Withholding effort in knowledge contribution: The role of social exchange and social cognitive on project teams

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A B S T R A C T

Few investigations have been made to determine what factors influence people in withholding knowledge from their colleagues. We created a construct, *knowledge withholding* (KW), defined as the likelihood that individuals contribute less knowledge to others in the organization than they could. We have formulated a model, based on social exchange theory and social cognition theory, to analyze the antecedents of KW from both personal and contextual perspectives. The contextual influencers were subdivided into dimensions of rational choice, normative conformity, and affective bonding to help in understanding KW. Results of a survey of 162 MIS alumni of a university, who had experienced software development, trust, distributive justice, and team-related work showed that personal outcome expectations had a substantial influence on KW.

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1. Introduction

Withholding effort (WE) is the likelihood that an individual will give less than full effort to a job-related task. It is the common denominator of shirking, job neglect, social loafing, and free riding, which all involve an individual's WE while performing a task. *Shirking* focuses on the individual's lack of a full effort in contribution, whereas *job neglect* involves partial or full withdrawal from job-related duties, and both focus on a context where an individual employee is working alone. *Social loafing* involves holding back effort, whereas *free riding* occurs when the individual enjoys the benefits without contributing, and both focus on processes that occur in group contexts. Overall, our study focused on the general WE which encompasses varied tasks, settings, and individual predispositions, whereas shirking, job neglect, social loafing, and free riding describe specific reasons and contexts in which effort is withheld.

A number of papers have stated that individuals are prone to WE when they participate in group tasks, especially in the context of knowledge contribution. Individuals who provide knowledge often feel that this devalues their contribution while benefiting other people in the group [7]. The value of an individual's shared knowledge is often difficult to judge; knowledge with a contextual nature is complicated and hard to express, and, individuals receive an unearned part of every other member's shared knowledge during group discussion, regardless of their own contribution. Therefore, in the absence of coercion or appropriable inducements, individuals will tend to withhold knowledge.

To gain insight into WE in knowledge contribution, we created a theoretical construct, knowledge withholding (KW), defined as the likelihood that an individual will give less than full effort to contributing knowledge; one of the research streams related to KW is in knowledge sharing, which has been studied by probing the issue from a relatively positive perspective, based on theories of trust, social capital, reward expectation, task-technology fit or IS success model [3].

A negative perspective evinces different research models and constructs of knowledge sharing; this often uses primary variables, such as procedural justice, distributive justice, task visibility, punishment, and conflict (see Table 1), which are considered influential to withholding behavior. However, they are rarely used in traditional knowledge sharing research [10]. Positive behavior variables are not the opposite of negative behavior variables; for example, theories and variables of user resistance research (such as perceived uncertainty, perceived inequity, perceived power loss, and perceived distrust) are not the same as theories and variables of user acceptance research (such as perceived ease of use and perceived usefulness).

Following recent taxonomy of research on WE [20], we analyzed the antecedents of KW from personal and contextual perspectives. Furthermore, the contextual influencers were subdivided into dimensions of rational choice, normative conformity, and affective bonding to understand KW through a systematic

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Table 1
Summary of studies on withholding effort.

Author	Study content	Antecedents (significance)
First point of view: rational choice, normative conformity and affective bonding		
[15]	Based on social exchange theory	Control variables (−) Task visibility (N.S.) (−) Negative affectivity (N.S.) Affective bonding (−) Leader-member exchange (S.) (−) Team-member exchange (N.S.)
[19]	Based on agency theory	Rational choice (+) Group size (S.) (+) Goal conflict (S.) (−) Monitoring arrangements (S.)
[9]	Based on agency theory and social exchange theory	(−) External competition (S.) Rational choice (+) Centralization (S.) Normative conformity (−) Formalization (S.) Affective bonding (−) Interaction (S.)
Second point of view: contextual and personal factors		
[16]	Address concerns about the sustainability of the open source content model	Personality (−) Fairness × justice (S.) Context (−) Perceived justice (S.) (−) Intrinsic motivations (S.)

(+) is for positive relationship; (−) is for negative relationship.

analysis. Focusing on those WE factors that have centered on behaviors such as product selling [11], we attempted to identify how such relationships are built, extending their application to the field of KM, and determining which factors were the most important.

2. Theoretical background and hypotheses

2.1. Antecedents of withholding effort (WE)

Table 1 shows two streams of research. The first, because contextual factors are complex and often lack a systematic view, we used rational choice, normative conformity, and affective bonding incentives to explain the impact of organizational context on group members' WE; this is consistent with agency theory, which stresses control. It is also, because of a social exchange perspective, stressed interpersonal relationships [9]. The second adopted a holistic view involving personal motivations and contextual influencer variables to explain group member's WE in organizations.

The purpose of our study was to integrate these two to form a KW research model (as shown in Fig. 1).

2.2. Rational choice, normative conformity, and affective bonding in KW

Rational choice, assumes that people (managers or principals) adjust their control and monitoring activities to maximize their workers' (employees or agents) utility under varying contexts. When the principal has sufficient information to verify the behavior of the agent, he or she is likely to behave in the interests of the principal. Otherwise, individuals withhold effort. Researchers adopting this view have indicated that task visibility and group size are the most important factors.

Group size represents a team's structure and composition. Prior research suggested that group size was likely to have a negative effect on information-sharing, because an increased group size allows its members to escape from contributing. Increased group size also makes it more difficult to assess each individual's contribution. Studies have also suggested that smaller group sizes

allow individuals to feel that their contribution is more crucial to the success of the process. Therefore, we proposed:

H1. Increase in group size is positively related to KW.

Task visibility is the perceived belief that a supervisor is aware of a member's effort in the knowledge being shared. Individuals are less inclined to expend effort when they feel that their individual contribution cannot be identified by their supervisor. Supervisory control has an impact on an individual's willingness to share knowledge, because its control is needed in order to align the goals of the employer and employee. The level of visibility of an individual employee's contribution effort depends mainly on whether the shared knowledge can be monitored and evaluated. When supervisors impose sanctions on KW, an employee would work hard on sharing his knowledge, i.e., he or she makes rational choice not to free ride. Therefore, we hypothesized:

H2. Task visibility is negatively related to KW.

Normative conformity, in which an individual is motivated to adhere to standards of conduct grounded in socially instilled values about principled behavior, and *affective bonding*, which evolve as parties in a relationship interact and mature over time. Collectively are consistent with social exchange theory (SET). Normative conformity occurs due to a set of unwritten expectations about employment relationships, while affective bonding motivates people to provide effort based on their emotional attachments to others. These have developed as part of the social exchange process, providing motivation to reduce WE.

SET explains human behavior primarily in terms of social exchange, assuming that some sort of obligation to reciprocate is expected whenever one receives benefits from anothers' contribution. Such exchanges are relatively long-term relationships (e.g., personal obligation, gratitude, and trust) as opposed to immediate ones [8]. In the context of WE, when individuals are in a high-quality relationship, they will behave in ways that will benefit their exchange partners, such as performing better and exerting extra effort, even if they are not immediately rewarded for such behavior. Furthermore, social exchange, by emphasizing how