CHAPTER 6

MANAGING TEAM PERFORMANCE IN COMPLEX SETTINGS

Research-Based Best Practices

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Within the last decade, the face of work has greatly changed—teams are integral to the majority of business practices, the complexity of work has greatly evolved, and the time to complete work seems to continually shrink (Devine, Clayton, Phillips, Dunford, & Melner, 1999; Goldstein & Gilliam, 1990). To practitioners this is clear in our daily work with clients. The modern economy demands that our clients continually anticipate the changing needs and desires of their customers in what often feels like nano-seconds.

They must do this with the utmost effectiveness and efficiency in order to maintain a competitive advantage. Consequently, organizations have turned to team-based work arrangements in order to maximize the use of employee expertise, to juggle multiple projects and deadlines, to reduce errors, and to streamline operations (Baker, Gustafson, Beaubien, Salas, & Barach, 2005). The most recent large-scale random sample of U.S. organizations indicates that 48 percent of organizations utilize some type of team (Devine, Clayton, Phillips, Dunford, & Melner, 1999). Furthermore, this survey indicates that the most common type of team reported was "project teams"—those formed in order to remedy a defined, specialized project or goal and tend to be cross-functional (Sundstrom, McIntyre, Halfhill, & Richards, 2000).

The trend toward team-based work is also reflected in reports indicating organizations are adopting team-based systems in order to cope with the changing nature of work—characterized by increased cognitive and technological complexity (Ilgen, 1994). From teams responsible for managing complex problems and adapting to a changing economy (project teams) to teams responsible for efficiently executing production in the organization (production teams), team performance plays a critical role in organizational outcomes. Managing the performance of these different types of teams is therefore a critical element of organizational effectiveness and competitive advantage.

The central aim of this chapter is to provide scientifically rooted guidance for managing team performance in organizations. To this end, we begin with a set of definitions to clarify our conceptualization of teams and team performance management. Second, we discuss the performance management process in relation to teams. Third, we outline five key organizational capacities and discuss how team performance is linked to each. Fourth, we present a set of research-based best practices for managing team performance to support each of the five key organizational capacities.

What Constitutes a Team?

By definition a team is a distinguishable set of two or more people interacting toward a common goal with specific roles and boundaries on tasks that are interdependent and that are

completed within a larger organizational context (Kozlowski & Bell, 2003; Salas, Dickinson, Converse, & Tannenbaum, 1992). The tasks which teams work on tend to require dynamic exchange of team member resources (including information), coordination of activities, adaptability to task demands, and an organizational structure that organizes members (Swezey, Meltzer, & Salas, 1994). Both task interdependence and outcome interdependence characterize team-based work (Wageman, 2001). Task interdependence refers to the inherent nature of the work itself that requires cooperation for completion, while outcome interdependence refers to the degree to which shared outcomes (rewards) are contingent on collective performance. Compared to individual-level performance management processes, team-level performance management processes must be designed to measure the outputs of combined effort, but also retain individual accountability. You get what you measure and reinforce at both levels; therefore there must be a way to balance performance management strategies at multiple levels while also accounting for membership on multiple teams.

There are also legal implications for multi-level performance measurement. U.S. federal regulations require, in most cases, that at least one critical element of team-level performance assessment is based on individual performance (U.S. Office of Personnel Management, n.d.). By building in individual accountability, the regulation provides for the ability to demote or terminate employees on the basis of unacceptable performance. One stipulation, though, regards manager or supervisor performance. Legally, it is permissible to develop a critical element that holds managers/supervisors accountable for the performance of their team so long as it considers their level of leadership responsibilities for the team.

Teams and Performance Management

Performance management (PM) offers an evidence-based methodology to guide performance measurement, strategic planning, feedback, and reinforcement in order to maximize effectiveness and efficiency at both the team and individual level without being mutually exclusive. Although PM is frequently used synonymously

with terms such as performance appraisal and performance review, PM is a process that includes more than simply assessment. It also includes facets of motivation, situational and environmental influences, measure design, feedback, and employee development. According to Armstrong (2000), PM is comprehensive in terms of organizational culture; it does not rely on the cultural assumption that managers are solely responsible for the performance of their teams. Instead, managers and team members share responsibility and are jointly accountable for results.

The term "performance management" refers to the process of measuring, monitoring, and maximizing on-the-job performance (Armstrong, 2000; Dransfield, 2000). PM focuses on outputs, results, and meeting goals and objectives efficiently and effectively. In team settings, PM is founded upon the notion of aligning the goals of the team with the overall goals and preferred results of the organization. Teams present a special case of PM, however, in that there are basically two management systems operating simultaneously, one at the individual level and one at the team level. Effective team PM seamlessly interweaves these systems, while maintaining indicators of both individual and team-level effectiveness. This theme runs throughout the best practices presented in this paper.

The Facets of Team Performance Management (TPM)

Letts, Ryan, and Grossman (1998) suggest four key capacities for organizational effectiveness that easily translate into a guide for performance management for team effectiveness.

Adaptive capacity refers to the ability of the team to maintain focus on the "external" environment. In this sense the external environment includes "clients" who are within the same organization, but outside of the team itself, and influences completely external to the organization that impact the team's ability to meet its goals. In particular, this capacity focuses on maximizing performance, while continually adjusting and aligning the team itself to respond to those needs and influences. Adaptive capacity is cultivated through attention to assessments, collaborating and networking, and planning.

Leadership capacity refers to the ability of both the team leader and the individual members of the team to set direction for the team and its resources and also guide activities to follow that direction. Leadership capacity is cultivated through attention to visioning, establishing goals, directing, motivating, making decisions, and solving problems.

Management capacity is the ability of the team to ensure effective and efficient use of its resources. Management capacity is accomplished through careful development and coordination of resources, including people (their time and expertise), money, and facilities.

Technical capacity is the ability to design and operate products and services to effectively and efficiently deliver services to customers. The nature of that technical capacity depends on the particular type of products and services provided by the team and greater organization.

These four facets provide a framework to guide the performance management process in teams. Using this framework as a foundation, we present a set of best practices in the following section synthesized and accumulated from practical experience and the relevant team, performance management, project management, and human resources literature. These practices are illustrated by examples from encounters with clients, and we provide some tips for execution and implementation.

Best Practices for Addressing the Facets of TPM

Within each of the capacities outlined above, we outline relevant best practices and illustrative examples from the field. Table 6.1 contains a list of the practices we suggest, as well as implementation tips and relevant citations.

Adaptive Capacity

Adaptive team performance is an iterative process whereby team members engage in individual and team-level performance and alter their performance processes in order to more effectively respond to a changing context of work (Burke, Stagl, Klein, Goodwin, Salas, & Halpin, 2006). In order to build and manage

Table 6.1 Best practices for performance management of teams.

Best Practice	*Tips*	*Selected References*
	Adaptive Capacity	
1. Build flexible and adaptable team players.	• Build mutual performance monitoring and back-up behavior skills in team members using cross training and other methods. • Build mutual trust among team members.	• Salas, Sims, & Burke, 2005; Porter et al., 2003; Burke, Fiore, & Salas, 2003
2. Build a big play book: Encourage a large team task strategy repertoire.	• Provide a safe environment to practice new performance strategies (for example, use simulation-based training).	• Orasanu, 1990; Salas, Priest, Wilson, & Burke, 2006
3. Create teams that know themselves and their work environment.	• Team cue recognition training. • Perceptual contrast training. • Build team communication skills (information exchange, closed-loop communication).	• Salas, Cannon-Bowers, Fiore, & Stout, 2001; Wilson, Burke, Priest, & Salas, 2005
4. Build teams that can tell when the usual answer isn't the right answer.	• Develop team planning skills. • Use guided error training to promote an understanding of when the routine solution is not the appropriate solution.	• Lorentez, Salas, & Tannenbaum, 2005
5. Develop self-learning teams: Train teams to help themselves.	• Team self-correction training; team leader debrief skills. • Foster a team learning orientation, psychological safety.	• Smith-Jentsch, Zeisig, Acton, & McPherson, 1998; Bunderson & Sutcliffe, 2003; Edmondson, 1999
6. Don't let the weakest link have the strongest voice: Build teams that take advantage of their resources.	• Develop a strong team orientation in team members. • Promote assertiveness. • Build diversity of expertise and transactive memory.	• Eby & Dobbins, 1997; Hollenbeck, Ilgen, Sego, Hudlund, Major, & Phillips, 1995
	Leadership Capacity	
7. Articulate and cultivate a shared vision that incorporates both internal and external clients.	• Ask how the team will make a difference for internal and external clients. • Establish measurable indicators of team success. • Determine what the team hopes to accomplish in its wildest dreams.	• Christenson & Walker, 2004; Williams & Laugani, 1999; Briner, Hastings, & Geddes, 1996

(Continued)

Table 6.1 *(Continued)*

Best Practice	*Tips*	*Selected References*
8. Create goals the team can grow with: Build hierarchically aligned goals with malleability and flexibility at both the individual and team levels.	• Include all team members in goal generation. • Set team and individual level goals that are aligned with upper-level goals. • Allow overall goals to have wiggle room and build flexibility into subgoals. • Ensure that there are multiple strategies to reach the goal.	• Locke & Bryan, 1967; Getz & Rainey, 2001
9. Build motivation into the performance management process: Make clear connections between actions, evaluations, and outcomes.	• Team members should be encouraged and rewarded for praising colleague accomplishments and being supportive during setbacks. • Only utilize group-level incentives and rewards for work performance. • Create opportunities for taking major responsibility for some elements of the task for each member. • Make the connections between actions, results, evaluations, and consequences clear.	• Pritchard & Ashwood, 2008; Swezey & Salas, 1992; Oser, McCallum, Salas, & Morgan, 1989
10. Team leaders must champion coordination, communication, and cooperation.	• Build the team to reflect the various forms of expertise required by the tasks at hand. • Foster the use of external sources (temporary members, consultant team members) if the expertise is not inherent in the team. • Divide tasks to suit individual expertise, but do allow opportunities for growth. • Remember that leader does not equal expert, defer to those with the expertise (see Best Practice Number 5).	• Dyer, 1984; Zalesney, Salas, & Prince, 1995; Salas, Wilson, Murphy, King, & Salisbury, in press
11. Understand the "why": Examine both failures and successes during debriefings.	• Review instances of both effective and ineffective behavior during feedback sessions. • Recognize failures as learning opportunities.	• Zakay, Ellis, & Shevalsky, 2004; Ellis & Davidi, 2005

(Continued)

Table 6.1 *(Continued)*

Best Practice	*Tips*	*Selected References*
	Management Capacity	
12. Clearly define what to measure: Develop and maintain a systematic and organized representation of performance.	• Develop a document or set of documents explicitly linking KSAs to performance metrics, feedback, and outcomes (for example, reinforcement, promotion, pay). • The purpose of measurement should drive measure development.	• Kurtz & Bartram, 2002; Bartram, 2005; Stevens & Campion, 1994
13. Uncover the "why" of performance: Develop measures that are diagnostic of performance.	• Foster an understanding of why performance was effective or ineffective. • Incorporate measures which include outcomes and processes. • The purpose of measurement should drive measure development.	• Cannon-Bowers & Salas, 1997
	• Avoid "easy" measures that miss large amounts of performance-related information. • Measure performance from multiple perspectives. Solicit input from team members, for example, using 360-degree feedback. • Develop a discipline of pre-brief→performance→debrief.	
14. Measure typical performance continuously.	• Measure performance over time. • Choose to measure what employees "will do." • Automate as much of the performance monitoring process as possible. • Provide ongoing, diagnostic feedback that identifies and removes roadblocks to effective performance.	• Sackett, Zedeck, & Fogli, 1988; Klehe & Anderson, 2007

(Continued)

Table 6.1 *(Continued)*

Best Practice	*Tips*	*Selected References*
	Technical Capacity	
15. Include teamwork competencies in formal performance evaluations.	• Offer both team and individual level reinforcement (both formal and informal).	• Salas, Kosarzycki, & Tannenbaum, 2005; Murphy & Cleveland, 1995
16. Have a plan for integrating new team members, and execute it.	• Clearly define teamwork and taskwork competencies needed for effective performance and ensure new team members possess these KSAs.	• Levine & Choi, 2004; Cannon-Bowers & Salas, 1997
17. Assess and foster shared mental models.	• Measure and provide feedback (cue-strategy associations). • Cross-training, interpositional knowledge training. • Encourage a culture of learning. • Develop a strong sense of "collective" trust, teamness, and confidence.	• Cannon-Bowers, Salas, & Converse, 1993; Cooke et al., 2007; Mohammed & Dumville, 2001; Blickensderfer, Cannon-Bowers, & Salas, 1998
	Multi-Team Membership	
18. Develop or select for individual personal discipline and organizational skills.	• Include these skills in KSA and competency definition. • Ensure modes of distributed communication, information systems, and access to necessary organizational materials remotely.	• Ancona & Caldwell, 2007
19. Communicate the "big picture": Facilitate a global awareness of competing goals and deadlines of all teams.	• Coordinate meetings of team leaders to discuss multiple deadlines. • Create global Gantt chart with real-time updates if possible.	• Mortensen, Woolley, & O'Leary, 2007
20. Maturity counts: Recognize that a multi-team framework works best for mature projects.	• Apply MTM to mature teams or projects. • Have at least one member 100 percent dedicated to a single team during the kickoff period to ensure continuity.	• Mortensen, Woolley, & O'Leary, 2007
21. Foster trust: Cultivate a culture of information sharing.	• Foster information sharing. • Cultivate a culture of error reporting and feedback that focuses on learning from mistakes, not punishment.	• Salas, Sims, & Burke, 2005; Bandow, 2001; Webber, 2002

effective adaptive capacity on the team level, a performance management process should attend to the following:

Best Practice #1: Build Flexible and Adaptable Team Players

Team performance is multi-level, and a major source of adaptive capacity in a team resides in the ability of team members to shift their task responsibilities on the fly. Underlying this capacity is the team members' skill at understanding when they need to adjust performance (that is, mutual performance monitoring) and how to assist their fellow team members when necessary (back-up behavior). To implement this best practice, a performance management process should train mutual performance monitoring and back-up behavior skills. Additionally, for mutual performance monitoring and back-up behavior to be effective, team members must have mutual trust (Porter, Hollenbeck, Ilgen, Ellis, West, & Moon, 2003; Salas, Sims, & Burke, 2005). If team members do not trust one another, mutual performance monitoring and back-up behavior will be interpreted negatively and be detrimental to team performance.

Best Practice #2: Build a Big Play Book: Encourage a Large Team Task Strategy Repertoire

Effective teams recognize when a plan is not working and are able to switch to a new plan or task performance strategy when necessary. A large repertoire of possible task strategies ensures the ability to switch to a more effective strategy based on either different environmental or situational demands. For example, it has been found that effective airline crews are those that use downtime during long flights to engage in practice for unanticipated emergencies (Orasanu, 1990). Essentially, these teams are engaging in "what if" scenarios and expanding the potential performance strategies available to a team. To achieve this, a performance management process should provide safe opportunities for a team to experiment with new types of performance. Simulation-based training (SBT) is a powerful tool to this end because it allows teams to practice performance strategies in environments replicating the real world environment, but without the risks associated with failure (see Salas, Priest, Wilson, & Burke, 2006).

Best Practice #3: Create Teams That Know Themselves and Their Work Environment

Adaptation requires an understanding or awareness of (1) changes in the environment that impact current team performance, (2) an understanding of how the team currently meets its task demands, and (3) how it is capable of adjusting to new demands (that is, what is happening in the environment, how the team is responding currently, and what alternative courses of action are available to the team). This requires team members to balance an external and internal focus, to have an awareness of the broader task environment/organization and the internal workings of the team. This can be facilitated in two ways. First, team members with a more robust understanding of the task environment and what changes mean to the team will be more responsive to critical external events. Techniques for facilitating this include team cue recognition training, a method designed to enhance employees' situational awareness by teaching them to focus on relevant cues (Salas, Cannon-Bowers, Fiore, & Stout, 2001), and perceptual contrast training, a technique that involves presenting trainees with contrasting examples of a scenario, teaching them to recognize the differences between the scenarios, and facilitating their interpretations of the positives and negatives associated with each (Wilson, Burke, Priest, & Salas, 2005). Second, team communication skills are critical for distributing the detection of important changes made by one team member to the rest of the team. Training in team communication skills ensures that critical changes detected by one team member are quickly and effectively spread to the rest of the team (Smith-Jentsch, Zeisig, Acton, & McPherson, 1998).

Best Practice #4: Build Teams That Can Tell When the Usual Answer Isn't the Right Answer

Like individuals, teams develop routines or standard responses, a "business as usual" pattern of performance. These routines can result in efficiency in relatively static environments, but when the environment changes the routine response may no longer be an effective response. Therefore, to build adaptive capacity, a performance management process should develop teams capable of recognizing the complexity of their environment (and the significance

of changes in that environment) as well as a capacity to plan in an adaptive and flexible manner. To this end, guided error training can be used to build an understanding in teams of when the routine response is not the correct response. This type of training is purposefully designed to guide trainees toward making errors, giving them the opportunity to experience the actions that lead to problems. Facilitators provide corrective support during training once errors have been made and trainees are able to apply these new strategies in follow-up practice sessions. Guided error training allows teams to see the consequences of using the wrong performance strategy when the environment changes and to develop a better understanding of how to deal with novel situations (Wilson, Burke, Priest, & Salas, 2005).

Best Practice #5: Develop Self-Learning Teams: Train Teams to Help Themselves

To adapt effectively, a team must learn from its past performance. This means a performance management strategy should develop the culture and tools for team learning within each team such as performance diagnosis and debriefing/feedback skills. Developing debriefing, feedback, and coaching skills, particularly in the leader, are approaches to doing this. For example, as part of a team training program evaluated by the authors, surgical teams learned how to conduct briefings and to debrief before and after each case, during which they utilized peer coaching techniques to discuss ways to improve in future cases. Additionally, team self-correction training can give team members the skills to assess the effectiveness of their own behavior as well as others, and to give constructive feedback (Smith-Jentsch, Zeisig, Acton, & McPherson, 1998). Because team learning is dependent to a large degree on aspects of the team culture and team affects, a team performance management process should foster a team learning orientation (Bunderson & Sutcliffe, 2003) and psychological safety (Edmondson, 1999).

Best Practice #6: Don't Let the Weakest Link Have the Strongest Voice: Build Teams That Take Advantage of Their Resources

Adaptive teams need to take advantage of the full range of knowledge and experience available to them, both internally and through available external resources. To do this, the team performance management process should focus on three critical areas. First, teams must have a sense of collective orientation wherein all members are free to contribute and the weight of each member's input is determined by his or her relevant functional expertise, not status or rank (Eby & Dobbins, 1997). Building a team composed of individuals focused on the team goals and not their own personal goals is critical. This can be accomplished through selection, training, or structuring of the reward system to reinforce the primacy of team goals. Second, assertiveness of individual team members should be developed. Collective orientation sets the stage for contributions from all, but team members must be willing and able to be assertive and offer input. Third, teams should have an accurate and robust transactive memory, that is, an understanding of who knows what on a team and in the broader organization (Austin, 2003). By knowing the extent and type of expertise possessed by team members, the team can better evaluate the input of different members (Hollenbeck, Ilgen, Sego, Hudlund, Major, & Phillips, 1995). The more diverse the expertise within this transactive memory, the more knowledge resources the team has available.

Leadership Capacity

Leadership entails the capability to set the team's direction and to guide the activities of the team toward its goals (Kozlowski, Gully, McHugh, Salas, & Cannon-Bowers, 1996; Letts, Ryan, & Grossman, 1998). Specifically, leadership involves visioning, goal setting, motivation, decision making, and problem solving (Kozlowski, Gully, McHugh, Salas, & Cannon-Bowers, 1996). The importance of effective leadership to team performance cannot be understated and involves "social problem solving that promotes coordinated, adaptive team performance by facilitating goal definition and attainment" (Burke, Stagl, Klein, Goodwin, Salas, & Halpin, 2006; Salas, Burke, & Stagl, 2004, p. 343). A performance management process that maximizes leadership capacity should promote the following.

Best Practice #7: Articulate and Cultivate a Shared Vision That Incorporates Both Internal and External Clients

The vision of the team must be aligned with the vision and mission of the organization. Vision gives meaning to team goals and is

an important component of team culture (Christenson & Walker, 2004). It helps members to focus and direct their efforts. The vision statement must be clear, achievable, negotiable, and understood by all members of the team (Williams & Laugani, 1999). Furthermore, the vision should be defined in terms that allow it to be measured. By defining the team's vision in measurable terms, it can underlie the entire performance management process. Some of the key questions used to develop a team vision have been adapted from work by Briner, Hastings, and Geddes (1996). During vision development, be sure to ask: (1) How will this team make a difference to the organization? (2) How will this team make a difference to their external clients? (3) How will we know when the team has been successful? and (3) What in our wildest dreams would you like this team to achieve? It is also vital to conduct "reality checks" to see whether the vision is truly reflective of both the current and future needs of both internal and external clients throughout the vision development process (Christenson & Walker, 2004).

As noted earlier, teams must consider the needs of others within the organization (that is, other teams or individuals) and of those outside the organization (clients) (Ancona, 1990). Teams that actively manage these external demands become more effective and efficient (Pfeffer, 1972; Pfeffer & Salancik, 1978). The new buzzword "X-teams" was developed to describe teams that emphasize an external focus. They are defined as teams in which members and leaders have high levels of external activity (that is, ambassadorship, task coordination, and scouting, feedback seeking), extreme execution (maximize internal dynamics), and flexible phases (leaders set explicit phases with clear milestones) (Ancona & Bresman, 2007). Incorporating this broadened focus into the process of defining a team's vision can help drive the development of a clear vision statement that is understood, motivational, and credible, as well as demanding and challenging (Christenson & Walker, 2004).

Best Practice #8: Create Goals the Team Can Grow with: Build Hierarchically Aligned Goals with Malleability and Flexibility at Both the Individual and Team Levels

The complexity of modern work tasks and the volatile nature of the current work environment demand malleability. Malleable goals are those that can be revised or are flexible enough in their original definition in order to reflect the real-time context, pressures, and available resources teams have access to. Comparatively, rigid goals are those that are not reactive to changes in the contextual environment and the degree to which unforeseen changes impact employee ability to meet subgoals. Even if they are short-term, certain types of goals may be so rigid as to limit optimal performance (Locke & Bryan, 1967). For example, employees may give up trying to accomplish a rigid goal if they feel they have fallen irrevocably behind should they fail to meet a subgoal (Getz & Rainey, 2001). Malleable goals are related to team adaptability; the team must be prepared to act in the presence of unforeseen barriers, yet still feel that they are accomplishing their goals and objectives. Overly rigid goals can stifle motivation and perpetuate team member frustration.

Goals should be arranged in an alignment hierarchy in order to achieve flexibility; individual goals should be aligned with team goals, and team goals should be aligned with the greater organizational goals. An innovative method for ensuring goal alignment and flexibility was encountered by one of the editors while working with a global pharmaceutical and consumer healthcare company. Part of the organization was structured in cross-functional teams wherein each team was responsible for a consumer product line (for example, an over-the-counter pain reliever). Each team had two vice-presidential-level co-leaders: one from marketing and one from R&D. These co-leaders had a few direct reports, but most of the people on the team were functional specialists (for example, advertising, regulatory affairs, medical) who reported to functional VPs (not the team's co-leaders). The senior VPs (one from marketing and one from R&D) who were responsible for all product lines first created a strategy for the entire consumer product organization that was visually represented using a "fishbone." This was cascaded to team (product-line) co-leaders, who then created a strategy (their own fishbone) for their product line. A meeting was then held which included product-line team members (who, by the way, worked together in a common workspace no matter who they report to). During this meeting, the co-leaders, first described the high-level strategy/fishbone and then described the team's (that is, the product line's)

strategy/fishbone. During the latter part of the meeting, each team member identified parts of the team's (product line's) fishbone where they were expected to make a contribution and proceeded to set individual goals that were explicitly linked to specific parts of the team's fishbone. The net result was that the team's strategy/fishbone was strongly linked to the higher-level organizational fishbone, and each person on the team had goals explicitly linked to specific parts of the team's (product line's) fishbone. Aligning and managing team performance in such a highly matrixed organization is enormously challenging, but can be done when goals are generated hierarchically.

Best Practice #9: Build Motivation into the Performance Management Process: Make Clear Connections Among Actions, Evaluations, and Outcomes

Motivation can only be high when employees see clear connections among: (a) their actions and the results they produce, (b) the actual level of results they produce and the evaluation of these results, (c) the outcomes they receive based on these evaluations, and (d) the degree that these outcomes satisfy their needs (Pritchard & Ashwood, 2008). A large component of building in motivation is contained in the measurement process used to assess performance and how outcomes are allocated as a result of these performance assessments. These outcomes may be formal (such as promotions or raises) or informal (such as social praise or recognition). Effective teams tend to comprise of members who provide positive reinforcement for the accomplishments of teammates and support for the team overall (Oser, McCallum, Salas, & Morgan, 1989; Swezey & Salas, 1992). Conversely, these team members are also supportive when mistakes are made. Effective teams should institute some form of reward for members who display such supportive behaviors (Swezey & Salas, 1992). Such individualized incentives are not recommended, however, for individual level performance. When tasks are interdependent, as in team-based work, such individual incentives or rewards can undermine cohesiveness, cooperation, and increase undesirable intra-team competition (Pritchard & Ashwood, 2008).

Team members who feel central to the success of the team, those who see strong connections among their actions, results, evaluations, and outcomes, tend to feel more motivated and satisfied with their team experience. One way to foster this feeling suggested by Swezey and Salas (1992) is to "provide opportunities for each team member to take lead responsibility for designing and directing a major task-related activity which affects the entire team" (p. 230). Allowing each team member to act in an overtly central role (even if only for a portion of the project) gives them the chance to experience dealing with the barriers, anxiety, and responsibility inherent in such endeavors.

Best Practice #10: Team Leaders Must Champion Coordination, Communication, and Cooperation

The leader must recognize and make use of the full range of expertise of the team members in order to solve problems. Differentiation of expertise across team members is a key characteristic of teams (Dyer, 1984), especially teams dealing with complex problems; however, leaders must coordinate and help direct this mix of expertise, especially in times of uncertainty and conflict. Facilitating coordinated responses between multiple individuals with different types and levels of expertise is a key element of team effectiveness (Zalesny, Salas, & Prince, 1995). For instance, Shin & Zhou (2007) found that heterogeneity among teammates in terms of their educational backgrounds led to increased creativity for teams led by transformational leaders (for example, charismatic, high levels of consideration, and so on), but not for teams with leaders who did not adopt this style. It was suggested that transformational leaders enabled these educationally diverse teams to capitalize on their pooled cognitive resources effectively to maximize creativity.

Team leaders play a vital role in the development and facilitation of the teamwork enabling skills (for example, shared mental models, communication) that foster effective team performance (Kozlowski, Gully, McHugh, Salas, & Cannon-Bowers, 1996). Although formal training of these skills is possible and suggested, constraints such as time and resources often mean that team members must learn these skills on the job, while working in team environments. The leader must facilitate both individual skills (such as active listening) and team-level skills (such as closed-loop communication) in order to make sure that (1) all

individuals have the capacity to perform and (2) the synergy of these skills occurs to create effective team performance.

Best Practice #11: Understand the "Why": Examine Both Failures and Successes During Debriefings

One way leaders may be able to do this is via the feedback that they provide to their team members. During these sessions, a key question is "why" the level of performance occurred. The surgical teams participating in the team training evaluated by the authors noted earlier used this technique during their briefings, specifically focusing on three main questions: What did we do well? What did we not do so well? and What can we improve in the next case? A common assumption is that providing feedback and review of negative instances of performance enhances employee motivation more than review of successful performance (Sitkin, 1992). The notion is that unexpected outcomes, such as a failure, are more motivationally salient than instances in which things work according to plan and that these unexpected outcomes also have stronger affective impact as well (Feldman, 1989; Shepperd & McNulty, 2002). Rarely do we plan to fail—What would be the point of exerting any effort toward an outcome we know is fruitless? Therefore, these instances are considerably more unexpected than success. Evidence indicates that managers in the field tend to agree with this assumption. For example, managers are more likely to implement learn-from-experience processes, such as event reviews, after a negative event occurs, as opposed to after a successful event (Zakay, Ellis, & Shevalsky, 2004). But can we learn nothing from our successes? Recent empirical evidence suggests that previous assumptions prematurely discounted the effects of including reviews of successful performance in feedback sessions. Feedback that included reviews of both positive and negative aspects of performance has been shown to generate richer mental models of performance and to actually facilitate performance improvement (Ellis & Davidi, 2005).

Management Capacity

Team management entails monitoring performance in order to ensure the effective use of both human and material capital. It means creating an environment in which "people can perform as individuals and yet cooperate toward attainment of group goals" (Koontz, 1961, p. 186). Performance measurement and assessment form the foundation of team management, driving optimal performance, as well as performance improvement interventions. In order to maximize performance, practitioners should develop a comprehensive management plan that includes:

Best Practice #12: Clearly Define What to Measure: Develop and Maintain a Systematic and Organized Representation of Performance

Job performance is clearly multidimensional (Batram, 2005; Borman, 1991). It is vital to have a clear representation of overall team performance in order to develop measures that tap all relevant performance dimensions effectively. For example, the Great Eight Competency Framework is utilized by many practitioners and researchers in developing individual-level competencies and performance measures because it provides a clear delineation of the major competency areas comprising job performance and has been validated in a large number of samples (Batram, 2005). The "great eight" include: leading and deciding, supporting and cooperating, interacting and presenting, analyzing and interpreting, creating and conceptualizing, organizing and executing, adapting and coping, and enterprising and performing. See Batram (2005) for a detailed review of all eight competencies. Supporting and cooperating includes the degree to which the individual fosters team and peer performance; therefore the framework builds accountability into the representation of individual performance. A clear representation of team performance must be developed that is organized and systematic, with a similar representation of individual performance delineating individual accountability for team performance. That is, PM for team involves evaluating the team as a whole in addition to individual team members. An organization-specific job analysis helps identify the behavioral and performance indicators of relevant teamwork knowledge, skills, and abilities (KSAs) (Stevens & Campion, 1994). In order to obtain a valid picture of performance, though, job analysis data must include both front-line employees, managers, supervisors, and other relevant stakeholders. Furthermore, different measurement approaches may be better suited for

capturing different aspects of performance (Shadish, Cook, & Campbell, 2002).

Best Practice #13: Uncover the "Why" of Performance: Develop Measures That Are Diagnostic of Performance

The goal of the PM process is to optimize performance. This can only be done if we understand the "why" of performance. We must know what level of performance occurred and what contributed to this overall performance level. The ability to systematically understand the underpinnings of performance drives feedback and improvement. In order to understand performance, it is important to view it from multiple perspectives. Different sources of performance data (for example, supervisors, teammates, self-evaluation) tap different aspects of performance.

Measurement often serves multiple purposes (such as performance appraisal, training). Therefore, it is likely that multiple approaches to measurement are necessary to capture adequate performance information (Cannon-Bowers & Salas, 1997). The key to valid performance measurement is to avoid "easy" measures that miss large amounts of performance-related information. For example, it may be easy to measure the hit rate of a military fighter flight crew; however, if your purpose is to maximize performance, then diagnostic measurement is most desirable. The hit rate does not indicate the type of communication, coordination, or other interactions of the team members that contribute to whether or not the correct friend/foe decision was made. One way to incorporate diagnosticity into performance measures is to consider their level of controllability, that is, the degree to which changes in actual employee effort correspond with changes in the measure (Pritchard, Bedwell, Weaver, Fullick, & Wright, 2008). Highly controllable measures such as number of client phone calls made are directly related to the effort put forth by employees and provide indicators of what employees are actually doing with their time. Diagnostic measures capture why performance happens.

Best Practice #14: Measure Typical Team Performance Continuously

Inherently, variations in performance occur over time (Borman, 1991). By measuring performance continuously, a more comprehensive picture emerges. Technology revolutionized organizational ability to monitor performance continuously, with many companies turning toward online dashboards and other similar methodologies to maintain real-time performance monitoring (Anonymous, 2006; Broda & Culgave, 2006). This real-time picture of performance can be used to generate real-time feedback (corrective or positive). The closer that feedback occurs to when the actual behavior occurred, the greater the impact of such feedback (Pritchard & Ashwood, 2008). Additionally, continuous monitoring allows employee performance under typical performance conditions to be captured. Compared to maximal performance conditions, typical performance conditions lessen the salience that performance is being monitored and evaluated, employees are not explicitly told to do their best, and their performance is represented as a mean over an extended period of time (Sackett, Zedeck, & Fogli, 1988). Conversely, under maximal performance conditions, employees are explicitly made aware of performance monitoring and evaluation, are explicitly told to perform their best, and are only measured for a short period of time. Whereas maximal conditions are good for measuring what teams "can" do, typical conditions are necessary to understand what teams "will" do. For example, only being evaluated on performance during a monthly branch visit from the general region manager would provide a picture of maximal performance on that day, but an incomplete representation of performance overall. Measures of typical performance are desirable because they represent both an employee's ability and his or her motivation (Klehe & Anderson, 2007).

Best Practice #15: Include Teamwork Competencies in Formal Performance Evaluations

The adage is that you "get what you measure"; therefore, if you want teams to demonstrate effective teamwork behaviors (such as communication or collaboration), then measurement dimensions that reflect these competencies must be included in the performance evaluation system (Salas, Kosarzycki, & Tannenbaum, 2005). Including teamwork competencies in performance appraisal instruments underscores their importance to team success and makes the exact competencies of importance more salient to team members (Murphy & Cleveland, 1995). In practice, we tend to find that, if teamwork is formally assessed at all,

it is listed as a single generic category, whereas more task-work-oriented competencies are specified in greater and more concrete detail. Teamwork is multi-faceted and can be defined in terms of specific observable behaviors. When it is, team members are more likely to consider it an important aspect of their jobs—one worth focusing their attention on. Supervisors responsible for assessing team performance will be better able to provide meaningful data regarding teamwork performance if they have clear definitions to work with and receive frame-of-reference training that illustrates positive and negative examples of various teamwork dimensions.

Technical Capacity

In the context of teams, technical capacity involves two equally important domains. First, individual team members must be competent at their individual tasks (that is, task work). Second, they must be competent at managing the interdependencies between their own work and that of their fellow team members (that is, teamwork). Teams cannot excel without both components. Frameworks of teamwork competencies have been developed (Cannon-Bowers & Salas, 1997) and revised (Salas, Rosen, Burke, & Goodwin, in press) and represent the KSAs underlying effective team performance. Additionally, much is known about how these competencies are manifested in expert teams (Salas, Priest, Wilson, & Burke, 2006).

Best Practice #16: Have a Plan for Integrating New Team Members, and Execute It

Seamless coordination of inputs from individual team members is a hallmark of expert teams. For this to occur, team members must have a shared understanding of the team's task, their own work, their team members' roles and responsibilities, and the team goals. When there is turnover in team membership, the team is at risk for losing this shared understanding. The team should have a plan for integrating new team members, for familiarizing the new members with the team, and vice versa. This involves identifying the teamwork and task work requirements necessary for performance in the team and ensuring that team members have the right mix of competencies (individual expertise as well as teamwork competencies). In order for teams to capitalize on their mix of expertise, it is critical that they share an accurate understanding of who knows what. Researchers refer to this as "transactive memory" (Wegner, 1986). Research on transactive memory (for example, Austin, 2003) suggests that this shared knowledge about one another enables teams to determine which member is most appropriate for which tasks (specialization). For instance, we found that air traffic controllers who believed their team to be highly competent but did not share knowledge about the specific distribution of expertise were nonetheless resistant to asking for or accepting backup from one another (Smith-Jentsch, Kraiger, Salas, & Cannon-Bowers, in press).

Best Practice #17: Assess and Foster Shared Mental Models

Shared mental models enable many aspects of effective team performance (Cannon-Bowers, Salas, & Converse, 1993). Therefore, a team performance management process must assess shared mental models within a team and provide feedback to team members. Although several techniques exist for capturing and analyzing shared mental models (for example, Mohammed & Dumville, 2001), cue-strategy associations (a technique that involves directly linking cues in the environment with appropriate coordination strategies) afford diagnosticity and the development of learning points (Cannon-Bowers, Tannenbaum, Salas, & Volpe, 1995). Additionally, cross-training (Blickensderfer, Cannon-Bowers, & Salas, 1998; Volpe, Cannon-Bowers, Salas, & Spector, 1995) can be used to build shared mental models within teams.

Multi-Team Membership

In addition to the six capacities defined by Letts, Ryan, and Grossman (1998), we also consider the implications of multi-team membership (MTM). The wide use of project-based teams in the workplace (for example, Devine, Clayton, Phillips, Dunford, & Melner, 1999) suggests that it is becoming a more common possibility to be a member of multiple teams that comprise the same organization. These teams, as defined by Sundstrom, McIntyre, Halfhill, and Richards (2000), carry out highly defined, specialized, time-limited projects and often disband upon project

completion. These teams are highly cross-functional and differentiated. They have a high degree of specialization, independence, and autonomy and a low degree of integration with other work units. For example, an employee may serve as a team lead for an R&D team, but may also be a non-lead member of the marketing team. MTM is concerned with the capacity to split individual time and resources across multiple teams. A study of 401 MBA professionals indicated that 67 percent worked on more than one team at a time (Mortensen, Woolley, & O'Leary, 2007). The literature regarding MTM is currently sparse; however, combining what is currently suggested with well-evidenced support from the general team literature, we suggest the following.

Best Practice #18: Develop or Select for Individual Personal Discipline and Organizational Skills

In addition to the necessary expertise to complete the tasks at hand, team members working in multiple teams must also have highly developed organizational and time management skills. Autonomy is usually maximized in these situations (Ancona & Caldwell, 2007); therefore it is imperative to select individuals with high levels of personal discipline and organizational skills or to help selected individuals develop these skills through training.

Best Practice #19: Communicate the "Big Picture": Facilitate a Global Awareness of Competing Goals and Deadlines of All Teams

In MTM environments, it is vital to plan for global ripple effects—deadlines or slippage on projects for one team can impact work on other teams. Inter-team coordination and planning can help to mitigate this problem, although a contingency plan must be in place such that certain members can pick up slack when others must dedicate a significant amount of their resources to another team for a brief period of time. Global awareness is key. Team leadership can play a key role in this aspect. Meetings of team leaders can help to foster global awareness of deadlines and planning.

Best Practice #20: Maturity Counts: Recognize That a Multi-Team Framework Works Best for Mature Projects

MTM frameworks tend to work best for more mature projects. Those in their early stages may need several people dedicated full time in the initial stages. Also apply MTM frameworks to "modular" projects in which work can be done by separate individuals in assigned pieces and then recombined. Furthermore, this individual progress must include regular meetings to keep everyone aligned (Mortensen, Woolley, & O'Leary, 2007). Expectations and deadlines must be crystal clear, yet malleable.

Best Practice #21: Foster Trust: Cultivate a Culture of Information Sharing

Because MTM work occurs asynchronously, members must be able to trust that it is being done. The juggling of multiple projects does not offer team members the opportunity to pick up the slack of other members who don't pull their weight. Mutual trust is a supporting and coordination mechanism necessary for effective teamwork, as noted earlier (Salas, Sims, & Burke, 2005). It is a shared belief that team members will perform their roles, while protecting the interests of the team, cultivated through information sharing, and a willingness to admit errors and receive feedback (Bandow, 2001; Webber, 2002). This capability becomes even more vital when employees are members of multiple teams and face-to-face communication and coordination is reduced.

Conclusions

From front-line action and performance teams focused on behavioral coordination to top-level project development and planning teams responsible for building the knowledge of the organization, teams are an integral component of how organizations do work. An individual's performance can be considered in isolation from others with decreasing frequency, and this trend shows no signs of relenting or reversing. This necessitates the consideration of teamwork in performance management systems. Team-based work adds a layer of complexity to the performance management process; however, it can be effectively executed with strategic, salient cultivation of the adaptive, leadership, management, and technical capacities of the team. In this chapter we have presented a synthesis of the literature in the form of a practical set of best practices for implementing the PM process in team-based work. Furthermore, we have attempted to provide practical guidance

for managing performance in environments of multi-team membership. As multi-team membership grows in prevalence, understanding effective processes for managing both individual and team-level performance becomes vital. Overall, understanding the levers that drive performance and the role of performance measurement will help ensure that your performance management processes are helping to cultivate expert teams.

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CHAPTER 7

CEO PERFORMANCE MANAGEMENT*

Edward M. Mone

Introduction

Overview

This chapter will focus on the process of CEO performance management, which includes goal setting, feedback, and appraisal, as well as tying the outcome of the performance management process to CEO compensation. Much has happened in the general business landscape that has affected CEO performance management and compensation since the Graddick and Lane (1998) chapter appeared. These events will be discussed below, but at the heart of it all, corporate greed and scandal have led to numerous legislative reforms targeted at significant improvement in corporate governance. As a result, today's boards of directors are being held to new standards of performance, particularly in one of their primary roles: CEO performance management. In fact, the focus on board effectiveness in the practice of organization consulting is fairly recent and driven largely by these same events, as noted by Nadler, Behan, & Nadler (2006), and as evidenced by a

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