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**Designing Performance Appraisal and  
Reward Systems for Procurement  
Professionals in the Telecommunications  
Industry**

**CEO Publication  
G 88-20 (133)**

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## Executive Summary

### DESIGNING PERFORMANCE APPRAISAL AND REWARD SYSTEMS FOR PROCUREMENT PROFESSIONALS IN THE TELECOMMUNICATIONS INDUSTRY

The telecommunications industry is in the throes of revolutionary changes. The new business environment has critically transformed the role and greatly enlarged the responsibilities of the procurement function in the industry. Until its break-up in 1984, the Bell System was characterized by a very high degree of vertical integration, and all network equipment as well as the customer premises equipment was largely supplied by Western Electric from within the system. Today, the BOCs are barred from manufacturing, and a large segment of the industry relies on outside vendors for all its needs. The divestiture of AT&T was also the occasion when the U.S. telecommunications market became completely open to competition, including foreign competition. These changes have been accompanied by accelerating technological changes and growing pressures for modernization of the network. Customers have also acquired greater freedom of choice and have become more demanding, expecting a continuing stream of new products and services with steady savings in costs. Finally, policy trends such as moves away from rate of return regulation to price caps, dictate increasing emphasis on efficiency. In this context, procurement is no longer an administrative function but has become a strategic function. This paper examines the ways of insuring that performance appraisal and reward systems of the organization encourage professionalism and create a strategic orientation in the procurement function.



# DESIGNING PERFORMANCE APPRAISAL AND REWARD SYSTEMS FOR PROCUREMENT PROFESSIONALS IN THE TELECOMMUNICATIONS INDUSTRY

## Introduction

The telecommunications industry is in the throes of revolutionary changes, being buffeted simultaneously by technological advances, regulatory shifts, competitive pressures and radically altered customer expectations. The new environment has critically recast the role and greatly enlarged the responsibilities of the procurement function in the industry. Because of this the traditional means of assessing the effectiveness of procurement professionals and rewarding their performance have now become inadequate.

In this article we first present a brief overview of how the procurement role has evolved over time in general, and the transformation it has undergone in the telecommunications industry in particular. Next, we discuss the current trends in performance evaluation and reward systems for professional employees, and explicate their applicability to management of procurement specialists in the telecommunications industry. Ideas presented here should be useful for guiding future research as well as practice.

## The changing Role of Procurement

Historically, the industrial purchasing role has evolved from a rather routine function to one that belongs in the category of corporate strategic functions. Parket and Eisenberg (1982) note that this role is tantamount to a "shining star," that holds great promise for the organization's competitive

advantage in the future. Spekman and Hill (1980) are more cautious in their assessment, claiming that while the efficiency of the procurement function has been improved over the years, little attention has been paid to improving purchasing effectiveness, or meshing corporate goals with the purchasing decision process. Farmer (1978) takes an even gloomier view, claiming that purchasing's ability to impact corporate strategic decisions has been at a standstill since 1973.

It is clear however, that whatever the assessment of the importance of the purchasing function, its role has shifted enormously since the turn of the century. At that time the purchasing function was primarily being handled by owners or chief executives. While this is still common today in some small, family-owned firms, in large corporations that role shifted in the early 1900s to a "professional" purchasing department. However, even there the "agents" (which was the typical title for senior purchasers at the time) were considered at best to be links between the firm and its suppliers. They were essentially given the plans and specifications, and told to purchase the items from outside sources (Parket and Eisenberg, 1982).

With World War II came another change. Given the shortages of some materials, the purchaser (agent) role became one of finding the necessary products and materials, regardless of price. This role was maintained within organizational boundaries until the recession of 1957, when managements became more cost-conscious (Parket and Eisenberg, 1982). The purchasing function was "virgin territory" for these cost reductions, and so was transformed overnight from an agent function to one in which consi-

derable decision-making was invested. Purchasing "professionals" now needed to be concerned with market conditions, information processing with respect to materials and machinery, supply and demand constraints, as well as governmental regulations. In addition, these professionals had to interact with other specialty areas, including engineers, production and marketing personnel (Cavatino, 1987). Over time, this role has been enhanced, and today's modern purchasing or procurement function is squarely inside the management hierarchy, with considerable decisionmaking latitude associated with it. Procurement professionals these days perform a highly complex set of functions despite the fact that the legacy of the "agent" role still tints their image in the eyes of some non-purchasing managers (Cavatino, 1987). Thus, it might be argued that while the "game" has changed, perceptual difficulties still surround this function. In some firms purchasing is treated as the department where non-performers spend out the duration of their career, thus exacerbating the image problem (Cavatino, 1987).

There have been numerous calls by practitioners and researchers alike to align the importance of the image of the procurement specialists with the job functions actually performed. And, there have been a number of calls to improve, along with image, substance or the actual individual productivity in purchasing (Adams and Neibuhr, 1985; Spekman and Hill, 1980). The next section discusses how the unique aspects of the procurement role affect the performance of these professionals in the telecommunications industry.



## The Impact of Business Environment Changes on Procurement Professionals in the Telecommunications Industry

Procurement activities in the telecommunications industry have grown steadily in complexity and importance driven by fundamental changes in the business environment of the industry. The key facets of these environmental changes are as follows.

**Regulation.** Until its breakup in January 1984, the Bell System was characterized by a very high degree of vertical integration. Most manufactured items ranging from the tiniest transistors to the largest switches were produced within the system by Western Electric. Hence, there was more of an internal transfer of products than external procurement. And whatever procurement from outside did take place, was relatively simple in nature and limited in scope. In the divestiture of AT&T seven Regional Bell Operating Companies (RBOCs) were created and spun-off from the parent corporation. The divested BOCs not only did not inherit any manufacturing capabilities, but are even barred from engaging in any manufacturing under the legal terms that govern the AT&T breakup. Hence, these companies have to necessarily procure all their requirements from outside vendors. And for the reasons described below, AT&T and other telecommunications firms also are relying increasingly on outside suppliers.

**Technology.** Advances in communications and computer technologies have led to a dramatic blurring of the boundaries between the two fields, and have given rise to a common "information technology" field. A variety of products and services critical to telecommunications operations are now being developed and produced by computer firms, software firms and many other high

tech and "knowledge-industry" firms. It is virtually impossible for any single company or industry to keep up with the pace of technological change without sourcing from outside.

**Competition.** Provision of long distance services and manufacturing activities in telecommunications are now fully unregulated and competitive businesses. Even the regulated firms, such as the BOCs, are no longer immune to competitive pressures -- particularly in the areas of high-growth, high-profit "enhanced" services. Thus, all firms in the industry are experiencing unprecedented demands for innovation and efficiency. Additional thrust in this direction for regulated operations is also coming from policy trends of moving away from the rate-of-return provisions to price caps. Since the sources of innovation and cost savings frequently lie outside the firm, procurement becomes a major factor in competitive advantage.

**Customers.** Deregulation and technological changes have together given customers, especially the large business customers, great freedom of choice in the selection of the providers of telecommunications services and products. Business customers have also become very discerning and demanding with respect to telecommunications suppliers because in the emerging "information age" environment, telecommunications is assuming the importance of a critical resource rather than being just an operational aid. To satisfy customer expectations of a continuing stream of innovations combined with steady cost reductions, telecommunications firms have to again turn to outside vendors far more frequently than in the past.

These changes have had a profound impact on the procurement function and have created many new challenges for it. One of the major new challenges arises from the possibility of a supplier also being a current or potential competitor, or at the minimum, having significant business ties to the focal firm's competition. This can readily turn the process of "buying competitively" into "buying from competition." Under such circumstances, key decisions have to be made in setting product specifications, negotiating prices, and in general defining the buyer-seller relationship (Corey, 1978). Ethical concerns also become salient here (Trevisan, 1986). Since many procurement specialists have historically sourced internally, this type of competitive purchasing is fundamentally at odds with how they have been trained. Many procurement specialists have little training in, or facility with strategic purchasing from the "competition." It is these types of decisions that demand a considerable amount of information from the firm's outside environment (including the competition), and it is these decisions that are linked inextricably to the goals and objectives of the firm (Spekman and Hill, 1980).

Another major challenge arises from the rapid globalization of telecommunications markets. The divestiture of AT&T was also the occasion when the U. S. telecommunications equipment market became completely open to foreign competition. By 1985, the U.S. became a net importer of telecommunications products. This trend toward world markets, combined with competitive pressures has heightened the complex environment within which most procurement professionals must now operate. International purchasing presents a different set of problems, than does domestic purchas-

ing. Clearly differences exist with respect to customs, ethics, language and documentation procedures. And, as firms continue to internationalize, analysts have forecast that purchasing problems will continue to rise and those firms that fare well will have a purchasing staff well trained in international and intercultural methods (Parket and Eisenberg, 1982).

To fully appreciate the extent of environmental complexity, we may take note of the fact that the telecommunications and other high tech industries are also coming under growing public and governmental pressure to "Buy American," as the protectionism sentiment rises in the country.

In view of these powerful, and at times mutually-divergent trends, we believe that for procurement professionals to effectively perform their demanding tasks, their companies must give them greater authority base, decision-making scope, organizational visibility and accountability. Doing this requires a reshifting of organizational attitudes toward the procurement function. It also requires rewarding, or "paying-off" for excellent performance. This in turn means increased attention to defining and assessing the exact parameters associated with procurement performance.

#### **Defining Performance Parameters for Procurement Professionals**

Since purchasing has been recently recognized as a complex managerial function involving "planning, creativity, and interaction with people both inside and outside the organization" (Browning and Adams, 1983, p. 11), these workers have been clustered into the category of knowledge worker (Drucker, 1988).

Qualitative assessments are required for some components of their job, including job knowledge, communication skills, interpersonal skills, planning abilities, decision making skills and flexibility (Browning and Adams, 1983). Other aspects can be assessed according the traditional quantitative measures of performance. Adams and Niebur (1985) identify a number of traditional measures amenable to quantification, and these include but are not limited to the following list (p. 5):

1. Service level, or the percentage of time the item is available when needed
2. Acceptable quality levels of major vendor shipments
3. Dollar value of the average inventory
4. Money spent on scrap or salvaging substandard items
5. Timeliness of placement of purchase orders, awarding contracts, etc.
6. Telephone expenses
7. Number of complaints from, or delays caused to, operating areas of the firm
8. Number of cost savings ideas from suppliers
9. Percentage of delivery promises met
10. Approval level of \_\_\_ percent on the annual survey
11. The number of reviews and cost-cutting ideas from vendors after looking at new product design
12. Percentage of procedures written and implemented by a particular date

Given that individual performance levels are aggregated to arrive at the performance of the procurement department, few would question the need for a reliable method of defining and evaluating individual performance. It is generally in the

operationalization of this that the process breaks down, and problems emerge. The net result is that the appraisal process can be demotivational: the wrong behaviors and outputs are measured, or the right ones are measured but performance excellence is not linked to meaningful rewards. Dillon (1984), Adams and Niebur (1985) and Beidelman (1987) among others have noted problems in measuring individual-level performance. This is significant, since there is a trend in the industry to implement pay-for-performance systems as opposed to giving across-the-board salary raises (Adams and Niebur, 1985).

It is also noteworthy that this evaluation issue is not a new one for researchers attempting to develop models and guidelines for defining and measuring and rewarding the performance of procurement specialists. Anderson and Chambers (1985), Wind (1971), Webster and Wind (1972), and Sheth (1973) all have attempted to model the process. With the exception of the Anderson and Chambers model, which is excessively complex, the others have been criticized for not going far enough. Thus, currently this topic seems to lack a coherent research thrust.

There are some lessons from organizational behavior and organizational psychology however, that may be applied to the telecommunications procurement professionals. In these fields, a considerable amount of research has been conducted on assessing and rewarding performance. The difference between these efforts, and those that have thus far appeared in the literature surrounding purchasing professionals, is that appraising and rewarding performance is recognized as central to the human resource (HR) function. Virtually all the literature on appraising and reward-

ing performance for procurement professionals fails to recognize the link to strategic HR thinking. Further, it ignores basic tenets of professionalism, and managing professional employees, on which a considerable amount has been written (c.f. Miller, 1986; Benveniste, 1987; Von Glinow, 1988).

Fombrun and Laud (1983) sum it up nicely. They claim appraisal must "(1) define the specific job criteria against which performance will be measured; (2) accurately measure past job performance; (3) justify the rewards given to individuals, thereby discriminating between high and low performance; and (4) define the development experiences the employee needs to both enhance performance in the current job and prepare for future responsibilities" (p. 24). These are all embedded in the human resource function, and problems stem from the fact that given the diverse purposes of the appraisal process, people have very different expectations about the same event (Resnick and Mohrman, 1982). Beer (1981) notes that most of our discomfort with doing performance appraisal stems from interpersonal factors. Without a strong linkage to the human resource management (HRM) literature, discussions of performance appraisal and reward systems will undoubtedly have little impact on performance of procurement professionals. Particularly at a time when rapid change, technological advancements and worldwide competition abound, performance appraisal and reward systems must be thought of as central to procurement--not adjunct, as is typically done. This calls for an integrated thinking, with the firm's corporate goals and objectives well in mind. Thus, strategic HRM must mesh with the internal and external goals of the procurement function,

as it relates to the firm as a whole. The link to HRM is essential.

### **Appraising the Performance of Procurement Professionals**

Having established the criticality of the HR link, it might be worthwhile to discuss factors that have been noted in the literature as being the most critical for practitioners, and those that are the most critical for researchers. DeVries, Morrison, Shullman and Gerlach (1986) note that these two groups comprise the relevant stakeholders when appraising performance. Both have different ideas about why appraisal is important.

Practitioner Concerns. Frequently ignored by designers who put together appraisal forms, is the rationale for doing performance appraisal (PA) in the first place. Answers to the following questions are quite important in knowing the purposes of the appraisal.

First, can: PA increase performance? Improve relationships between superiors and subordinates? Or, support other critical HR functions? Further, is the PA worth the time or energy needed in order to perform it well?

Secondly, what characterizes effective appraisal systems? Individual, or group-based systems? What is the meaning of effectiveness? To what extent is PA supported by top management?

Third, what is the best mix of PA design elements? This means choices with respect to content and process of the appraisal.

Fourth, what is the relationship between PA and other HR system elements, for example, the reward system, the training system, the legal system, and so on?



Finally, what is to be the role of PA in the future? If some types of individuals become relatively more scarce, should PA be applied more leniently? Can PA be instrumental in shaping certain organizational practices?

Researcher Concerns. DeVries et al. (1986) note that researchers have very different concerns about PA systems. For example, reliability and validity issues predominate. To what extent will involvement in the PA process enhance employee attitudes? Can objective criteria be applied to ascertain the employee's overall contribution to the firm?

These practitioner and researcher concerns combine to form the key appraisal concerns. Clearly, the PA process for procurement professionals should be designed with the culture of the firm in mind (Von Glinow, 1988). As is readily apparent from the PA literature, there is no one best way of conducting PA for professionals; much depends upon the culture, and the relative purpose of the PA. Having so stated, there are certain design elements that have been shown to accomplish the goals more effectively than others. For example, Mohrman (1981) notes that designers who are interested in providing recognition and support for excellent employee performance, may elect a system that utilizes employee input. Designers who are interested in motivating performance improvements, may elect a goal setting approach (Latham and Yukl, 1975). Designers who wish to allocate scarce funds may choose a ranking system, forcing a performance distribution of scores (Cummings and Schwab, 1973). Von Glinow (1988) asserts that there may be many goals that the system designers should weigh in implementing a performance appraisal

system. Once implemented, however, it should not be left alone. It should continually be changed to reflect new goals, new concerns, and new aspects of performance that are relevant.

The question of what to evaluate is implicit in much of the discussion of PA systems for procurement professionals. Without stating so, researchers investigating the "what" question inevitably focus on one of three aspects of performance: individual personality traits, behaviors, and outcomes. Each of these has its strengths and weaknesses. It should be noted that all three aspects have objective and subjective components. An overabundance of the subjective components suggests that measurement errors may be more likely to occur. Those who are performing the PA may fall prey to rater accuracy, credibility and dependability problems, all of which have been covered in discussions of psychometric properties and legal ramifications. (see DeVries et al., 1986, for a good discussion of these points).

The question of "who" should evaluate is also a critical point in evaluating the performance of professional employees (Von Glinow, 1988). Two factors predominate questions related to this topic: the expertise and the trustworthiness of the rater. Considerable data exist to suggest that a strong correlation exists between the productivity of the professional and who does the rating (Von Glinow, 1988; Von Glinow and Sethia, 1983). If the evaluation is done by non-credible superiors, ill-trained in procurement, it is very likely that professional will reject the appraisal. Some data exist that suggest peer evaluations may be a better source than hierarchical evaluations, particularly if the boss is not an "expert".

Finally, performance feedback is a critical issue for procurement professionals. It is unreasonable to expect that an employee will improve performance levels in absence of feedback. Thus, raters should be trained in feedback giving, as well as feedback receiving. Since professionals frequently derive feedback from the job itself, care should be taken to utilize task- or job-related feedback in the PA process.

The next section examines reward systems for procurement professionals.

### **Rewarding the Performance of Procurement Professionals**

Kerr (1975) long ago established an emphasis on rewarding the desired behavior. He claimed that if the performance was not rewarded with rewards judged salient to the employee, then performance would likely fall-off. The judicious use of rewards, and the reward system itself, is critical in enhancing the productivity of procurement specialists. It is also relevant to keep in mind that the very nature of the professional may also dictate which rewards are most salient.

For example, it has been reported in many different studies that professionals generally respond better to certain categories of rewards: career-based rewards, job content types of rewards, and professional rewards (see Von Glinow, 1988, for a discussion of the major categories of rewards). Less critical, although still important are rewards of financial and social-status types. Empirical investigations have systematically supported findings showing increased attraction, motivation and retention of professional employees by emphasizing reward systems that concentrate on the first three categories of rewards. Such studies typically

assume the following characteristics in employees considered professionals: They have a systematic expertise achieved through years of training; have a set of norms (or professional ethic that dictate their behavior; respect collegial standards of control; believe strongly in, and are committed, to what they do; and finally, identify more with other members of the profession than their employing firm. In the past, the nature of procurement role might not have supported high degree of professionalism, but as this function becomes more and more specialized, it is to be expected that the procurement specialists would assume many of the traditional identifying characteristics of professionals. Empirical investigation is critical in ascertaining the degree of professionalism, in order to assess which types of reward structures and appraisal instruments are most relevant.

Kerr (1988) and his colleagues have developed a Reward System Diagnosis, which is an instrument for helping firms determine the appropriate mix of rewards and the extent to which these rewards are seen as performance contingent. We highlight here briefly this instrument and its underlying conceptual framework. We then offer nine tests of an effective reward system that may be employed to determine whether rewards are distributed in an effective and efficient fashion, and whether they have the ability to increase performance levels.

Reward System Diagnosis. We begin the diagnosis by asking three questions: Which Rewards are attractive to the professional? Who controls the distribution of those rewards? And, what are the valued rewards contingent upon? Answers to these three questions initiate a diagnostic which allows the firm to

determine which bundle of rewards best supports its goals, and induces the professionals to perform. Ultimately, the results to those questions portray whether or not the organization's reward system is functional and supports the goals of the firm.

In addition to the three primary questions listed above, we have identified nine key tests of a reward system (Kerr 1988, Von Glinow 1988). Basically, these "tests" of a reward system are questions that system designers should ask about the existing reward system to determine the relative health of the reward system, and the ease with which it operates. These tests include the following:

1. **The Desirability Test.** This test asks "to what extent do key people agree about which goals are important, which activities are desirable and which are undesirable." The results of this test reveals the extent to which goals are seen as important and desirable by relevant stakeholders, and the extent to which consensus exists.
2. **The Availability Test.** This test is designed to determine the extent to which the rewards seen as attractive and desirable are actually available to professionals. If some rewards are unavailable, for example large pay increases or ESOPs, yet highly desired, a breakdown occurs when attempting to link valuable rewards to performance attainment.
3. **The Performance Contingency Test.** This test shows the extent to which the rewards are performance related. Occasionally rewards are distributed for behaviors or actions that are non-performance related. For example, insurance and vacation days generally are independent of performance. Occasionally politics plays a role in acquiring rewards, independent of performance.
4. **The Timeliness Test.** This test indicated the extent to which rewards are mediated in a timely manner. Often, rewards are distributed too long after performance occurs, thus weakening the link between rewards and performance. Occasionally the reverse occurs, where rewards precede performance, also weakening that performance reward linkage.

5. **The Understandability Test.** This test is designed to determine the extent to which the PA system is clearly understood by the organization's members. Frequently the PA process is neither well-understood, nor linked to meaningful outcomes. When that occurs, the reward system is bound to suffer (Kerr, 1988).
6. **The Basic Test.** This test attempts to determine the extent to which desired activities on the part of the professional are rewarded, and undesirable activities are punished. For the reward system to accurately link rewards to performance, there needs to be a clear message that performance will be rewarded and nonperformance will be punished. Admittedly a tricky problem arises when a professional "narrowly" misses a difficult performance objective. The basic test nevertheless focuses on the organization's performance values.
7. **The 'Who Controls' Test.** This test reveals the extent to which rewards are controlled by relevant levels and positions. If the hierarchical superior lacks the ability to reward his/her professionals, that person's authority somehow appears diluted. Similarly, if the rewards are given by the personnel department, on a highly regularized cycle, the firm fails the test of "who controls?"
8. **The Differentiation Test.** This test asks to what extent the distribution of rewards reflects differences in people's performance. If little differentiation occurs, then poor performers are rewarded similarly to excellent performers. When that occurs, the individual typically has little reason to strive for excellent performance, and the reward system is said to have failed the differentiation test.
9. **The Integration Test.** This final test attempts to determine the extent to which the HR systems of goal setting, appraisal, feedback and reward are highly integrated. Goal setting systems should not be undertaken apart from the appraisal system, and feedback should not be independent of the PA.

In summary, the reward system diagnostic that we offer here can be used to meaningfully reward procurement professionals. We believe that attention to detail is critical, and that HR systems must ultimately be highly integrated when it comes to rewarding the performance of these specialists.

## Conclusion

In the new environment of the telecommunications industry, procurement has ceased being a routine administrative function and has become a key strategic function. This requires the procurement specialists to make decisions critical to their firm. The level and type of training they need to have, and the scope of responsibilities they have to shoulder, fully qualifies them to be included in the category of "professional employees." For effective attraction, motivation and retention of such employees, organizations have to have appropriate performance appraisal and reward systems. In this paper we have highlighted the nature of the new procurement role, to which the performance appraisal system must be sensitive to be effective. The reward system also must suitably reward and reinforce actions and behaviors that are consistent with this role. The guidelines offered in this paper should be useful for designing and implementing performance appraisal and reward systems that satisfactorily meet the unique needs of the procurement professionals in the telecommunications industry.

## REFERENCES

- Adams, Fred P. and Niebuhr, Robert E. "Improving Individual Productivity in Purchasing." Journal of Purchasing and Materials Management, 1985, -----
- Anderson, Paul F. and Chambers, Terry M. "A Reward/M Measurement Model of Organizational Buying Behavior." Journal of Marketing, Spring, 1985; pp. 7-23.
- Beer, Michael. "Performance Appraisal: Dilemmas and Possibilities." Organizational Dynamics, Winter 1981; pp. 24-36.
- Beidelman, Kevin. "Purchasing and Profit: Contributions Worth Measuring." Journal of Purchasing and Materials Management, Fall 1987; pp. 2-9.
- Benveniste, Guy. Professionalizing the Organization. San Francisco: Jossey-Bass, 1987.
- Browning, John M. and Adams, Ronald J. "Using BARS to Appraise Buyer Performance." Journal of Purchasing and Materials Management, Fall 1983; pp. 11-15.
- Cavinato, Joseph L. "Purchasing Performance: What Makes the Magic?" Journal of Purchasing and Materials Management, Fall 1987; pp. 10-16.
- Corey, E. Raymond. Procurement Management: Strategy, Organization and Decisionmaking. Boston: CBI Publishing Co., 1978. (In particular, see Chapter 6.)
- Cummings, Larry L. and Schwab, Donald P. Performance in Organizations: Determinants and Appraisal. Glenview, Ill.: Scott, Foresman, 1973.
- DeVries, David, Morrison, Ann, Shullman, Sandra and Gerlach, Michael. Performance Appraisal on the Line. Greensboro, N.C.: Center for Creative Leadership Publication, 1986.
- Dillon, Thomas F. "Work Value System Measures Productivity." Purchasing World, Apr. 1984; pp. 45-47.
- Drucker, Peter. "The Coming of the New Organization." Harvard Business Review, Jan. - Feb. 1988; pp. 45-53.
- Farmer, David H. "Seeking strategic Involvement." Journal of Purchasing and Materials Management, Fall 1981; pp. 20-24.
- Fombrun, Charles, J. and Laud, Robert L. "Strategic Issues in Performance Appraisal: Theory and Practice." Personnel, Nov.-Dec. 1983; pp. 23-31.



Kerr, Steven. "Some Characteristics and Consequences of Organizational Reward Systems." In -- Schoorman and Benjamin Schneider (eds.), Facilitating Work Effectiveness: Concepts and Procedures. Lexington, Mass.: Lexington Books, 1988; pp. 43-76.

Kerr, Steven. "On The Folly of Rewarding A While Hoping for B." Academy of Management Journal, 1975, Vol. 18, No. 4; pp. 769-783.

Latham, Gary P. and Yukl, Gary A. "Assigned Versus Participative Goal Setting With Educated and Uneducated Woods Workers." Journal of Applied Psychology, 1975, Vol. 60; pp. 299-302.

Miller, Donald B. Managing Professionals in Research and Development. San Francisco: Jossey-Bass, 1986.

Mohrman, Alan M. "Formal Performance Appraisal as an Intervention for the Integration of Performance and Quality of Worklife." Technical Report T81-9 (15), Center for Effective Organizations, University of Southern California, 1981.

Parke, I. Robert and Eisenberg, Joseph. "The Industrial Purchaser: New Star on the Organizational Chart." Business, Jan. - Mar. 1982; pp. 27-32.

Resnick, Susan and Morhman, Alan M. "The Design of Performance Appraisal Systems: Some Implications From Research Findings." Technical Report G 82-5 (24), Center for Effective Organizations, University of Southern California, 1982.

Sheth, Jagdish N. "A Model of Industrial Buyer Behavior." Journal of Marketing, Oct. 1973, Vol. 37; pp. 50-56.

Spekman, Robert E. and Hill, Ronald P. "Strategy for Effective Procurement in the 1980s." Journal of Purchasing and Materials Management, Winter 1980; pp. 2-7.

Trevisan, Richard E. "Developing a Statement of Ethics: A Case Study." Journal of Purchasing and Materials Management, Fall 1986; pp. 8-14.

Von Glinow, Mary Ann. The New Professionals: Managing Today's High Tech Employees. Cambridge, Mass.: Ballinger Publishing Co. 1988.

Von Glinow, Mary Ann, and Sethia, Nirmal. "The Role of Feedback in the Creation of Useful Knowledge." In Ralph H. Kilmann, et al. (eds.), Producing Useful Knowledge for Organizations. New York: Praeger, 1983, pp. 221-244.

Webster, Frederick E. and Wind, Yoram. Organizational Buying Behavior. Englewood Cliffs, N.J.: Prentice-Hall, 1972.

Wind, Yoram. "A Reward-Balance Model of Buying Behavior in Organizations." In George Fisk (ed.), New Essays in Marketing Theory. Boston: Allyn and Bacon, 1971; pp. 206-217.