

Chapter 12

The Relative Efficiency of Extrinsic and Intrinsic Motivation

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ABSTRACT In this chapter, I review research on the consequences of extrinsic and intrinsic motivation, and conclude that intrinsic motivation is a far more efficient type of motivation than is extrinsic motivation. I also review research on the Job Characteristics Theory (JCT) and Self-Determination Theory (SDT) to pinpoint the most important antecedents to intrinsic motivation, and to show that highly performance-contingent pay can have a detrimental effect on intrinsic motivation, also outside the laboratory.

KEYWORDS: Pay | financial rewards | basic psychological needs | intrinsic motivation | extrinsic motivation

12.1 INTRODUCTION

Motivation can be defined as “energetic forces that initiate work-related behavior and determine its form, direction, intensity and duration” (Pinder, 2008, p. 11). A recent meta-analysis shows that ability and motivation are similarly important to job performance, and that high levels of motivation can compensate for lower levels of ability (Van Iddekinge, Aguinis, Mackey, & DeOrtentiis, 2018). Most, if not all managers understand the importance of having a motivated workforce, but many think about work motivation as a unidimensional construct where the strength of the motivation is the key. In addition, managers have their own personal theories or assumptions about human motivation. McGregor (1960), for instance, argued that managers differed in their assumptions about an average employee at work. Theory X-managers assume that an average employee dislikes work and attempts to avoid work, needs direction, avoids responsibility, lacks ambition, and is motivated by self-interest and maximizing of income. Theory Y-

managers, however, assume that an average employee likes to work, has self-control and direction, seeks responsibility and is motivated to work well and to develop skills and abilities, and desires to participate in tasks that advance worthy organizational goals. Furthermore, Heath (1999) documented through three laboratory studies and one field study that people use lay theories that imply that they have an extrinsic incentives bias. People typically think that others are more motivated by extrinsic incentives such as pay and bonuses than they themselves are. At the same time, people think that others are less motivated by intrinsic “incentives” such as liking and enjoying work and verbal rewards than themselves. Such an extrinsic incentives bias may lead managers to engage in transactional and inefficient leadership behavior, and organizations to implement human resource management (HRM) practices that fail to motivate employees to desirable behaviors. Therefore, in order for managers and organizations to increase employee productivity and well being and organizational productivity, empirical research on employee motivation is crucial.

The chapter is organized as follows. First, I review research on the relative efficiency of extrinsic and intrinsic motivation. In the next main section, I describe the two dominating theoretical frameworks—Job Characteristics Theory (JCT) and Self-Determination Theory (SDT)—and empirical research within these frameworks to demonstrate the most important antecedents to intrinsic motivation. I then review research on the relationship between financial reward and both extrinsic and intrinsic motivation, before ending the chapter with a section on practical implications.

12.2 THE RELATIVE EFFICIENCY OF EXTRINSIC AND INTRINSIC MOTIVATION

So-called instrumentality theories of motivation have also treated motivation as a unidimensional construct, and relied exclusively on extrinsic motivation; that is, the desire to perform an activity with the intention of attaining positive consequences and avoiding negative consequences (E. L. Deci & Ryan, 2000). Reinforcement theory, for instance, posits that behaviors followed by a reinforcer (i.e., something that increases the desired behavioral response) are more likely to recur in the future (e.g. Stajkovic & Luthans, 2003). Expectancy theory (Vroom, 1964), predicts that individuals will engage in behaviors that are likely to lead to valued outcomes, to the extent that they perceive that they are capable to produce such behaviors. Even one of the most applied theoretical lenses in macro HRM research, the ability, motivation and opportunity (AMO) model, relies exclusively

on extrinsic motivation and does not take into account other types of motivation, such as intrinsic and prosocial motivation. Contemporary research knowledge, however, suggests the form of motivation may be more important than its strength. Although there exist numerous constructs to reflect different types of motivation, extrinsic motivation, intrinsic motivation, and prosocial motivation cover the most practically relevant forms of motivation at work and many other contexts, such as sports and education. The main topic of this chapter is intrinsic and extrinsic motivation, although prosocial motivation will be briefly discussed at the end of this section.

When extrinsically motivated, employees do something in order to receive something that is of value to them, such as a promotion, a pay increase or a bonus, or to avoid something negative such as a demotion or being laid off. In our own research, we have used the following items to measure extrinsic motivation (Dysvik & Kuvaas, 2013a):

1. If I am supposed to put in extra effort in my job, I need to get extra pay.
2. It is important for me to have an external incentive to strive for in order to do a good job.
3. External incentives such as bonuses and provisions are essential for how well I perform my job.
4. If I had been offered better pay, I would have done a better job.

Intrinsic motivation, in contrast, is the desire to perform an activity for its own sake, so as to experience the pleasure and satisfaction inherent in the activity (E. L. Deci, Connell, & Ryan, 1989). Thus, intrinsic motivation comes from performing the task, not the consequences of performing it. We have used the following items to measure intrinsic motivation (Kuvaas & Dysvik, 2009):

1. The tasks that I do at work are themselves representing a driving power in my job.
2. The tasks that I do at work are enjoyable.
3. My job is meaningful.
4. My job is very exciting.
5. My job is so interesting that it is a motivation in itself.
6. Sometimes I become so inspired by my job that I almost forget everything else around me.

Although intrinsic and extrinsic motivation can operate simultaneously, the two types of motivation are typically negatively related, although not strongly so (Dysvik & Kuvaas, 2013b; Kuvaas, Buch, Weibel, Dysvik, & Nerstad, 2017; Kuvaas & Dysvik, 2016). This means that either intrinsic or extrinsic motivation is predominant when employees are performing their tasks (Gagné & Deci, 2005; Weibel, Rost, & Osterloh, 2010). We already know from a meta-analytical study including more than 212,000 participants that intrinsic motivation is moderately to strongly related to work performance (Cerasoli, Nicklin, & Ford, 2014). Intrinsic motivation has also been found to relate strongly to human wellness across different domains (see Ryan & Deci, 2017 for a review). We have summarized research from organizations located in Norway including more than 11,000 employees and found that intrinsic motivation is, in addition to being positively related to work performance, positively related to organizational citizenship behaviors¹ and affective organizational commitment,² and negatively related to turnover intention and stress (Kuvaas & Dysvik, 2016).

In the remaining part of this section, I will review research that has investigated both intrinsic and extrinsic motivation to answer the question of whether one or the other is a more efficient form of motivation.

Relatively few studies have investigated both intrinsic and extrinsic motivation, but across several samples of sales people including more than 3,000 respondents, we found that intrinsic motivation was more than three times stronger positively related to work performance than extrinsic motivation, and more than twice as strongly positively related to organizational citizenship behaviors than extrinsic motivation (Kuvaas & Dysvik, 2016). In addition, intrinsic motivation was positively related to affective organizational commitment, whereas there was no relationship between extrinsic motivation and affective organizational commitment. Finally, extrinsic motivation was positively and intrinsic motivation negatively related to turnover intention. Thus, extrinsically motivated employees also think more about quitting, whereas intrinsically motivated employees think less about it.

In a recent study, we investigated the relative efficiency of intrinsic and extrinsic motivation in three different samples (Kuvaas, Buch, et al., 2017). In the first

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1. Organizational citizenship behaviors are positive behaviors that are discretionary and not directly recognized by the formal reward system in the organization (Organ, 1997).
 2. Affective organizational commitment refers to an affective or emotional attachment to the organization such that employees identify with, are involved in, and enjoy membership in the organization (Allen & Meyer, 1990). It is the component of commitment that is most strongly related to desirable work behaviors (Meyer, Stanley, Herscovitch, & Topolnitsky, 2002).

sample, consisting of 552 employees working in gas stations, intrinsic motivation was positively related, and extrinsic motivation negatively related, to supervisor-rated work performance after it was statistically controlled for tenure, gender, and the geographic location of the gas stations. In a cross-lagged study of more than 4,500 employees in the financial industry, intrinsic motivation at time 1 was associated with higher affective commitment and lower continuance commitment³, turnover intention, burnout, and work-family conflict at time 2. Extrinsic motivation at time 1 was, in contrast, associated with lower affective commitment and higher continuance commitment, turnover intention, burnout, and work-family conflict at time 2. This sample was controlled for several potentially competing variables such as gender, education, tenure, employment conditions, managerial responsibility, and pay level. The third and final sample consisted of 829 employees from a medical technology company and a company in the financial industry. In this sample, extrinsic motivation was unrelated to supervisor-rated work performance, but positively related to turnover intention, whereas intrinsic motivation was positively associated with supervisor-rated work performance and negatively associated with turnover intention. Thus, across three samples the most positive finding for extrinsic motivation is that it was unrelated to work performance in one of the samples.

In a sample of 885 Belgian employees, Vansteenkiste et al. (2007) found that an extrinsic work value orientation, which is similar to extrinsic motivation, was associated with lower job satisfaction, life satisfaction, and life happiness after it was controlled for age, education, pay, and overall work value orientation. In another sample, an extrinsic work value orientation was relative to an intrinsic work value orientation associated with lower dedication, job vitality and job satisfaction, and higher short-lived satisfaction, work-family conflict, emotional exhaustion and turnover intention.

Finally, in a decade-long study of over 10,000 cadets by Wrzesniewski et al. (2014) linking intrinsic and extrinsic motives to attend West Point Academy and career success, the stronger the extrinsic motives to attend West Point, the lower the probability of being selected for consideration for early promotion during the five years of mandatory service, and the lower the probability of remaining military officers beyond the mandatory five year period. The opposite was found for intrinsic motives. In addition, the stronger intrinsic motives to attend, the higher the probability of completing studies and of becoming commissioned officers.

3. Continuance commitment denotes the perceived costs associated with leaving the organization and is a component of commitment which is mainly associated with undesirable work behaviors (Meyer et al., 2002).

In addition to these studies, a number of studies that have investigated four to six subtypes of motivation found that the more autonomous motivation (where intrinsic motivation is the most autonomous), the better work performance and well-being at work (see E. L. Deci, Olafsen, & Ryan, 2017 for a review). The more controlled motivation (where extrinsic motivation is the most controlled), in contrast, the lower work performance and well-being, with a few exceptions that may be explained by problems with the measurement instruments (Kuvaas, Buch, et al., 2017).

Prosocial motivation refers to the desire to benefit others and has been found to be associated with higher levels of persistence, work performance, and organizational citizenship behaviors (Grant, 2008). Prosocial motivation is different from intrinsic motivation on three important accounts. First, intrinsic motivation is more autonomous and based on interest and enjoyment, whereas prosocial motivation is based more on conscious self-regulation and self-control to achieve a goal, such as a felt obligation to reciprocate or pay back favorable treatment from others. Secondly, when employees are intrinsically motivated, the work is seen as an end in and of itself, but when employees are prosocially motivated, they see the work as a means to the end goal of benefiting others. Third, when employees are intrinsically motivated, they focus on the work here and now, but when they are prosocially motivated, they are more oriented toward achieving a goal in the future. These differences make intrinsic motivation more pleasant and joyful than prosocial motivation, and Grant has found that intrinsic motivation reinforces the positive implications of prosocial motivation (Grant, 2008). For instance, the relationship between prosocial motivation, task persistence and work performance are strengthened when intrinsic motivation is high.

That intrinsic motivation can serve as a reinforcer has received relatively broad support. I found, for instance, a positive relationship between performance appraisal satisfaction and work performance for employees with high intrinsic motivation (Kuvaas, 2006a). For employees with low intrinsic motivation, there was a negative association between performance appraisal satisfaction and work performance. In another study, we found a positive relationship between perceived training opportunities and organizational citizenship behaviors only for highly intrinsically motivated employees (Dysvik & Kuvaas, 2008). Furthermore, we only found a positive relationship between perceived investment in employee development and organizational citizenship behaviors for employees with high levels of intrinsic motivation (Kuvaas & Dysvik, 2009). Finally, we found that highly intrinsically motivated employees shared knowledge independently of perceived training intensity, whereas employees with low intrinsic motivation only shared knowledge when pushed by high levels of perceived training intensity (Kuvaas, Buch, & Dysvik, 2012).

In conclusion, intrinsic motivation is a strong predictor of productive work behaviors and attitudes. In addition, intrinsic motivation seems to reinforce the consequences of factors such as prosocial motivation and perceptions of HR practices. Nevertheless, I do not suggest that extrinsic motivation cannot positively influence work performance. Extrinsic motivation can be effective in influencing work performance where there is little potential for intrinsic motivation, such as for simple and uninteresting tasks (Weibel et al., 2010), and when it is relatively easy to measure and monitor work outcomes. Such tasks, however, can often be automatized or performed in countries with cheaper labor.

12.3 ANTECEDENTS TO INTRINSIC MOTIVATION

Below, I will first present the dominant conceptual frameworks that have been applied to understanding the antecedents to intrinsic motivation more deeply. Then, I will review research investigating how financial rewards are related to extrinsic and intrinsic motivation.

12.3.1 THEORETICAL FRAMEWORKS AND ANTECEDENTS

The two most dominating conceptual frameworks applied in research on intrinsic motivation have been the Job Characteristics Theory (JCT) (Oldham & Hackman, 2010) and Self-Determination Theory (SDT) (Gagné & Deci, 2005). JCT posits that five core job characteristics (as perceived by the employee) predict intrinsic motivation (and other outcomes). JCT has received substantial empirical support from several meta-analyses. In the latest, with almost 220,000 respondents, all five job characteristics are moderately to strongly positively related to intrinsic motivation. The five job characteristics are:

- ▶ Skill variety
 - The extent to which the tasks performed at work require a variety of different activities, involving the use of a number of different competencies.
- ▶ Task identity
 - The degree to which the tasks performed at work require doing an identifiable and whole piece of work.
- ▶ Task significance
 - The extent to which the tasks performed at work have an impact on the lives of other people inside or outside the organization.

- ▶ **Autonomy**
 - The degree to which the tasks performed at work provide freedom, independence, and discretion to the employee in scheduling the work and in deciding the procedures and activities to be used at work.
- ▶ **Feedback from the job**
 - The extent to which the tasks performed at work provide the employee with feedback about the effectiveness of his or her performance.

In SDT it is argued that satisfaction of three basic psychological needs for autonomy, competence, and relatedness are essential for individuals to achieve psychological growth, which is manifested by intrinsic motivation (E. L. Deci & Ryan, 2000). A recent meta-analysis of more than 45,000 employees shows that satisfaction of these needs are from moderately to strongly positively related to intrinsic motivation, where the far strongest predictor is satisfaction of the need for autonomy (Van den Broeck, Ferris, Chang, & Rosen, 2016). A closer description of the needs is provided below:

- ▶ **The need for autonomy**
- ▶ **The need for autonomy refers to the assumption that individuals' need to act with a sense of ownership of their behavior, and to feel psychologically free (Deci & Ryan, 2000). It implies that individuals function at their best when they are the origin of their own behaviors, rather than being regulated by external forces. The need for autonomy should not be confused with a need to behave independently from others. It does, however, imply a need to act with a sense of choice and volition. If a manager asks an employee to work during the weekend and the employee wants to do so, the need for autonomy will be satisfied. If the manager demands that the employee should work during the weekend and the employee wants to do something else, the need for autonomy will be thwarted. The need for autonomy is the most important need, and a necessity that must be fulfilled in order to experience intrinsic motivation (Ryan & Deci, 2006).**
- ▶ **The need for competence**
 - The need for competence refers to the need to feel a sense of mastery over the environment and to develop new skills (Van den Broeck et al., 2016). When the need for competence is satisfied, individuals act to maintain and develop their skills, as well as seek challenges that are optimal for their capacity (Elliot, McGregor, & Thrash, 2002).

► The need for relatedness

- The need for relatedness refers to the need to feeling connected to others, and caring for and being cared for by others, as well as having a sense of belongingness to others such as groups, communities or organizations (Ryan & Deci, 2002). When the need for relatedness is satisfied, individuals feel safe in a psychological sense and feel free to express their personal or work-related challenges (Baumeister & Leary, 1995)

12.3.2 FINANCIAL REWARDS AND EXTRINSIC AND INTRINSIC MOTIVATION

For almost five decades, there has been a fierce debate about whether financial rewards can undermine intrinsic motivation. According to SDT, the effect of financial rewards on motivation depends on two contrasting effects on employees' locus of control: an informing effect that facilitates the feeling of competence and autonomy, which increases intrinsic motivation, and a controlling effect, which undermines intrinsic motivation (E. L. Deci et al., 2017). Pay with low performance contingency, such as base pay and pay that comes as a surprise, is predicted to increase intrinsic motivation because it can inform the recipients about their level of competence and be interpreted as a token of appreciation for good performance. In addition, the base is guaranteed, given prior to future performance. This may signal trust in employees, as they do not have to meet specific future performance standards in order to receive it and, therefore, satisfy the need for competence. Furthermore, a comparably high base pay level sends a signal of how much the organization values employees for what they are (Gardner, Van Dyne, & Pierce, 2004; Kuvaas, 2006b). Pay that is highly contingent on future specific performance standards or results, such as bonuses and commissions, however, are predicted to strengthen employees' perceptions of an external locus of control and, therefore, to reduce autonomy and intrinsic motivation. If an employee does something in order to receive a bonus that he or she would not have done without the opportunity to receive a bonus, the employee is controlled by pay, and the satisfaction of the need for autonomy is thwarted, which will increase extrinsic motivation. Bonuses and commission also put more of the employees' pay at risk and create an economic exchange relationship with the organization (Kuvaas, Shore, Buch, & Dysvik, 2017). Proponents of individual variable pay, on the other hand, view high performance contingency as a necessary condition for "sufficiently strong" incentive effects (Gerhart, 2017), where incentive effect is the degree to which the reward actually changes behaviors.

Most research on the undermining effect of financial rewards has been conducted in the laboratory. A meta-analysis of 128 experimental studies shows that tangible rewards have a negative effect on intrinsic motivation for interesting tasks among children and college students (E. L. Deci, Ryan, & Koestner, 1999). Verbal rewards or positive feedback, in contrast, were found to increase intrinsic motivation. In addition, a vignette study with executive MBA students also shows that financial rewards can undermine intrinsic motivation (Weibel et al., 2010). Such findings cannot, however, be extrapolated to the organizational field because of differences in importance, size, and time frame between laboratory rewards studies and real world compensation systems (Gagné & Forest, 2008; Gerhart & Fang, 2015).

Despite the ongoing debate about rewards and motivation, few field studies have directly addressed the matter. Indirect support for an undermining effect of financial rewards, however, is found in the mentioned meta-analyses by Cerasoli et al. (2014). They found that intrinsic motivation was stronger related to performance when rewards with low performance contingency were present (e.g. base pay or collective rewards)—and that intrinsic motivation was weaker related to performance when rewards with high performance contingency were present (e.g. individual variable incentives such as bonuses and commissions). These findings imply that it is not the presence of rewards that matter, but the performance contingency of the rewards.

Cerasoli et al. (2014) did not investigate extrinsic motivation, nor did the studies in the meta-analysis include actual pay data. In the first study that simultaneously investigated actual pay data from different pay components and both intrinsic and extrinsic motivation, we found that the amount of base pay received over two years was positively related to intrinsic motivation among sales people in an insurance company (Kuvaas, Buch, Gagné, Dysvik, & Forest, 2016). In a study among knowledge workers, I also found a positive relationship between base pay level and intrinsic motivation (Kuvaas, 2006b), supporting an informing effect of pay with low performance contingency. The amount of money received as annual bonuses over the two years, in contrast, was negatively related to intrinsic motivation and positively related to extrinsic motivation, supporting a controlling effect of pay with high performance contingency. Furthermore, intrinsic motivation was strongly related to an increase in work effort and strongly related to a decrease in turnover intention. Extrinsic motivation was weakly related to an increase in work effort (.11 compared to .61 for intrinsic motivation), but positively related to an increase in turnover intention. The weak positive relationship between extrinsic motivation and increase in work effort is, thus, more than out-

weighed by the negative relationship between the amount of money received as annual bonuses and intrinsic motivation, and the positive association between extrinsic motivation and increase in turnover intention. These findings, and others revealed in this chapter, strongly refute Gerhart and Fang (2014, p. 47), who argued that “if there is an undermining effect on intrinsic motivation, it is usually dominated by the positive effect of PFIP (pay-for-individual-performance) on extrinsic motivation.”

To conduct a more explicit test of the informing and controlling effects of financial rewards, we recently developed a measure of incentive effects that assesses the degree to which a pay plan affects employee behaviors (Kuvaas, Buch, & Dysvik, 2018). Example items are “The pay plan makes me do things I would not have done if we did not have the pay plan we have,” “The pay plan affects my daily priorities,” and “If we did not have the pay plan we currently have, I would have performed my tasks at work in a different way.” The most prevalent pay plans in the United States (Gerhart, 2017), and probably also elsewhere, are those based on subjective performance evaluations by managers. Because such evaluations are typically based on a large number of often vague criteria, it is difficult for employees to know how to get good evaluations. Therefore, the incentive effects are uncertain. Thus, the degree to which such plans have incentive effects, and how they influence motivation, are important empirical questions. In our study, we investigated 304 employees working at the national headquarters of a retail organization across eight European countries. We found relative weak incentive effects (an average of 2.30 on a scale from one to five) and a weak relationship between the amount of money received as bonuses and incentive effects. The incentive effect, however, was strongly positively related to extrinsic motivation and moderately negatively related to intrinsic motivation, supporting the controlling effect posited by SDT. Accordingly, the pay plan did not work very well, i.e. did not change employee behaviors, but to the extent that it did, the results were higher extrinsic and lower intrinsic motivation, which was not beneficial to the organization. In support of an informational effect, we also found a direct positive association between the amount of money received as bonuses and intrinsic motivation. Thus, when the pay plan did not change the behaviors, it was positively related to intrinsic motivation. In sum, however, the negative association between the incentive effect and intrinsic motivation outweighed the positive association between the reward and intrinsic motivation.

In conclusion, there is sufficient evidence to conclude that highly performance-contingent pay can have a detrimental effect on intrinsic motivation. Less performance-contingent pay, such as a comparably high base pay, however, can increase

intrinsic motivation, also outside the laboratory. The consequences of variable pay with low performance contingency and small or no incentive effects are more difficult to predict.

12.4 PRACTICAL IMPLICATIONS

Overlearned carrot-and-stick and command-and-control approaches have dominated businesses for much more than a century, and Stone, Deci, and Ryan (2009) have proposed six practical steps or actions that facilitate intrinsic motivation as an alternative to “traditional” management.

- ▶ Asking open questions, including inviting participation, in solving important problems
 - Facilitating intrinsic motivation requires supportive dialogue, and supportive dialogue starts with open questions that invite exploration of an important problem. Open questions such as “What do you make of this?” or “Can you enlighten me on the current project?” raise issues for consideration without implying a preferred solution. Closed questions, in contrast, such as “Have you tried to fix the problem by ...?” imply a need for passive compliance.
- ▶ Active listening, including acknowledging the employees’ perspective
 - Open questions should be followed by active and reflective listening that explicitly acknowledges the employee’s perspective or perception of a situation. This requires careful attention to the emotional aspects of an issue and an empathetic leadership style.
- ▶ Offering choices within structure, including the clarification of responsibilities
 - As the satisfaction of the need for autonomy and the perception of job autonomy are the most important predictors of intrinsic motivation, offering a menu of alternative actions to deal with a situation is crucial. This is especially important when faced with problems (e.g. cost cutting) in addition to providing a meaningful rationale (e.g. for a boring, but important task).
- ▶ Providing sincere, positive feedback that acknowledges initiative, and factual, non-judgmental feedback about problems
 - Verbal rewards can facilitate intrinsic motivation by supporting competence and autonomy. Effective feedback is specific, sincere, and acknowledges unique contributions. Verbal rewards should also be provided for proactive behaviors and initiatives. Corrective feedback should be constructive and task focused, not person focused, and be provided in a timely fashion close to the behavior (Kuvaas, Buch, & Dysvik, 2016).

- Minimizing coercive controls such as rewards and comparisons with others
 - As we have seen, pay with high performance contingency and incentive effects should be avoided if organizations want to facilitate intrinsic motivation. A general advice is to pay employees adequately and fairly and minimize the salience of compensation; that is, to get the money “off the table.” In addition to performance contingent financial rewards, SMART (specific, measurable, attainable, realistic, and timely/tangible) goals (Kuvaas & Buch, 2017; Kuvaas, Buch, & Dysvik, 2014), deadlines (Amabile, DeJong, & Lepper, 1976), evaluations (Smith, 1975), and surveillance (Lepper & Greene, 1975) have also been found to relate negatively to intrinsic motivation or need satisfaction. Comparing employees to each other and fostering internal competition is also detrimental to intrinsic motivation. Accordingly, ranking and rating performance management systems that were widely used before Microsoft abandoned theirs in 2013 should clearly be avoided.
- Develop employees and share knowledge to enhance competence and autonomy
 - The motivational consequences of training and development opportunities and promotions depend on why employees desire them, and how and why they are offered. Such opportunities should therefore be provided as a means to provide more autonomy, learning new skills, and collaborating with others to satisfy the needs for autonomy, competence, and relatedness. If training and development opportunities and promotions are offered in an “if-you-do-this-then-you-get-that” fashion, they may decrease intrinsic and increase extrinsic motivation.

When applying these steps or actions it is important to acknowledge that individual employees may have different levels of the three needs—based on, for instance, their experience and personality. Employees who have a very high need for competence should get more frequent verbal praise than others, whereas those with a high need for autonomy should be provided more discretion, choice, and autonomy than others.

In addition to the steps or actions described above, it is important to expand jobs to provide optimal challenges and facilitate participation and involvement in accordance with JCT. Broad job tasks with skill flexibility, job variety, and autonomy, and responsibility that focuses on the purpose of the job, increases intrinsic motivation. Narrowly defined jobs with detailed and specific descriptions and instructions about tasks and behaviors, in contrast, are detrimental to intrinsic motivation. Moreover, since employees may have different needs, interests, and

strengths, the same titles or jobs do not need to be designed in exactly the same way. Effective job design therefore also includes taking individual differences into account.

With respect to recruitment, the meta-analysis by Van den Broeck et al. (2016) shows that demographics such as age, sex, and organizational tenure are very weakly related to satisfaction of the needs for autonomy, competence, and relatedness, and thereby intrinsic motivation. Personality factors, however, such as optimism, self-esteem and efficacy, agreeableness, and conscientiousness are moderately to strongly positively related to need satisfaction, whereas neuroticism is relatively strongly negatively related to need satisfaction. Accordingly, organizations can to some extent influence need satisfaction and intrinsic motivation through their recruitment processes by recruiting people based on these personality factors.

Job stressors like role conflict, role ambiguity, organizational politics, and job insecurity are negatively associated with need satisfaction (Van den Broeck et al., 2016) implying that downsizing, unclear and unfair practices and procedures should be avoided, and training encouraged. The strongest predictors of need satisfaction are contextual factors such as leadership and perceived organizational support and fairness. Among several leadership factors, high-quality leader–member exchange relationships are very strongly positive related to need satisfaction. Accordingly, leadership training that focuses on soft skills can facilitate need satisfaction and thereby intrinsic motivation (see Lacerenza, Reyes, Marlow, Joseph, & Salas, 2017 for a prescription of effective leadership training).

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