Expert Contribution

High-Tech, High-Touch Tension: Trends in Human Resource Management

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A manager called me for advice. One of her employees had called in sick but posted pictures on Facebook of himself having a great time in Disneyland on his "sick" day.
—Anonymous Human Resources Manager

I got into HR because I love people. But it is kind of scary because I can go to work and not see people, because of technology. Just a few years ago, people would come in to HR on payday—now we have lost those moments. I have to make sure to walk the floor just to put the people connection back into my job. We have to be careful to not take the human out of human resources.
—Anonymous Human Resources Manager

Technology can enable us to know a great deal about employees, such as a "sick" day off in Disneyland. However, it can also prevent us from interacting with employees as routine opportunities for interaction, like picking up a paycheck, become obsolete. The tension between delivering high-touch Human Resource Management (HRM) in a world that is increasingly high tech is one of the greatest challenges facing HRM.[1] This tension suggests a number of interesting new trends that we will explore next.

According to Internet World Statistics, the number of people connected to the Internet has increased from nearly 361 million in 2000 to over 2 billion as of March 2011.[2] The global connectivity of employees will continue to have important implications for organizations in general, and Human Resource Management in particular. The potential cost savings to organizations that effectively use technology and the Internet in their HR functions is compelling. For example, the use of technology in training and development contributed positively to the bottom line for many organizations, like IBM, which generated over $284 million dollars in cost savings due to eLearning, and saved over $35 million from its HR department's online expense system.[3]

Because of the importance of HRM to organizational success, we examine the unique challenges and opportunities related to balancing the tension between high tech and high touch. We examine the trends related to HR and technology through the lens of three major HR activities: 1) Recruiting, 2) Renewing, and 3) Relating to employees.

How We Know What We Know

Our data were collected in two ways. First, we examined a wide variety of articles and books from academia and the popular press and identified the major ways that the Internet and technology has affected HR processes. Second, we conducted in-depth interviews with 10 experienced HR professionals to find out about their direct experiences with HR and technology. (See Table 1 at the end of this article for more detailed information about our 10 HR professionals). From these interviews and the archival data, we identified and analyzed key trends, important takeaways, and discussion points for students to consider.

Recruiting Employees

"In the not-so-distant past, recruiters and staffing managers pored through resumes, posted on job boards, and hosted expensive job fairs in top markets to find candidates and fill jobs. Now, they might interact with social network site users by posting a challenging technical question, then contact individuals who provide the best answers to discuss a potential job."[4]

Table 1 Interview Participants

Participant	Industry	Title
Gerald	Entertainment	Director, Diversity Development
Jana	Entertainment	Manager, Human Resources
Amanda	Retail	Manager, Human Resources
Dylan	Healthcare	Vice President, Learning and Development
Brad	Consumer Goods	Vice President, Human Resources
Penny	Online Gifting	Senior Vice President, Human Resources
Pam	Mining & Metals	Global Reporting and Information Manager
Krist	Construction	Vice President, Human Resources
Sarah	Retail	Human Resources Manager
Kathy	Computer software	Human Resources Director

Given the high unemployment rates of the past few years (around 9–10% from 2009–2011) and emphasis on acquiring the best talent from such a large pool, recruitment has played an even more critical role than in the past.[5] HR professionals have been adopting online recruitment tools at a rapid rate. Today, we would be hard pressed to find a company that does not use online tools for employee recruitment and selection. Technology still enables recruiting to be done faster at lower costs, and with access to a broader base of talent. So, what has changed in recent years that has affected the recruitment of new employees? Students will not be surprised by the answer—the rise of social media.

Based on the interviews and recent articles, two primary themes emerged about the impact of social media on recruiting. First, LinkedIn and Facebook are the most prominently used social media applications for recruiting-related activities. Second, as the use of these recruiting channels has increased, reliance on online job boards has decreased. As helpful as these tools are for recruitment, we also note some important considerations.

SHRM (Society for Human Resource Management) recently reported that the percentage of companies that use social networking websites in their recruiting efforts rose from 34 to 56 percent in the past three years.[6] *Fortune* magazine put it even more emphatically for job seekers: "Facebook is for fun. Tweets have a short shelf life. If you're serious about managing your career, the only social site that really matters is LinkedIn."[7] The HR professionals we interviewed (with one exception) all use LinkedIn; most also use Facebook, and Twitter is not used much yet for recruiting purposes. Consider the following quotes from two of our interviewees:

- "The ability to use social media became a key differentiator when we were assessing applicant tracking systems. We chose a platform that allowed us to more easily reach out to passive job searchers via social media applications as well as one that better leveraged our internal talent's built-in social networks." (Penny, SVP of HR)
- "We tweet, we post, we have a group on LinkedIn, we send weekly lists of openings internally and externally; our ATS [Applicant Tracking System] has capacity to forward openings to friends and for employees to make referrals." (Pam, Global Reporting and Information Manager)

Both quotes suggest company efforts to more proactively create relationships with prospective employees, especially with friends of current employees. Not everything about LinkedIn and Facebook is good news for organizations. LinkedIn makes it easier for headhunters to connect with star performers at specific companies and to entice them to leave for other companies. Another issue raised by one of our interview respondents was that concerns about an applicant's professionalism surfaced because of content on that applicant's Facebook page. He added that so far, such problems were the exception, not the rule (Brad, VP of HR).

A second theme is that as social media usage becomes more prominent in recruiting, a company's website becomes increasingly important and the use of job boards like Monster.com and Careerbuilder.com becomes less important. Multiple interviewees commented that they have reduced their reliance on job boards. None mentioned an increase in using such recruiting channels. The social media sites leverage the social networks of individuals who already have a connection with the company—current employees, former employees, and customers. A related implication of this shift is that a company's website, particularly for those seeking employment, deserves even greater attention. One interviewee commented that all jobs posted on social media applications linked prospective applicants to the company jobs web page (Jana, HR Manager). As another HR leader stated, "We have also increased our focus on our career site and our Web presence knowing that it has become very important to candidates in their job search." (Penny, SVP of HR).

HR professionals continue to face recruiting challenges in light of these changes. First, the potential for resume overload and keeping up with the speed of social media recruiting can be daunting. Google, one of the most popular tech companies to work for, receives over 150,000 resumes per month, and the company claims to read all them.[8] Second, companies need to continue to innovate the process of selection (choosing the best individuals for a given position from among a larger pool of job applicants). In larger companies, the process of screening applicants' resumes is typically a collaborative process between HR and an applicant tracking system. Google illustrates innovative approaches to employee selection. Google has developed an extensive survey that all job applicants are required to fill out. The answers to this survey are fed into an algorithm that grades each candidate on how well they would fit into the company culture. Additionally, the software system developed by Google for tracking their job candidates allows employees to share comments about each applicant as that individual's resume moves through each step of the recruiting process.[9] Using pre-employment online assessments can provide unbiased comparable data for managers, but companies must be careful as biased tests or privacy breaches can be grounds for discrimination lawsuits.[10]

Renewing Employees

Looking ahead to 2015, it is clear that the field of training and development is at a crossroads. Traditional training and development functions are close to being overtaken by newly accessible, just-in-time learning that professionals and departments can easily attain. There is also a significant need for training and development to take a more strategic role in defining and developing the next generation of leaders.[11]

Organizations renew their employees' knowledge, skills, and abilities primarily through training and career development processes. Training and development is an important expenditure for most organizations. Approximately five billion dollars per year is spent on the training and development of employees in U.S. organizations.[12] It is not surprising that organizations commit significant financial resources to training. PricewaterhouseCoopers found that 26 percent of private companies cited the lack of skilled workers as a potential barrier to future company growth.[13] Even in lean economic times, organizations recognize the pressing need to renew the skills of their employees.

As the need for training and development increases, many companies have found that technology and the Internet provide a lower cost solution in the guise of online training or e-learning. Cost reductions for online training pertain to several major categories of expenditures including: a) direct costs of travel and indirect opportunity costs of time away from job, b) production of training materials, c) maintenance costs for content updates and course refreshers. In addition to cost reduction, online training also offers a number of important advantages: it helps the employee learn faster, and in some cases, better; delivers learning free of the limitations of time and geography; and tracks and evaluates the effectiveness of the training more effectively.[14]

Although many companies use some form of online training, two vexing problems remain with this medium that highlight the tension between the prevalence of high tech with the remaining importance of high touch. As HR Manager Amanda noted, "We are a people company so although online training is convenient, many employees still prefer to learn face-to-face." First, people enjoy classroom learning not only because of what they learn, but because of the social aspects and bonding that occurs in a face-to-face environment. Second, face-to-face learning is perceived by many HR professionals as resulting in greater retention, or learning stickiness, as compared to e-learning.

To increase the effectiveness of online training, there has been an influx of creative and sophisticated technologies including the use of games, 3-D simulations, and mobile apps. Currently, 70% of organizations use video games, and by 2013, the usage of video games in employee training and development is expected to increase to 80 percent[15] Diverse companies—including Cisco, Sodexo, Federal Express, UPS, and the U.S. Army—all use customized video games in their training of their employees. Video games are popular with training participants because they are fun, creative, and interactive. Moreover, research indicates that the ramification of training can help employees build important business skills, such as critical thinking and decision making, and may aid in retention.[16] 3-D technologies are also growing in usage and popularity as a training and communication tool for employee development. 3-D virtual platforms are Internet-based, multi-user environments where employees create avatars to represent themselves. The largest and most well known 3-D virtual platform is Second Life—created to develop knowledge both in educational and organizational settings. Virtual training is beneficial to increase team-building communication, conflict resolution, and team development. Organizations such as IBM hold conferences in Second Life and have found large savings, of approximately $250,000, in comparison to a real-world event. 3-D training can also be customized for organizations. For example, the Hilton Garden Inn provided a 3-D customer service simulation using the Playstation PSP. In this 3-D simulation, hotel employees interacted with virtual guests to increase their customer service skills.[17]

Simulations not only help employees learn but also provide assessment data about common mistakes made in a gaming situation so that action can be taken before they become real-life mistakes. One of the positive aspects of the high-tech approach to employee development is the ability to track and develop accountability for employee growth. Krist (VP of HR) indicated that "Talent Development is all tracked via a Learning Management System (LMS). Via the LMS, all training courses are offered and progress is tracked along with 360-degree performance appraisals, employee opinion surveys, and personality profiles." The results are then be interpreted and communicated to employees via a personalized high-touch approach.

In fact, employee communication has seen several innovations that highlight the tension between high-tech and high-touch in organizations. One growing trend is the development of internal social media, such as customized, organizational Facebook pages. These pages can be a tremendous tool for networking, knowledge sharing, and social interactions. In addition, organizations such as Triple Creek are providing online platforms for mentoring activities.

However, employees are able to create their own career development opportunities through the use of technology. Networking technologies such as Facebook, LinkedIn, Twitter, and the blogosphere have transformed the way employees network. Social media allows employees to develop their own personal brands and engage existing contacts and create new ones. For example, there are numerous online mentoring programs available, such as MentorNet, to enable individuals to connect with others in their profession.

Although the high-tech approach technology has led to important innovations in employee training and development, employees still crave the high-touch personalized approach to learning. Organizations need to provide unique learning styles for employees to engage in renewal. Renewal might be about offering employees opportunities for continued education or providing entertaining activities for employees to unwind and relieve stress. When students search for a job, they need to consider whether the prospective employer offers renewal and if this fits their needs.

Relating to Employees

"While the decision to post videos, pictures, thoughts, experiences and observations to a social networking site is personal, a single act can create far reaching ethical consequences for individuals as well as organizations. Therefore it is important for executives to be mindful of the implications and to elevate the discussion about the risks associated with it to highest levels of leadership."[18]

Over the last decade, technological advances have transformed the nature of relationships within the workplace. Interviews with employees showed several common themes. Issues of trust, privacy, and employee safety have become increasingly salient for HR professionals. Concerns related to balancing work–family and an "always connected" mentality are also increasingly relevant.

Not long ago, the main concerns with technology were related to ergonomic issues and strain from computer use. While these concerns are still valid, HR professionals today grapple with more complex issues, such as distracted employees (e.g., texting while driving and social media during business hours) and employee sabotage. Policies addressing these issues need to be clear. The 2008 California train crash that killed 25 people due to the operator's texting brought these issues to the forefront. In October 2010, the Occupational Health and Safety Administration (OSHA) sent a clear statement to employers that it is "the responsibility and legal obligation to create and maintain a safe and healthful workplace that would include having a clear, unequivocal and enforced policy against the hazard of texting while driving."[19] This concern was echoed by the HR professionals: "The use of electronic resources while driving has created a whole new area of liability" (Kathy, HR Director). How employees spend time in the workplace is also a concern. The inappropriate use of email, the Internet, and social media are not only waste company-paid time but could create legal issues as well. One HR professional explained, "With the new cell phones that are really just small computers, every employee has access to everything—just as if an employee brought their desktop computer to work" (Kathy, HR Director). Whether or not to monitor employee use continues to be a debate within organizations. Indeed, the greatest challenge for managers seems to be finding the right balance of permissiveness and scrutiny. One HR manager explains, "In HR, we walk a tightrope between privacy and employee protection issues" (Krist, VP of HR).

Not surprisingly, the employee–employer relationship between has been significantly influenced by the rise of social media over the last 10 years. Social media can be a distraction for employees, but information posted by an employee can harm a company's reputation or its intellectual property. According to a recent Deloitte survey, 74 percent of employees believe it is easy to damage a company's reputation on a social media site while 5 percent of employees felt that employees' social networking sites were "none of an employer's business."[20] However, poor choices made by employees can have severe consequences for organizations. For example, an interviewee from the entertainment industry explained, "There are situations where employees go to a movie (that their organization produced) and then post negative information about it. What do we do? This is a gray area in HR" (Jana, HR Manager).

Court cases highlight some of the concerns associated with increased use of social media. For example, Lisa Fried-Grodin describes one of these incidents in an article in the *New Jersey Law Journal.* Two employees set up a password-protected MySpace account for employees to rant about their employer and management. After management found out and obtained the password, the two employees were terminated. The employees filed a lawsuit against the employer and ultimately won the case.[21] Is it ethical to rant about one's boss or employer online? Is it legal? These are issues that HR professionals are addressing today. On one hand, employers have a clear responsibility to protect employee privacy, but on the other hand, need to trust their employees to not sabotage the organization.

In addition to trust and privacy issues between the organization and employees, technology transforms the way that colleagues interact. Mobile technology creates a smaller world where it is incredibly easy to connect to people; however, the ease of connecting from any location may simultaneously lead to deteriorating relationships between employees. For example, a recent organizational practice called "hoteling" is when employees do not have a permanent workspace but simply reserve a space for the days they will be in the office. Some of the HR professionals interviewed expressed concerned with how the increased use of online communication changes the culture of organizations and limits day-to-day conversations. The ease of connecting remotely makes life easier in many ways, but also reduces "real time" interactions that are critical to interpersonal relationships and teamwork.

Technology produces a similar tension when it comes to work–family balance. The opportunity to connect 24/7 provides employees with tremendous flexibility and can ease work–family conflicts, but may simultaneously blur the boundaries between work, home, and play, and could eventually contribute to heightened stress. Even with these concerns, telecommuting continues to be an important organizational trend. According to SHRM, 55 percent of organizations offer at least part-time telecommuting to their employees and 17 percent offer a full-time telecommuting option.[22] As one interviewee explained, "We have several employees who have skills and experience that we need to be successful in the marketplace who do not want to relocate their families. In the past, they would have had to relocate or not work for us; now we have the ability to allow them to continue to work in their home state and contribute to the success of the company... they are connected to the cloud environment" (Kathy, HR Director). The increased technology that allows employees to work remotely and provide more opportunity to balance work and home activities may also create stress from the feeling of always being connected.

Takeaways and Discussion Points

Technology and social media have drastically changed the way business is conducted. It is imperative that organizations establish polices and address issues with employees in a clear manner. A strong policy includes language that prohibits employees from making disparaging remarks about the organization or other employees, prohibits employees from disclosing confidential information, makes it clear that the organization is monitoring online activity, and trains employees on appropriate and inappropriate use. Another key implication is that the tension between high-tech and high-touch has increased in the past decade. It is essential for both company leaders and employees to review organizational routines, practices, and culture for imbalances between automation and humanization. Finally, technology puts more of the onus for career advancement and success on the shoulders of the employee. Technology makes it easier for companies to proactively attract talent—it also makes it easier for talented employees to proactively leave.

Questions for Reflection

- Employers will often check an applicant's Facebook page and LinkedIn profile (as well as doing a Google search) once that person reaches a certain stage in the hiring process—what "brand message" do these pages communicate to prospective employers about the employee?
- How does technology influence your ability to balance professional and personal demands? How can employers use technology to help balance the work–life conflict?
- If you were an HR manager, to what extent would you recommend that employee usage of company technology resources be monitored? Why?
- How can you use technology to better take charge of your career development?

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Trade-Offs in Using Pay for Performance

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In a recent scholarly review, Barry Gerhart, Sara Rynes, and Ingrid Smithey Fulmer examined the extensive research on what in organizations is called "merit-based pay" or "pay for performance."[1] *Pay for performance* typically refers to compensation plans in which one's pay is based on a measurement of one's performance (which contrast with traditional salary plans, in which a person is paid a set amount regardless of actual performance). In this article, I provide a concise summary of the major findings described by researchers and relate those findings to social psychological research. Specifically, I summarize findings about the primary ways that pay for performance plans (1) affect employees and organizations, (2) measure performance, and (3) reward performance. These insights are displayed in Table 1.

Table 1 Dimensions of Pay for Performance Compensation Plans

How Pay for Performance Plans Affect Employees and Organizations
1. Motivating individuals —enhancing employee self-esteem through rewards for performance —reducing employee uncertainty by making clear what performance is valued —enhancing employee's sense of control by showing how outcomes are related to effort 2. Influencing workforce composition —employees who dislike plans may choose to leave —"forced distribution" plans may remove even some high performing employees
How Pay for Performance Plans Measure Employee Performance
1. Subjective performance measures —qualitative evaluations of performance quality, which may be biased and may be hard to get raters to separate employees on these measures 2. Objective performance measures —quantitative evaluations of performance quantity and quality, which don't typically measure all aspects of job, only those that can be "quantified"

(continued)

Table 1 Continued

How Pay for Performance Plans Reward Employee Performance
1. Base salary plus individual merit pay —most common but also subject to bias —may cause competition and ill-will among employees for top rewards —has greatest effect on pay through effects on long-term promotions
2. Base salary plus collective merit pay —reduces competition for top rewards by basing rewards on total group performance —may lead to "free-riding" by employees who gain rewards off the work of others —works best in small firms where "free-riding" problems are less likely
3. Base salary plus small group rewards —reduce free-riding problems found with large collective pay plans —encourage group collaboration and teamwork

How Pay for Performance Plans Affect Employees and Organizations

Significant psychological research suggests that pay for performance plans affect employees in two primary ways: (1) by motivating individuals through needs satisfaction, and (2) by altering the composition of the work force in organizations.

Pay for Performance as an Individual Motivator. All pay plans are designed to motivate employees by providing a valued outcome (i.e., pay). Pay is valued, at a basic level, because it helps people satisfy essential needs for food, housing, safety, comfort.[2] Yet, beyond these essential needs, individuals in most organizations are motivated by a set of higher-level human needs, including needs for self-esteem enhancement, uncertainty reduction, and control. Thus, one way that pay for performance plans may affect employees is by satisfying these higher-level human needs.

Self-esteem enhancement is a human need to perceive oneself as positively distinct and socially valued.[3] Because pay for performance plans may distinguish individuals as high-performers and high-earners, they help individuals to meet needs for self-esteem enhancement, especially if high performers are recognized publicly.[4] On the downside, pay for performance plans may also distinguish low-performers and low-earners who may then suffer threats to their self-esteem. As discussed below in the section on "workforce composition," employees may react to such threats by reducing their effort at work, or leaving the organization altogether.

Uncertainty reduction is also recognized as a human need, and is described as a need to "reduce uncertainty about one's world and one's place in it."[5] By clearly linking pay to specific performance outcomes, pay for performance plans may reduce uncertainty about what behaviors are valued and desired in organizations. In turn, individuals may be motivated to enact these desired behaviors (e.g., working hard for performance rewards) as a means of validating that they belong in the organization—thus, further reducing uncertainty about their place in the world. Of course, if the pay for performance plans do not clearly link outcomes to performance (e.g., sometimes superior performance is overlooked, or not recognized), then uncertainty reduction will not occur. In cases where employees perceive that pay is not tightly linked to performance, there will be calls to replace pay for performance plans with more traditional salaried pay.[6]

Finally, humans have been shown to possess a *need for control* over their lives and futures.[7] Pay for performance plans may provide a type of control by allowing individuals to influence their future pay and status through their own effort and performance. To the extent that individuals can control their performance (i.e., they work in jobs where they are able to work more effectively merely by applying more effort), they may exercise great control over these important outcomes. By contrast, in jobs where performance is influenced by factors outside of one's control (e.g., poor decisions by top managers or unpredictable fluctuations in the economic environment), the control incentives of pay for performance plans may be much weaker.

In sum, there are a number of human needs that may motivate individual employees to work harder and more effectively if that effort is perceived to effect the satisfaction of those needs. Perhaps as a result of these motivations, researchers have found that pay for performance plans exert a significant incentive effect on productivity. In fact, such plans have been shown to increase individual productivity up to 30 percent over traditional salaried compensation plans.[8] Yet, as noted above, these positive effects may not occur in all situations, and in some cases, the opposite effect (e.g., lowered productivity) may occur.

Pay for Performance as an Influence on Workforce Composition. A second way that pay for performance plans may affect employees and their organizations is by leading individuals to join or leave workforces based on their ability and desire to perform well under a given plan. Researchers have labeled these effects on workforce composition "sorting effects."[9] Pay for performance plans may achieve sorting effects through *self-selection* (i.e., only employees who wish to work under such plans will join or remain with an organization), or through *managerial discretion* (i.e., managers may hire and fire employees based on their ability to perform well under a plan). Because these processes (i.e., self-selection and managerial discretion) often lead to a workforce that is well suited to working in a pay for performance environment, they are typically associated with improvements in productivity. In some cases, up to a 50 percent of the productivity increases associated with pay for performance plans has come from changes in workforce composition.[10]

Research has shown that high achievers (e.g., college students with high GPAs) are more likely than lower achievers to value pay for performance plans, especially those that measure and reward individual performance.[11] Further, people with high needs for achievement and low risk aversion have been shown to be most attracted to jobs with pay for performance plans.[12] Given these findings, an organization that uses pay for performance plans may, over time, acquire a workforce that has a relatively high performance level overall. Yet, this effect may have a downside. If pay for performance plans are designed in ways that require that some performers to be rated "high" and others to be rated "low"—what are called *"forced distribution plans"*—then even employees who are relatively high performers, compared to most in their field, may be rated as "low performers" in their organization. These low ratings have been shown to hurt morale because they are perceived as unfair.[13]

How Pay for Performance Plans Measure Employee Performance

According to Gerhart, Rynes, and Smithey Fulmer, there are two primary ways that performance is measured in pay for performance plans. First, performance may be measured subjectively based on observations and evaluations of employee behavior (e.g., ratings of "leadership quality," "citizenship," or "team effectiveness" by supervisors, peers, or subordinates). Second, performance may be measured objectively based on quantitative measures of output (e.g., sales, contracts signed, patients seen).

Subjective performance measures are often used when employee output is hard to measure quantitatively or objectively (e.g., when evaluating creative workers, such as graphic designers who are coming up with ideas for an advertising campaign), or when output may be sporadic or only occur after long periods of work (e.g., when evaluating researchers who are developing a new cancer drug). In these cases, it may be difficult, if not impossible, to "count" the output of workers over a relatively short period of time (i.e., counting the output of a grade school teacher over the course of a week), making objective and quantitative measures a poor fit for evaluation. Subjective measures, by contrast, can be devised to measure qualitative output (e.g., how well a teacher teaches) and can be designed to measure almost any behavior that is desired (e.g., citizenship behaviors such as helping out co-workers or doing work above and beyond one's job description).

On the downside, subjective measures are, well, subjective. They are prone to any number of human biases and are only as good as the information used as input. For example, if I evaluate a 5th grade teacher by attending one of his classes, I may just happen to evaluate a particularly poorly executed class. To really get a good sense of the teacher, I would need to attend many of his classes, which is often not feasible. I might also attend to only the negative comments or behavior in the class (it is well-established that negative information is more salient and remembered than is positive information),[14] and thus, obtain a poor impression of the teacher's effectiveness. Finally, I might just not like the teacher very much for personal reasons (e.g., he may belong to a different political party than I do, making him less likeable than teachers who are more similar to me).[15] As a result of these biases, as well as different levels of skill and ability in making observations of particular behaviors, researchers have found large differences in ratings of an individual across different observers when using subjective measures.[16] Recognition that such differences exist across raters may lead employees to perceive subjective measures as unfair and prone to political manipulation (e.g., complaints that only the boss's "favorite" employees are rated highly).

An additional challenge of using subjective measures is getting raters to use them to differentiate employees when it counts. If subjective measures provide high differentiation across employees (i.e., some are rated high, some middle, and some low) and those measures become publicly known and are used to affect actual pay bonuses, they may hurt relationships between the low- and even middle-rated employees and their rater (e.g. their supervisor). Similarly, if subjective measures are based on evaluations by one's peers (e.g., members of one's project team or department), then poor evaluations may undermine group collegiality. As a result, researchers have found that when subjective evaluations are used, evaluators resist making large differentiations across employees and thus, most employees are rated highly and receive similar overall ratings.[17] In turn, the ratings lose their ability to provide strong boosts to self-esteem for highly-rated employees (i.e., because all employees are rated high).

Objective performance measures, by contrast, are often used when output can be measured quantitatively and objectively (e.g., sales volume per month, patients seen per week). While such measures do not apply in many jobs, when they do apply, objective measures are often touted as a means of "fairly" compensating employees based on the work they actually do.

Problems arise, however, because objective measures do not, typically, measure all aspects of a job. So, while a physician may be compensated based on the number of patients she sees in her clinic per week, she is not compensated for the quality (or lack of quality) with which she cares for patients. Further, she may not be compensated for other aspects of her job, such as advising co-workers, mentoring medical residents, or providing administrative support by serving on committees. Finally, she may not feel she is compensated fairly for work she does in a group. For example, she may feel that she does most of the work when working on team of physicians in the trauma department. Yet, each member of the trauma team is each credited with an equal share of the patients seen each shift.

In response to these perceived inequities, the physician may feel she is unfairly compensated for the work she does. Her morale may suffer and she may leave her job. Alternatively, she may decide to stop engaging in any activities that are not measured and compensated, and thus, her organization may lose her valuable and needed skills.[18] Still another possible response is that she may strategically alter her work routines so that she gains the most from the performance plan, at the expense of her patients and co-workers. For example, she could try to see only minor ailments in her clinic and see them for a maximum of 10 minutes each, thus increasing her number of patients seen, while pushing the more difficult patients on to the shoulders of her colleagues and reducing the care of the patients she does see.

How Pay for Performance Plans Reward Performance

While objective and subjective measures of performance make up the components of most pay for performance plans, they are typically only one part of an employee's total compensation plan. Often, pay for performance is combined with salary or hourly pay in a compensation package, in addition, the pay for performance dimension of a compensation plan may be rewarded on an individual, group, or organizational basis. In this last section of the paper, I will describe some of the most common types of compensation plans that involve pay for performance.

Base Salary Plus Individual Merit Pay. The most common pay for performance plan, by far, is merit pay. When using merit pay, an individual's base salary is increased (usually on an annual basis) based on an individual performance measure (either subjective or objective). Because high achievers prefer individual performance measures and pay for performance plans, these plans tend to be popular with these types of employees, and have been shown to increase productivity.[19]

Yet merit pay plans do have their problems. For example, to the extent that merit ratings are based on subjective measures, they may be subject to all of the biases discussed above, and in turn, perceived as unfair by employees who are not highly rated. Also, as noted earlier, these plans often do not provide significant differences in pay across employees because raters do not wish to cause ill will among subordinates or disharmony among peers by rewarding them with highly disparate amounts of pay.[20] An additional problem with merit pay systems may arise when forced distribution systems are used. In these cases, only a small proportion (e.g., 10%) of workers may receive the highest rating. As a result, employees may be engage in competitive behavior (and reduce cooperative behavior) to obtain the highest ratings.

Where merit ratings appear to have the greatest effect is on promotions and long-term workforce composition because merit ratings provide a strong signal about the relative performance of an employee compared to peers, even if the effects on actual pay are small. For example, in one study, a 1-point difference in performance ratings on a 4-point performance scale translated into a 48 percent difference in promotions over a 6-year period.[21] Because promotions lead to much greater differences in pay than do annual bonuses, this effect of merit pay can lead to substantial differences in pay over time.

Base Salary Plus Collective Merit Pay. To avoid the difficulties with individual merit pay systems (e.g., low variance in ratings, possible bias in ratings, and competition among employees) and to motivate employees to "think like business owners," many organizations have implemented pay for performance plans that reward employees based on the performance of larger groups or collectives (e.g., business units, or the entire organization). These plans come in different forms such as *gain sharing* (rewards based on facility performance), *profit sharing* (rewards based on profits at the business unit or organization level), and *stock sharing* (rewards based on the performance of company stock). A characteristic of most collective merit pay plans is that they impose a risk on employees because pay may go up or down based on the performance of the collective. As a result, employees may demand a higher base salary to off-set the risk associated with these plans. In fact, researchers have found that overall labor costs are higher in organizations with profit-sharing plans.[22]

In terms of effects, research shows that collective merit pay plans produce a modest improvement in overall performance, especially in employee-managed firms.[23] Yet, an important moderating factor affecting this improvement is the size of the firm. Small firms (i.e., those with a few hundred workers) have shown the greatest improvements, while larger firms (i.e., those with several hundred to over a thousand employees) have shown small to negligible improvements.[24] This outcome may result from the fact that in larger firms, individual employees perceive their efforts will have little effect on the overall performance of the firm, and thus are less motivated to increase their own productivity.

Base Salary Plus Small Group Reward Systems. Similar to collective merit pay plans, individuals may be rewarded, in part, based on the performance of small teams of which they are members. These plans allow individual employees to have significant influence over the performance (and thus rewards) of the group, alleviating some of the problems with the large collective merit plans. At the same time, they encourage team members to work collaboratively, as their bonus pay depends on the group's overall performance, rather than their individual performance. There is less research on these types of plans than there is for individual and large collective merit plans. Yet there is some evidence that these plans can improve productivity. In particular, plans that reward group members, after each member or the entire team surpasses a pre-determined goal, appear effective in getting team members to work collaboratively and motivating high performers to help out lower performers.[25]

Conclusion

Overall, the research and findings about pay for performance plans suggest that there is no one right plan for all firms and employees. Instead, the research shows a number of trade-offs that need to be considered when constructing a compensation plan that involves pay for performance. Among these trade-offs are the ability of such plans to meet human needs, positively effect workforce composition, accurately measure desired outputs, and motivate desired behaviors by individuals and groups. Considering these trade-offs should be the first step by managers attempting to incorporate pay for performance in their compensation plans.

Endnotes

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