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20 Does pay for performance really motivate employees?

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Introduction

Variable pay for performance may undermine employees' efforts, crowd out intrinsic motivation under identified conditions. A bo then makes employees lose interest in the immediate goal. monetary incentives in complex and novel tasks tend to produce s repetition, and measurement is often dysfunctional. Therefor motivation is crucial for these tasks. However, for some wor incentives are sufficient. We offer a framework for how managers the right balance between intrinsic and extrinsic motivation.

Variable pay for performance and motivation

Variable pay for performance has become a fashionable propos last few years, in private companies as well as in the public sector. have given up fixed salaries and have moved to pay their emp variable way. Firms try to match payment to objectively evalua mance. It is reflected in such popular concepts as stock options fo and various types of bonuses. In the public sector, efforts to ductivity in the wake of new public management have also attempts to adjust variably the compensation of public employe performance. This means that firms and public administrations i rely on price incentives – i.e. on extrinsic motivations.

We argue in this chapter that variable pay for performance ur conditions has severe limitations. In situations of incomplete con these dominate work relationships – an incentive system bas monetary compensation for work is insufficient to bring forth mance required. In many situations monetary incentives even formance. Work valued by the employee for its own sake or f personal or social norms is often indispensable. These values or norms may be undermined, or even destroyed, by offering monetary incentives.

Our basic message is that focusing on money as an incentive scheme with complex tasks causes problems. Complex tasks are a typical feature of knowledge-intensive companies, which today comprise the most rapidly growing segment of the economy. In contrast, variable pay for performance (e.g. via piece rates) is adequate only for simple jobs. For complex tasks, monetary rewards are no substitute for good management: relying solely on money is too simple to motivate people in these circumstances. Successful management consists in choosing wisely from among the many different possibilities to evoke interest in the work – i.e. raising intrinsic motivation. This can be achieved by establishing personal relationships within the firm, strengthening participation and securing procedural justice. All serve to communicate to the employees recognition and appreciation of their work.

We first clarify the underlying concepts of extrinsic and intrinsic motivation. On the basis of theoretical and empirical evidence, the following section demonstrates that intrinsic and extrinsic motivation are not additive. Rather, there is a systematic dynamic relationship between the two, called "crowding effects". In particular, monetary compensation can crowd out the intrinsic motivation to work for one's own sake. In the following section we discuss when and why intrinsic motivation is needed. However, as argued in the next section, intrinsic motivation sometimes has disadvantages for the organization. Hence an important task of management is to produce the right mixture of motivations. The chapter concludes that the current fad for variable pay for performance is ill-founded.

Intrinsic and extrinsic motivation

Extrinsic motivation exists when employees are able to satisfy their needs indirectly, most importantly, through monetary compensation. Money as such does not provide direct utility but serves to aquire desired goods and services (de Charms, 1968; Deci, 1975; an extensive survey is given by Heckhausen, 1991, chap. 15). Extrinsically motivated coordination in firms is achieved by linking employees' monetary motives to the goals of the firm. The ideal incentive system is strict "pay for performance".

In contrast, motivation is *intrinsic* if an activity is undertaken for one's immediate need satisfaction. Intrinsic motivation "is valued for its own sake

and appears to be self-sustained" (Calder and Staw, 1975, 599; Deci, Deci and Ryan, 1980). Intrinsic motivation can be directed to the act flow (Csikszentmihalyi, 1975), to a self-defined goal, such as, for exa climbing a mountain (Loewenstein, 1999), or to the obligations of pe and social identities (March, 1999, 377). The ideal incentive system res the work content itself, which must be satisfactory and fulfilling f employees. It follows that, "if you want people motivated to do a goo give them a good job to do" (Herzberg, as quoted by Kohn, 1993, 49

Intrinsic motivation is emphasized by the behavioural view of org tion. This approach has a long tradition in motivation-based organi theory (Argyris, 1964; Likert, 1961; McGregor, 1960). More recent exa are the critics of transaction cost theory (e.g. Ghoshal and Moran, Donaldson, 1995; Pfeffer, 1997), as well as the literature on psycho contracts (e.g. Morrison and Robinson, 1997; Rousseau, 1995). emphasize intrinsic motivation and identification with the firm's st goals, shared purposes and the fulfilment of norms for its own sake.

Intrinsic motivation is dealt with by only a few authors in econ examples are trust (Arrow, 1974), sentiments (Akerlof and Yellen, Frank, 1992), firm loyalty (Baker, Jensen and Murphy, 1988), man incentives (Güth, 1995) and implicit contracts or norms (Akerlof, Some economists admit the existence of intrinsic motivation but l aside because it is difficult to analyse and control (e.g. Williamson, Even if the assumption of opportunism is an "extreme caricature" (M and Roberts, 1992, 42), it is taken to be prudent to consider a wor scenario when designing institutional structures (Williamson, 1996; s Brennan and Buchanan, 1985, for the case of the constitution) – i.e. c only with extrinsic motivation. Transaction cost theory goes a step f by assuming that individuals are opportunistic and seek self-interes guile. Opportunism is a strong form of extrinsic motivation when duals are not constrained by any rules. The same assumption is m principal – agent theory, as is made clear in the recent comprehensive s by Gibbons (1998) and Prendergast (1999).

To analyse intrinsic and extrinsic motivation in isolation is no warranted, and corresponds to a useful division of labour betwee chology (focusing on intrinsic motivation) and economics (focusi extrinsic incentives), so long as they do not depend on each other. Ho this dependence has been shown to exist, in a large number of experiments undertaken by Deci and his group (see Deci, 1971, 197 and Ryan, 1980, 1985, and Deci and Flaste, 1995). This evidence has been ignored by scholars in organization theory as well as in human resource management (exceptions are Ghoshal and Moran, 1996, and Pfeffer, 1995a, 51, 1995b). The following section considers this relationship.

Motivation crowding out effects

For a long time it has been taken as a matter of course that extrinsic motivation raises performance. It seemed to be a well-established result in both the psychological (see, for example, Eisenberger and Cameron, 1996) and the managerial literature (see, for example, Blinder, 1990, and Lawler, 1990) that positive reinforcement of a particular action increases the future probability of that action. Mechanisms of instrumental and classical conditioning lead to the *(relative) price effect*, which is fundamental for economics (see Becker, 1976, Stigler and Becker, 1977, and Frey, 1992). The opportunity cost of unrewarded behaviour is raised.

However, rewards crowd out intrinsic motivation under particular conditions. The most important conditions are, first, that the task is considered to be interesting (i.e. there must be an intrinsic motivation in the first place) and, second, that the reward is perceived to be controlling by the recipient. This effect has been called the "hidden costs of reward" (Lepper and Greene, 1978) or "the corruption effect of extrinsic motivation" (Deci, 1975). Frey (1997) has introduced it into microeconomics as the "crowding-out theory". Extensive surveys are given by Lepper and Greene (1978), Pittman and Heller (1987) and Lane (1991). Kohn (1993) and Deci and Flaste (1995) provide popular applications.

The effect may be illustrated with an experience that many parents have with their children. Consider children who are initially enthusiastic about a task. When they are promised a reward for fulfilling the task they lose part of their interest. Parents who try to motivate their children with rewards to do their homework may be successful in the short run. In the long run, however, the children do their homework *only* if they receive a monetary reward. The crowding out effect has set in. In the worst case, the children are prepared to do *any* housework, such as cutting the lawn, only if they are paid.

It is not only for children that such experiences hold; they can be generalized as well. In particular, this principle also applies to variable pay for performance or bonuses. As a consequence, such reward systems usually, but not always, make employees lose interest in the immediate goal (such as serving the customers) and lower their performance. These insights are

corroborated by theoretical arguments as well as by experimental ; studies.

Theoretical background

The crowding out effect is based on *cognitive evaluation theory* (De Deci and Ryan, 1985) and on *psychological contract theory* (Schei Rousseau and McLean Parks, 1993).

According to cognitive evaluation theory, intrinsic motivation is sul by an external intervention that is perceived as a restriction oı autonomously. The locus of control shifts from inside to outside th (Rotter, 1966). The person in question no longer feels responsible bu attributes responsibility to the person undertaking the outside inter This shift in the locus of control does not always take place. Each intervention – e.g. a reward – has two aspects, a controlling and an in one. The controlling aspect strengthens perceived external control feeling of being stressed from the outside. The informing aspect in one's perceived competence and strengthens the feeling of internal Depending on which aspect is more prominent, intrinsic motiv reduced or raised (see, for instance, the experiments by Enzle and Aı 1993). An undermining effect on intrinsic motivation, called crowdin complemented by a positive effect on intrinsic motivation, called crow If a task is at one and the same time extrinsically and intrinsically mc the more devalued the attribution of a self-determined action is th strongly the individuals believe themselves to be subject to outside (Kruglanski, 1975).

The crowding out effect is stronger with material than with s rewards. It is also larger with expected than with unexpected reward the problems at issue are complicated, the negative relationship l reward and performance is stronger than when the problems are (Heckhausen, 1991, chap. 15). In all these cases, it is required t behaviour was initially perceived to be interesting and therefore intri rewarding (see Calder and Staw, 1975).

According to the theory of psychological contracts, each contract i an extrinsically motivated (transactional) aspect as well as a relationa directed towards a reciprocal appreciation of intrinsic motivation relational part of the contract is breached, the reciprocal good faith is question. Empirical evidence shows (Robinson, Kraatz and Rousseaı that the parties to the contract then perceive the employment arrangement to be transformed into a purely transactional contract. For example, when a superior acknowledges an employee's extraordinary effort with a symbolic gift (such as a bunch of flowers), the intrinsic motivation of the employee tends to be raised because he or she feels that his or her intrinsic motivation is appreciated. However, if the employee feels that the superior's gesture serves only in an instrumental purpose, his/her intrinsic motivation is impaired. The bunch of flowers is perceived to be controlling; the relationship is interpreted as being transactional.

The reciprocal appreciation of motives also explains why commands normally crowd out intrinsic motivation more than the use of prices. Commands do not take into account the motives of the recipients, while the price system leaves the choice open as to whether one cares about receiving the reward or not.

An important part of psychological contracts involves perceptions of fairness. Fairness includes both outcome as well as procedural justice. *Outcome justice* requires, firstly, that employees evaluate their salary not in absolute terms but relative to their co-workers (see the equity theory by Adams, 1963). Secondly, the contract between employer and employee is seen as a gift relationship based on norms of reciprocity. If the perceived reciprocity is violated, employees reduce their voluntarily offered supernormal performance (Akerlof, 1982; for experimental evidence, see Fehr, Gächter and Kirchsteiger, 1997). *Procedural justice* means that people are prepared to accept substantial differences in wages if the process of their determination is perceived to follow transparent and fair rules (Kim and Mauborgne, 1991, 1998; Tyler, 1990).

Empirical evidence

There have been such a large number of laboratory experiments on crowding out that a more comprehensive view is needed. Fortunately, the experimental evidence has been the subject of several meta-analytical studies. Wiersma (1992) looks at twenty studies covering 1971 to 1990, and Tang and Hall (1995) look at fifty studies from 1972 to 1992. These meta-analyses support the crowding out theory. This view was challenged by Eisenberger and Cameron (1996), who, on the basis of their own meta-analysis covering studies published in the period 1971 to 1991, conclude that the undermining effect is largely "a myth". However, Deci, Koestner and Ryan (1999), as a

result of a very extensive study, are able to show that these conclusi unwarranted. This most recent meta-analysis includes all the studi sidered by Eisenberger and Cameron as well as several studies th appeared since then. The sixty-eight experiments reported in fif articles span the period 1971 to 1997, and refer to no fewer than ninet experimental effects. It turns out that tangible rewards, a subset of w pay for performance, undermine intrinsic motivation for interestin (i.e. tasks for which the experimental subjects show an intrinsic intere highly significant and very reliable way. Thus, there can be no dou the crowding out effect exists and is a robust phenomenon of sign magnitude under the conditions identified.

In real-life situations we have to look at the net outcome, compose relative price effect as well as the crowding out effect. This holds b the effect of intrinsic motivation cannot always be neatly separate extrinsic incentives. When someone is fond of communication with mers for fun, for example, it is always possible to find a corresp external motive such as selling better. Therefore, it is important to co field studies that take into account the net effect of the relative pri crowding out effects. There exist several such studies.

(1) A real-life case for the crowding out effect is provided by donations, as argued by Titmuss (1970). Paying donors for giving undermines the intrinsic motivation to do so. Though it is diffi isolate the many different influences on blood supply, in cou where most of the blood is supplied gratis, paying for blood is lil reduce total supply (Upton, 1973).
(2) A field study refers to the so-called "Nimby" (not in my back syndrome (Frey and Oberholzer-Gee, 1997). In a community loca central Switzerland, in a carefully designed survey, more than a half respondents (50.8 per cent) agreed to have a nuclear waste repo built in their commune. When compensation in monetary term offered, the level of acceptance dropped to 24.8 per cent.
(3) An econometric study of 116 managers in medium-sized Dutch showed that the number of hours worked in the company decrease the intensity of personal control effected by the superiors (Bar 1995).
(4) A large-scale study conducted in 3,860 family businesses found performance pay is ineffective because it violates a psychological cor directed on higher-order goals such as affiliation and recog (Buchholtz, Schulze and Dino, 1996).

(5) Austin (1996) shows, on the basis of interviews with eight experts, that performance measurement is highly counterproductive for complex and ambiguous tasks in computer software development.

To summarize, theoretical considerations as well as empirical evidence from laboratory and field research both strongly suggest that external interventions crowd out intrinsic motivation under the conditions specified. In particular, piece rates, bonuses and other forms of variable pay for performance undermine employees' work ethic, especially in complex jobs in which intrinsic motivation is important and rewards are used in a controlling way. The crowding out effect thus provides a possible explanation for the overwhelming empirical evidence that there is no significant connection between pay and performance, except for simple jobs (Gibbons, 1998; Prendergast, 1999). Even for piece rates applicable to simple jobs, the "literature on incentive plans is full of vivid descriptions of the counterproductive behaviors that piece-rate incentive plans produce" (Lawler III, 1990, 58). The same holds for managerial compensation (for a survey, see Barkema and Gomez-Mejia, 1998), a fact that is admitted even by the proponents of principal–agent theory (e.g. Güth, 1995; Jensen and Murphy, 1990).

In the following section we discuss in a more detailed way when and why intrinsic motivation is needed.

Why intrinsic motivation is needed

Intrinsic motivation is required whenever extrinsic rewards in the form of pay for performance lead to undesired consequences.

Firstly, intrinsic motivation is needed for tasks that require creativity; in contrast, extrinsically motivated persons tend to produce stereotyped repetition of what already works (see Schwartz, 1990, and Amabile, 1996, 1998). In addition, experimental research shows that the speed of learning and conceptual understanding are both reduced when people are monitored. The pressure of sanctions leads to lower levels of learning, and the work is performed in a more superficial way than with intrinsically motivated employees (Deci and Flaste, 1995, 47).

Secondly, intrinsic motivation helps to overcome the so-called multiple task problem (Holmström and Milgrom, 1991; Prendergast, 1999). This applies to cases in which contracts cannot completely specify all the relevant aspects of employee behaviour and its desired outcome. Moreover, it is often not clear to the principals which goals are to be set. Financial goals cannot

always be broken down into operational goals for employees. This has led to the recent success of the balanced scorecard concept (Ka Norton, 1996). As a result, contracts offering incentives to reach giv can give rise to dysfunctional behavioural responses. Agents focus the rewarded aspects of the job and disregard the unrewarded ones. do they have sufficient incentives to reflect on the adequacy of the g should achieve for the overall success of the firm. Multiple task prob the subject of incomplete contracts, which are characteristic of emp contracts (e.g. Simon, 1951; Williamson, 1975). Empirical evidence that the outcome of incomplete contracts will not normally be eval variable pay for performance but that firms rely considerably on i motivation (Austin, 1996).

Thirdly, the transfer of tacit knowledge requires intrinsic motivatio knowledge cannot be expressed in writing or symbols. In contrast, knowledge can be coded, is easily transferable and multipliable and stored in books or diskettes. The distinction entails important conse with respect to the transfer of knowledge and the kind of mo required. The transfer of tacit knowledge cannot be measured Hence, when several persons contribute their tacit knowledge, joint o not attributable to a particular person. In the absence of intrinsic mot employees would tend to free-ride (Osterloh and Frey, 2000).

Disadvantages of intrinsic motivation

Intrinsic motivation should serve to support a firm's goals. It is not a itself, therefore. Sometimes a specific intrinsic motivation is disadvanta for example, surfing the internet for private pleasure during work Consequently, managers must compare the benefits and costs rel motivating employees intrinsically and extrinsically. Though intrinsic vation is indispensable, it nevertheless does have disadvantages someti

First, changing intrinsic motivation is more difficult, and the o more uncertain than relying on extrinsic motivation, or carrots and This is the reason why economists as well as managers traditionally p reward and command policy (Argyris, 1998).

Second, intrinsic motivation can have an undesirable content. As shows, some of the most terrible crimes committed have been, at l part, intrinsically motivated. Envy, vengeance and the desire to domin no less intrinsically motivated than altruism, conscientiousness an

They all contribute to immediate satisfaction rather than to achieving externally set goals.

Third, extrinsic motivation enables behaviour to become more flexible. The motivation of volunteers in a not-for-profit organization, for instance, depends strongly on how it differs compared to the organizational goal. A profit-oriented firm, in contrast, does not have to be so much concerned about the personal values of its employees as long as it pays them well and the costs of supervision are low.

The art of producing the right motivation

Motivation is not a goal by itself but should serve to support a firm's goals. Enterprises are not interested in producing *some* kind of intrinsic motivation with their employees, say the joy of stamp collecting. Rather, they must be motivated to perform in a *coordinated* and *goal-oriented* way. To this end, managers must compare the benefits and costs related to motivating employees intrinsically and extrinsically. Further research is needed to spell out more precisely the conditions for the right balance between intrinsic and extrinsic motivation. Nevertheless, several systematic determinants can be identified to help to manage the kinds of motivation required within firms.

Extrinsic motivation is sufficient when the work is routinized and the performance is easy to measure. This condition obtains for simple jobs. In such cases, empirical evidence shows that the price effect increases performance. An example is given by Lazear (1996). He finds that, in a large autoglass company, productivity increases of between 20 per cent and 36 per cent of output were reached when the firm switched from paying hourly wages to piece rates.

This is a striking example, showing that extrinsic motivation may result in considerable efficiency gains in a situation in which the people affected by the external intervention have little or no intrinsic motivation.

Intrinsic motivation is a necessary production factor in the firm when labour contracts are characterized by a high degree of incompleteness as well as ambiguity. In contrast to pure market contracts, labour contracts typically include incompleteness to a high degree (Simon, 1951; Hodgson, 1998). In well-defined situations this incompleteness can be outweighed by commands, and the opportunity costs of unwarranted behaviour can be raised. However, if the description of the tasks to fulfil is incomplete *and* ill-defined,

intrinsic motivation – i.e. interest in the task itself – is the only way shirking.

According to the theories of cognitive evaluation and psychologi tracts mentioned above, the following factors favour a higher intrinsic motivation.

(1) *Personal relationships and communication.* A large number of ments show that communication strongly raises the intrinsic tion to cooperate (first Dawes, van de Kragt and Orbell, 198 recently Frey and Bohnet, 1995). Even if no communication tak but people can identify each other, cooperation is increased and Frey, 1999a, 1999b). Personal relationships are a precondi relational psychological contracts (Rousseau, 1995).

(2) *Participation.* The greater the possibilities to co-determine the r employees engage themselves in mutually set goals, and adopt their own. Participation thus raises self-determination. Mutuall goals – in contrast to exogenously imposed goals – strengthen motivation, because the employees are informed about their to perform. As experiments show, this effect takes place on agreement about the goals serves primarily as self-control a obligation. In contrast, perceived external control inhibits c when people are pursuing goals (see Schwartz, 1990).

(3) *Interest in the activity.* Employees are more motivated to work w are aware of the results of their input, when they are respon the outcome and when they consider their work to be me (Hackman and Oldham, 1980). Clearly, self-determination is su

According to the crowding out theory discussed above, the f factors determine how strongly intrinsic motivation is undermined

(1) *Contingency of reward on performance.* The closer the depende reward on the required performance the more strongly intrinsic m is crowded out. This holds provided the perceived controlling rewards is stronger than the perceived informing effect. In that s employees feel their self-determination to be curtailed. This is an a in favour of time-based compensation and against strict form for performance in situations characterized by high intrinsic mot

(2) *Commands.* A command restricts the perceived self-determinati people affected more strongly than a corresponding reward wou distinction between the effect of commands and rewards on m has been disregarded in traditional economic theory. Recent res behavioural anomalies reveals that opportunity costs, in our

receiving a reward, are systematically less valued than direct costs of the same magnitude, in our case the punishment following from not obeying commands (e.g. Dawes, 1988; Thaler, 1992).

(3) *Violation of justice.* Agents who feel that they have been paid unjustly reduce their intrinsic motivation. A large number of empirical studies show that people judge the fairness of their pay relative to other individuals. "It is more critical how their pay compares to the pay of others than what they make in absolute dollars and cents" (Lawler III, 1990, 24). This corresponds to the above-mentioned fairness considerations.

These factors influencing the level of intrinsic motivation obtaining in the firm demonstrate that managing motivation cannot be achieved solely by monetary rewards. The use of money alone causes serious problems for motivating employees.

Concluding remarks

Our main message is: monetary reward is no effective substitute for managing human resources well. Monetary incentives are entangled in an extensive web of psychological contracts, cognitive self-evaluation and fairness considerations. In our contribution we have shown the traps into which management may fall when applying variable pay for performance.

We have systematically disentangled the complicated web of motivations characterizing relationships in firms. In contrast to relationships in markets, contracts in firms are incomplete, with the exception of simple jobs; only in these cases is variable pay for performance applicable and useful. Performance is easy to measure and can be attributed to specific employees. Moreover, such jobs are typically undertaken for monetary reasons only. Today, however, such jobs are increasingly losing importance, as the competitive advantage of firms depends on knowledge and organizational learning. These tasks are, by their very nature, difficult to monitor. Because they are demanding and offer a high degree of self-determination, these activities both enable and necessitate employees to be intrinsically motivated for the firm's goals. In such positions, variable pay for performance as sole motivator crowds out intrinsic motivation.

This does not mean that monetary rewards are unimportant. To avoid the crowding out effect they must take into account various aspects: compensation should be based on an overall evaluation of employees. This may include bonuses or profit-sharing, so long as procedural fairness and perceived justice

relative to co-workers are observed. In any case, to strengthen motivation, monetary rewards must be embedded in detailed feed cussions. This feedback should not just concentrate on outcome cr should also express appreciation for the employee's intrinsic motivat feedback supports relational psychological contracts and recipro Employees then feel informed about their competence and their con to the firm's goals. Despite the current tendency, the use of variable p only tool for handling performance underestimates the complexity c motivation.

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