Making Managers of Technical Gurus

By PETER K. KREMBS

Fast growth in many high-tech companies has created a pressing short-term need for a variety of technical specialists. What is now coming into view for many organizations, however, is a longer range problem of finding enough technical managers to supervise and develop such specialists and to help set technical direction. The problem is compounded by the fact that there are numbers of bright technical professionals unwilling to become managers because they don't want to let go of their specialty.

The problem of making managers of technical specialists is not new, nor is it limited to high-tech companies. Technical specialties may differ, but the problems of making the transition to management are the same. Let's explore an example.

Steve is an exceptionally talented systems analyst who has worked in an MIS department of a large corporation for 10 years. Steve was made manager of his unit two years ago. At that time everyone, including Steve, believed the promotion was long overdue and well deserved. Ask Steve today about his management job, however, and his response is: "Becoming a manager is a waste of a good systems analyst." Ask Steve's boss, and you will hear: "I can't get him to manage the department because he can't pass up getting involved in a juicy

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technical problem. He's just not paying enough attention to the bigger issues."

The problems that lead to cases such as Steve's do not have easy solutions. Selecting technical managers is a two-edged sword: While people with effective managerial skills are needed, it is also crucial to promote technically credible people who can make sound technical decisions. On the other side, the dilemma facing the specialist is that while he or she may prefer doing the technical work, going into management is the route to raises and higher status in the organization. The challenge to organizations is to help the specialist sort out and understand the consequences of the decision to go into management, as well as to facilitate the development of managerial competence in technical professionals who are on a management career track.

It might be argued that becoming a manager requires learning certain generic managerial skills regardless of the function managed. This thinking has led most organizations to develop general management development programs to help all new managers improve their performance. While it's true that there are certain skills every manager needs to learn, the process of acquiring those skills and making the transition into management will depend on previous experience. The technical specialist who has been rewarded for taking responsibility and working autonomously will have a particularly difficult time under-

> **Facilitating the development of technical managers requires an understanding of what technical managers need to learn and a sense of when they are most ready to learn.**

standing the implications of a managerial role and the competencies required to perform it effectively. The technical specialist often needs special help to make the transition to management.

Profile of new technical managers

It helps to understand the concerns of new technical managers when developing their managerial competence. Although there is a danger in over-generalizing, the following characteristics of new technical managers seem to surface repeatedly.

• *Strong ego identification with technical competence.* Most technical managers will define themselves by their technical specialty rather than their managerial role. Many began

thinking of themselves as specialists early in their career and have defined success and failure in terms of technical accomplishments ever since. This orientation changes slowly, even after they have become managers. Participation in professional organizations may increase loyalty to the technical field rather than to management. Some technical managers may be so tied to their area of expertise that they have not considered how the role of manager differs from the role of the individual contributor. They get involved in too many technical details.

• *Strong achievement drive.* The opportunity to solve problems attracts many achievement-motivated people into technical jobs, and the strongest achievers are often selected to be managers. This achievement orientation remains even though a new managerial position may call for significantly less individual achievement and much more demand for influencing others to achieve.

Achievement orientation has been defined in terms of the following needs: high need for independent responsibility; high need for feedback; high self-imposed standard of excellence; and high need for efficiency.

Many characteristics of a manager's job frustrate these needs. To be successful, managers must be interdependent, not independent. Managers rarely get feedback. They must be willing to accept a variety of ways to get things done, and they must handle interruptions that make each day seem full of inefficiencies.

• *Low relationship orientation.* In many cases, the high need for independent responsibility causes technical specialists to prefer to work alone. Their relationship building is usually task focused, and the relationships are limited to others who have technical talent. When specialists become managers, their relationship-building patterns often present a stumbling block in their role as a communication linking pin. The problem is not simply one of

developing competence in relationship building, communication networking and conflict-resolving skills. The basic problem is that the technical manager may not value relationship building, and it is difficult to develop a skill that is not valued.

• *Low levels of strategic thinking on organizational issues.* When it comes to political strategy, most technical managers seem to have a problem. They move quickly from goals to activities and neglect the steps so necessary to getting the cooperation and support of others.

Two reasons for this might be their strong achievement orientation and the negative picture most technical managers have of organization politics. Achievement-oriented thinking typically leads a person to goals and to those actions that will most efficiently achieve the goals. Political issues often appear irrelevant and therefore are

viewed as an inefficient digression. Furthermore, politics are often seen as manipulative and unethical. This can cause technical managers to avoid strategic thinking on organizational issues.

• *Self-perception as a victim.* Most technical specialists have never been taught to think strategically. Therefore, they tend to lose organizational battles and end up feeling misunderstood, powerless and victimized by the organization. This, in turn, becomes a self-fulfilling prophecy of helplessness.

There are many rationalizations used to cover up a feeling of being the victim: "The key decision makers will never understand because they haven't the technical background to appreciate what I'm saying. All they are interested in at the top is earnings per share."

There are many legitimate environmental blocks that managers encounter. But when

confronted with these blocks, the technical manager often gives up rather than trying to exert influence.

• *Fear of technical obsolescence.* Since most technical managers continue to define success and failure by their technical competence, it's logical to assume that they would fear falling behind technically. The administrative and leadership tasks of a managerial role make it hard to remain "state of the art." The technical manager isn't solving as many technical problems, therefore he or she is not developing and maintaining technical competence as rapidly.

Some new technical managers try to be both a specialist *and* a manager, and this can lead to burnout. The technical manager must give up the need to be on top of new technical develop-ments and must find more efficient ways of staying informed.

Helping technical managers

If the difficult transition from specialist to manager is relatively predictable, then organizations can respond in a variety of ways. Here are four specific responses which can be useful. Develop tools to help specialists explore management careers before they are faced with a decision to take a management job. Assist new technical managers making the value/motivation shift to managerial work. Provide key managerial skill development experiences for technical managers who are ready to improve their managerial competence. Work with upper management to aid them in creating an environment which rewards the appropriate balance of managerial and technical competence.

Many organizations have designed and implemented career development and planning systems, however few have developed tools targeted for technical specialists who seek a management career. It is useful to understand some of the career stages the specialist will probably experience. The adult development literature, particularly works of Dalton and Thompson on career stages for engineers, scientists and technicians, is a good resource for helping technical specialists anticipate the career changes they may encounter as well as the psychological changes people in technical careers experience. It is also appropriate during this pre-management period to define managerial performance in very concrete ways, so that when confronted with a decision to go into management, the technical

specialist will be informed about what a management job entails. Understanding the differences between project leadership, program management, supervision and middle management will foster good matchmaking of job demands with personal desires.

When a technical specialist first gets an assignment in a management position, many companies send the specialist to a supervisory development program. Unfortunately, most supervisory programs are skill focused, and the new technical supervisor may not be ready or need to learn supervision skills.

An engineer attended a program on delegation skills after being made a supervisor. The program offered tips on how to delegate and follow up on assignments as well as a chance to role-play a meeting in which project work was to be delegated. The engineers' reaction to the program was, "Well, I guess it was good to be exposed to that, but it was nothing new." The fact was, he already knew how to delegate. On the job, however, he failed to delegate work: "It's faster doing it myself. Besides, no one has as much experience as I have." His poor delegation performance was not due to a lack of competence in delegation. He lacked the motivation to delegate.

The engineer, like many new technical managers, approached the supervisor's job with an orientation to achieve. In order to do the job effectively, he needed to discover the value of influencing. The motivation framework, referenced earlier, is useful in assisting new technical supervisors to appreciate new ways of approaching their role. While the new supervisor needs to learn the policies and procedures he or she will have to implement, the major focus of a new technical supervisor's program should be the value/motivation shifts required by the job change.

After technical supervisors have had supervisory experience, there is a greater likelihood they

will appreciate the need for specific skill improvement. Skills often presented in management development programs (performance feedback, communication skills, coaching skills, planning and decision making) focus on competencies now easier for the technical manager to be motivated to learn. Facilitating the development of technical managers requires an understanding of *what* technical managers need to learn and a sense of *when* they are most ready to learn.

The most powerful support for developing technical managers comes from the organizational environment. Often people with a reputation for being top specialists continue to get requests for work in their specialty long after they have been pro-

moted to management. Since they probably still enjoy the technical work and are flattered someone asked for their help, such requests can be a block to a smooth transition from doing to managing.

Top management may complain, "The people managing our technical areas are very weak in general management skills," while daily requesting the technical manager to solve a particular technical problem with, "...and I want you personally to attend to this because you know so much about it." The technical manager pays attention to the latter message because of its immediacy. Continuing requests for technical work imply that general management skills are not important. Since the work environment is significant in the development of managers, it is critical that it support the development of general management skills among technical managers.

Rather than designing general management development programs for all managers, it is important to pay attention to the unique characteristics and needs of specific types of managers during the lengthy transition period: at the pre-supervisor stage, at the new supervisor stage and at the experienced supervisor or manager stage. Well-timed supports targeted to learning needs, along with positive environmental support, can facilitate and accelerate the technical specialist's transition to management.

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