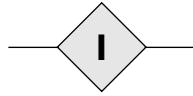# Introduction

Unit 1 introduces the concept of teams. It examines both the historical development of team-based work organizations and current trends supporting the adoption of teams. This information shows that, in many organizations, teams have the potential to improve both productivity and employee satisfaction. However, some work teams are ineffective; thus, transitions to work teams must be carefully planned and implemented. Moreover, work teams may not be appropriate for all organizations. An input–process–output model of teams is introduced as a useful framework for understanding issues related to teams.

"What new management program will they introduce today?" Jane wondered as she rushed to the supervisor meeting at the hospital where she had worked for over 35 years. Having worked as a head nurse for the past 20 years, Jane was certain that she had heard about every possible proposal for helping the hospital become more effective. Yet, she knew the hospital was in trouble. Changes in the healthcare industry were creating a stressful environment that demanded radical decreases in operating costs. Specialization of tasks among doctors, nurses, and other healthcare providers was also increasingly resulting in the fragmented delivery of patient services. Taken together, these trends seemed to be contributing to a disgruntled staff, and a record number of the nurses on her floor had quit their jobs during the past year. "Someone around here had better come up with a long-term solution soon," she thought as she entered the training room.

As Jane slid into a seat near the back of the room she heard Bill—the hospital's lead administrator—begin a presentation about using teams to improve both employee satisfaction and patient care. Bill became rather dramatic as he picked up a stick and snapped it in half. Next, he picked up a bunch of sticks together and attempted to break them. They bent but did not break. "A stick by itself," he said, "can be broken easily. But if all the sticks stay together, they will not break." Slowly he smiled. "The same is true of us," he emphasized, "We either learn to succeed as a team or we fail."[1]

As the meeting ended, Jane's mind kept returning to Bill's example. She agreed that hospital employees needed to work together more, but she just wasn't sure

about the idea of teams. Were teams really appropriate for the nurses on her floor? If the hospital adopts teams will she be required to give up her individuality? How might the introduction of teams affect her supervisor job? Could teams really succeed?

The above case illustrates some major changes that are taking place in work organizations. Competitive pressures are forcing business firms to cut costs, increase efficiency, and improve quality. At the same time, workers are demanding more satisfaction from their jobs. These trends suggest that organizations with work structures that are both highly productive and intrinsically satisfying for workers will succeed, while those that fail in either area will likely join the ranks of the extinct.

Among the more noteworthy and promising approaches for achieving the dual goals of higher productivity and increased worker satisfaction is the design of organizations around teams. Team-based organizational designs hold a great deal of promise for improving the way work is accomplished, but extensive evidence suggests that effective teams are not easy to design and implement in the workplace. The purpose of this textbook is to guide you along a path of discovery that helps you not only to ask the right questions about designing, implementing, and supporting teams, but also to provide appropriate and intelligent answers.

Much of our discussion throughout this textbook will describe the potential benefits of teams. However, not all teams are successful. Our experience and research have taught us that many business organizations fall short in their attempts to implement teams. We therefore attempt not only to extol the virtues of teams, but also to reveal the troubles, problems, issues, and challenges that frequently accompany team design and implementation. By understanding both the benefits and the difficulties of teams we can apply theory and research that provide guidance for implementing and facilitating teams. We can also more fully understand the types of organizations and work units where teams are most likely to succeed.

Throughout the text we combine theory and practice. Although teams are a relatively new development in work organizations, researchers have studied the dynamics of small groups for almost 100 years. These studies have led to a number of general group-level theories that can be applied to the specific context of teams in work organizations. We do not pretend to extensively cover all theories related to groups and teams. Instead we focus on the points that we feel are most critical. We also include a number of cases that illustrate applications of the theoretical concepts and provide a "real-world" context for seeing how teams actually function. The combination of theoretical discussions and case descriptions provides a foundation for logical thought that draws from both academic research and current organizational practice to develop a holistic view of teams. The concepts illustrated in these cases do not always fit neatly into the theoretical frameworks, and many of the specific theoretical points are not found explicitly in the case descriptions. However, examining both cases and

theories does provide complementary perspectives of teams that blend theory and practice.

Before we get too deep into theories and cases, it is helpful to review the answers to a few fundamental questions concerning teams. Such a review provides a background for understanding what teams are, as well as how they have developed historically in work organizations. Unit 1 will thus focus on the following questions:

1. What is a team?
2. Why do people form teams?
3. How have teams evolved in work organizations?
4. Do teams make sense today?
5. What evidence is there that teams can be beneficial for organizations?

WHAT IS A TEAM?

The question of what a team is represents a good starting point for beginning our journey toward a greater understanding of teams. There are many types of teams, and numerous different labels for teams are being used in business organizations. Perhaps the most basic distinction in labels surrounds the difference between teams and groups. A group is normally defined as two or more people who interact in some way. Teams are usually thought of as groups with shared commitments and goals, suggesting that a team is more than a group.[2] While this distinction between teams and groups makes some sense, it is impossible to clearly determine the point where a group becomes a team. Throughout this book we will thus use the terms "group" and "team" somewhat interchangeably.

A team is a collection of individuals who exist within a larger social system such as an organization, who can be identified by themselves and others as a team, who are interdependent, and who perform tasks that affect other individuals and groups.[3] To be a team, members and observers must therefore be able to distinguish clearly those people who are included in the team from those who are part of the larger social system but not included in the team. For instance, a large number of unacquainted and dispersed business executives observing a football game would not be seen as a team because neither they nor the other game observers would identify them as a unique group. Moreover, the business executives would not be working together and relying on one another's contributions (interdependence) in order to accomplish something that would affect other people. In contrast, employees working in an automobile plant form a team when they perceive themselves as a unique group within the plant, when they and others can clearly identify who is a team member, when their work tasks require them to work closely with one another, and when they produce a good or service that is used by others.

A critical notion implicit in our definition is that employees organized into

teams typically work together to complete a whole or a distinct part of a product or service. This allows them to see their accomplishments and thereby gain a sense of meaningfulness from their work. Many teams also make decisions on a wide range of issues, including such traditional management prerogatives as determining who will perform which task, solving quality problems, settling conflicts between members on the team, and selecting team leaders. Because we feel that relatively autonomous teams hold the most promise for simultaneously improving organizational productivity and employee satisfaction, many of the cases in this book place particular emphasis on issues associated with teams that are frequently referred to as empowered or self-managing. The basic characteristics of these teams were summarized by Richard Hackman of Harvard University. He said they have a distinct, recognizable task that workers can identify with (e.g., be able to service all of a mutual fund's customer's needs); members with a variety of skills related to the group task; discretion over issues such as how the work is done, scheduling the work, and assigning tasks; and compensation and performance feedback for the group as a whole.[4]

WHY DO PEOPLE FORM TEAMS?

Why do people choose to live close to one another? Why do they spend so much of their time working in groups? Small-group researchers have long pondered the answers to questions similar to these. In general, their theories can be summarized as falling into one of two categories.[5] The first category of answers takes a functional perspective and suggests that we join groups because groups are able to accomplish things that individuals cannot accomplish when they work alone. The second category of answers is more interpersonal in nature and focuses less on the accomplishment of tasks and proposes that we join groups because they help us to fulfill our social needs.

Functional Perspectives

One functional theory of formation posits that groups first formed because working together was the only way that individuals could survive the demands of their environment and thereby continue living. Compared to individuals, groups more effectively produced food and provided defense against invasion by enemies. Groups were also necessary for survival because they allowed people to care for one another when they became ill, as well as to provide social support to individuals in times of stress. Moreover, groups facilitated reproduction by assuring association with individuals of the opposite sex. The theory of formation for survival is thus based on the notion that we join groups because we would die if we didn't. This may sound a bit harsh, but some theorists actually believe that evolutionary forces have created a process of natural selection whereby people with no desire to associate with others have become mostly extinct. The desire to form groups is thus seen as an adaptive mechanism that helps us to survive.

Another functional perspective focuses less on survival and suggests that groups not only help us to survive but also help us to improve the quality of our lives. From this perspective we join groups because they make our efforts more efficient. Groups help us to complete common tasks more quickly and thereby provide extra time for either leisure or further accomplishment. This notion is somewhat supported by historical evidence that suggests the standard of living of a society is higher when people work cooperatively in teams. Groups also allow us to accomplish collective tasks that make our lives more comfortable but that we would be unable to accomplish alone. For instance, modern roads and automobiles provide us with the opportunity for extensive travel, but neither of these would be possible if people had not chosen to work together and pool their efforts. The desire to form groups is thus seen as an economic choice because it allows us to improve our well-being.

Functional perspectives on group formation are carried over into business applications of teams. Organizations are often structured around teams because teams have the potential to help workers become more productive. Efforts can be pooled, and employees with unique strengths can work together more effectively. For instance, hotel employees such as desk clerks, bellhops, and food servers can provide better guest service when they form a team and work cooperatively than when they work individually. This service improvement occurs because the particular unique strengths of each employee can be matched to the unique and changing needs of each guest.

Interpersonal Perspectives

A somewhat different and interpersonal theory of group formation suggests that we join groups because we have innate social desires that can only be fulfilled in the presence of others. From this perspective people are seen as having a need for affiliation with others. The basis for this need is often traced to childhood experiences involving family relationships. Children receive acceptance and protection from their parents, and then later in life affiliate with groups to duplicate those desirable states. People also join groups to provide them with the opportunity to fulfill their needs to exercise power over others. Similar to the control of parents over the behavior of children, leaders in groups are able to influence the actions of others. Another basic psychological need is the desire to give and receive affection. Again, similar to families, groups provide people with the opportunity to develop emotional relationships that allow them to feel accepted. People have different needs for affiliation, power, and affection, which means that individuals may join groups for different reasons. Nevertheless, the desire to form groups is seen as resulting from psychological drives that influence us to associate with other people.

Another twist to the interpersonal perspective posits that we join groups because we want information from other people. A desire to compare ourselves with others is at the heart of this theory. Because we want to understand ourselves, we seek information about the behavior and attitudes of others. We then

compare this information about others with information about our own attitudes and behaviors. The comparison process allows us to validate our actions and beliefs. A common example of the social comparison process occurs when professors return exams and papers to students. Scores are of little meaning to students until they obtain information from their peers. However, once students learn how others performed, they begin a comparison process that helps them understand their own performance. Their personal perception of the quality of their performance is based largely on how well they did relative to others. This desire for social comparison is so strong that it drives people to form groups in order to understand and evaluate themselves.

Similar to the functional perspective, the interpersonal perspective of team formation can be linked to the explosion of teams in modern businesses. Workers frequently report higher job satisfaction when they work in teams rather than independently as individuals. The dignity and freedom workers receive are especially publicized in many organizations that adopt teams. One example of this dignity and freedom is provided in the transition to teams that took place at the Charette Corporation (see Case 3.2), where the team system helped relatively uneducated and troubled workers gain the respect they needed to improve their performance. In particular, teams permit stronger social relationships and tend to provide a work environment that is interpersonally satisfying. Adding this benefit to the functional benefits associated with increased productivity suggests that in some settings teams may indeed be able to accomplish something that most other work design innovations fail to achieve: simultaneous improvement in both organizational productivity and quality of worklife for employees.

HOW HAVE TEAMS EVOLVED IN WORK ORGANIZATIONS?

The early days of the team system were heavily influenced by a concept known as sociotechnical systems (STS) theory, which emphasizes the need to optimize both the social and technical aspects of work.[6] The technical aspects of work include the equipment and processes for producing goods and services, and have historically been maximized through mass production and bureaucratic structures. In contrast, the social aspects of work concern relationships among workers and have historically received very little attention. The result has been organizations that can efficiently produce a standardized product or service but that can neither adapt to changes in their environments nor satisfy many of the social needs of workers. While details of a specific application of STS in an actual organization are provided in the IDS case that is included in Unit 2, it is important here to point out that the underlying goal of STS is to jointly create excellence in both the technical and the social systems of organizations.

The application of STS principles typically results in a shift to performing work in groups; technology and people are matched together in clusters, or teams. The main rationale is that teams can more effectively apply resources to deal with the total variance (changes and unpredictable events) in work condi-

tions than can individuals acting on their own. Today, the formal analysis techniques of STS are found less frequently, but the philosophy of matching the technical system and the social system remains and is an important part of successful team design.

The teams that have evolved from STS are a distinctly Western phenomenon (teams have been used in the United States, Canada, Europe, and Mexico), although they are frequently confused with Japanese management practices. Both are often associated with the idea of participatory management, but each approach is targeted at a quite different population, with distinct cultural values. In particular, Japanese organizations use teams in a culture that supports collectivism, where the interests of an organization are seen as more important than the interests of individuals. In such work systems, teams lower in the organizational hierarchy are expected to willingly follow the directions given by top-level leaders. Although effective in Japan, similarly designed team systems have been less effective in Western countries that focus more on individualism than collectivism. Following the principles of STS, Western organizations have therefore moved toward empowered teams that provide line workers greater discretion over work processes.

In 1990, Edward Lawler, director of the Center for Organizational Effectiveness at the University of Southern California, estimated that about 7 percent of U.S. companies were using some form of self-managing teams.[7] Only a decade earlier, he had estimated in personal conversations to us that about 150 to 250 work sites were using teams. Clearly, the number of companies using teams has grown considerably, and a recent report found 47 percent of the Fortune 1000 companies using self-managing teams with at least some employees.[8] We believe that nearly every major U.S. company is currently trying or considering some form of empowered work teams somewhere in their organization, and our own informal estimate is that within the next few years 40 to 50 percent of the U.S. workforce may work in some kind of empowered team. Hundreds of applications have already taken place across industries in multiple settings. A list of several settings that we are aware of is provided as Table 1.1.

The Procter & Gamble Company is generally considered an important U.S. pioneer in applying teams to their operations. Their work began in the early 1960s, although it was not publicized and virtually escaped media attention. P&G saw the team approach as a significant competitive advantage and through the 1980s attempted to deflect attention away from its efforts. The company thought of its knowledge about the team organization as a type of trade secret and required consultants and employees to sign nondisclosure statements. Nevertheless, Procter & Gamble's successes with teams received considerable off-the-record attention from a small group of consultants across the country who were inspired by the P&G success and learned techniques through an informal network. Many of them originally worked at P&G and were attracted away to other companies by lucrative job offers because of their unique knowledge and expertise.

Through the 1970s and 1980s, General Motors Corporation was also a locus

TABLE 1.1   Settings Where Work Teams Have Been Applied

Pet food plant
Parts manufacturing
Paint manufacturing
Coal mines
Auto manufacturing
Supply warehouse
Paper mill
Hospitals
Financial offices
Insurance offices
Government organizations

of active experimentation with teams and was significantly less secretive than Procter & Gamble. Many of the GM team implementations have been very successful and have served as models for other changes around the country. The focus on teams ultimately led to the Saturn experiment, currently GM's most successful division in terms of customer satisfaction. GM remains an interesting enigma, however; it is a textbook case of how success with teams at one location does not necessarily transfer to another location within a large corporation. Furthermore, the GM experience highlights the fact that teams are not the sole answer to the competitiveness challenge. Diffusing the team concept throughout diversified companies has proven to be a considerable challenge.

Other prominent companies have been active with teams, among them Gaines, Cummins Engine, Digital Equipment, Ford, Chrysler, Motorola, Tektronix, General Electric, Honeywell, LTV, Caterpillar, Boeing, Monsanto, AT&T, and Xerox.

Teams have also had a different impact on the various sectors of our work society. The most extensive experience derives from the manufacturing sector, where the team concept was first introduced in the 1960s. In many areas of the manufacturing sector, it's no longer a question of whether or why to use teams but of fine-tuning to specific sites. The service sector has significantly lagged the manufacturing sector in adoption of teams. Perhaps the slow progress of service teams stems from the increased difficulty in designing effective teams. The high variability associated with service settings requires a different type of team. Nevertheless, competitiveness has started to become a hot issue in service, and we expect service providers to increasingly use teams, albeit somewhat different teams than are common in manufacturing settings. The IDS case we report later in this book is an example of the potential of these service teams. While we still have much to learn, teams in the service sector are likely to be the most exciting applications in the near future.

DO TEAMS MAKE SENSE TODAY?

One way of looking at reasons why businesses are moving toward teams is to examine psychological theories that explain why people join some groups but not others. The fundamental core of these theories is social exchange.[9] Social exchange posits that every team provides both rewards and costs. Rewards come from positive interactions that provide economic and social benefits. For instance, employees may support joining a team because it gives them the opportunity to produce more goods and services than when they work alone, which in turn may lead to higher wages. Teams may also provide employees with social rewards like friendship, self-esteem, and a feeling of control. However, teams also have costs. These costs may include reduced efficiency that occurs when teams spend a lot of time meeting together and negotiating decisions, as well as strained interpersonal relationships resulting from negative social interactions.

Employees will desire to work in teams as long as the rewards of the team are greater than the costs. One critical element of the cost-reward equation involves the desires of individual employees. Some employees report numerous individual benefits from working in teams, while others report a relative increase in costs. Indeed, some employees are uncomfortable in teams and tend to leave organizations that transition to teams. Nevertheless, societal trends appear to be making teams increasingly rewarding for a large number of workers, as modern workers more and more place a high value on the benefits of empowerment and interpersonal relationships that accompany teams. Because changes in the desires of workers offer a compelling explanation of why teams increasingly make sense for business organizations, we briefly review trends in worker preferences.

The generation receiving most attention now is the large group born between the mid-1940s and the 1960s, who grew to maturity during a time of unprecedented prosperity and social turmoil and are variously called the "baby boom," the "now generation," the "new breed," the "new values worker," and the "'60s kids."[10] Baby boomers have a set of life and work values in some areas that are very different from that of their parents and grandparents. Most of all, they are less tolerant of hierarchical control. Many have lower overall job satisfaction and less desire to lead or manage, move up the organizational hierarchy, and defer to authority. These workers often believe that they are entitled to a "good" job, have a desire to control their own destiny, and have a low absenteeism threshold.[11] In addition, they have a lower respect for authority and a greater desire for self-expression, personal growth, and self-fulfillment. In other words, these workers are not satisfied to report to work merely for the paycheck. They want something more.

To complicate matters, a newer set of workers, including the "baby busters" and "generation X," has recently been entering the workforce. These employees also carry values and expectations that are significantly different from those

of traditional organizations. They are slower to commit and less loyal to organizations. (It's also true that organizations are less loyal to employees.) They were recently described in this way: "They don't bow to any authority. Younger workers will not respect you because you're the boss. They want to know why they're being asked to do things. They question authority, and they have a disregard for hierarchies."[12] They are also described as competitive and as desiring an opportunity to learn and have fun at work.

These characteristics of the new employee generations, when coupled with rises in education and standards of living during this century, pose major challenges for organizations. The new workers' aspirations for self-fulfillment cannot be met by conventional approaches of the past. Teams have a special capacity to answer the needs of the new generation of employees. This is not a new idea. Over fifteen years ago Business Week concluded that "U.S. industry must reorganize work and its incentives to appeal to new worker values, rather than try to retrofit people to work designs and an industrial relations system of 80 years ago."[13] The newer employees have an especially acute need to be treated as valuable and respected contributors and to be given the opportunity to learn, develop, and influence their work and their organizations. The rewards of work teams come closer to meeting these demands than most other tested work system alternatives. Teams often break down the traditional, hierarchical work systems and can provide employees with the freedom to grow and improve themselves. With teams, employees frequently feel that they can control and manage themselves to really make a difference. Team-based work systems can thus fulfill many of the needs of modern workers, suggesting that teams may indeed be a key to increasing the overall satisfaction of workers.

ARE TEAMS EFFECTIVE?

As pointed out earlier, the shifting interests and desires of workers are an important explanation for the shift toward teams in businesses. However, issues of productivity and quality—the important elements of competitiveness—are probably the strongest drivers of the move toward teams. In the end, the team approach will be adopted only if teams really do work.

The team concept has been credited with improving productivity and quality in many organizations. Teams are a way to undertake continuous improvement designed to increase productivity. Today, teams are seen as a critical element of many total quality management (TQM) programs (see, for example, the Texas Instrument Malaysia case presented in Unit 2). Moreover, teams typically breed reduced conflict between management and labor. Frequently cited reasons why teams make sense for modern business are listed in Table 1.2.

Specific evidence that evaluates the effectiveness of teams can be divided into two categories: qualitative evidence, often reported in the popular press, and more rigorous scientific data, derived from well-designed quantitative research studies.[14] Business Week claims that teams can increase productivity by 30 percent or more and can also substantially improve quality.[15] Other exam-

TABLE 1.2   Organizational Benefits Frequently Credited to Teams

Increased productivity

Improved quality

Enhanced employee quality of work life

Reduced costs

Reduced turnover and absenteeism

Reduced conflict

Increased innovation

Better organizational adaptability and flexibility

ples reported in the popular press include an Alcoa plant in Cleveland, where a production team came up with a method for making forged wheels for vans that increased output 5 percent and cut scrap in half. At Weyerhaeuser, the forest-products company, a team of legal employees significantly reduced the retrieval time for documents. At Federal Express, a thousand clerical workers, divided into teams of five to ten people, helped the company reduce service problems by 13 percent. At Rubbermaid, a multidisciplinary team from marketing, engineering, and design developed a new product line; subsequently, sales in the first year exceeded projections by 50 percent.[16]

While these qualitative data generally support the effectiveness of teams, not all evidence, especially from more rigorous academic research, is completely supportive. Perhaps the difficulty of evaluating the team concept in terms of any hard scientific data was best expressed by John Miner:

> The results are often positive. It is hard to predict whether the outcomes will be greater output, better quality, less absenteeism, reduced turnover, fewer accidents, greater job satisfaction, or what, but the introduction of autonomous work groups is often associated with improvements. It is difficult to understand why a particular outcome such as increased productivity occurs in one study and not in another, and why, on some occasions, nothing improves. Furthermore, what actually causes the changes when they do occur is not known. The approach calls for making so many changes at once that it is almost impossible to judge the value of the individual variables. Increased pay, self-selection of work situations, multiskilling, with its resultant job enrichment and decreased contact with authority almost invariably occurs in autonomous work groups.[17]

In another report, researchers attempted a rigorously scientific review of the effectiveness of the team approach. Despite 1,100 studies conducted in actual organizations, they concluded that "there are not many well-designed studies that evaluate the impact of self-managed groups."[18]

One revealing scientific report of the bottom-line effect of teams is contained in a study conducted by researchers at the Texas Center for Productivity and Quality of Work Life.[19] Their analysis contrasted the success of various

changes involving human resources, work structure, and technology—for example, training, reward systems, and work teams. Very strong effects, especially in terms of financial outcomes, were observed with team applications. Another study by researchers at the University of Minnesota quantitatively examined the introduction of teams at an assembly plant. This study concluded that over time the introduction of teams improved both labor productivity and the quality of the product being manufactured.[20] These and other emerging studies are beginning to provide rigorous scientific evidence that teams can positively influence the bottom-line financial performance of work organizations.

A vast body of experience related to the effectiveness of teams also seems to lie unreported in the scientific literature. Those close to the self-management movement informally report substantial productivity gains and cost savings that typically range from 30 to 70 percent when compared with traditional systems. Many who have experienced the power of teams believe that they have the potential to exert substantial effects on the bottom line. Perhaps the notion was captured best by Charles Eberle, a former vice president at Procter & Gamble, who speaks with the advantage of years of practical experience:

> At P&G there are well over two decades of comparisons of results side by side—between enlightened work systems and those I call traditional. It is absolutely clear that the new work systems work better—a lot better—for example, with 30 to 50 percent lower manufacturing costs. Not only are the tangible, measurable, bottom line indicators such as cost, quality, customer service and reliability better, but also the harder-to-measure attributes such as quickness, decisiveness, toughness, and just plain resourcefulness of these organizations.[21]

Why then do companies and employees often resist the change to teams? There are several philosophical and practical barriers to the ready acceptance of the team concept. Teams often take a long time to yield substantial benefits, and many organizations abort their transitions to teams before barriers can be overcome and improvements realized. Perhaps the biggest dilemma frequently encountered in changing to teams arises because of the transition needed in managerial thinking and philosophy. Empowering teams throughout the organization can be a very unnerving process for managers, who may perceive it as a threat to their own status and power. In addition, leading teams for new management and leadership perspectives and strategies often do not seem to come naturally to managers whose only experience is in a traditional hierarchical system.

Indeed, the transition to teams can be a troubling process. Teams often represent a whole new management paradigm. Nevertheless, research evidence is beginning to show that this new paradigm, though not appropriate for all organizations, can indeed be beneficial for many modern organizations. Throughout this text we describe several issues that should be taken into account when determining both whether teams are appropriate for a given organization and how the transition to a team-based system can be facilitated.

HOW IS THIS BOOK ORGANIZED?

Having reviewed some basic issues concerning teams and their historical development in the business world, we are now ready to dive into theories and cases. In order to theoretically understand teams, researchers have adopted a model that suggests teams can be understood in terms of their inputs, processes, and outputs.[22] An illustration of this model is shown in Figure 1.1. The underlying idea is that a team is made up of several inputs, including the tasks the team undertakes, the technological process the team uses to accomplish those tasks, the level of autonomy given to the team, the goals provided to the team, and the composition of individuals who make up the team. These characteristics combine through processes such as communication, cooperation, influence, and leadership to produce outputs such as productivity and employee satisfaction. Because of the usefulness of this model for understanding teams, we divide the remainder of this book into three sections, each section being based on one part of the model.

The following unit (Unit 2) focuses on inputs, which are extremely important to consider when teams are designed and first introduced into organizations. A case about teams working at a Texas Instruments manufacturing plant located in Malaysia is presented first. The case provides a background for introducing concepts related to team design. Theory concerning several primary design inputs is then described. Two other cases, one about the Fitzgerald Battery Plant of General Motors and the other about IDS Financial Services, are then used to illustrate key points. Taken together, the cases and theory provide a rich view of team design processes and highlight the effect of many critical inputs for teams.

The next unit (Unit 3) focuses on the processes that occur as the various inputs combine. A case that revisits the Fitzgerald Battery Plant uses conversations in teams, as well as discussions about leadership, to illustrate intrateam interactions. The unit then builds on this case to look at group development over time, socialization, influence, conflict, and leadership. The theoretical discussion is followed by two additional cases. One case examines the leadership process at Charette Corporation—a wholesale distributor. Another case describes how a
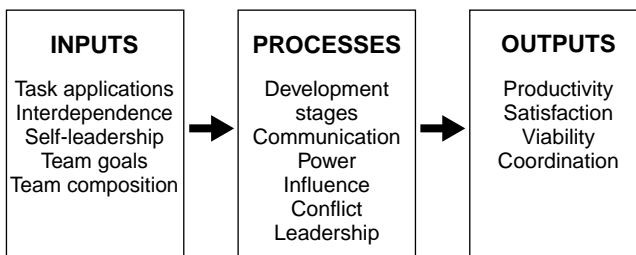
INPUTS	PROCESSES	OUTPUTS
Task applications Interdependence Self-leadership Team goals Team composition	Development stages Communication Power Influence Conflict Leadership	Productivity Satisfaction Viability Coordination

Figure 1.1 Input, process, output model of teams

CEO used his power and influence to exert control in his organization in a way that was dysfunctional for team empowerment.

The final unit (Unit 4) addresses outputs in terms of performance. This section begins with a case describing Lake Superior Paper Company and provides explicit examples of effective teams in the paper mill industry. A discussion then focuses on different facets of performance and illustrates that performance is multidimensional and cannot be summarized by simple measures of output. Methods of improving performance are also described. Once again two additional cases follow. A case about AES Corporation provides an excellent example of an organizational structure that is effective in fostering cooperation among teams. Lastly, a case description of W. L. Gore and Associates is included as a preview of the future where organizations may very well be constructed of small, self-forming teams that come and go as conditions change.

WHAT WE HOPE YOU LEARN IN THIS UNIT

After studying this opening unit of the text, you should be able to describe some critical characteristics of teams. More importantly, you should be able to better classify when workers are actually organized into teams. Although an understanding of when workers are actually operating in teams may not seem that important in and of itself, we have found that many organizations think they are using teams when they really are not. For instance, one of us went to a manufacturing plant to study teams but was disappointed to find that the smallest team consisted of over 150 individuals. Closer examination revealed that this plant really didn't have any teams that would meet the definition we have presented. In the end, many leaders in the organization assumed that they were using teams when in reality their workers lacked the interdependence and group identity necessary for them to operate as teams.

We hope that you have also gained an understanding of the dual benefits that teams have the potential of providing for organizations: increased employee satisfaction and increased productivity. Both aspects of work are critical if organizations hope to remain successful over the long term, and both psychological theory and mounting research evidence suggest that team-based organizations can often succeed in each area.

Finally, you should be able to describe both the historical development of teams and current trends that suggest teams should continue to be used in organizations. The historical perspective is important for understanding how the current movement toward teams differs from past management approaches that focused solely on technical production rather than the workers' social needs. People have grown weary of working in these organizations, and both productivity and quality of outputs have begun to decrease. The movement toward using teams in the workplace has in some ways been relatively slow to develop. However, current trends associated with both the needs of modern workers and improving productivity indicate that the number of organizations using teams

will continue to grow and that teams may eventually become the dominant organizational form for accomplishing work.

NOTES FOR UNIT 1

1. The story about the sticks is inspired by one told by Kelvin Throop III in Analog, May 1994, p. 81.

2. A discussion on the potential differences can be found in J. R. Katzenbach and D. K. Smith "The Discipline of Teams," Harvard Business Review 71 (1993): 111–120.

3. This definition is taken from Richard A. Guzzo and Marcus W. Dickson, "Teams in Organizations: Research on Performance and Effectiveness," Annual Review of Psychology 47 (1996): 307–338.

4. See J. Richard Hackman, "The Design of Work Teams," in Jay W. Lorsch (ed.), Handbook of Organizational Behavior, (Englewood Cliffs, NJ: Prentice-Hall, 1987), pp. 315–342.

5. A more thorough explanation of these different theories can be found in Donelson R. Forsyth, Group Dynamics, 2nd ed. (Pacific Grove, CA: Brooks/Cole, 1990).

6. For an academic development of Sociotechnical Systems Theory, see T. Cummings, "Self-regulated Work Groups: A Socio-technical Synthesis," Academy of Management Review 3 (1978): 625–634.

7. From a speech given at the International Conference on Self-managed Work Teams, University of North Texas, Denton, Texas, 1990.

8. This estimate is taken from Susan G. Cohen, Gerald E. Ledford, Jr., and Gretchen M. Spreitzer, "A Predictive Model of Self-managing Work Team Effectiveness," Human Relations 49 (1996): 643–676.

9. These ideas were introduced by J. W. Thibaut and H. H. Kelley, The Social Psychology of Groups (New York: John Wiley, 1959).

10. This section is based in part on Charles C. Manz and Roger Grothe, "Is the Workforce Vanguard to the 21st Century a Quality of Work Life Deficient-Prone Generation?" Journal of Business Research 23 (1991): 67–82.

11. See, for example, Joseph A. Raelin, "60's Kids" in the Corporation: More Than Just 'Daydream Believers,'" Academy of Management Executives 1 (1987): 21–30.

12. See "Baby Busters Enter the Work Force," in Futurist (May–June 1992): 53. The article is based on Lawrence J. Bradford and Claire Raines, with JoLeda Martin, Twenty Something: Managing and Motivating Today's New Work Force (New York: Master Media Limited, 1992).

13. "The New Industrial Relations," Business Week, May 1981, pp. 84–88.

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15. John Horr, "The Payoff from Teamwork," Business Week, July 10, 1989, pp. 56–62.

16. John Dumaine, "Who Needs a Boss?" Fortune, May 7, 1990, pp. 52–60.

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18. Paul S. Goodman, Rukmini Devadas, and Terri L. Griffith Hughson, "Groups and Productivity: Analyzing the Effectiveness of Self-Managing Teams," in Productivity in Organizations (San Francisco: Jossey-Bass, 1988).

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21. Quoted by Kim Fisher, "Are You Serious About Self-Management?" (paper delivered at the International Conference on Self-Managed Work Teams, Dallas, October 1991).

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