FACTORS MOTIVATING KNOWLEDGE TRANSFER: THE KNOWLEDGE CONTRIBUTORS’ PERSPECTIVE

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ABSTRACT

Previous studies have explored how to enhance the effectiveness of knowledge transfer, the factors which motivate knowledge contributors to transfer knowledge were for the most part ignored. This study developed a research model based on the Self-Determination Theory to derive intrinsic and extrinsic motivation that encourages knowledge contributors’ intention to be involved in knowledge transfer and to gain satisfaction from it. The results showed that, expert knowledge affects contributors' intentions to transfer knowledge and all the intrinsic factors increase the contributor's satisfaction. As for extrinsic motivation, financial reward, identification, and performance outcome expectation, increase a contributor's intention to transfer knowledge.

INTRODUCTION

The movement of knowledge across individual and organizational boundaries, into and from repositories, and into organizational routines and practices is ultimately dependent on employees' knowledge-sharing behavior [1]. The movement of knowledge is highly related to effective knowledge management (KM) in an organization. Knowledge generation and transfer is an essential source of firms' sustainable competitive advantage [9]. In the knowledge market, there are two groups of participants in a knowledge transfer: senders who are the knowledge sellers, and receivers who are the knowledge buyers (Lin and Geng, 2005). Each sender is endowed with a piece of knowledge which a receiver is interested in (Lin and Geng, 2005). Knowledge sellers should be motivated enough to sell their knowledge to knowledge receivers. However, they usually tend to hoard knowledge and looking guardedly at what is offered by others (Davenport and Prusak, 1998). Therefore, it is important to understand how to increase knowledge sellers' motivation to share knowledge rather than to hoard it.

Knowledge transfer concerns the willingness of individuals in an organization to share with others the knowledge they have acquired or created [4]. There are varied studies that examine how knowledge sharing or knowledge transfer happens under different situations. Lin and Geng (2005) suggested a knowledge sender-receiver framework for studying the transfer under asymmetric and/or incomplete information. Wasko and Faraj [13] examined how individual motivation influences knowledge contribution via electronic networks. However, KM research has yet to yield extensive explanations regarding the individual's motivation to transfer knowledge [5] and what facilitates their satisfaction from the perspective of knowledge contributors. He and Wei [5] evidenced what motivates individual
knowledge workers to continue sharing knowledge in terms of using the KM system. They examined knowledge workers’ motivation from the perspective of attitude and belief. There has also been a lack of attention paid to innate psychological needs and growth tendencies to motivate knowledge transfer behavior. In this study, we term knowledge sellers as knowledge contributors who are willing to transfer their knowledge to the knowledge market in a well-developed KM system environment. Thus, the purpose of this study focuses on what motivates knowledge contributors’ intention to transfer knowledge and to perceive satisfaction in doing it.

THEORETICAL BACKGROUND AND RESEARCH HYPOTHESES

Motivation concerns energy, direction, persistence and equifinality— all aspects of activation and intention [11]. Motivation is highly valued because of its consequences: Motivation produces. It is therefore of preeminent concern to those in roles, such as manager, teacher, religious leader, coach, and parent that involve mobilizing others to act [11]. People can be motivated because they value an activity or because there is strong external coercion, even they may have highly varied experiences and consequences [11].

The Self-Determination Theory (SDT) is the investigation of people's inherent growth tendencies and innate psychological needs that are the basis for their self-motivation and personality integration, as well as for the conditions that foster those positive processes [11]. In the SDT, Deci and Ryan [3] distinguish between different types of motivation based on the different reasons or goals that give rise to an action. In terms of the work performance inventory, intrinsic and extrinsic motivation will influence different individual characteristics in different situations (Amabile et al., 1994).

Motivation is usually categorized by intrinsic and extrinsic motivation (e.g. [9] [10] [11]. The most basic distinction between these two is that intrinsic motivation refers to doing something inherently interesting or enjoyable [10]. Extrinsic motivation refers to doing something because it leads to a separable outcome [10]. That is, extrinsic motivation regards the performance of an activity with a view to attaining some separable outcome and thus, contrasts with intrinsic motivation, which refers to doing an activity for the inherent satisfaction of the activity itself [11].

**Intrinsic Motivation for Knowledge Transfer**

Intrinsic motivation is defined as the doing of an activity for its inherent satisfaction or simply for the enjoyment rather than its instrumental value [10]. When intrinsically motivated a person is moved to act for the fun or the challenge entailed rather than because of external prods, pressures, or rewards [10]. Intrinsic motivation results in high-quality learning and creativity, it is especially important to detail the factors and forces that engender it versus those that undermine it [10]. Ryan and Deci [10] [11] proposed that intrinsic motivation focuses primarily on psychological needs, the innate needs for competence, autonomy and relatedness.

The Cognitive Evaluation Theory (CET; [3]) specifies the factors in social contexts for examining intrinsic motivation. The CET aspect of SDT suggests that intrinsic motivation can be facilitated or forestalled by supporting versus thwarting the needs for autonomy and competence [10]. The CET is
that feelings of competence during an action can enhance intrinsic motivation for that action. Also, people must not only experience competence or efficacy, they must experience their behavior as being self-determined for intrinsic motivation to be in evidence [11]. That is, people must not only experience perceived competence (or self-efficacy), they must also experience their behavior to be self-determined if intrinsic motivation is to be maintained or enhanced [10]. In terms of intrinsic motivation, knowledge contributors’ perceived competence can include their expert knowledge and self-efficacy. The feeling of competence also refers to the knowledge power they possess. They might feel a loss of knowledge power if they pass on their knowledge. Thus, feeling the loss of knowledge power is negatively related to contributors’ intentions to transfer knowledge. These three factors of intrinsic motivation would also influence contributors' perceived satisfaction when they feel their competence to be enhanced.

**Hypothesis 1a:** Expert knowledge is positively related to knowledge transfer intention.

**Hypothesis 1b:** Expert knowledge is positively related to knowledge transfer satisfaction.

**Hypothesis 2a:** Loss of knowledge power is negatively related to knowledge transfer intention.

**Hypothesis 2b:** Loss of knowledge power is negatively related to knowledge transfer satisfaction.

**Hypothesis 3a:** Self-efficacy is positively related to knowledge transfer intention.

**Hypothesis 3b:** Self-efficacy is positively related to knowledge transfer satisfaction.

**Extrinsic Motivation for Knowledge Transfer**

Extrinsic motivation has typically been characterized as a pale and impoverished form of motivation that contrasts with intrinsic motivation [10]. Extrinsic motivation makes people feel externally propelled into action [10]. It is also a construct that pertains whenever an activity is done in order to attain some separable outcome [10]. Extrinsic motivation is composed of introjection, external regulation, identification, and integration [10]. Introjection is defined as the ego involvement and approval from self or others, which refers to the effort of codification. External regulation is defined as the salience of extrinsic rewards, such as financial reward. Identification refers to the conscious valuing of an activity and the self-endorsement of goals. Integration is defined as a hierarchical ‘synthesis of goals or congruence of value to knowledge contribution, occurring through self-examination and bringing new regulations into congruence with one’s other values and needs’ [10]. It is the progression from external regulation to internal regulation which motivates people’s specific behavior to be freely chosen [6]. The more one internalizes the reasons for an action and assimilates them to the self, the more one’s extrinsically motivated actions become self-determined. It also would reflect on the performance outcome expectation. In summary, codification effort, financial reward, identification, and performance outcome are extrinsic motivation which induce contributors' intentions to transfer knowledge and perceive satisfaction.

**Hypothesis 4a:** Codification effort is negatively related to knowledge transfer intention.

**Hypothesis 4b:** Codification effort is negatively related to knowledge transfer satisfaction.

**Hypothesis 5a:** Financial reward is positively related to knowledge transfer intention.

**Hypothesis 5b:** Financial reward is positively related to knowledge transfer satisfaction.
Hypothesis 6a: Identification is positively related to knowledge transfer intention.
Hypothesis 6b: Identification is positively related to knowledge transfer satisfaction.
Hypothesis 7a: Performance outcome is positively related to knowledge transfer intention.
Hypothesis 7b: Performance outcome is positively related to knowledge transfer satisfaction.

RESEARCH METHODOLOGY

According to CET and SDT, this study summarizes the factors of intrinsic and extrinsic motivation related to knowledge transfer. The factors of intrinsic motivation are contributors' expert knowledge, loss of knowledge, and self-efficacy. The factors of extrinsic motivation are codification effort, financial reward, and identification. The research model is shown in Figure 1.

![Figure 1: Research Model](image)

Measurements

Expert knowledge is defined as the effectiveness of knowledge transfer through KMS; measurement items were adopted from Thong [12]. Financial reward is defined as the importance of economic incentives provided for knowledge contributors [5]. These measurement items were adopted from He and Wei [5]. The items measuring loss of knowledge power, self-efficacy, codification effort, and identification, were adopted from Kankanhalli et al. (2005). Loss of knowledge power refers to the perception of power and unique value lost due to knowledge contribution (Gary, 2001; Kankanhalli et al., 2005). Self-efficacy refers to the confidence in one’s ability to provide knowledge (Constant et al., 1996; Kankanhalli et al., 2005). Codification effort refers to the time and effort required to codify and contribute knowledge (Markus, 2001; Kankanhalli et al., 2005). Identification refers to the perception of the similarity of values, membership, and loyalty within the organization (Johnson et al., 1999; Kankanhalli et al., 2005).

Performance outcome expectation was measured by the extent to which improvements in job performance (efficiency and effectiveness) were associated with contributing knowledge [2]. The items were adopted from Compeau [2] and Lin and Huang (2008). As for the items measuring the dependent
variable, *knowledge transfer intention* was adopted from Mathieson [7] and *knowledge transfer satisfaction* was adopted from Oliver [8] and Bhattacherjee (2001).

**Data Collection**

The research sample was collected from the customer list of the top four KMS software providers in Taiwan, including Galaxy Software Services, eLand Tech, INTUMIT, and Data Systems. Their customers are from the top 500 industries in Taiwan, including government, medical centers, high-tech industries, bio-tech industries and financial firms. After a pretest and a pilot test, we submitted our questionnaire to inquire if there were any volunteers to answer the questions, guaranteeing their privacy. 215 volunteers responded to the questionnaire. After deleting incomplete ones, 191 were used to analyze the research model.

**Data Analysis and Results**

The constructs were first assessed for reliability and validity. The reliability used Cronbach's Alpha (Cronbach, 1951). Nunnally (1978) suggested a value higher than 0.7 to satisfy the reliability requirement. All the constructs were between 0.82 and 0.96. The validity was tested using factor analysis with principle component analysis and varimax rotation. Convergent validity assesses the degree to which two measures of the same constructs are correlated; discriminant validity is the degree to which two conceptually similar constructs are distinct (Hair et al., 2006). All constructs satisfied the requirements of reliability and validity.

Before using linear regression to test the research hypotheses, the data set was tested to satisfy linearity, independence of the residuals, and normality. Table 1 summarizes the results of the hypotheses tests. Expert knowledge had a significant relationship with knowledge transfer intention (hypothesis 1a was supported). All of the intrinsic motivational factors significantly influenced knowledge transfer satisfaction (hypothesis 1b, 2b, and 3b were supported). Financial reward, identification, and performance outcome expectation significantly influenced knowledge transfer intention (hypothesis 5a, 6a, and 7a were supported). Codification effort negatively influenced contributors' satisfaction (hypothesis 4b was supported), and identification positively influenced contributors' satisfaction (hypothesis 6b was supported).

<table>
<thead>
<tr>
<th>The main effects</th>
<th>Standard Coefficient (The effect on knowledge transfer intention)</th>
<th>Standard Coefficient (The effect on knowledge transfer satisfaction)</th>
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<tbody>
<tr>
<td>Expert Knowledge</td>
<td>0.25***</td>
<td>0.16*</td>
</tr>
<tr>
<td>Loss of Knowledge power</td>
<td>-0.03</td>
<td>-0.29***</td>
</tr>
<tr>
<td>Self-Efficacy</td>
<td>0.01</td>
<td>0.13*</td>
</tr>
<tr>
<td>Codification Effort</td>
<td>-0.02</td>
<td>-0.16*</td>
</tr>
<tr>
<td>Financial Reward</td>
<td>0.12*</td>
<td>0.07</td>
</tr>
<tr>
<td>Identification</td>
<td>0.25***</td>
<td>0.14*</td>
</tr>
<tr>
<td>Performance Outcome Expectation</td>
<td>0.22**</td>
<td>0.09</td>
</tr>
</tbody>
</table>

*p< 0.1; **p< 0.01; ***p< 0.001
CONCLUSION

Based on our findings, regarding intrinsic motivation, only expert knowledge influences knowledge transfer intention. It is a critical factor of intrinsic motivation to facilitate knowledge contributors' intentions to transfer knowledge. Expert knowledge is one of perceived competence to enhance intrinsic motivation of knowledge transfer intention. Cognitive evaluation theory that indicates feelings of competence during actions can enhance intrinsic motivation for that action [10]. Also, intrinsic motivation is related to knowledge contributors' satisfaction, including expert knowledge, loss of knowledge power, and self-efficacy.

The impact of extrinsic motivation, financial reward, identification, and performance outcome expectation, can improve knowledge transfer intention. In particular, identification has a highly significant influence on knowledge transfer intention and perceived satisfaction. In terms of improving the knowledge contributor's satisfaction, the higher the degree of codification effort the lower will be the satisfaction. This study contributes to the empirical studies of SDT literature about knowledge transfer. We collected critical factors of motivation to examine what would increase a knowledge contributor's intention to transfer knowledge and what would enhance their satisfaction in the process.

REFERENCES


Due to the page limitation, we only include key references. If you are interested other references please feel free to contact authors.