Motivating the Purchasing Professional

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IN BRIEF

Recent interest in purchasing as a key strategic function has led to numerous articles that describe programs or technologies that can be implemented to help a firm achieve a competitive advantage through the sourcing function. What is lacking is work that focuses on the people who will implement these programs. This article deals with motivating the purchasing professional to acquire and use the skills necessary to make the function a strategic asset to the firm. A model for motivating skill acquisition and use through measurement systems, compensation systems, and the interaction of both is developed and then empirically tested.

The purchasing function has evolved from a tactical supplier of the parts needed for production to a strategic player in the production of goods and services. The growth of strategic alliances, electronic data interchange (EDI), and supply chain management have been discussed in depth in the literature. However, an important element of all the programs and technologies with which purchasing is now involved — one that has not been discussed — is *who* is going to manage and carry out these initiatives?

The key issue is not only what skills purchasing professionals will need to make this functional transition — but more important, how does a firm ensure that people with the skills needed for today are motivated to use those skills, and also learn the new skills they will need in the near future?

This article builds and tests a conceptual model of two specific motivators to acquire and use purchasing skills: *compensation systems* and *performance measurement systems.* The model draws on skills that have been identified as important in the purchasing literature, as well as specific theories from the field of organizational behavior.

A NEW KNOWLEDGE BASE IS REQUIRED

The purchasing profession has moved from its traditional "buyer orientation" to a "supply base management orientation," involving the following changes:[1]

- Buyers are becoming *supply managers,* insuring the flow of specified material from the supplier, and are becoming an integral part of the

team that supplies the final product to the end customer.
- Supply managers create and manage change.
- EDI and information technology systems are assuming an increasingly significant role in purchasing by eliminating many of the time-consuming steps involved in traditional information flows.
- Sourcing decisions are made increasingly by cross-functional teams.

Other factors that will affect the purchasing function in the future are early supplier involvement in product design (ESI), global sourcing, supply chain mangement, strategic alliances, increased outsourcing, and standard quality assessment systems such as ISO 9000.

These trends have direct implications for the knowledge base required for the purchasing professional. According to researchers Kolchin and Giunipero, three main skill areas are important to the sourcing function:

1. *Business skills* such as market analysis, negotiating with partners, effectively managing internal and external relationships, global sourcing development, effectively managing change, and planning and organizational skills
2. *Interpersonal skills,* including risk taking, written and oral communication, conflict resolution, influence and persuasion, group dynamics, leadership, problem solving, and international and cultural awareness
3. *Technical skills* such as cost analysis, product knowledge, computer literacy, total quality management (TQM), and government regulations

The same study also identified a knowledge base that purchasing professionals will need. The major themes are *quality, cost,* and *supplier management.*

Changes in the general business environment are also affecting the purchasing function. Increased environmental awareness is affecting customers' decisions as well as government regulations. Supply managers will tend to have a deeper set of responsibilities because of flattened organizational structures — and more breadth stemming from the need to manage the entire supply chain. Finally, new forms of organizations such as virtual corporations will shift the focus of supply management from products to core competencies.[2]

SKILL ACQUISITION AND USE

Knowing which skills are needed by an organization is only the first step in getting employees to actually use those skills. Selection and training programs can help a firm hire or develop the necessary skill sets. But, clearly, these programs do not ensure the actual use of the skills by the individual. The motivational issue remains largely unresolved.

Compensation and performance measurement systems can offer a solution to this issue. When properly designed, compensation and performance measurement systems do have an impact on the skills people acquire and use. This issue is the focus of the balance of this article.

Theoretical support for the use of compensation and measurement systems in influencing human behavior is provided by three main theories from the field of organizational behavior:

- Expectancy theory
- Reinforcement theory
- Equity theory

Expectancy theory states that motivation is composed of three elements: valence, instrumentality, and expectancy.[3] *Valence* is the amount of satisfaction a person expects to receive from performing an activity. *Instrumentality* can be defined as a person's belief about the strength and validity of the relationship between performing the expected behavior and receiving the promised reward. In other words, if I do what I am asked, will I get the reward? The final element of this theory is *expectancy,* which is the link between effort and performance — that is, is the required performance obtainable from the effort?

If any one of these three elements is missing, or if their interrelationship is viewed negatively, expectancy theory says motivation will be minimal or nonexistent. The individual must believe that the reward is attractive and obtainable.

Expectancy theory is applicable to this discussion for two reasons. The first involves the instrumentality of the equation. If a purchasing professional is expected to use specific skills, but the system used to measure those skills is flawed, expectancy theory says that instrumentality will be low — hence, motivation will be low.

The measurement system also affects valence through feedback. If people believe the reward is attractive, believe they can perform the required activity, and believe that they will get the reward for actually doing so, the underlying logic presupposes the existence of effective behavior and goal achievement measures. A faulty measurement system will not link reward to behavior. A person will not be aware of this lack of connection the first time through the loop. However, after performing the required activity and not receiving the expected reward, employees will lower their expectations about the likelihood of receiving the reward, thus lowering their motivation level. Misaligned measures will eventually lead to the erosion of both goals and efforts.

Compensation systems also have an indirect impact on the valence dimension. Compensation systems are reward systems, and expectancy theory tells us that a person's perception of a reward's value (valence) also affects his or her motivation.

There is additional theoretical support for compensation systems also acting as motivators. Compensation is a form of reward, and there is a large body of literature that relates rewards to motivation. In this case, reinforcement theory provides substantial support for this link.[4]

Reinforcement theory says that people are motivated to behave as they do based on past rewards and punishments. A properly designed compensation system should be seen as a reward for performing expected work behaviors. When this is in fact the case, people will be motivated to use the rewarded skill again. If the compensation system is not properly designed, people will not be motivated to use existing skills or to acquire new ones.

Equity theory provides the final leg of the theoretical framework.[5] This theory says that people make a calculation about whether the reward they receive is fair, given their input. In other words, does the outcome match the effort? For the purposes of developing motivational systems, equity theory does lend significant logic.

If a compensation program is unfair, people may not be motivated to perform as well as they otherwise would. Equity theory is of major importance when looking at ways to motivate purchasing professionals to work in groups, when it is necessary to balance individual effort and reward against group effort and reward.

Expectancy theory, reinforcement theory, and equity theory provide a framework from which to launch a discussion of two major motivators of performance — compensation systems and measurement systems.

MEASURING PERFORMANCE

A purchasing performance measurement system is an appraisal and feedback system that determines and shapes organizational and individual behavior in the context of purchasing strategies and programs. Measures drive strategies and actions. Measures are created to appraise, reinforce, reward, and otherwise channel human behavior and plans into desired directions.[6] Measures that send strong and realistic feedback affect employees' motivation to learn and develop skills.[7]

Measurement systems test and monitor the alignment of purchasing strategies and action programs. Research has provided empirical verification of the importance of measurement consistency with corporate goals, measurement simplicity and clarity, and the use of feedback to drive continuous improvement and learning in the organization.[8]

However, dissatisfaction with measurement systems is growing as a result of the following circumstances:[9]

1. Cost-based measures are inconsistent with the new emphasis on quality, just-in-time, time-based competition, and supply chain management.
2. Outdated purchasing performance measurement systems are impeding the restructuring required to compete in today's global marketplace.
3. The measurement demands of the current purchasing environment exceed the limits of the traditional and "new-improved" cost systems.
4. Existing purchasing performance measurement systems cannot focus managerial attention on overhead cost and the deployment of overhead personnel.

Essentially, the problem seems to lie in the fact that measurement systems have failed to keep up with changes in functions, task-skills, and expectations. Managerial effectiveness is achieved by integrating strategies, action programs, relevant capabilities, and measures.

Essentially, the problem seems to lie in the fact that measurement systems have failed to keep up with changes in functions, task-skills, and expectations. Managerial effectiveness is achieved by integrating strategies, action programs, relevant capabilities, and measures. Evolution and learning must occur in all these dimensions. As strategic objectives are achieved, new ones are formulated; new action programs are required to achieve these objectives; new skills and capabilities are mandated to achieve program targets; and new measures are needed to encourage and monitor the acquisition and deployment of these prioritized skills and competencies. However, measurement systems are seldom adjusted in time to reflect changes in strategies and actions, and as a result, their effectiveness and ability to improve performance is diminished.

Changing as strategy and action plans change is only one of the characteristics of a good performance measurement system. In addition, performance measurement systems should:[10]

- link operations to strategic goals
- integrate financial and non-financial information
- measure what is important to customers
- identify and eliminate waste
- be able to adapt when customer demands change

In general, these systems should address two questions: (1) Are the right things being done, and (2) Are they being done well?[11]

The decade of the 1990s presents performance measurement systems with great challenges.

Global competition, new product and process technology, spiraling costs, and an increasingly complex environment have forced most organizations to adjust or reengineer their corporate and functional strategies. Competitive priorities have shifted from cost to quality, time-based competition, and innovation. These changes in strategies directly affect the performance measurement systems of purchasing. Some studies have focused on how evolving manufacturing strategies necessitate changes in manufacturing performance measures.[12] However, no study has addressed how the many and recent changes in purchasing strategies affect functional measurement systems.

Continuous purchasing performance improvement is dependent on an organization's ability to treat the measurement system as a dynamic motivational process.

A landmark study in 1979 found that in some cases measures can seriously impair performance by driving individuals to behave in ways that are severely dysfunctional to organizational health. On the other hand, the study found that measures can motivate and guide behavior in *desirable directions* if the measurement system meets the following criteria:[13]

1. The measures are well defined and understood by all purchasing personnel and are considered important in the evaluation process.
2. Purchasing measures must be perceived as positive tools to effectively manage the function and personnel, not as punishment.
3. The purchasing measurement system should be reviewed periodically to purge unimportant indicators and add new indicators.

The solution to preventing dissatisfaction in a purchasing-performance measurement system is *not* in creating a new measurement system each time it begins to lose its effectiveness. The solution requires a process for continuously changing measures in order to encourage the development and use of desired skills. Continuous purchasing performance improvement is dependent on an organization's ability to treat the measurement system as a dynamic motivational process.

In summary, measures essentially motivate in two ways. One way is through their role in evaluating outcome and thereby determining the distribution of rewards in the organization. The other method is more intrinsic, using feedback to influence individual behavior along selected paths.

One research study has found a significant link between timely, specific feedback and task performance.[14] This investigation also revealed the role of specific feedback in motivating results in specific areas — for instance, feedback focusing on the speed of work led to an increase in work speeds among those who received that feedback. Likewise, feedback focusing on quality led to an increase in quality. The lesson here is that key measures and feedback should be focused on those skill areas in which the firm wishes to see improvement or employee involvement.

COMPENSATION CONCEPTS

The compensation system used to motivate purchasing professionals is an issue that has not received the attention it should. This area may be seen by some to be somewhat outside the realm of purchasing, yet it is interesting to note that the human resource function and the purchasing function perform similar roles. Human resources is charged with finding and developing the best employees for a given job. Purchasing is charged with finding and developing the best suppliers for a given part or function. Well-designed compensation programs encourage employee development, and well-developed purchasing employees encourage and enhance the development of good sourcing strategies.

Suppliers are motivated to perform through any number of programs such as long-term contracts, sharing cost savings produced by value analysis, and volume increases resulting from single sourcing. In the same manner, the people who manage the suppliers can be motivated through a number of different programs that include personal and group incentives.

The major reward system in most companies is monetary in nature (paychecks), or is a combination of money and benefits. Benefits come in many forms, ranging from healthcare and pensions to personal days. The quantification of a paycheck is straightforward, but the value of benefits varies for each individual. Because of the difficulty in placing a value on benefits, the focus in this discussion is on pay.

Pay and more general reward systems have been shown to motivate performance.[15] The key issue, then, is how does a company design a compensation system to motivate purchasing professionals to hone and use the skills that are needed?

Historically, a significant part of the motivation has been the notion of a reward structure tied to the "corporate ladder." If you did your job well, you moved to the next level and received additional status and perks to go with the new title, and this was usually accompanied by a salary increase. Today, companies are moving to flatter organizational structures that tend to constrain the use of this motivational tool.[16] Consequently, in the future many people may have to be motivated to perform not by the promise of a new title and a larger office, but through the monetary rewards they receive for performing as well as or better than expected. These rewards can be separated into *base pay* and *incentive pay*.

Base pay, or salary, is the major component of many employees' paychecks. Base pay can be determined in two ways: (1) as a function of the *job* the person holds, and (2) as a function of the *skills* the person possesses.[17] The world in which purchasing professionals work is quick to change and very demanding. As noted earlier, the skills required of these individuals are diverse and will become increasingly dynamic in the future.

Skill-based pay systems pay people for the skills they possess. Empirical evidence suggests that skill-based pay offers advantages over job-based pay methods.[18] These advantages include increased flexibility,[19] lower absenteeism and turnover,[20] and the possibility that employees who have a greater understanding of their organization may be more satisfied and better able to see the importance of their work.[21] From the standpoint of the firm trying to design a compensation program to motivate purchasing professionals of the future, a skill-based pay system can play an important role.

Skill-based pay rewards the purchasing professional who has made the effort to acquire the demanded skills; job-based pay does not. Additionally, as a result of the flat hierarchies of a growing number of companies, many purchasing professionals have similar job titles, even though they use very different skills. Finally, the dynamic nature of the skill set will make people who have a large percentage of the required skills very valuable. In a job-based pay environment such people may feel that their skills are not fully recognized or rewarded.

In addition to base pay, a second motivating tool is incentive pay. Incentive pay that is "at risk" clearly is linked strongly to one's performance, while things such as yearly base-salary increases that are not at risk to a great extent do not have a strong link to performance.[22] It would therefore seem reasonable to make a certain percentage of a purchasing professional's pay "at risk."

This conclusion however, must be interpreted very carefully. Pay that is at risk does work as a motivator, but it is possible to design systems that will motivate employees to act in ways that are not healthy for the organization.

One type of incentive that must be used with care is an individual incentive. Today purchasing professionals work increasingly as a member of an interdisciplinary team. Individual incentives can be dysfunctional in this type of setting. Imagine a new product development team with four members, one each from purchasing, marketing, manufacturing, and design. The manufacturing manager employs incentives based on defects and resource use. The marketing manager uses incentives based on sales volume and number of product lines. The purchasing professional is evaluated on cost savings. And the designer is judged on the number of new designs. It is easy to see that this team is going to have a difficult time working together. Marketing wants as many options as possible, while manufacturing and purchasing want none. Additionally, manufacturing wants the best quality inputs with little regard to cost, while purchasing looks almost exclusively at cost. Finally, the design staff wants to do all design in-house, regardless of ability or the resulting costs or quality. Each individual is motivated to do things that may adversely affect other functions. Additionally, there is no motivation to achieve the firm's overall goals.

To avoid having people work to achieve their own goals with little concern for the firm, group-based incentives in many cases are more appropriate for the purchasing environment. There are three general types of group-based incentives:

1. Profit sharing
2. Gainsharing
3. Ownership

Each type of incentive has benefits and drawbacks that may or may not make it applicable to the discussion of motivating purchasing professionals.

Companies award bonuses in a *profit-sharing* plan based on overall company performance. Although profit sharing is popular in the United States,[23] the evidence suggests that it is not a particularly effective way to motivate employees.[24]

Profit sharing does not do a good job of motivating because it is often difficult for individuals to see how they can influence the performance of a large organization — and more important, how even their greatest effort will overcome only moderate effort by others. From the standpoint of motivating purchasing professionals, profit sharing appears to be of limited value.

Gainsharing is another method of rewarding employees based on group performance. Unlike profit sharing, however, the evidence is overwhelming in favor of gainsharing. According to one group of researchers, about 70 percent of the gainsharing plans in the United States are successful. The objective of gainsharing is to link pay to performance outcomes that employees can control.[25]

Profit sharing links bonuses to overall annual profits, while gainsharing deals with cost reductions. Additionally, gainsharing generally pays benefits more frequently, and soon after the rewarded behavior's occurrence. Gainsharing is a tool that could be useful in motivating purchasing professionals.

A gainsharing program that rewards people for product cost reductions clearly could have direct links to the job of a purchasing professional. For example, as a buyer works with production, engineering, and supplier personnel in developing or refining a product, the objectives are performance and cost improvement. In a gainsharing program, a portion of the cost reduction will end up directly in their paychecks. Gainsharing is a direct reward for these team members for effectively using their unique skills in accomplishing their objectives.

The final type of group reward is achieved through some form of *ownership*, using either employee stock ownership plans (ESOPs) or stock options. Some researchers have determined that in certain situations stock ownership plans can have a positive motivational impact. This is especially true in small organizations, and in situations where the firm is looking for a culture change that reflects greater employee commitment.

From a purchasing perspective, some form of ownership is useful. Ownership gives an employee a longer-term perspective. This may be especially important in organizations where employees have been encouraged to build a large skill bank, making them valuable to other firms as well. Having a stake in the company may make outside offers less tempting.

Compensation systems appropriate for the purchasing environment should have a base-pay element that is determined by the skill set the employees possess, and an incentive element based on group performance, as opposed to individual incentives.

In summary, compensation systems appropriate for the purchasing environment should have a base-pay element that is determined by the skill set the employees possess, and an incentive element based on group performance, as opposed to individual incentives. Finally, gainsharing may be an appropriate tool for this envirornment because of the nature of the purchasing job.

BUILDING THE MODEL

As just discussed, both measurement systems and compensation systems affect a person's motivation to use his or her skills. The simple schematic model shown in Figure 1 decipts the actions and interactions of these elements in operation.

Compensation systems directly affect a person's motivation to use skills. A well-designed system will channel behavior in the direction the company desires; a poorly designed system will not. This directing of behavior through the compensation system is also affected by the measurement system.

A newly hired purchasing professional may be highly motivated by a compensation package, especially if it contains performance incentives. But if the measurement system does not accurately capture the results of the employee's efforts, there may be a disparity between what the employee has achieved and what is measured, thus decreasing motivation. The measurement system can also cause an employee to ignore certain important skills if the use of these skills is not measured.

This effect is compounded when an employee is encouraged to use one set of skills but is measured on another set, especially if future compensation is a result of past performance (as is usually the case). For example, a company may say that optimization of the supply base and the development of ESI programs for key parts are the most important goals for a specific buyer. This individual should then spend time using analytical skills for the selection of suppliers, as well as communication and technical skills for the selection and development of ESI projects.

If the measurement system evaluates the number of suppliers, the number of new ESI ventures, and things of this nature, the buyer will be motivated to continue down the desired path. Conversely, a measurement system that measures the individual's effectiveness based on cost reductions will motivate him or her to spend time attempting to reduce costs, not developing long-term relationships.

Compensation systems can be equally dysfunctional. Many companies are encouraging employees to work in teams, but at the same time rewarding them as individuals. If your reward system (compensation) is based on *your outcomes* you will be concerned with *your* outcomes, not the group's.

Measurement systems and compensation systems have both direct and indirect effects on buyers' motivation to use the skills they have, and to develop new skills. The objective is to develop systems that work together to channel behavior in desired directions.

TESTING THE MODEL

Purchasing managers of 14 Michigan firms, spanning a variety of industries, were interviewed in an attempt to find out how practitioners view the proposed linkages. These interviews provide a great deal of insight into how companies view their measurement and compensation systems, as well as how these systems are used. The small sample size precludes the development of any specific statistical statements, but it is possible to make some useful general comments based on means and patterns in the responses.

The data reveal four interesting findings:

1. The skill sets identified by previous authors are very similar to the skill sets seen as important by the purchasing managers in this study.

2. The one area that many firms would like to see better rewarded is the avoidance of costs.
3. Some firms see all of the proposed linkages as very important.
4. Firms that tend to view one linkage as important or unimportant tend to view all linkages the same way.

The skills issue is important because it is impossible to design a measurement or a compensation system without a clear notion of what activities, and use of related skills , one wishes to motivate employees to do. When working in teams, *analytical* skills and *negotiation* skills were seen as the most important. Technical skills and computer skills were not viewed as important by most respondents. Finally, and perhaps most important, when given the opportunity to mention skills other than those on the questionnaire (working in teams, analytical, negotiation, technical, and computer) that would be important, only two respondents suggested other skills — *communication* and *business sense* — both of which are more macroscopic than the skills listed.

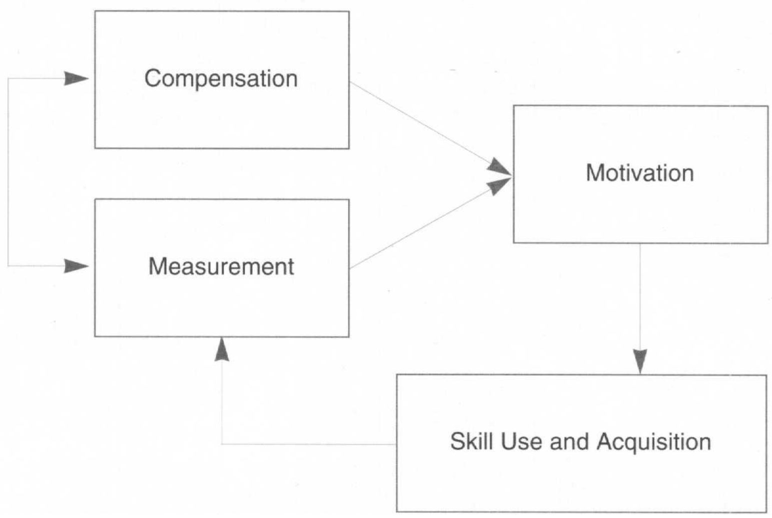
A third of the firms considered cost avoidance as a key area that should be better rewarded. This is a challenge for measurement systems because costs that are never incurred are difficult to quantify, yet can lead to major savings. If these costs can be captured, this area would be ripe for gainsharing programs in which a portion of the costs avoided would go directly to the person or team responsible for the savings.

The final two conclusions work in tandem. First, only one firm did not report any linkage between measurement systems, compensation systems, and skill acquisition and use. Almost all of the firms saw some type of linkage between these three factors, and approximately a third of them had strong or very strong links. This gives some preliminary credence to the proposed model. There may be other variables affecting the linkage between measures, compensation, and skills, but most firms perceived these three items as interrelated.

Not only did firms see the proposed linkages, they tended to view all the linkages in the same way. In other words, a firm that had a strong link between measures and compensation would also have a strong link between compensation and skills, and measures and skills. This internal consistency also provides some preliminary support for the proposed model. If firms tended to view one motivator differently from the other, it would be hard to justify the model. But the data seem to indicate that firms with measurement systems that link skill acquisition and use to performance also have compensation systems that do the same job. Companies that do not link measures with skill acquisition and use also tend to have poorly linked compensation systems. It is also interesting to note that firms indicating the strongest relationships were generally global firms that are well respected in their respective industry. This may provide a preliminary indication that firms that do make use of the proposed linkages are performing well.

FIGURE 1

INTERACTION BETWEEN COMPENSATION AND MEASUREMENT



A final point on this issue involves the firm in which all of the proposed linkages were weak to nonexistent. The respondent from this company stated that measures and compensation systems were not linked to each other or to skill acquisition in the company, but that the feedback from measures was very important. The authors hypothesize that, for this specific company, measures may be used not to motivate positively, but to punish.

Although this study is exploratory in nature, the data collected indicate that the linkages proposed do mirror reality to some degree. The skills set proposed by previous researchers and authors as important is very similar to the skill set that managers in this study view as important to the purchasing function. Additionally, the linkages proposed between measures, skills, and compensation occur in practice. Finally, the respondents tended to view all the linkages in the same manner, indicating that there is internal consistency among the respondents and their views.

CONCLUSIONS AND IMPLICATIONS FOR MANAGERS

The environment in which a purchasing professional operates is changing rapidly. Technology has taken over many of the paperwork chores, leaving today's purchaser with more time to pursue truly professional goals. These changes have upgraded the skills needed to be a successful purchasing professional.

Having skills and using them are very different things. The company that wants its purchasing professionals to perform at the highest level must provide an atmosphere that motivates them to acquire and use the appropriate skills. Two key elements in motivating purchasing professionals to use the skills they have and to acquire new skills are the compensation program and performance measurement system.

To get the most out of a purchasing professional, the compensation system should pay people based on the skills they use, not the job they hold. Incentives should be group based because the majority of work will be done in teams. Gainsharing and ownership are proven motivators, while profit sharing is not. The only way to make group-based incentives work as motivators is to make them fair and equitable. To achieve this objective, measurement systems must be accurate.

An accurate measurement system will support the compensation system. But a truly good measurement system will also provide motivation in and of itself. There is an old axiom that you get what you inspect. If this is applied to performance measurement systems, you get what you measure. Properly designed measures will motivate people to perform the desired tasks well.

The combination of a well-designed compensation system and performance measurement system will lead to employees who possess and use a majority of the skills an organization requires of them. Improperly designed systems will not motivate employees, and will lead to less than optimal performance.

With all of the changes in the purchasing function, it is easy to overlook the human element. EDI, alliances, strategic sourcing, negotiating for lowest total cost, and supplier quality occupy much of the purchasing literature. And these topics are all important. But without conscientious, motivated people, nothing else works.

This is especially true in the purchasing function. Two of the most important skills that will be required of purchasing professionals are communication skills and negotiation skills. People who cannot talk to each other, interpret what others are saying, negotiate win-win contracts, and the like, will be a millstone for the firm trying to achieve competitive advantage. Well-chosen partners, an elegant EDI system, and so on, will be useless unless there are skilled and motivated people to manage the resulting relationships.

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