Teams: Why some succeed and others fail

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Teams
Why Some Succeed and Others Fail

Award-winning research reveals what variables should be studied to determine if organizational team efforts are working and suggests how to improve performance.

By K. Dow Scott and Anthony Townsend

Because of heightened global competition and because customers are more cost and quality conscious, U.S. industry continues to use teams as a way to spawn employee involvement and create a better product. The team approach is consistent with values of today's employees, who are demanding more opportunity to influence decision making and to be involved in meaningful work. But implementing the work team strategy changes many fundamental assumptions about the relationship between managers and employees and between employees and their work. Thus, management looks to the human resource department to provide the expertise required to implement work team strategies and improve the structure and success of existing ones.

Few empirical studies have been conducted to determine if the strategies recommended to improve team performance really work. The purpose of this study was to learn why some teams perform at higher levels than others.

The study

The apparel manufacturing company that agreed to participate in the Team Productivity Study provided a unique opportunity to
observe team productivity, with the involvement of more than 1,200 employees who make up 122 teams. During the past five years, the company has changed the production process in many of its sewing plants from an individual piece rate to a team-based system.

According to management, team sewing has contributed to increased productivity, improved quality, and decreased employee turnover and absenteeism. Additional benefits include reductions in in-process inventory and in the time needed to respond to customer orders. The team approach is considered an integral part of the company’s competitive strategy; it is particularly important for keeping industry jobs in the United States, especially with the passage of NAFTA (North American Free Trade Agreement) and GATT (General Agreement on Tariffs and Trade).

Although the use of sewing teams has had numerous benefits, this strategy required a substantial investment by the company in production process changes and employee development. Furthermore, team management has been a challenge to supervision, and the effectiveness of individual teams has varied considerably. Production data indicate that team performance can vary as much as 100 percent between highly effective teams and teams struggling to meet performance goals.

Given the impact of team performance on the “bottom line” of an apparel plant, there has been considerable speculation among managers, team facilitators and employees about why performance differences exist among teams. (These differences also extend to areas of quality, employee morale, turnover and absenteeism.) Thus, the company was very interested in a systematic study of the factors that affect team performance and took an active role in developing and conducting the study.

**DATA COLLECTION**

The study was conducted in three phases over a 12-month period. In Phase 1, researchers did an extensive examination of the academic and business literature to identify factors that affect team performance and why performance differences exist among teams that work in similar production settings.

Phase 2 of the study was designed to learn from company managers, team facilitators and members which factors they thought affected team productivity. More than 100 employees, managers and team facilitators participated in Phase 2 through focus groups at four production facilities.

Information collected from the literature review (Phase 1) and the information collected from managers and employers (Phase 2) were used to design Phase 3 (quantitative data collection and analysis) of the study. The company allowed us to administer the survey on site (employees were paid while completing the questionnaire), virtually eliminating any nonresponse bias. The company also provided more than six months of performance and quality data for the 122 teams in the study, giving researchers the opportunity to examine the impact of attitudes on tangible organizational outcomes. (See sidebar on survey measures for more survey procedure information.)

Employees were assured that their responses to the survey were confidential and that no individual responses would be shared with any other company personnel.

**RESULTS**

The findings indicate that team performance is related to attractiveness of performance, agreement with team goals, team goal level, willingness to use cross-training, perceived participation, team efficacy and team commitment. Regression analysis indicates that these variables explain about 85 percent of the variance in team performance.

Within each category of variables believed to affect team performance, the measures are defined and their relationships with other measures and team performance are reported.

**Team member dispositions.** Depending on one’s environment (and possibly one’s heredity), a person brings certain dispositions to the workplace. These dispositions differentiate employees’ psychological response patterns to various stimuli and, for purposes of this discussion, function in a manner similar to needs. The management literature, company inter-
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views and focus groups all indicated that employees' need for achievement (drive to be successful or win), need for affiliation (need to be with other people), aggressiveness toward other people, and the value employees place on autonomy (doing things on their own) may not only affect team performance and quality of work, but may also affect team commitment and group cohesion.

None of these dispositions were found to be associated directly with team performance or quality. However, aggression and autonomy were negatively related to team commitment and team cohesion (which are in turn associated with performance). In other words, teams whose members, on average, perceive themselves as less autonomous and less aggressive are more likely to report greater team cohesion and team commitment. Thus, a team climate that features greater interdependence and less aggression may indirectly contribute to team performance and quality. Achievement orientation and affiliation orientation are not related to team productivity, team quality, group cohesion or team commitment.

Team process skills. Process skills such as communication, leadership, goal setting, cross-training, problem solving/decision making and conflict resolution are often associated with successful teamwork. A substantial amount of training expense and effort by the company is directed at developing these skills to augment the employee's ability to function within the team. Many of these types of skills are difficult to measure in a survey format, hence we were able to collect data for only three of these factors: willingness to use cross-training, communication skill and involvement in goal setting.

The self-reported communication skill measure assesses individuals' perceptions of their own communication abilities, the confidence they have in these skills, and the likelihood that they will engage in communication activity. Among the employees studied, the analysis indicates this propensity to communicate has negative consequences on quality performance. Teams whose communication scores suggest that they are "more talkative," or value communications with co-workers more than other teams, are not as successful in controlling quality as teams with a more reticent character. Communication skill was not found to be related to team performance, group cohesion or team commitment.

The measure of employee willingness to use cross-training skills (the willingness to fill in for other team members) is available for only one of the three apparel plants studied. Fortunately, this plant had enough teams to make the analysis meaningful. The willingness to use cross-training is positively associated with team productivity, team quality, team cohesion and team commitment.

In other words, teams that are more committed to using cross-training perform at higher levels and have better quality output than those that are not as committed to using cross-training. Furthermore, employees indicating a higher use of cross-training feel better about the team in which they are members, and there is higher group cohesion and commitment among members of the team. These findings indicate that the willingness to use cross-training is a major contributor to the
effectiveness of sewing teams.

Employee perceptions about the team. Employees' perceptions about their team are another category of factors that are believed to affect team performance. The salient factors in this category were team efficacy (the belief that the team can accomplish its goals) and perceived participation (the team's willingness to let its members participate in goal setting). Although group cohesion and team commitment are also perceptions about the team, these measures were used as outcome or team performance measures.

Group cohesion, team efficacy, perceived participation and team commitment are correlated with each other, and they are positively associated with team performance. However, only team efficacy is positively associated with team quality. Even though literature and company feedback indicate that these perceptions contribute to performance, one must also recognize that high team performance may also contribute to the positive perceptions toward the team.

Goals and goal commitment. A substantial amount of data was collected about how goals affect the sewing teams. The specific factors examined are team goal level (actual goals for the team) and goal commitment (of team members to the team goal), agreement with team goal (agreeing to the appropriateness of the goal by individual team members), and performance expectations (how well individual team members expected the team to perform).

Goal levels established by the team were found to be extremely important in predicting both team performance and team quality. Teams with higher goal levels were also more likely to have high group cohesion and team commitment. Goal commitment (an indicator of goal acceptance) is positively associated with team productivity, group cohesion and team commitment. (A measure of employees' agreement with their teams' goals is available for only one plant.) This measure assessed the degree to which employees felt that their teams' goals were too low. Teams reporting high disagreement with the goal were found to be lower performers and less likely to report high group cohesion or team commitment.

Employee performance expectations, defined here as how each employee expects to perform relative to others, are positively associated with team productivity, team quality, group cohesion and team commitment. Even though theory strongly suggests that expectations lead to performance, one must be aware that high team productivity and team quality are also likely to contribute to the expectation of high performance.

**TEAM PERFORMANCE CAN VARY AS MUCH AS 100 PERCENT BETWEEN HIGHLY EFFECTIVE TEAMS AND TEAMS STRUGGLING TO MEET PERFORMANCE GOALS.**

Attractiveness of performance and self-efficacy. As defined here, attractiveness of either their own or their teams' performance assessed employees' perceptions about how satisfied they would be with increasing levels of performance. Employees who reported higher levels of satisfaction for lower levels of performance are scored lower on this scale (for example, an employee who is satisfied with a 110 percent performance is rated lower than an employee who felt that this level was not high enough to be satisfying).

Both attractiveness of team performance and the attractiveness of one's own performance are strongly associated with team productivity and team quality, as well as with group cohesion and team commitment. In other words, team members who required higher levels of performance to feel satisfied...
performed at higher levels than team members who did not. In this case, satisfaction with specific levels of performance is likely to be related to desired levels of income (personal earnings goal) as well as to factors such as different sewing skills, and recognize teams that achieve high levels of cross-job proficiency. Also, entry-level employee training should be structured to reflect the team performance requirements as well as the mastery and use of cross-training.

2. Performance is positively related to the confidence that team members have in themselves and their teams. Selection criteria and training programs that can increase self-efficacy or team efficacy should have a positive impact on team performance, team quality, the way team members feel about themselves, and the way members feel about others on their team.

3. Goals and commitment to
goals have an important impact on team performance and quality. Employers should carefully scrutinize the way goals are established and communicated to ensure that members of less effective teams are more closely tied into this process and are encouraged to set (and meet) more challenging goals.

4. As shown by this research, programs that develop team commitment or group cohesion can increase team performance. Periodically conducting team-building programs to enhance commitment and cohesion can increase team performance.

SURVEY LIMITATIONS

We make few presumptions of causality in our findings except to assume, based on our extensive review of the literature and the analysis, that the attitudinal factors measured are associated with team performance.

One limitation of the study is that the sample consists almost entirely of women. Although we do not believe this severely diminishes the generalizability of our results, we do recognize that differences in how men and women are socialized may affect their experience of the team environment.

The work environment itself also puts
Details of Survey Measures and Analysis

**Demographic Measures**

On the confidential questionnaire, employees were asked to include their age, race, education level and job tenure. Although we found these variables to be associated with team performance, given the space limitations, we felt it best to focus on attitudinal factors associated with performance. However, the demographic variables were used as controls in the regression analysis.

**Performance Measures**

Team effectiveness is defined by author J.R. Hackman as the degree to which the group's output meets the expectations of those who receive and evaluate the product; the degree to which the process of doing the work enhances the capability of members to work together interdependently in the future; and the degree to which the group experience contributes to the growth and personal well-being of the team members. In response to this definition, team productivity and quality information was collected from company records, as well as attitudes about the team (group cohesion and team commitment) taken from the employee survey. Group cohesion (how close respondents felt to other members of their team) and team commitment (individual member's commitment to the team) data were adapted from previously developed scales by researchers Mowday, Steers and Porter.

**Attitudinal Measures**

Phases 1 and 2 of the study identified many attitudinal and dispositional factors that had potential to explain the differences in performance among sewing teams. Given the constraints of the study, only 13 of these factors are included in the research, and the findings are presented in the following five broad categories:
1. Team member dispositions.
2. Team skills.
3. Employee perceptions about the team.
4. Goals and goal commitment.
5. Attractiveness of performance and self-efficacy.

These measures are briefly described in the results section along with the findings.

**Statistical Analysis**

To verify the reliability and statistical validity of the data-collection instruments, descriptive statistics (means, standard deviations and frequencies) were collected and factor analysis was conducted. Alpha coefficients were also determined to evaluate the reliability of items included in each scale. Although the analysis of the data presented here consists primarily of cumulative and regressive techniques, other analytical techniques were used to detect team level effects. Within and Between Analysis (WABA) indicated that the team itself is the appropriate unit of analysis, so all analysis reported here is conducted between teams.

As a result of the limitations of the study, the findings have some limits on generalizability. The participants in this study are engaged in repetitive, specialized work activities. While we would expect these results to apply to many other forms of production work, we would not expect them to generalize to teams involved in less repetitive work activities. Teams obviously represent an opportunity to increase organizational performance. Human resource managers are central to successfully implementing and maintaining team performance because they have a part in selecting and developing people who can work together effectively.

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