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Group Incentives versus Individual Incentives in Knowledge Management System

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ABSTRACT

The existence of an optimal level of knowledge sharing has often been identified as a prime antecedent of effective knowledge management. Organizations often devote much effort towards ensuring an adequate level of knowledge sharing between members of their organization, and tend to rely on incentive systems, also referred to as 'extrinsic benefits', to encourage this. While developing incentives is widely used as a strategy to encourage employees to share knowledge, this approach has its potential pitfalls. It may lead to intense competition between members of the same organization, consequently undermine spirit de corps, and thus serve to diminish both knowledge sharing and organizational learning. This study examines whether the cultivation of a collective climate is at odds with the implementation of an incentive system.

Keywords (Required)

Incentive, group incentive, collective climate, knowledge sharing, communication dilemma.

INTRODUCTION

The Researchers and practitioners have identified many factors that conduce towards the appropriate sharing of information between members of an organization. The presence of incentive schemes and that of collective motivations are two factors that have frequently been identified as being among the most potent of these. These factors also lend themselves to being designed and controlled at the management level, and hence have found widespread application in practice.

Proponents of the incentive scheme approach aver that the often pointless hoarding of knowledge is part of human nature, and that people can therefore be induced to share necessary knowledge by the deployment of appropriate incentives (Ahn and Chang 2004; Alavi and Dorothy 1999; Ba, Stallaert and Whinston 2001; Benbya, Passiante and Belbaly 2004).

On the other hand, others have made the point that incentives may prove detrimental to the nurturing of a collective climate conducive to co-operation within the organization. Individual incentives tend to enhance rivalry between members of the same organization, which in turn encourages knowledge hoarding. This could undermine the collaborative relationship that ought to exist between employees and could thus hamper organizational learning (Kohn 1993; Wasko and Faraj 2000).

This paper proposes the use of group incentives as a mechanism to optimize the benefits of incentives while developing a collective climate of sharing. We propose group incentives structured to eliminate or reduce competition among members of the same group, thus securing the merits of an incentive system while fostering spirit de corps within the team. One may anticipate that competition will manifest itself between different groups and thereby retain a deleterious effect. However, Menon and Pfeffer (2003) and Wasko (2000) show that competition within a group increases the cost of maintaining individual status whereas competition between groups increases the value of external knowledge. In other words, competition among groups will not hurt inter-group relationships if groups are distinguished by the different tasks that they perform. In essence, inter-group competition works in favor of an organization.

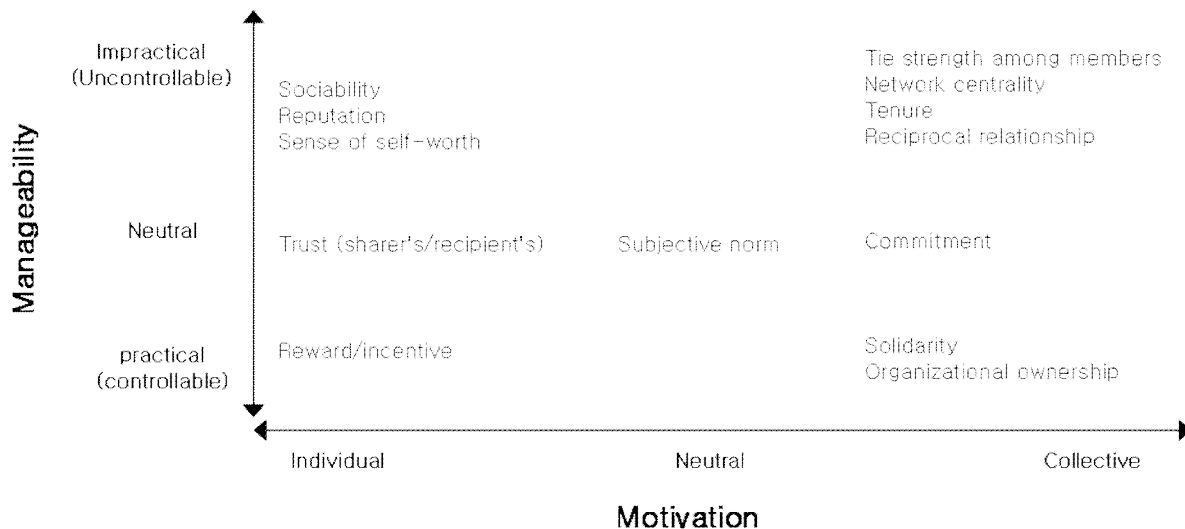
In this study, we will investigate (1) whether an individual incentive negatively influences the collective climate of knowledge sharing and knowledge contribution and (2) whether a group incentive positively influences the collective climate of knowledge sharing and knowledge contribution.

PRACTICAL STRATEGIES TO ENHANCE KNOWLEDGE SHARING

A primary goal in the development of a knowledge management system (KMS) is to efficiently manage knowledge that is embedded in individuals across the organization. It encompasses every related function, from knowledge capture to

knowledge dissemination. However, the performance of KMS is always difficult to assess. It is estimated that on average, knowledge workers spend 15-35% of their time searching for information (Feldman 2004). Much of this time is spent on the internet, rather than in organizational knowledge repositories. Knowledge workers often have to resort to colleagues for organization-specific knowledge (Parker, Cross and Walsh 2001). Hence, it can be inferred that knowledge sharing deserves to be encouraged at the organization level.

Figure 1 shows the factors affecting knowledge sharing. The Y-axis represents the degree to which an organization can influence various factors that impact upon knowledge sharing propensity among its members. To coin a phrase, it thus represents “knowledge manageability.” For instance, “sense of self-worth” and “tenure” are factors not easily amenable to the control of the management; they do not represent potential constituents of a controllable strategy. On the other hand, “rewards” and “solidarity” are controllable factors and can form part of a strategic plan for knowledge management. The X-axis represents the source of motivations. For instance, “trust,” “reputation,” or “incentives” can motivate knowledge sharing in individuals who are not naturally disposed to do so, whereas “network centrality,” “commitment,” and “solidarity” are characteristic of the collective mind (Weick and Roberts 1993).



* Drawn from (Bock, Robert, Kim and Lee 2005; Jarvenpaa and Staples 2001; Levin and Cross 2004; Thomas-Hunt, Ogden and Neale. 2003; Wasko and Faraj 2005)

Figure 1. Factors Affecting the Knowledge Sharing

In Figure 1, “rewards and incentives,” “solidarity,” and “organizational ownership” are the factors most amenable to management control. This perception is what informs the readiness of managements to embrace incentive systems as mechanisms for cultivating a collective climate marked by adequate knowledge sharing.

Incentives

As we have already noted, proponents of incentive structures hold that knowledge hoarding is natural human behavior and that consequently, knowledge workers will not be naturally disposed to share their precious knowledge without proper incentives (Ahn et al. 2004; Alavi et al. 1999). Furthermore, Ba et al. (2001) have found evidence that an increase in the importance of incentives has resulted from the rise of Information Technology. In an investigation of effective portal implementation, Benbya et al. (2004) find that incentives for workers can compensate for the lack of other strategies that support knowledge sharing. The presence of incentive schemes could also help identify the specific types of knowledge that organizations need to create in order function efficiently. As Ba et al (2001) put it: “Without providing incentives for individuals to share knowledge, organizations face another knowledge management problem: that of what knowledge to create in the first place. Oftentimes, because of individuals’ unwillingness to share, organizations may end up reinventing the wheel, by creating knowledge that already exists in the organization but remains unshared.”

Collective mind

Organizational culture is one of the most important factors that determine the success of knowledge management initiatives. However, culture cannot be easily cultivated; it is a durable concept. Managers therefore resort to manipulating the organizational climate in order to meet short-term goals. Organizational climate is temporal and manageable and can facilitate the development of an organizational culture conducive to knowledge management practices.

Changes in organizational climate are typically effected by modulating collective motivation factors, such as solidarity and organizational ownership (refer to Figure 1). The goal is to develop the collective mind by cultivating a collective climate.

CONFLICT BETWEEN INCENTIVES AND COLLECTIVE CLIMATE

There is inherent conflict when incentives are used to influence the collective mind. Incentives enhance knowledge sharing and so does the collective climate, but both might impede each other. An incentive system will decrease the effect of the cultivation of collective climate and may indeed have a deleterious effect on the aggregate collective climate. Bock et al. (2005) have demonstrated that monetary incentives have a negative effect on knowledge sharing

The negative effects of individual incentives can be traced to increasing the competitive spirit between individuals and between groups. Wasko et al.(2000) found that incentives can enhance competition and lead to knowledge hoarding. Kohn (1993) reported that an incentive system is an obstacle to creating a knowledge-based company, since rewards can diminish the relationship among employees and hamper organizational learning.

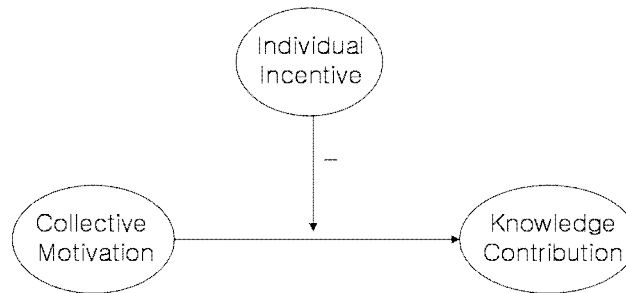


Figure 2. The Negative Moderating Effect of Incentives

Thus, as Figure 2 illustrates, incentives designed for individuals negatively moderate the effect of collective motivation on knowledge contribution. Note the use of the term 'knowledge contribution' in place of 'knowledge sharing.' The distinction between these terms is that while knowledge sharing refers to the extent of information shared, knowledge contribution attempts to discern between relevant and irrelevant knowledge. Thus, knowledge contribution is more useful in practical terms, as it excludes the distribution of useless knowledge. The distinction between the two is important, since even with an increase in knowledge sharing within a knowledge management system is evident, the increase may not represent any qualitative benefit and it is conceivable that useful knowledge is still being hoarded. For example, Garud et al. (2005) quote a manager in their study as saying that "incentives increase awareness and the number of contributions. But the quality of these contributions is in question." Martensson (2000) states that useful knowledge comes from people who are highly motivated, innovative and possess leadership qualities.

GROUP INCENTIVES

Organizational knowledge is categorized into three groups: knowledge as object (KO), knowledge embedded in people (KEP), and knowledge embedded in groups (KEG) (Wasko et al. 2000). KO refers to the knowledge usually stored in repositories like knowledge-bases. KEP refers to the knowledge that each individual holds and calls upon as needed. KEG refers to the knowledge generated through group activities or experience. Whereas KEP can be shared when individuals are willing to share knowledge, KEG can only be shared when all the members of the group are willing to collaborate.

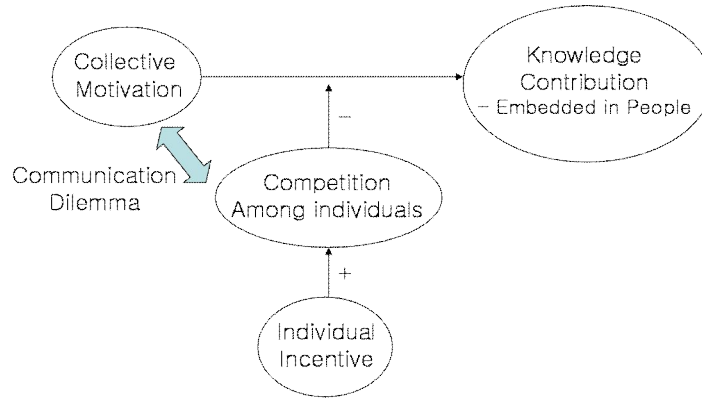


Figure 3. The Conceptual Model of the Individual Incentive

As Figure 3 illustrates, individual incentives increase competition between group members. High levels of competition will tend to negatively moderate the relation between the collective motivation and individual knowledge contribution. This is because when competition increases, a ‘communication dilemma’ ensues. A communication dilemma is defined as a conflict between the collective interest and individual interests. In hyper-competitive environments, individuals are more likely to withhold and hoard knowledge because knowledge leads to rewards (Kalman, Monge, Fulk and Heino 2002; Menon et al. 2003). Thus, collaboration between members of the group cannot be expected, because the system encourages the hoarding of KEP.

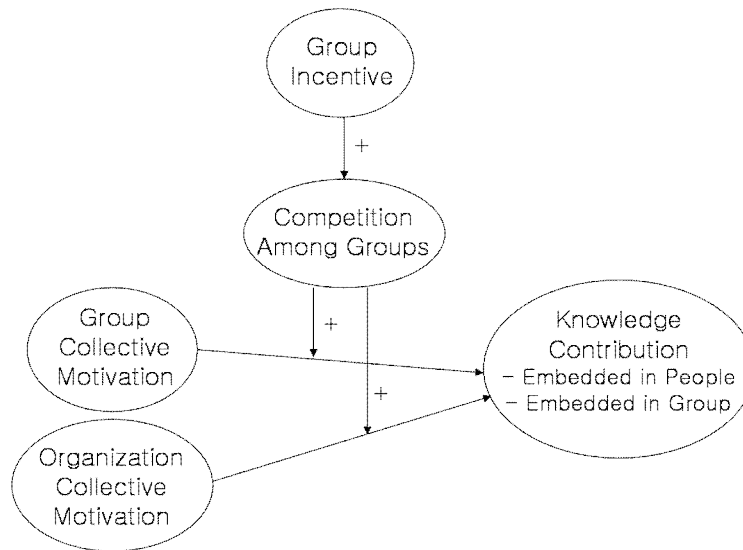


Figure 4. The Conceptual Model of the Group Incentive

Similarly, group incentives can also increase competition between groups. Analogous to the manner in which individual incentives increase competition between individuals, group incentives can increase competition between groups. However, there might be no competition between members of a group and therefore, designing group incentives will not adversely affect knowledge sharing between members of the same group. Thus, the collective mind is not hampered. Members in an organization can perceive the collective mind either towards a group (the group collective motivation) or towards an organization (the organization collective mind) under a condition that an organization is comprised of groups. As shown in Figure 4, where a regimen of group incentives is established, competition between groups will ensue. However, within a group, no conflict among members is warranted; on the other hand, enhanced collaboration can be anticipated. Thus, in a

situation where the group incentive system is deployed, the competitive spirit is harnessed beneficially; it positively affects the association between group collective motivation and knowledge contribution.

When such an active collaboration between members obtains, KEG as well as KEP will be shared. This implies better knowledge contribution both in terms of quantity and quality. Thus, group incentives positively affect the group collective motivation and knowledge sharing.

A problem arises when there is high competition between groups, and this competition may hamper the organization collective mind. In this regard, Menon et al. (2003) found that while competition within a group increases the cost of maintaining status among group members, competition between groups encourages the members of a group to place a higher value on external knowledge. Although group incentives can increase inter-group competition, it is unlikely to hurt inter-group relationships, because sharing of group knowledge with other groups does not diminish status: such sharing is essentially costless to individuals. However, this is true only if groups are distinguished by the different tasks that they perform. For example, when group 'A' shares a piece of knowledge with group 'B', the former need not worry about losing either status or the power derived from having held that knowledge. Hence, the inter-group relationships can work in favor of the organization.

Figure 5 shows a research model and hypotheses drawn from the above theoretical perspectives.

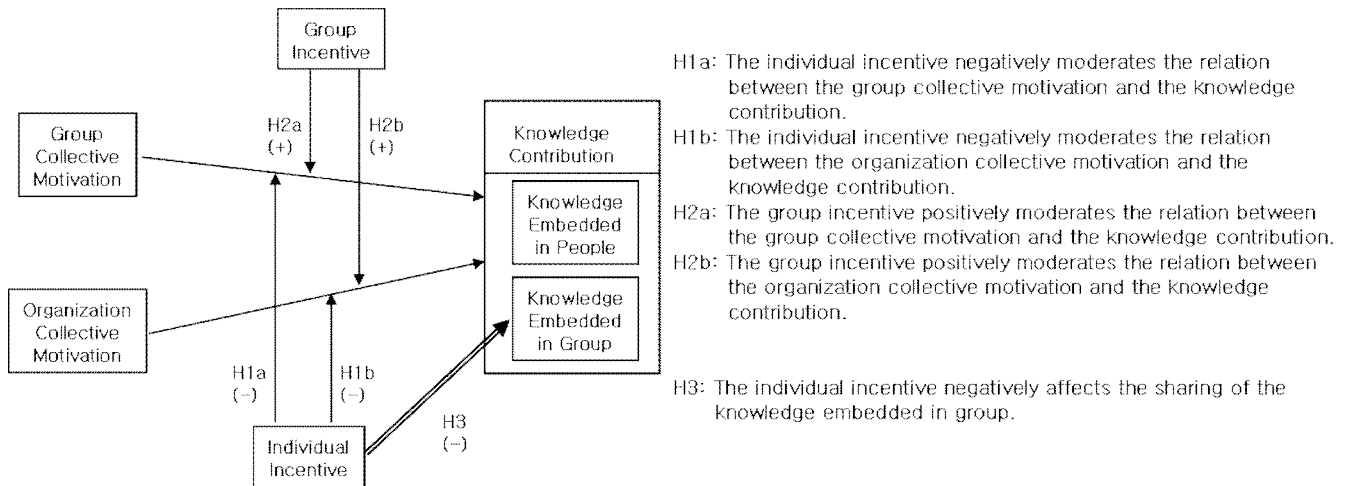


Figure 5. The Research Model of Incentives

EMPIRICAL FINDINGS AND RESEARCH DESIGN

A pilot review was conducted to verify, using case studies, the research model delineated in Figure 5. Several case studies were examined where incentives were employed in the implementation of knowledge management systems. For example, the implementation of an incentive system in Corning Inc. resulted in significant improvement in service (Ravichandran and Rai 2000). It was also found that enhanced usage of team reward systems indirectly increase the efficacy of group incentives.

In order to investigate the moderating effects of group incentives and individual incentives, two-phased data collection will be conducted. MBA students will be used as subjects and the study will be carried out over the course of two semesters. In the first semester, the relation between collective motivation and knowledge contribution will be investigated. In the following semester, group incentives and individual incentives will be added to the model. Statistical analysis will consist of a nested analysis of the data.

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