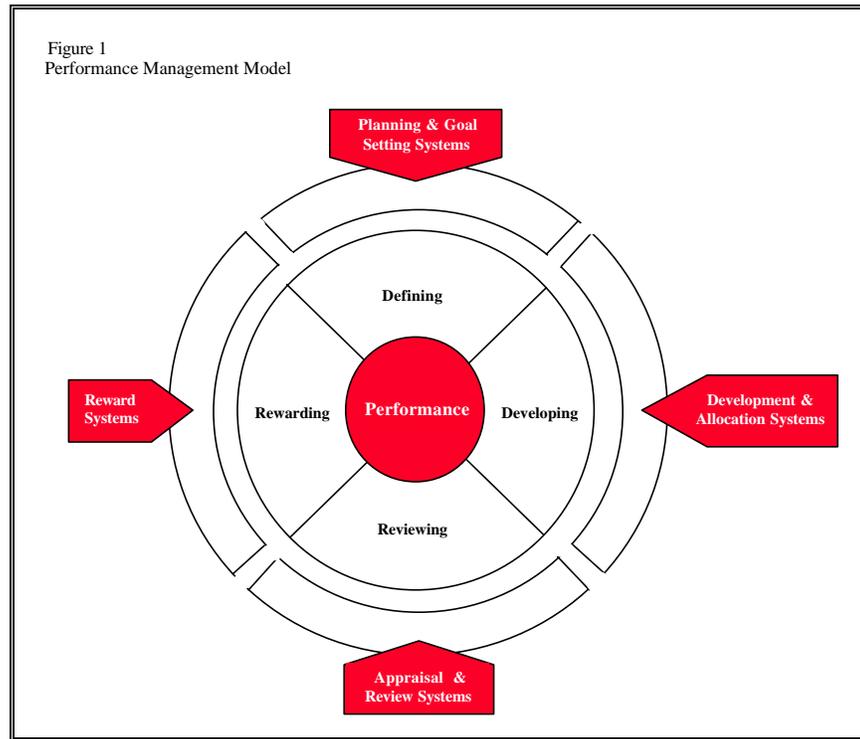

Figure 1
Performance Management Model

four sets of processes as a cycle of activities surrounding and having an effect on performance itself. The organization creates formal programs and practices to foster the four sets of processes. The processes themselves are often a combination of formal and informal practices. Our studies found that how these processes are done relates to performance.

Performance management processes take place at all levels in the organization and are applied to all levels of performer. In team organizations the performance of at least three levels of performer must be managed: 1) the individual employees, 2) teams of employees, and 3) entire business units. Each of these levels is a "performer". For example, in an aerospace firm an electronics program might be made up of individuals who work together in teams. In this case, the individuals, the teams and the program are all performers. In addition, the company as a whole and its large business units such as divisions are also performers. In this paper we will consider only three levels, in order to keep the discussion as simple as possible.

Defining processes let performers know what performance is supposed to be-- what they are supposed to do. Traditionally organizations have relied on such things as job descriptions, goals, and standards to define the performances that need to be achieved. Business unit strategies, business plans, team goals, and team missions are also examples

of performance definitions. Planning processes are good examples of defining processes that are used with all levels of performers.
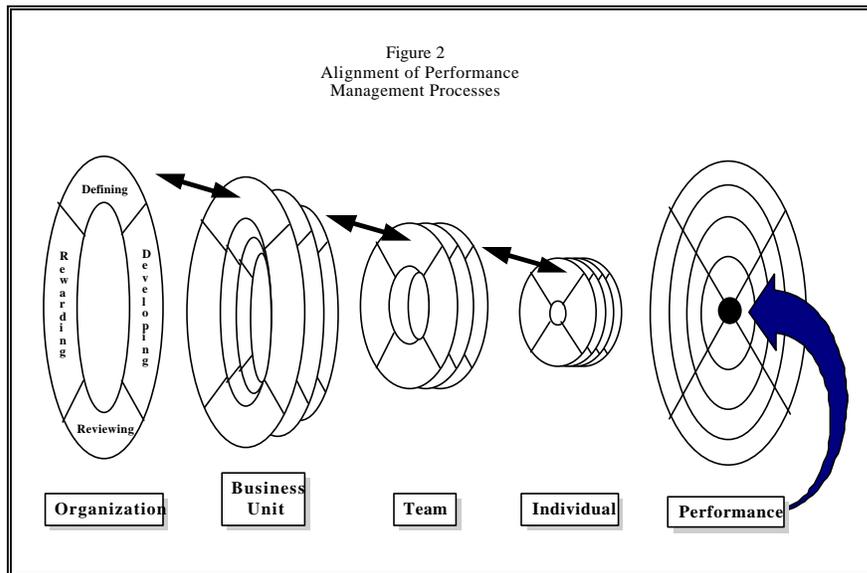
Developing processes are the mechanisms used to develop the capability of the performer and the situation so that the defined performance can be achieved. At the individual level developing processes can include such formal practices as classroom training and such informal practices as on-the-job coaching. Developing can also mean providing the individual performer with the tools and resources needed to do the work, such as technologies, systems, and time. Teams can also be developed as performers in terms of the technical skills of the members that are allocated to the teams, the skills and training needed for good team processes, and the technologies, budgets, and other resources allocated to the team. Similarly, business units can be developed to help achieve their defined performance. Business unit development often can mean the redesign of structures and processes to enhance performance capabilities. For example, in the case of an electronics program, the design of a team-based organization might be intended to develop new performance capabilities in the business unit. This development might be viewed as necessary to attain the goals that were set for the program. Many of the practices and processes that have come under the rubric of "Organization Development" are examples of developing processes used for teams and business units.

Reviewing processes are used to describe and evaluate the actual performance. Evaluation applies criteria that are set down by the defining processes.   Traditional performance appraisal practices are a prototypical example of the formal reviewing processes that have been used with individual performers. Project teams often undergo project reviews. Business units sometimes receive corporate "report cards". These formal review practices are heavily supplemented by informal practices that happen every day.   Performers may see directly the results of their own performance, and they may receive data such as weekly budget reports or daily sales figures that provide ongoing feedback. Customers, clients, managers, and fellow performers often note how well a particular team or individual is doing, and sometimes give them feedback. Done well, the formal review processes are merely a periodic systematic look at performance in an environment that has rich performance information available all the time.

Rewarding processes are mechanisms by which performers have their needs more or less satisfied as a result of their performances.   Some rewards are intrinsic in nature. People can get a good feeling simply by performing well, either as individuals or as members of well performing teams and business units. Other rewards are extrinsic. Formal reward and compensation practices, for instance, can be designed so that performers get something of economic value as a result of their performance. Teams and

business units can get rewards just as individuals can, for instance in the form of team recognition, incentives, profit sharing or gainsharing.

Designing performance management practices for teams and in team settings means designing practices that achieve alignment among the levels of performers as well as among the performers at any one level. The bull's eye on the right in Figure 2 illustrates the fact that overall performance is a composite of performances at multiple levels of the organizational system. It will be optimized to the extent the various performances are aligned. There are two aspects of this alignment: one, all the performers at each level must be going in the same direction, and two, performers at each level must be aligned within the context of the next level up.

Figure 2
Alignment of Performance
Management Processes

Defining
Rewarding
Developing
Reviewing

Organization
Business Unit
Team
Individual
Performance

Individual-level formal performance management systems are prevalent and strongly embedded in modern organizations. They embody philosophies about what is and is not equitable, and are central to the self-esteem of employees. These individual-level practices of reviewing and rewarding can work at cross-purposes with the concepts and philosophies needed for successful team performance management to the extent that they perpetuate the practice of managing an individual's performance as if it can be considered in isolation from the performance of the team that they are part of.

Ultimately, prevalent, incompatible, individual systems will have to be changed to become more team oriented. But this can be a tall order in most corporate settings. Because of this, team-level performance management practices are not often well developed nor formally adopted as corporate practices. Most team performance management is done in informal ways or in pockets of the organization that have been allowed to experiment with new practices. As teams become more established parts of organizations they will engender a reevaluation of traditional practices. Until then ways must be found to supplement, tailor, and/or patch traditional practices so they are more

compatible to new team practices. Managers of team-based organizations can ensure that team performance management processes are occurring even before there is overhaul of corporate individually-oriented systems.

Who Should do Performance Management?

Performance should be managed by those who have a stake in the performance. When the team is the performer there are a number of potential stakeholders: the team it*self* and its members, the team's *customers*, other teams that the team is interdependent with and which are *co-performers* with the team, and the *managers* that are responsible for the team and the performance of the business unit as a whole. These same types of stakeholders are present whether the performer in question is an individual, a team , or a business unit.

Managers have been the traditional managers of performance. Managers are representatives of the larger system and have a stake in how well performance contributes to it. For business units managers represent the larger corporation and may be at the executive level. For teams, managers represent the business unit that the team is part of. For individuals, managers represent the teams and/or business units that they belong to.

Internal and external *customers* have a direct stake in performance since they are the recipients of it. Individuals, teams and business units all have customers. By customers we mean individuals or groups that receive products or services from the performer. In general, the relationship is sequential in nature in that the performer performs and the customer receives the results of that performance.

Co-performers have a different kind of stake in the performance. They work with the performers to achieve performance of the larger system. For instance, team members are co-performers with one another in the accomplishment of the team's performance. Teams themselves often must work with other teams in order to accomplish the performance of the larger business unit. Information and work pass back and forth between coworkers and sometimes are produced jointly. Co-performers depend on each other's performances to get their own work done as well as the work of the larger unit.

Performers *themselves* have an obvious stake in their performance. They have a direct responsibility for it and are quite liable to reap the consequences of it. They have a unique insight into how the performance was created and what might be ways of improving performance.

Figure 3 depicts how performers are embedded within the larger performing groups. A team's customers might be part of the business unit or outside the business unit.

Figure 3
Levels of Performers and Sources
of Performance Management
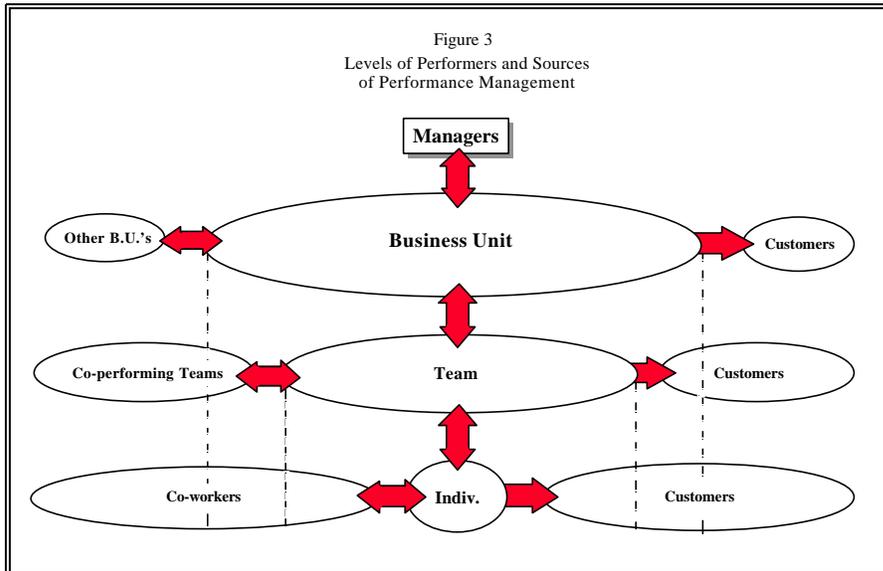
For instance, a team might be producing a component for use by another team in the creation of a multicomponent system, or a team might be producing a software tool or methodology that can be used by other groups in the business unit to carry out their work. In both cases the product of the team is delivered to other teams so they can do their work. The relationship is essentially that of supplier-customer even though both might be within the same business unit. Other teams in the business unit might be more like co-performers than customers. In an electronics system organization, three teams might be interdependent in the creation of three components of an overall system. They must learn to work together to get their tasks accomplished. Similarly, teams can have customers and co-performers that are outside the boundaries of the business unit and the company. The client teams in a field office might deliver services and products directly to external customers. An electronics team might also find it has to co-perform with a vendor team to develop its component because the business unit does not have the resources internally to accomplish what the vendor can and the nature of the component requires ongoing reciprocal interaction between vendor and team for both of them to do their work.

The distinction between co-performer and customer is important. They have different stakes in the performance of the team and get involved with performance management for different reasons and with different outcomes. In our study, when co-performers get involved with the performance management of each other it leads to improvements in the processes and procedures used to co-perform. Customers are usually less interested in the processes used to deliver and more interested in the results. Our data show customer involvement in performance management is related to performance but not

to improvement of performance capability. In fact, too much involvement of customers can get in the way of process improvements and development of the team.

Performance management of individuals by peers is an example of co-performer performance management. Team settings that use peer evaluation often find that peers are especially resistant at first to evaluating each other. They worry about creating conflicts among themselves that will be counterproductive. On the other hand, our research shows that peer evaluation and feedback is very constructive when the purpose is to figure out how to improve performance.

Performance management by managers tends to be from the perspective of the larger performing units. It provides the alignment among the levels of performers. Performance management by the other sources may result in misalignment unless there is management perspective from the viewpoint of the larger system. For instance, self and co-performer performance management will tend to focus performers on the ways they perform rather than on what they produce. Thus their actual results will tend to drift from the needs of the outside entities that have a stake in them.   Customer performance management will tend to pull results in the direction of the customers' needs, and this may pull performance in directions that may not be in the best interests of the larger organization.   A team, for instance, might be strongly oriented to servicing a particular customer or set of customers, but if that customer group is not an important part of the larger organization's market strategy then the team's activities may actually be detrimental to business unit performance while being highly effective with its customer.

Another example might be the case where a team contains individuals with skills needed elsewhere in the organization for higher priority reasons than the team's. In such cases it might make organizational sense to sacrifice the performance of the affected team. Performance management decisions at the business unit level might work contrary to performance management at the team level. It is important to create performance management practices that can be trusted to set up processes that assure these decisions are made correctly. Is the movement of human resources really resulting in better business unit performance or is it simply a matter of raiding one team for the sake of another, that is no more or less organizationally important? This is especially important given the finding in our study that a common source of team failure is loss of resources that are required along the critical path of the work. Thus, for managers to play this resource allocation role requires a two-way dialogue with the team.

Performance management by managers only is not adequate nor often viable. In many team settings managers are so distant from the day to day performances of individuals or the team that they cannot know enough to properly define, develop, review or reward

performance. They are often reduced to relying on information supplied by the performer to make performance management judgments. Even when managers are close enough to the situation to make sound judgments from their perspective, this is not enough in team settings, because so much work is lateral in nature and managers do not always have necessary understanding of and information about lateral needs by co-performers and customers. *In team settings manager performance management must be coupled with performance management by the lateral stakeholders.*

In summary, performance management in team-oriented settings is considerably more complex than in more traditional, hierarchical, individually-based settings. Performance must be consciously managed at at least three levels of performer -- individual, team, and business unit.   In addition, there are four stakeholders in performance at each level: the performers themselves, their co-performers, their customers, and their managers.   The performance management practices at each level of performer by each stakeholder must be managed in order to achieve alignment.

In the following sections we present what team-based performance management can look like. We develop the general outline of practices by taking each category of performance management processes at a time. Again, the most important thing is that each of these processes happen, not that they necessarily must be formalized into an organization-wide performance management system. Depending on the setting, the new team-based practices may or may not be formalized. In settings that are transitioning to teams, different units will be at different stages. Some units may not be ready for formal team performance management practices. However, these units will experience a performance boost to the extent that managers ensure that they are at least informally happening.

Defining Performance in Team Settings

Our research continually confirms that the processes by which performance is defined are the most impactful on subsequent performance. The bulk of the impact of performance management on subsequent performance is due to the manner and processes used to define performance. But this is not true when definition is done only at the individual level, at least in knowledge work settings. When individual performance is defined in isolation from that of other individuals with whom they must work and without an understanding of the performance required of the larger group and the business unit, it is often quickly made irrelevant by the realities of the context in which the individual works. In other words, defining individual performance in an isolated way (as it is done in most traditional performance appraisal systems) can be a waste of time. Defining team

performance in the context of the business unit and then defining individual performance in the context of required team performance is the most effective approach.

Table 1 summarizes what should be included when defining performance in team settings. Remember, performers can be individuals, teams, or larger units.

Table 1
Defining Performance
In Team-Based Settings

Defining should include:
- Establishing general direction and role for the performer.
- Identifying the needs of business, customers, and co-performers.
- Clarifying the deliverables and services that are to result and the tasks that are to be accomplished.
- Establishing goals and objectives
- Establishing metrics that can be applied.
- Planning how the work will be carried out and organized by the performer.
- Identifying the skills, tools, and resources needed by the performer.

There are a number of elements that can be included under the general notion of defining. Performers at all levels must start with a *general direction* performance is to take *and a role* that the performer is to play. When the performer is the business unit then this general direction might be expressed in its mission, vision and strategy. For example, a business unit might have the mission to supply avionics components to an external customer. A team might have a general mission and task that it has to carry out that requires that it plays a role within a larger set of teams. For instance, a team might have the task of developing an electronic "box" with a certain functionality that is to be integrated with two other "boxes" designed by two other teams to form a larger system component that is to be delivered to a customer. A software engineer in the team may be expected to design and program a particular kind of application needed in one of the boxes, a role that makes her highly interdependent with other members of her team as well as some members of other teams.

The direction-setting and planning at the higher system level provides the framework within which the next level's performance is defined and in turn its planning process leads to definitions at the next level. Let's take the team level as an example. Given the business unit direction, the team must identify the performance *needs of its stakeholders*: business managers, customers, and co-performers. Once performance needs

are established the team should clarify the *deliverables and services* that can meet these needs *and/or* the *tasks* needed to be done. *Goals and objectives* can then be set for meeting needs. Once this level of specificity is reached in defining performance then *metrics and* various *measurement approaches* can be defined for determining whether or not and to what extent performance occurs as defined. In general, our research has repeatedly shown that the degree of specificity to which performance can be up-front defined, and the degree to which performance measures can be put into place are strongly related to subsequent performance. But this finding involves a caveat. The definitional processes must use both vertical and lateral processes that result in shared definitions and the appropriate stakeholders must be involved in the planning processes that lead to the definition of team performance. This is the essence of defining performance in a team setting.

Once team performance results are defined, the definitional process must turn to planning *how the performance is to be carried out and how the teams involved must organize for its achievement.* In team settings this will involve a process that will define the ways teams organize both within and among themselves. It will involve getting greater clarity on the roles individuals and teams need to perform. Thus, the team defines its performance and this leads to a process of defining the performance of its individual members.

Several principles should be kept in mind when establishing the various components of performance definition enumerated in Table 1. Performance definition should be done in a vertically integrating manner. *Each level of performer should define its performance within the context of the larger organizational system.* For instance, a software engineer might define performance as creating an application with a certain functionality that is to integrate with other hardware and software applications into a system designed to perform in a certain way for the customer. This is different from giving that software engineer a set of design parameters that are specific to his application and are disconnected from the role that application is to play. In the latter case it is entirely possible for the engineer to do his task without knowing how it fits with the larger system. The major assumption in team settings is that the latter case is undesirable because of the major interdependencies that exist.

In order to achieve lateral fit, *performers should define their performances in collaboration with co-performers.* Teams must collaboratively define performance with other interdependent teams. Individuals must collaboratively define their performance with co-workers. This cannot be independent of the processes for achieving vertical fit. For example, the teams that are to produce the avionics component might first work out

their interteam responsibilities and processes required to deliver the needed component and achieve the goals of the business. This interteam planning defines the goals and roles of the teams relative to one another. This is the lateral process of collaboration. Each team could then work out their intrateam designs and plans to achieve their team goals. In the process of doing so they must also collaboratively work out the goals and roles of their individual members.

One of the realities of team-based settings is that individuals often belong to many teams at the same time. In our study across 12 organizations the average was over six teams for each individual. While we do not recommend that individuals belong to so many teams, multiple team membership is a fact of life. One of the major problems with this reality is that it tends to stretch individuals way beyond their capabilities because each team demands more of the individual than is available. One reason for this is that performance definition is often not done in a way that explicitly defines the individual's roles in the context of the performance needs of each team. The individual's direct manager may take only business unit needs into account in defining the performance of the subordinate, not the needs of each team. To combat the tendency toward overextension, *when individuals belong to multiple teams they must reach explicit agreement with each team about their total performance commitment in all teams.*
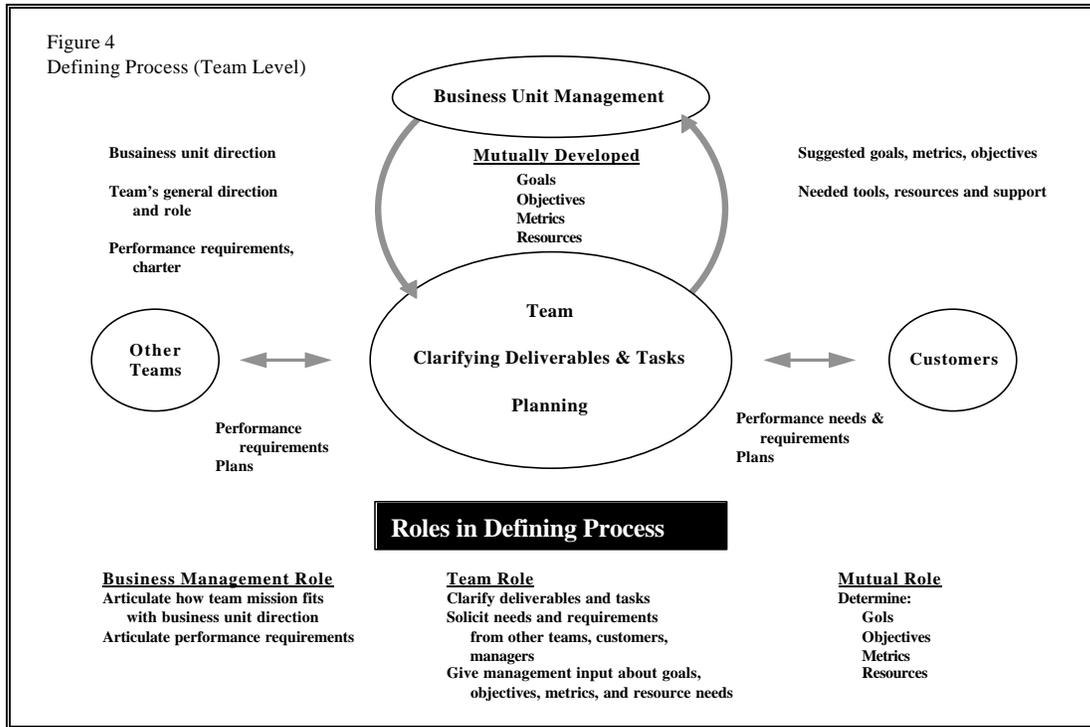
Customers, whether internal or external, direct or indirect, are an ultimate stakeholder in the performance at issue and *should* therefore *have a prominent role in its definition.* There are many ways that customers can have input, ranging from interviews by team members, perhaps as focus groups, through written statements of needs by customers, to joint definition between customers and performers of what performance needs to be.

The manner in which performance is managed is at the core of empowerment, since it deals with direction and capability. *Teams and individuals should be active participants in the defining of their performance.* They should be an active stakeholder in the goal-setting process working with managers and other teams. For maximum effectiveness, internal team planning and the setting of individual goals and roles will be largely team defined. Our research results reveal that it is when teams self-define their performance that performance is enhanced, not when managers define performance for them.

A common situation in team-based settings is constant change. Teams are often constituted and reconstituted for various purposes. Even when teams are relatively intact and permanent, goals and tasks can change, as customer needs change, for instance. Thus the *definition of performance must be treated as a dynamic process.* The important thing is that as performance needs change there must be processes that make sure that teams and

individuals are in concert with these changed needs, and for redefining performance accordingly.

Figure 4 presents a general model that can be used to design a team-level defining process. The team must perform its own internal defining processes but equally as

Figure 4
Defining Process (Team Level)

Business Unit Management

Busainess unit direction

Team's general direction and role

Performance requirements, charter

Mutually Developed
Goals
Objectives
Metrics
Resources

Suggested goals, metrics, objectives

Needed tools, resources and support

Other Teams

Team

Clarifying Deliverables & Tasks

Planning

Customers

Performance requirements
Plans

Performance needs & requirements
Plans

Roles in Defining Process

Business Management Role
Articulate how team mission fits with business unit direction
Articulate performance requirements

Team Role
Clarify deliverables and tasks
Solicit needs and requirements from other teams, customers, managers
Give management input about goals, objectives, metrics, and resource needs

Mutual Role
Determine:
Gols
Objectives
Metrics
Resources

important it must engage in defining processes with its stakeholders, the most important of which is the business unit. The figure portrays a key role for business unit management in putting the team in the context of overall business direction and a key role for the team in working out how it will go about accomplishing its performance requirements. The definition of goals and metrics is a mutual process.

Figure 5 presents a general model for the individual-level defining process. The individual participates in the planning process of the team(s) of which she is a member, and with each team mutually defines her contribution. She then integrates these roles into an overall performance definition with each team being aware of her overall performance commitments.

Parts of these processes or some variations may already exist in organization, in the form of business planning practices, for instance, or as project start-up procedures. They may or may not be formalized. Almost assuredly these processes will not completely cover all the aspects that appear in figures 4 and 5. To do a complete job of defining performance additional practices will have to be developed as needed.

This does not mean that the defining processes must be extensive and laborious. Keep the defining process in scale with the performance being defined. Large, complex projects require comparable up-front investments in defining what performance is to be. Small, short duration projects should not invest inordinate amounts of effort and time in defining performance. Nevertheless, defining is the most impactful process on subsequent performance. Practically no one spends enough time on it because of a desire to "get on with it." Complete definition pays off in the long run.

Care must be taken to avoid the tendency to think of defining as an administrative burden that impedes performance. It is just the opposite if done well. Over documentation is wasteful but insufficient documentation of what performance is to be leads to incompatible understandings and expectations, and contributes to project delay. There is also no need for defining performance multiple times because of multiple systems. The results of the individual's work defining contribution to teams (bottom of Figure 5) should simply be attached to any required performance management form. The process is done to plan performance, not to go through the administrative hoop of filling out a performance management form.

Figure 5
Defining Process (Individual Level)

Team

Mutually defines with business unit management: goals, objectives, metrics

Assesses resource availability

Plans application of resources to tasks

Members

Mutually define each member's role and contribution

Member I

Combines roles and expected contributions to team or teams in to overall definition of own performance.

Developing for Performance in Team Settings

In traditional performance management systems aimed at the individual there is often a section of the form and perhaps a sub-process called "development." For the most part a subordinate and/or manager identify the subordinate's developmental needs and prescribe training classes or other learning experiences. In most cases it is an
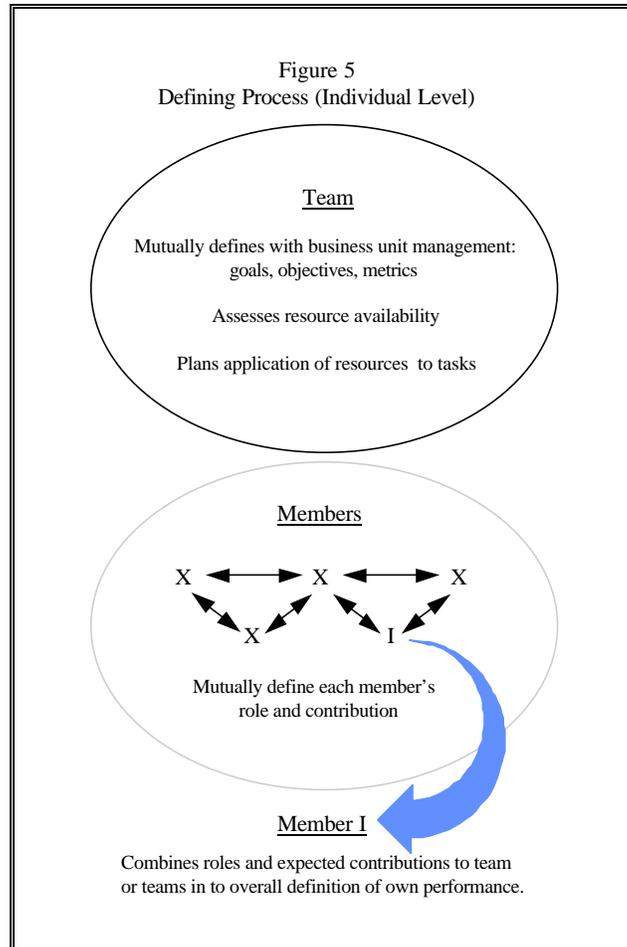
underutilized and cursorily done section. The developmental "fix" is almost always seen in terms of the individual performer acquiring new skills.

In team-based settings developmental processes need to take on a much more important and broader role in performance management. If the team is considered a performer then the meaning of "development" changes.   What does it mean to develop a team?   It can mean the development of skills. Each of the members can develop additional skills in order to perform or to perform better. Some of these might be social, team-oriented skills. But team development might also mean adding new team members with the appropriate skills, or replacing members to get a better skill mix. Now team development has become a human resource allocation process.

Development of a team does not occur just through skill acquisition. Teams can develop in many organizational ways. Teams can perform better by changing the way they go about their work, the way they internally organize and the way they relate to their stakeholders. Thus, development is also an organization development or "O.D." process.

Finally, in this day of total quality and process based organization, we are coming to accept that, even for individuals, a major part of performance is a function, not of the performer, but of the tools, systems and resources the performer has. This fact is even more apparent in team settings. Thus, development must come to also refer to the acquisition and allocation of necessary tools and other resources for the teams and their members.

Table 2 summarizes what should be included in development practices.

Table 2
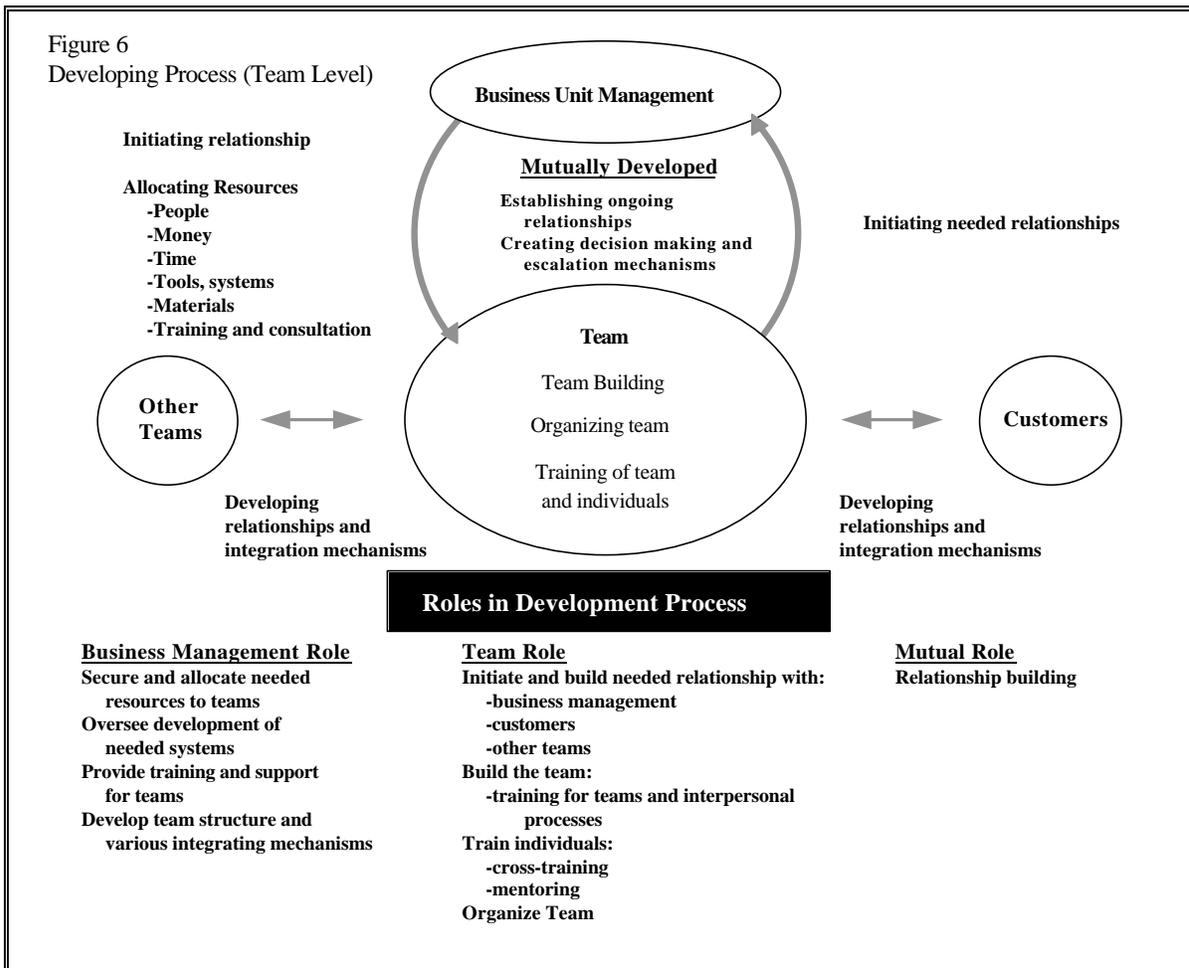Developing Performance
in Team-Based Settings

Developing should include:
- Organizing work and roles according to plans.
- Acquiring and allocating the necessary skills, tools, and resources for the performers.
- Establishing necessary relationships among performers and stakeholders.
- Changing the situation and context to facilitate performance (e.g. the processes and systems used).

The starting point for development should be the organizing plans made and the resources identified as part of the defining processes. Development is the actual organizing not the organizational plans. Development is the acquiring of skills and resources, not the identification of skills and resources needed. Organizing and acquiring

resources are internally focused. Other development endeavors need to be more externally focused. Our research findings consistently remind us that the context in which the team finds itself is at least as impactful on its ability to perform as internal competencies, and probably more so. Thus, the team must work to develop its context. In particular, the team and its members must establish the appropriate relationships with co-performers, customers and managers; as well as work to establish organizational systems and processes that are supportive.

There must be a balance between internal and external development. Too often teams focus internally in their development efforts in the mistaken belief that team capabilities are the primary determinant of performance. Most of the stakeholders in the team's performance also labor under the same belief. Therefore, *teams must take the initiative in developing relationships with their external stakeholders.*
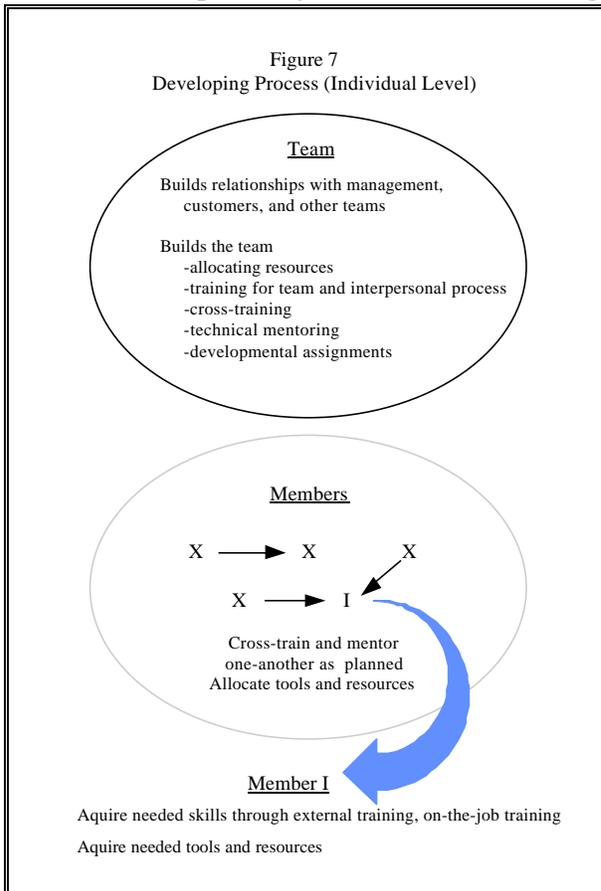

Figure 6
Developing Process (Team Level)

Business Unit Management

Initiating relationship

Allocating Resources
-People
-Money
-Time
-Tools, systems
-Materials
-Training and consultation

Mutually Developed
Establishing ongoing relationships
Creating decision making and escalation mechanisms

Initiating needed relationships

Other Teams

Team
Team Building
Organizing team
Training of team and individuals

Customers

Developing relationships and integration mechanisms

Developing relationships and integration mechanisms

Roles in Development Process

Business Management Role	Team Role	Mutual Role
Secure and allocate needed resources to teams	Initiate and build needed relationship with:	Relationship building
Oversee development of needed systems	-business management	
Provide training and support for teams	-customers	
Develop team structure and various integrating mechanisms	-other teams	
	Build the team:	
	-training for teams and interpersonal processes	
	Train individuals:	
	-cross-training	
	-mentoring	
	Organize Team	

If resources are needed, teams should work with management in a problem- solving way to achieve them. Management is ultimately responsible for allocating resources and

must do so from a business-wide perspective, but team needs cannot be left to chance because of a belief in some sort of management omniscience.   Team needs must be voiced.

If there are important interdependencies with other teams then the team should proactively work to establish the right kinds of relationships with those teams to manage the interdependencies. This kind of relationship development with co-performing teams is the source of business unit development as a whole. As the teams within a business unit work out their relationships with one another, they are also contributing to the development and design of the business unit itself.

Many products and services are not capable of being delivered to the customer in a simple fashion. Often a complex technology transfer process needs to take place, the customer must be trained and reorganized for delivery to be successful, or the customer needs to get interactively involved with the development of the deliverable. Each of these situations demands that relationships be established with the customer to ensure successful delivery. Customers are often blind to this need which can decisively determine performance success.

Figures 6 and 7 illustrate general models of the developing process, team and individual, respectively.   As with the defining processes there may be existing organizational processes for doing the various things enumerated in this section, but they are unlikely to cover all the necessary aspects of developing in a team-based environment. And they may be inappropriately structured. Development should be done with all stakeholder relationships as well as internally. Developing may or may not be time consuming depending on the adequacy of existing skills, resources, relationships and integrating processes but it should not be overlooked as a performance management process. It is the source of performance improvement. Failure to spend time on resource allocation needs, for instance, is a central cause of performance failure in team settings.

Figure 7
Developing Process (Individual Level)

Team

Builds relationships with management, customers, and other teams

Builds the team
   -allocating resources
   -training for team and interpersonal process
   -cross-training
   -technical mentoring
   -developmental assignments

Members

X → X   X
X → I

Cross-train and mentor one-another as planned
Allocate tools and resources

Member I

Aquire needed skills through external training, on-the-job training

Aquire needed tools and resources

Reviewing Performance in Team Settings

The performance review feeds into all other aspects of performance management. The performance management model (Figure 1) implies the various performance management uses to which review can be put: 1) It can be used directly to affect *performance* by feeding back the information needed by the performer to know what adjustments in performance are necessary, assuming the original performance definitions are still intact. 2) It can be used to identify where *performance definitions* are no longer valid and to suggest new ones. 3) A review can reveal that performance is falling short because of deficiencies in the performer that need to be corrected through some type of *developmental process.* 4) Finally, review can be used to determine a fair *reward* for the performer so that desired performance will continue.

The various performance management uses to which reviews can be put each require a different lens through which to review performance. In large part these perspectives match the ways performance should have been defined. Table 3 enumerates the different aspects of performance that should be reviewed. All are relevant for feedback purposes since all provide information that can be used by the performer to

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Table 3
Principles for Reviewing Performance
in Team-Based Settings

Reviewing performance should include:
- Assessing the skill and resource adequacy of the performer (team or individual).
- Appraising how the work is organized and carried out by the performer.
- Judging how much the performance contributes to the performance of the larger system.
- Evaluating how well the performance meets the needs of its stakeholders.
- Applying metrics with judgment and prudence.
- Determining progress from base-line measures of performance, not goal attainment.

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adjust performance. For developmental purposes we are mainly interested in the skills and resource adequacy of the performer and how the performer went about organizing and carrying out the work.   For defining purposes it is important to know whether the performance is contributing to the performance of the larger system and how much the performance is meeting the needs of its stakeholders. For reward purposes we might consider reviewing all the above but we must do so using metrics in a fair and just way,

taking into account changes in the business requirements and situation that result in alteration of what is possible or desirable to attain.

One aim of performance review is to discern as much as possible the *organizational value of a performance*. This must entail a process of evaluating the direction performance has been going as well as how far it has gone in that direction. As formally practiced in organizations, performance review has too often slavishly evaluated performance in terms of original definitions instead of in terms of the emerging definitions that more closely reflect the directions performance needs to take. Consequently, performers may spend time on activities in jobs that are not the highest priority. On the other hand, performers sometimes pursue emergent goals without properly evaluating the degree to which those goals really do represent value to the organization. For instance, a design team may begin to pursue design options for technical reasons without ascertaining whether the new technical functionality meets customer needs. In this case review must also evaluate the performance's direction as well as its amount and perhaps redirect performance back to the originally defined goal. There should be flexible opportunity to review performance definitions (goals) during the performance cycle to prevent this misfit between needs and activities.

Each of the stakeholders of performance will tend to review performance from a unique perspective and the information provided will tend to be more useful for certain purposes and less useful for others. *A complete review will need to strike a balance among the various stakeholders.*

Self-review by teams is useful for team development. This includes reviews of one another by co-performing team members. Our research shows that peer review tends to be associated with team development. Using peer review for individual reward evaluations is more difficult to achieve. Some organizations report that this is rejected by team members as a task they are not willing to carry out, while others have successfully established peer review systems. There are two different reasons why team members may refuse to review teammates for reward purposes: First, co-workers can see evaluations of one another as divisive. They fear that negative evaluations of co-workers will create conflicts among each other that will negatively affect the ability of the team to perform. Second, team members come to view the team's performance as truly a team phenomenon to which all members have contributed. They see themselves as so interdependent with their fellow team members that it is impossible to assign some absolute or relative value to the contributions of individuals. Consequently they do not believe it is possible to separate team from individual performance for purposes of rating for rewards. However, these

same teams can comfortably review one another's performances for purposes of improving the team's overall performance.

Just as reviews of and by co-performing individuals are associated with internal team development, reviews of and by co-performing teams tend to support internal business unit development. That is, the teams tend to focus on how they need to relate differently in order to more effectively integrate their work.
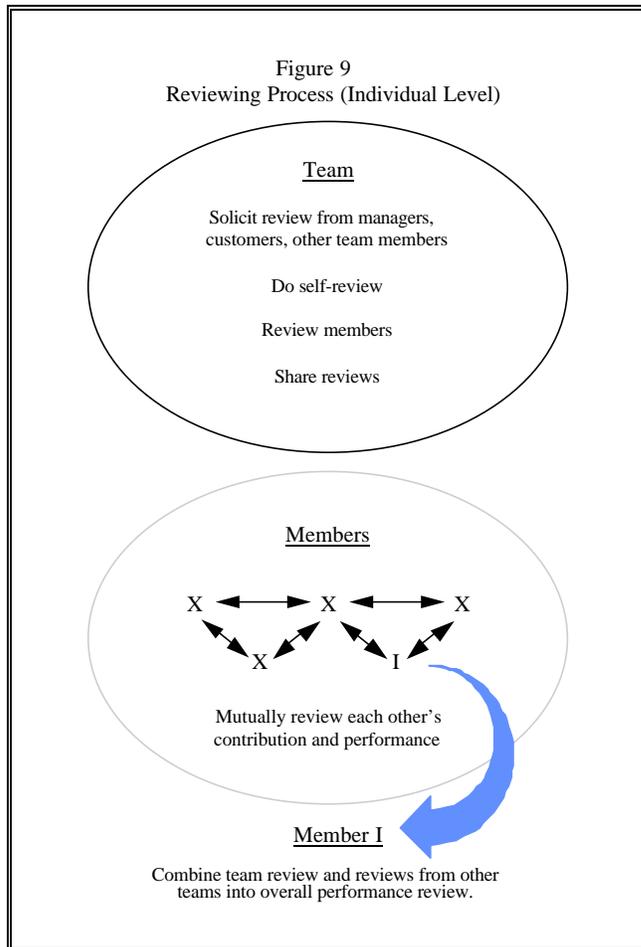
When managers review team performance they tend to focus on the team's contribution to the business unit and make comparisons among teams. They do the same things when reviewing individual performance. This focus on contribution to business is useful for maintaining alignment among the levels of performers. The tendency to compare among performers has two sources: First, managers are responsible for resource allocation across business units and teams and they must be aware of the competencies of various performers. Second, the allocations of scarce resources to individuals and teams must be as efficient as possible. Sometimes resources need to be allocated to performers that are having performance problems. Sometimes, as in the case of rewards, the resources go to the better performers.

Figure 8
Reviewing Process (Team Level)
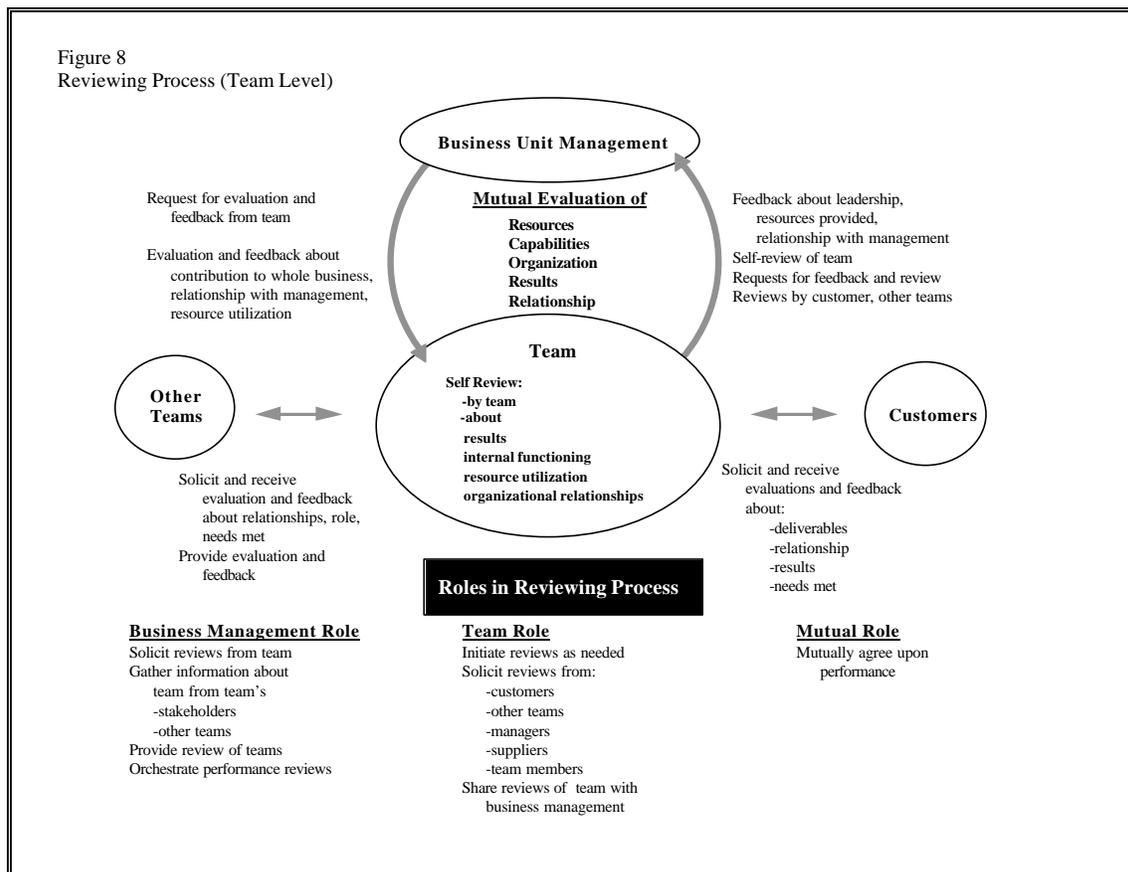
However, comparative reviews among different performers who have to work together can be divisive, especially if there is a requirement that a summary review differentiate among them. Our studies of some organizations that have used rankings of individuals to determine pay have shown that such ranking processes get in the way of teamwork. Similarly, if co-performing teams are ranked against each other we should expect that this will create a tendency to compete with one another rather that cooperate. For this reason, it is recommended that managers rate competencies and keep inventories of skills, but that this process be separate from the performance rating, maintaining the latter as a judgment of performance vis-a-vis how it is defined.

Customers judge performance in terms of whether the product or service is delivered and how well their needs are being met. Their judgments may be at odds with those of other stakeholders such as the managers or the team itself. Individuals, teams and business managers must constantly balance between these different stakeholder reviews.

Finally, performers should be held accountable for performance over which they have control. This is a staple of individual performance management and applies equally well to teams. When individuals are members of teams and team performance is evaluated and reviewed the individuals will balk against being held accountable for the teams' performances, either as individuals or as teams, unless they feel like they have control over the mechanisms for achieving performance. This includes being able to organize themselves, being able to have some influence over who their teammates are and over the other team resources. Without these basic elements of empowerment and self-management, team members will resist being reviewed and held accountable as a team.

Figures 8 and 9 are models of the general team and individual review processes. They portray the

Figure 9
Reviewing Process (Individual Level)

Team

Solicit review from managers, customers, other team members

Do self-review

Review members

Share reviews

Members

X — X — X

X   I

Mutually review each other's contribution and performance

Member I

Combine team review and reviews from other teams into overall performance review.

team as involved in a two-way review with co-performing teams, and with the Business Unit Management. The team's ultimate review comes from business unit management, who must orchestrate a process by which the multiple perspectives are considered. The team is also engaged in a process by which team members' performances are reviewed in the context of their contributions to the team. This team review must formally be considered as an integral part of an ultimate individual appraisal, if such an appraisal is done.

Review should be done periodically and relatively frequently to make sure performance is on track, to make sure performance definitions are still appropriate and to look for further development that might be needed. As with other processes, reviewing should not be out of proportion to the work itself. Nevertheless it is necessary for performance. Use existing processes as available. Adapt them as needed. Make sure all stakeholders and issues are covered. Time spent on defining performance well will minimize the time spent in reviewing. Yearly, formal performance appraisals should be thought of as summaries of reviews done more frequently.

Rewarding Performance in Team Settings

Reward systems present special problems in team-based settings. Reward systems are most often corporate-wide but team settings often constitute only a portion of the organization. Evolving team settings are therefore trapped within a reward system that was designed for a different kind of organizational logic. This section is concerned with what can pragmatically be done within this type of context as well as what might be the longer term goals in designing a team-based reward system. We begin with a review of what we have learned from our study in team-based organizational settings.

Despite their commitment to teams most companies we have studied have not moved completely toward creating reward systems that are compatible with the new team approach. They continue, by and large, to use the traditional merit pay system aimed at individual employees as the core compensation and reward practice. Partly this is because of the difficulty in changing corporate level practices in any case. Partly this is because there is not yet complete understanding about what kind of reward and compensation practices make sense in team-based settings. Nevertheless, some organizations had developed some other sources of rewards--primarily through the use of special awards programs--to supplement the traditional merit pay systems and they had made some alterations to merit pay practices to better suit their needs.

In the organizations we studied we measured the degree to which employees were rewarded 1) for their individual performance, 2) for their team's performance, and 3) for their organization's performance. There was a wide variation in practices across

organizations, business units, and teams so that employees experienced very different patterns across the organizations in how much they were rewarded for individual, team and organization performance.

We found that the more people were rewarded for their individual performance the worse team performance was. On the other hand, the more people were rewarded for team performance the better their team's performance was, the better their business unit's performance was, and the more process improvements their business unit had. Apparently, rewards for individual performance are detrimental to team performance, while rewards for team performance not only lead to better team performance but also better unit performance.

When we took a closer and more complete look at the role that rewards play in team settings we got a fuller perspective. In particular, we found that much of the impact of team reward practices was not due to the rewards themselves but rather was due to the processes by which team performance was defined and reviewed. Good practices for rewarding team performance require good practices for defining what the performance should be and for measuring, reviewing, and evaluating the performance. The positive impact of team reward practices on performance is due to the fact that team reward practices carry with them practices by which team performance is well defined and reviewed. Rewarding for good performance in and of itself only achieves a small additional bump in influencing performance over and above the impacts of good defining and reviewing processes. The main impact comes from defining and reviewing. On the other hand, basing rewards on team performance helps greatly to achieve alignment in the performance management of teams.

The significance of the above finding is that, even in the absence of team rewards, managers have access to two key influences on performance, the processes of defining and reviewing performance. Both of these processes also lead to the development of better processes in the team and in the business unit.

But this finding does not mean that rewards are irrelevant. It is still true that rewards for individual performance have a disruptive effect on team performance. To further complicate matters, we found that rewards are highly impactful on employees' sense of pay equity and their satisfaction with work in general. In the organizations we studied, the more people were paid for individual performance the more they felt fairly paid and satisfied with work, even though the performance of their teams was adversely affected.

This poses a dilemma for team performance management. It appears that individually-based reward practices that are not conducive to team performance are important for employee satisfaction and sense of being treated fairly. This means that employees' sense of fairness is related to the logic of the traditional merit pay system. This

is the logic of individual contributors as performers who are managed as individuals by hierarchical superiors. It is contrary to the logic of team organizations.

However, our findings show that team rewards are also related to a sense of being fairly paid and lead to general satisfaction. As people work in team-based settings they begin to adopt the logic of the new organization and perceive reward practices that are consistent with the new logic as fair. This takes time and comes from living within the new system. For instance, we studied a team of chemists who had come to be a high performing team. They had become extremely aware of their interdependencies with one another; so much so that they were unable to separate out their individual contributions to the team's performance. When management initiated the annual exercise of ranking individuals for pay purposes this team refused to allow themselves to be ranked differently. They demanded that management rank them all at the same level within the larger group of employees being ranked. In essence they demanded that even within the individual merit pay system that they be rewarded as a team. This is what seemed fair to them.

Another, more general, example of this logic shift occurred with quality circles in many organizations. As circles solved organizational problems that led to substantial savings to the organizations, many began to go the next logical step and wonder out loud why they were not being rewarded as a group for the savings they had generated as a group.

The challenge for organizations that are transitioning to teams is to manage the traditional notions of what constitutes fair rewards with the emerging notions of fairness. In the beginning, employees are reluctant to give up their traditional sources of self esteem and feelings of individual contribution and sense of fair treatment. It feels wrong that they should be rewarded for what the group accomplishes, especially if they perceive the team is held back because of "weak" individual performances from others or if the team succeeds because of their own "extraordinary" performances. At the same time, many team members will identify the individually oriented reward systems as a barrier to team effectiveness. As the transition to teams progresses people will gradually come to see traditional individual merit pay systems, especially those that rely on ranking, as divisive. There will be increasing demand for pay systems that acknowledge the contribution of the individual without pitting teammates against one another; and there will be increasing demand that teams should be rewarded for what they have achieved as teams. Managers need to help this shift in logic to take place.

There are two fronts on which new reward practices can happen. First, one can work to change the organizational (often corporate) reward and compensation practices. There are a number of these formal practices that seem to be highly compatible with team

settings. These include skill based pay plans, team bonus systems, profit sharing and gainsharing. Many organizations are working toward establishing various combinations of these compatible practices. They, nevertheless, are proving to be slow in coming in many organizations that have significant team based efforts.

The second front is pragmatic and immediate. It involves supplementing and making quick fixes to existing practices so that they will minimally disrupt the functioning of teams and so that they can contribute to the transition from individual logic to team logic.

Table 4 is a collection of approaches to rewarding performance. It is arranged roughly from those practices that can be rather easily done within existing pay practices to practices that require major changes and additions to normal compensation practices. One could take the order to be roughly chronological also, in that the top items could be done first and the bottom items could come later. The chronology does not have to be adhered to, however. Certainly profit sharing and gainsharing can be implemented independently of whether or not the setting is team-based.

First and foremost, before effecting new reward practices, managers should establish team performance management practices for defining, developing, and reviewing. These account for the lion's share of influence over performance. These are also examples of practices that can be rewarding in and of themselves.

As indicated in Table 4 there are a number of adaptations to traditional merit pay systems that can positively support performance in team settings. The first set of adaptations often used are aimed at making teamwork salient as an important aspect of performance. Managers who are officially responsible for appraisals can take the individual's teamwork into account by adding the appropriate dimensions onto the form. These dimensions can even be weighted to ensure that they are given enough priority. Since managers do not always have first-hand information about the person's team-oriented performance they can use input from co-workers, peers and customers.

Table 4

Approaches to Rewards in Team-Based Settings

Adapt existing merit pay practices:

- Make teamwork and contribution to the team more important
    a) teamwork as an explicit criterion on appraisal
    b) weight teamwork ratings so managers cannot ignore them
    c) collect input from peers, customers, co-workers
- Minimize competitive, individual performance focus:
    d) discard ranking and/or minimize comparisons
    e) base merit pay ratings on skills, knowledge and competencies, not on individual performance
- Tie together the fates of people who must work together:
    f) joint accountabilities, shared goals, shared performance
    g) individual rating weighted by performance of team(s)

Focus on team and team performance rewards:

    h) special team awards

    i) bonus pool based on team performance

       - everyone gets same bonus.

       - everyone gets similar bonuses except perhaps clear exceptions

       - team input and agreement on who gets what

Focus on business unit performance, and performance rewards:

    j) gainsharing

    k) profit-sharing

The next set of adaptations are often done in order to minimize the negative impact that focusing on individual performance can have on team performance. Part of this destructive potential comes from the tendency to put team members in competition with one another by ranking them against each other in order to determine the distribution of salary budgets. Thus, the discarding of ranking will lessen this feeling of competition. If it is politically impossible to completely get rid of comparisons among individuals, organizations sometimes resort to minimizing comparisons by putting people in one of three categories for pay purposes: a small group that is clearly unable to perform at the level

needed, a large group that meets standards, and another small group that is clearly performing at an exceptionally high level.

Focusing on individual performance can detract from team performance in another way: it can orient people too much to their own set of goals and responsibilities without considering how they might be contributing to or interfering with the team's performance. To combat this, organizations are increasingly changing the basis for merit ratings from recent past performance to the level of skills, knowledge and competencies that the individual has. This has the effect of transforming pay-for-performance merit pay systems into pay-for-skills merit pay systems. In such systems pay increases are thought of as being given for development of skills and may be based on whether and to what degree developmental goals are reached. Pay for skills is not a performance based reward system but a base pay compensation system that supports human resource development.

A third set of adaptations to merit pay systems is to make alterations that tie the fates of team members together so their orientation is away from themselves as individual performers and toward their joint performance with others. The easiest way to do this is to use joint performance measures as one indicator of the performance of the individual performers. For instance, all individuals involved in a project could be partly rated by the degree they obtained the same shared goal. A variation on this approach is to give each person an individual performance rating and then weight it by the performance of the team or teams to which he or she belongs.

Organizations can move even further to a team logic by distributing pay for performance of the team or larger unit. Many organizations make their first forays into team-based bonuses by adapting existing special awards programs. Usually team performance rewards do not remain the team's as a whole. They are distributed to the members. Sometimes this distribution is automatic, such as everyone gets a bonus that is an equal percentage of their base pay or everyone gets an equal cut of the bonus pool. Sometimes the team might determine the distribution, say by identifying members that are especially deserving of a larger or smaller cut. Team input and agreement is important in determining whatever distribution practice is used. Often team-based bonuses are available in addition to, rather than instead of, individual rewards. When individuals belong to several teams, their bonuses could be averages of all their teams' bonuses.

Finally, there are business unit level reward practices that are very conducive to performance management in team-based settings: gainsharing and profit sharing. These orient employees to the larger performing unit so that it is in everyone's interest to improve the performance of the enterprise as a whole. They are reward systems that thoroughly embed the logic of sharing in the group's performance by allowing everyone to share in the

economic value of that performance. Our research, as well as that of others, shows that well-designed practices of this type to lead to a high degree of perceived fairness. These types of bonuses can be given along-side team bonuses and individual rewards.

Special Issues in Team-Based Performance Management

The performance management of individual contributors that are not team members.

Even in team-based organizations there will be employees that are not members of teams. These may be super-scientists exploring the outer limits of a technology. They may be one-of-a-kind support specialists, such as a process consultant. In general, these individuals will be placed within an organizational unit and be working in the service of that unit, and/or they will be servicing various teams in a supplier capacity. In any case the performer is an individual with a set of people and groups who have a stake in the performance. These stakeholders would be identified and incorporated into the performance management process. Essentially, the processes of performance management will be abbreviated versions of those illustrated under defining, developing, and reviewing above, with the individual contributor taking the role of the team. Individuals would participate in defining, developing and reviewing processes with their customers, other teams, and their unit's management. They will be eligible for individual and business unit rewards. If the teams they service are eligible for team-based performance rewards, it is possible that the individual contributors could be given a bonus based on the average of the bonuses awarded the teams serviced.

The role of the functional manager

In traditional organizations, the functional manager has been the supervising manager responsible for performance management of individuals. As individuals become team-based, and as these teams are managed more and more as business units and/or product, program, and customer oriented, the role of the functional manager as a direct manager of performance will disappear. Business unit management, program management, and customer service unit management will take on the responsibility of orchestrating performance management processes. What then will become the performance management role of functional managers? Essentially the new role will be one of managing technical/functional development of the employee. This will involve giving input about skills, capabilities and the individual's needs in this area. It will also involve assuming responsibility for orchestrating the processes by which individuals further develop their

skills. These new roles will be played out in conjunction with and support of performance management by business-unit management.

Performance management of functional teams

Often in team-based organizations people not only belong to project teams but also to a functionally-based team -- also known as "home teams," or "centers of excellence." On the surface these teams appear to be simply continuations of the traditional functional departments. In reality there are important differences. Most fundamental is the difference in the way they are managed. These types of units get managed as teams. Their sources of interdependence will be different, having to do with development of technology for the company and providing advanced technical services, often on a consulting basis, to teams and projects. They will be interdependent and have functional team goals to be achieved. Performance management in such a situation is similar to that in any other team setting. The major difference will be their multiple customers. One "customer" will be the same as the organization management since these groups nurture technologies that are key corporate resources. Functional team performance will be judged mainly in terms of organizational value. The other teams that house the various functional specialists on a business unit and project basis also will be "customers" that might judge the functional team in terms of the extent to which the technology that is developed and the services that are provided meet the needs of the teams. Both corporate management and business teams should have input into the goals and reviews of the performance of these teams.

Performance management of shared service teams

Shared service teams are groups that provide services to a variety of teams in the organization. Good examples are human resource management teams (offering HR systems and systems support as well as expertise and consulting in HR management issues), information system teams (maintaining, developing, implementing, and providing consultation about information technologies used by other teams), and support services teams (supplying graphic and printing services). These services may or may not be organized in teams. These are legitimate teams as long as there are strong interdependencies among their members. Within a shared service, members may be constituted in teams to meet the needs of particular internal customers. The major consideration here is the fact that the customers of these teams are the other teams of the business unit. Otherwise the performance of these teams can be managed as any other team's.

Summary

      This paper has described how to carry out the four fundamental processes of performance management in a team-based knowledge work setting. The four processes are: 1) defining the performance to be done, 2) developing the resources and capabilities necessary to perform, 3) reviewing the performance, and 4) rewarding performers for performance. These processes are not new but the ways they are carried out in team-based settings might be. This paper does not approach performance management as an administrative exercise in human resource management. Rather, it deals with performance management literally, as a set of management processes aimed at fostering performance.

      In team-based organizations performance must be explicitly managed at several levels. The paper focuses on individual performance, team performance and business unit performance. Not only are there multiple levels of performers but team-based settings contain several stakeholders in the performances of the various performers that must assume an active role in the performance management processes. These stakeholders are: 1) managers, who help achieve vertical alignment of performances among the various levels of performers; 2) customers, who help keep performance aligned with their needs; 3) other co-performers -- individuals, teams, business units -- that are interdependent with the performers in achieving the performance of the higher level performing units; and 4) the performers themselves, who are accountable for their performance. Different stakeholders at different levels will have different perspectives and needs regarding performance. Performance management must be a process of balancing the potential cross-purposes that the various stakeholders may have. Successful performance management requires that teams and individuals be empowered to be central players in the management of their respective performances, with management assuming the role of making sure that performance management takes place.