Compensation & Benefits Review

Rewards and Recognition in Employee Motivation

Frederick Hansen, Michele Smith and Ries B. Hansen

The online version of this article can be found at:

Additional services and information for *Compensation & Benefits Review* can be found at:

Compensation

Rewards and Recognition in Employee Motivation

Frederick Hansen
Senior Consultant, Strategy
Applied Strategic Technologies, Inc.

Michele Smith
Senior Consultant, Strategy
Applied Strategic Technologies, Inc.

Ries B. Hansen
Founder
U.S. Patent Services, Inc.

Effective compensation programs must distinguish between rewards and recognition.

I t plays out across the corporate landscape every day: Organizations attempt to motivate employees but disregard the essential nature of human motivation. Businesses implement motivation programs that are not only ineffective but end up sabotaging the very goals they are trying to achieve. Managers award bonuses and merit pay and then are dumbfounded when employees remain unhappy, unappreciative and unmotivated. Creating a committed, engaged and responsible workforce remains out of reach.

This is a direct consequence of the failure to distinguish between reward and recognition. In spite of overwhelming theoretical and research evidence to the contrary, reward and recognition are treated as a single phenomenon. Organiza-

tions act as if commitment, loyalty and creativity can be bought if only they can find the right incentive. They implement programs with the implicit belief that you cannot only lead a horse to water, but you can make it drink. Yet, these efforts fundamentally demean and disregard the heart and spirit of employees. They demonstrate a lack of faith in the possibility that people want to take pride in their work, want to do a good job and want to contribute something of value.

Recognition and reward represent two fundamentally different mechanisms of human motivation. This article clarifies the unique nature of each mechanism and the differences between them. It also considers the implications of this duality of human motivation and presents specific recommendations for the implementation of employee motivation programs. By following these recommendations, compensation professionals will be able to critique and correct exist-

ing motivation programs and design more effective ones in the future.

The Distinction from an Everyday Point of View

Before we consider what the experts have to say, it is useful to ground ourselves in our lay language and everyday experience. Webster's Third New International Dictionary defined reward as "something given in return for good done; recompense, remuneration, compensation for services." For example, a person might promise a reward for the return of something they have lost. Similarly, we reward young people for doing their chores and withhold the reward if they do not do them.

An important aspect of reward is the "instrumentality" that it establishes. An instrumentality is simply a "means-to-end" or an "in order to" relationship. In the example above, "doing chores" acquires an instrumentality relative to the reward. In other words, doing chores becomes a means by which to obtain the reward; the young person does his or her chores in order to get the reward.

Now let us contrast this with recognition. Webster's Third New International Dictionary defined recognition as "special notice or attention, formal acknowledgement, acknowledgement of something done." One familiar example of recognition is when a soldier receives the Silver Star for courage and valor on the battlefield. This has a completely different flavor. Recognition is about noticing and honoring. It may encourage and support an action but does not establish the instrumentality that reward does. The soldier who risked his or her life to save another did not do so in order to get a medal.

Aside from any theory or research, our everyday experience tells there is a difference between recognition and reward. We would never think of promising a cash bonus for every act of courage under fire. In fact, the thought of remuneration for such deeds actually cheapens them. On the other hand, try getting a teenager to clean his room without some clear contract about what is in it for him.

What the Experts Say

Because our language tells us there is a difference between reward and recognition, let us look at what the research on human motivation tells us. This is not going to be an exhaustive review of all motivation theories. Instead, we will focus on the work of three psychologists: Maslow, Deci and Herzberg. Each of these names represents bodies of work that have had a major influence on the knowledge and practice of worker motivation.

Maslow

Maslow[1] distinguished between two modes of human motivation: the "coping" mode and the "expressive" mode. According to Maslow, "coping behavior is characteristically more determined by relatively external determinants. . . . [Coping behavior] is an attempt to make up internal deficiencies by external satisfiers" (p. 184).

Maslow contrasted the coping mode with the expressive mode in which people are "propelled by growth motivation rather than by deficiency motivation . . . are not dependent . . . on extrinsic satisfactions. Rather they are dependent for their own development and continued growth on their own personalities and latent resources" (p. 214). The difference is one of "a striving for basic need gratifications . . . [versus] character growth, character expression" (p. 211).

The coping-expressive distinction maps quite clearly on to the reward-recognition distinction. Reward, like coping, represents a "deficiency motivation" involving "external determinates" whereby the individual strives for "external satisfiers." Recognition, on the other hand, aligns with

In addition, coping and expressive behaviors are not merely two kinds of behavior but represent different motivational processes.

the expressive mode. The act of courage under fire represents a "character expression," not a striving for external satisfiers.

In addition, coping and expressive behaviors are not merely two kinds of behavior but represent different motivational processes. According to Maslow, "It seems probable that we must construct a profoundly different physiology of motivation for . . . expression motivation or growth motivation, rather than deficiency motivation" (p. 211). Thus, Maslow not only provided a theo-

retical basis for differentiating between reward and recognition but for arguing that they represent fundamentally (physiologically) different mechanisms of human motivation, as well.

Herzberg

Herzberg's[2] motivation-hygiene theory distinguishes between "hygiene" and "motivator" factors of work motivation. Hygiene factors, also called dissatisfiers, operate only to decrease job satisfaction or create job dissatisfaction. Motivator factors, on the other hand, operate only to increase job satisfaction. Herzberg was quite clear that job satisfaction and job dissatisfaction are not two ends of the same continuum; rather "the two feelings are not opposites of each other. The opposite of job satisfaction is not job dissatisfaction but, rather, no job satisfaction; and similarly, the opposite of dissatisfaction is not job satisfaction, but no job dissatisfaction" (p. 56).

The hygiene-motivator distinction clearly maps onto the reward-recognition distinction. In fact, Herzberg himself made this point. Hygiene motivation is in operation when organizations tell their employees, "Do this for the company and in return, I will give you a reward, an incentive, more status, a promotion, all the quid pro quos that exist in the industrial organization" (p. 54). In contrast, he identified "recognition for achievement" as one of the "growth or motivator factors that are intrinsic to the job" (p. 57). In other words, reward represents the application of hygiene factors, and recognition represents the application of motivator factors.

For Herzberg, the hygiene-motivator distinction indicates that "the human animal has two categories of needs" (p. 56). In fact, he concluded that "man exists as a duality . . . [and] the two aspects . . . are essentially independent; furthermore, each aspect has a system of needs that operate in opposing directions" (p. 169).

Deci

Deci[3] identified the difference between intrinsic and extrinsic motivation. According to Deci, "intrinsically motivated behaviors are those behaviors that are motivated by the underlying need for competence and self-determination. . . . We operationally define intrinsically motivated behaviors as those that are performed in the absence of any apparent external contingency" (p. 43). On the other hand, "each person is also conceptualized as having an extrinsic motiva-

tional subsystem, which is more oriented toward rewards, is more concerned with control, is less supportive and less concerned with autonomy, involves lower self esteem, and so on" (p. 74). Thus, like Maslow and Herzberg before him, Deci described two distinct motivational subsystems.

Again, the distinction lines up with the reward-recognition distinction. Reward is clearly an example of extrinsic motivation. According to Deci's research, "the addition of rewards to a situation calls into play a different subsystem (intrinsic rather than extrinsic) and the resulting behavior becomes integrated into the extrinsic rather than intrinsic motivational subsystem . . . the behavior becomes instrumentally linked to the reward" (pp. 44-45).

On the other hand, Deci pointed out that "intrinsic motivation will be affected if there is a change in one's perception of being competent" (p. 61). Thus, incidents of recognition "which increase intrinsic motivation are ones emphasiz-

The hygiene-motivator distinction clearly maps onto the reward-recognition distinction.

ing competence feedback, whereas those decreasing intrinsic motivation are ones that are administered controllingly" (p. 63). In other words, whereas reward clearly involves extrinsic motivation, recognition enhances intrinsic motivation but only under certain conditions. For Deci, "praise, like money or threats, can be very controlling." If the recognition is seen as an attempt to control or manipulate, then it will turn into extrinsic reward and elicit the same instrumentality. If recognition, instead, "provides people with positive information about their self-competence," then it will support intrinsic motivation.

These three prominent theories provide a theoretical foundation for distinguishing between reward and recognition as applied in business settings. Each expert has his own language (intrinsic versus extrinsic, hygiene versus motivators, coping versus expressive) for describing the distinction. The nature of the distinction, however, is quite similar and lines up remarkably well with the recognition-reward distinction. This correspondence is summarized in Exhibit 1.

EXHIBIT 1		
Forms of the Reward/Recognition Distinction		
	Label for Recognition Subsystem	Label for Reward Subsystem
Abraham Maslow	Expressive/growth motivation	Coping/deficiency motivation
Frederick Herzberg	Work motivation based on motivator factors	Work motivation based on hygiene factors
Edward Deci	Intrinsic motivation	Extrinsic motivation

In addition, it is clear that the distinction is much more profound than a difference between organizational factors that motivate employees. It is a distinction at the level of fundamental human and behavioral processes. Recognition and reward are not two instances of one phenomenon but two very different phenomena.

Practical Implications

All of this has important implications for organizational initiatives focused on "motivating" employees. These implications can mean the difference between success and failure. The primary implication is that reward and recognition must be distinguished because the underlying mechanism of human motivation is different. Recognition and reward are not simply two options from which to choose in putting together an employee motivation program. Because they are distinct phenomena, the design of the program has to be driven by the nature of the phenomenon one is dealing with.

An organization does not have a recognition and reward strategy. It needs a reward strategy for the specific behaviors driven by extrinsic motivation and a recognition strategy for those behaviors driven by intrinsic motivation. In fact, Herzberg went so far as to suggest that they be handled by different functions: "There is one organizational change I feel is essential. . . . Separate present day industrial relations into two formal divisions. One division would be concerned with the hygiene-need system . . . the other section would be concerned with motivator needs."[4]

A second implication that comes out of the theoretical review concerns the way in which the problem of employee motivation is framed. Typically, the problem is defined as, "How do we motivate employees?" Operationally, this is translated into the question of what motivates employees. Effort is then directed to identifying the organizational factors that can be used as to

motivate people. The fact that human behavior is a function of at least two distinct motivational subsystems suggests that that this may not be the best approach. Rather than ask, "What motivates employees?" or "How do we motivate employees?" the question should be, "How is this behavior motivated?" or "Which motivational subsystem is at work?"

Although this might not seem like much of a change, it is, in fact, a fundamental shift in the how the problem is defined and framed. It shifts the analysis in two ways. First, the level of analysis moves from employee motivation to motivation within a particular motivational subsystem. Any answers regarding how to motivate employees will always be specific to the motivational

Rather than ask, "What motivates employees?" or "How do we motivate employees?" the question should be, "How is this behavior motivated?" or "Which motivational subsystem is at work?"

subsystem. Understanding employee motivation is really a matter of understanding the nature and differences of the motivational subsystems.

Second, the analysis moves from a consideration of motivating factors to the nature of the behavior to be motivated. Because what motivates employees is dependent on the motivational subsystem controlling the behavior, we must focus on the behavior to be motivated before we can search for motivators. In fact, the very notion

of motivating factors is different for extrinsic motivation versus intrinsic motivation. Consequently, the problem of employee motivation must be reframed.

A third implication of our theoretical review concerns the expectations and outcomes of reward versus recognition. The fundamental differences in the motivational processes involved suggest that the application of recognition will have a different set of outcomes from the application of reward. Consider the implementation of a program to induce compliance with house rules on the part of a teenager. As parents, we do not expect any sense of appreciation from our teenagers for telling them that they can only use

By strengthening and enhancing behaviors that are a source of differentiation and uniqueness, recognition serves a strategic function.

the car if they have cleaned up their room. After all, why should they thank us for the control we exercise over them, even if we used a carrot rather than a stick? We do not expect the transaction to bring us closer or strengthen any bond between our teenager and us. The best we can hope for is they do the minimum needed to get the reward.

The opposite is true for recognition. When we take the time to recognize, honor or appreciate something our children do or accomplish, it strengthens our bond with them, and they appreciate it. It can also inspire them to excel; the minimum is not relevant.

The same is true for the organizational setting. An organization should not expect its employees to appreciate having their behavior "motivated" with a reward program. It should not expect any increased loyalty or commitment. The only appropriate expectation is that the behavior meets the minimal requirements for the reward. On the other hand, a recognition program is more likely to have an impact on the bond the employee has with the organization. The organization could well expect to see a greater aspiration for excellence and continuous improvement in its employees with an appropriate recognition program.

Closely related to this implication is the different strategic role played by reward versus recognition. Given the types of behavior for which it is appropriate, reward tends to serve an administrative or maintenance function but not a strategic one. Generally, rewards are more appropriate for the behaviors of adherence to rules or meeting standards, for example, not being absent or tardy, meeting production or quality goals and so on. Although important, these behaviors are not usually a source of strategic differentiation from others in the marketplace. It would not make sense for a firm to place its strategic bet on having employees who obey rules simply because obedience to rules is a quality that is easily imitated by competitors. Effective reward programs may be the ante that gives you entrance to the game, but they are never what help you win the game.

Recognition, on the other hand, is appropriate to intrinsically motivated behaviors such as inventiveness, commitment, and initiative. Because these behaviors translate into innovation and creativity, service above and beyond the call of duty, and an eagerness to change and move forward, they are a source of strategic differentiation. These behaviors also reflect the unique value and contribution that employees give to a firm. The unique value of employees, combined with the processes that integrate, align and deploy that value are ultimately what make up a firm's unique core capabilities. By strengthening and enhancing behaviors that are a source of differentiation and uniqueness, recognition serves a strategic function.

Another related implication concerns the mind-set of the organization. By mind-set, we mean the organizational attitude, agendas and values that define "where the organization is coming from" in the implementation of an initiative. The mind-set behind the initiative and the messages conveyed by this mind-set tell people how to receive the program. If the messages are mixed, people invariably respond to the implicit message, regardless of what is communicated explicitly.

Given the difference in the motivational processes, a recognition program must communicate a set of messages that attach significance and meaning to the behaviors being recognized. By definition, intrinsically motivated behaviors have great personal meaning to the individual, but, in addition, employees must understand why these behaviors are important to the organization and why they are strategic.

In addition, with recognition, authentic and genuine appreciation of the person's accomplishment is critical. Recognition that is perceived to be superficial or frivolous will be seen as a veiled attempt to manipulate. It will undermine rather than support the intrinsic motivational processes it is designed to support.

These are not issues when we use a reward system to induce compliance. Reward is a simple contract. The organization need only be clear about what it wants and what it is willing to give in order to get it. To employees, the "why?" may not even be relevant.

A final implication concerns the ending of a reward program. Extrinsic behaviors are instrumental in bringing about the reward. In fact, reward programs serve to establish and fix this instrumentality. That is why they work. The problem, according to Deci and Ryan, is that once "the behavior becomes instrumentally linked to the reward [it] tends not to be performed in its absence."[5] This is even true when the behavior had originally been intrinsically motivated because the application of the reward causes a shift in the motivational subsystem that governs the behavior. Because the behavior is no longer intrinsically motivated, it drops below its original level.

Herzberg observed that problems could occur with the removal of rewards because they often turn into expectations or even entitlements.[6] He described this as the "what have you done for me lately" syndrome. The point is that in the organizational setting where most reward programs have a relatively finite life span, the termination of reward programs must be handled with care. The organization should prepare itself for a drop off in the desired behaviors. Termination is less of an issue with recognition programs because the behaviors are intrinsically motivated, and whether they are recognized or not, they will continue.

Recommendations

These implications can be translated into specific recommendations for the design and implementation of employee motivation programs. These recommendations speak more to the way the steps are carried out than to what actual steps should be taken. In fact, the literature is filled with advice on the specific steps needed to design a recognition or reward program, and there is no need to duplicate this work. Rather, we will lay out the generally recommended steps and then discuss recommendations for how these

steps should executed given the implications of the recognition-reward distinction. The recommendations for each step are summarized in Exhibit 2.

➤ 1. Establish the purpose of the program. The first step is to develop a clear understanding of the purpose, outcomes and benefit of the program. The deliverable of this step is typically in the form of a business case that presents a concise argument for why the program should happen. The business case may begin with a statement of need. Next, the business case must specify the specific outcomes or improvements that the program is intended to achieve. These must be concrete, observable changes—usually performance related—that are a direct result of the program. Finally, the direct outcomes of the program should be tied to the business strategy of the firm. The business case is the foundation for enlisting support for the program, positioning the program with employees and evaluating the program.

Recommendation: Given the difference in expected outcomes and strategic importance between recognition and reward, the business case should be appropriate to the type of program. For example, the business case for a recognition program should include the linkage to core capabilities on which the organization has placed its strategic bet. It should identify why it is reasonable to expect a stronger bond between the firm and the employee. The business case for a reward program should speak in terms of the firm's ante for remaining in the market, and it should not identify any outcomes beyond the increase in behavior because these are irrelevant for a reward program.

➤ 2. Identify target population and behavior. The next step is to identify a target population and target behavior for the program. The target population may be either individuals or teams. The target behavior may be defined in terms of a quantity of behavior, a quality of behavior or an accomplishment. The choice of population and behavior must be consistent with the purpose and desired outcomes established in Step 1.

Recommendation: Given the importance of the distinction between recognition and reward, the identification of the target behavior should include an assessment of the motivational subsystem that is controlling it. In some instances, this may be obvious; in others, it may not be so obvious and may require input from the target population. In general, reward behaviors should

<div style="text-align:center">

EXHIBIT 2
Recommendations for Programs

</div>

	General Recommendation	Recommendation for Recognition Program	Recommendation for Reward Program
Step 1: Establish the purpose of the program.	The business case should be appropriate to the type of program and reflect the difference in expected outcomes and strategic importance.	Business case should focus on the program's affect on core capabilities and the bond with organization.	Business case should be based solely on the increase in desired behavior to threshold level.
Step 2: Identify target population and behavior.	Identify the target behavior based on an assessment of the motivational subsystem that is controlling it.	Target behaviors should be intrinsically motivated, that is, behaviors that cannot be bought and for which commitment, rather than compliance, is needed.	Target behaviors should be extrinsically motivated, that is, behaviors for which compliance alone is sufficient.
Step 3: Enlist support.	The definition of the "support" that is enlisted should be appropriate to the nature of the target behavior.	Support must include the whole mind-set of appreciation and value.	Support need not mean much more than permission and resources.
Step 4: Design program.	The form of the reward or recognition as well as the measurement of the target behavior should be appropriate to the motivational subsystem.	The form of the recognition must have symbolic value that honors competence, and measurement of the target behavior should be based on some type of subjective evaluation.	The reward must be valued by the target population, enough to elicit the target behavior. Measurement should be quantitative and have a clearly established minimum threshold.
Step 5: Communication and rollout.	The communication and rollout should reflect the difference in nature, mind-set and strategic importance between recognition and reward.	Communication and rollout should convey the business case and mind-set such that employees see the importance and are inspired to excel.	Communication and rollout should create a clear and common understanding of the reward contract such that there is no misunderstanding about what the reward is and what a person must do to get it.
Step 6: Evaluation.	The criteria against which the program is evaluated should reflect the difference in expected outcomes between recognition and reward.	Evaluation should focus on upper bounds of excellence that were achieved as well as the collateral effects, such as bond with the organization.	Evaluation should focus on the extent to which the minimum requirement was achieved, for example, percentage of people above threshold.

be behaviors that are easily counted or otherwise quantified. They should be observable and involve as little subjective judgment as possible. They should be behaviors for which compliance alone is sufficient.

Recognition behaviors generally involve more subjective judgments. They are things that "can't be bought." For example, most people would agree that valor on the battlefield is something that cannot be bought. It is, therefore, more likely to involve an intrinsic motivational system, and recognition is appropriate. Adherence to house rules on the part of teenagers, on the other hand, is not likely to occur on its own and may

require an extrinsic motivational system. Compliance can be bought.

➤ 3. Enlist support. The first two steps are about building a clear and consistent understanding of the program. The third step is about enlisting support for the program. This usually means building conceptual buy-in on the part of top management, securing a commitment of resources and appointing a champion. It may also include an analysis to determine the wants, concerns or resistance of key stakeholders.

Recommendation: The fact that the required mind-set of the organization is different for

recognition versus reward means that the definition of "support" is different as well. With a reward program, support need not mean much more than permission and resources. With a recognition program, however, support must include the proper mind-set. This means that the messages sent, even the body language and the way things are done, need to be carefully thought out so that they are consistent with the intention. It is difficult to provide meaningful recognition for something that senior management does not really value or pay much attention to. For a recognition program, enlisting support means assessing whether the proper mind-set exists and creating it if it does not.

➤ 4. Design the program. Once the nature and purpose of the program has been clarified and the proper support has been secured, the next step is to design the program itself. This includes installing a measurement system to assess the target behavior, choosing the form of the reward or recognition and designing the event or mechanism by which the reward or recognition is delivered. During the design process, decisions are continually checked against the business case and targets for the program. There is also the issue of setting the schedule or cycle for the program; allocating the systems, people and budget needed to support the program; and working out any number of logistical details.

Recommendations: The form of the reward or recognition should be appropriate to the motivational subsystem. For a reward program, the reward must be valued by the target population and have enough value to elicit the target behavior. For a recognition program, the recognition needs to have symbolic value that honors competence. For example, a plaque that displays a person's patent is an effective recognition because of the inherent message about the excellence of the work; that is, it was of sufficient quality and originality to earn a patent. On the other hand, a plaque cannot be consumed or exchanged for a dollar value and has little practical utility. It would make a poor reward.

The measurement of the target behavior should be appropriate to the type of program. The measurement for a reward program should be quantitative and have a clearly established a minimum threshold. The measurement for a recognition program will generally require some type of subjective evaluation of an individual's behavior or accomplishment.

Given that the conditions of its delivery can activate an extrinsic motivational system, care must be taken in designing the event by which recognition is delivered. The event must model the mind-set and messages as well. For example, superficial speeches and platitudes will not create a sense of authenticity and meaning that are critical to recognition.

➤ 5. Communication and rollout. Before the program can be implemented, it must be introduced and communicated to the organization. Everyone needs to know what is happening, why it is happening and when. In addition, the program should be positioned to address stakeholder concerns and create buy-in. A complete communication plan includes determining what messages need to be communicated to which populations via which vehicles and when.

Recommendation: The difference in nature, mind-set and strategic importance between recognition and reward means that the communication and rollout issues will be different as well. The key issue for a reward program is to create a clear and common understanding of the reward contract. There should be no disagreement about what the reward is and what a person must do to get it. With a recognition program, communicating the business case and mind-set are critical. Employees must believe and be inspired.

➤ 6. Evaluation. Once a recognition and reward program has been implemented, its impact should be assessed against the expected results established in Step 1. Evaluation is usually an ongoing process that allows the program to be modified and improved.

Recommendation: A program should be evaluated against criteria appropriate to the type of program it is. The difference in evaluation criteria should reflect the difference in expected outcomes between recognition and reward. For a reward program, the evaluation criteria are more quantitative and focused at the threshold for achieving the reward. The issue is how many people passed or failed, not the number of A, B, or C grades. A common statistic used in the evaluation of a reward program is the percentage of people who met the minimum requirement.

The evaluation of recognition programs, on the other hand, is not focused on a single pass-fail threshold; rather, the upper bounds of excellence achieved are what are important. In addition, the evaluation of recognition should look at more than just the target behavior. It should also

include the collateral effects, such as bond with the organization, that were identified as expected outcomes.

Conclusions

Since the origins of scientific management nearly 100 years ago, employee motivation has always been an important issue for business. In fact, many would argue that the problem of employee motivation has become even more critical today, especially because sustaining above-average returns is increasingly the result of uniqueness, which, in turn, is based primarily on knowledge workers and strategic innovation. Yet, in spite of a strong foundation of research and theory, business firms continue to struggle with what to do in practice. The distinction between recognition and reward is meaningful from both a practical and scientific point of view. The distinction between recognition and reward is meaningful from both a practical as well as scientific point of view, and translates into concrete recommendations for employee motivation initiatives.

As long as recognition and reward, and the corresponding motivational processes, are treated as a single phenomenon, advancements in employee motivation will not be forthcoming. We will continue to be distracted by debates over pay versus recognition that compare apples and oranges. The real tragedy is that when no distinction is made, recognition becomes an underused opportunity. It gets folded into reward, and the intrinsic motivational subsystem is ignored.

As a society, we need to improve our understanding and value for motivation that comes from the inside out. The "carrot and stick method" is a ready metaphor for reward, but a comparable metaphor for recognition is lacking. Going forward, the focus in research and learning should be on how to apply recognition, and other intrinsic motivation techniques, more effectively.

Notes

1. Maslow, A. (1954). *Motivation and personality.* New York: Harper & Row.
2. Herzberg, F. (1966). *Work and the nature of man.* New York: Thomas Y. Crowell.
3. Deci, E. (1975). *Intrinsic motivation.* New York: Plenum.
4. Herzberg, F. (1966), p. 171.
5. Deci, E., & Ryan, R. (1980). The empirical exploration of intrinsic motivational processes. In L. Berkowitz (Ed.), *Advances in experimental social psychology* (Vol. 13, pp. 39-80). New York: Academic Press.
6. Herzberg, F. (1982). *The managerial choice: To be efficient and to be human.* Salt Lake City, UT: Olympus.

Frederick Hansen has run the consulting firm of Applied Strategic Technologies, Inc. since 1981. He is coauthor of two recent articles on business strategy, "Place Your Bets" (Journal of Business Strategy, January/February 2001) and "Managing Intellectual Property: A Strategic Point of View" (Journal of Intellectual Capital, November 2002). In addition to business strategy, Hansen has considerable experience and expertise in the design and application of organizational measurement systems and the implementation of large-scale organizational change. He is completing a Ph.D. in organization and management at Cappella University and conducting the research for his dissertation on business strategy.

Michele Smith has more than 25 years of experience consulting to Fortune 500 companies. For the past three years, she has worked with Applied Strategic Technologies, Inc. and is coauthor of two recent articles on business strategy, "Place Your Bets" (Journal of Business Strategy, January/February 2001) and "Managing Intellectual Property: A Strategic Point of View" (Journal of Intellectual Capital, November 2002). During the 1980s and 1990s, she worked for the Rummler-Brache Group managing process reengineering projects. During the 1970s, she worked with Dr. Thomas F. Gilbert, a leader in the field of human performance analysis. She has an MA from Columbia University.

Ries B. Hansen is the founder of U.S. Patent Services, Inc., a global leader in inventor recognition programs dedicated to honoring American ingenuity in business. He is an active and successful inventor with a number of patents to his credit. He has an interest in patent office history and is author of "Patent Models: Wonders of American Ingenuity," which appeared in the Autumn 1997 issue of Lore' Magazine of the Milwaukee Public Museum. He has a degree in mechanical engineering from Tulane University. He was a first runner up in the 1986 Old Guard engineering competition.