DETERMINANTS OF KNOWLEDGE SHARING INTENTION IN ORGANIZATION:
A SOCIAL CAPITAL PERSPECTIVE

Hong-ping Sun¹,², Xiang-yang Liu²

¹ School of Management, Guangdong University of Business Studies, P. R. China,
² School of Business Administration, the South China University of Technology, P. R. China
Email: Sunny069@163.com

Abstract: Knowledge sharing is an important process in organization knowledge management. However individuals tend to hoard knowledge for knowledge means power, especially in knowledge-based economy. Intention model indicate that intention of a behavior can effectively explain the behavior. The aim of this study is to deepen our understanding of the factors that increase or lessen employees’ tendencies to engage in knowledge-sharing behaviors. We develop a theory framework upon both the Theory of Planned Behavior and social capital theory. This model predicts that individuals’ behavioral belief, structural dimension of social capital and relational dimension of social capital variables have direct effects on knowledge sharing intention. To test the proposed model, we conducted a field study and collected data from 539 managers and technologist from knowledge-intensive organizations in Guangdong, China. The results indicated that social capital variables (i.e., trust, norms) and individuals’ behavioral beliefs (i.e., sense of self worth, expectation of rewards) were strong predictors of individuals’ knowledge sharing intention. But the hypothesis of influence of social networks configuration-depth of relation-has not been supported.

Key words: Knowledge sharing intention, Social Capital theory, Theory of planned behavior

INTRODUCTION

Knowledge has emerged as the most strategically-significant resource of the firm[1]. Firms emphasize the capacity of the firm to integrate and transfer knowledge. So knowledge sharing is especially important in knowledge management. In this study, we try to analysis what factors will stimulate knowledge sharing intention from individual level in a social context.

In early knowledge management, people emphasize the effectiv e of IT systems. Although people can share knowledge more easy by IT system, IT system can not increase people’s willingness of knowledge sharing. Knowledge sharing cannot be forced but can only be encouraged and facilitated[2]. So it is very important to study individual’s intention of knowledge sharing. In organization studies, social capital is a powerful factor explaining actors’ effectiveness. According to Adler & Kwon’s review, social capital influences career success, facilitates inter-unit resource exchange and product innovation[3]. Given the strong emphasis on relationships (i.e., guanxi and renqing) in China context, we expect social capital to be especially important in facilitating knowledge sharing intention. In this study, we develop a new knowledge sharing intention model from the theory of planned behavior (TPB) and social capital perspectives. We hope to contribute to the understanding of the areas of social capital theory and knowledge sharing intention by explaining knowledge sharing intention with data from a sample of knowledge-intensive firms in Guangdong, China.

THE RESEARCH MODEL AND HYPOTHESES

Knowledge management has been defined as the process of capturing, storing, sharing, and using knowledge[4]. In our study, we focus the knowledge sharing, which was defended as the willingness of individuals in an organization to share with others the knowledge. Hoarding knowledge and looking guardedly at the knowledge offered by others are natural human tendencies[5]. In our study, we first try to explore what stimulate individual willingness in term of human nature. TPB found that individuals’ behavioral belief has important influence in knowledge sharing intention. While one shares knowledge with others, the intention will not only influence by individual factors but also social factors. Social capital as a form of capital that exists within relationship among individuals[6] has been found widely effect on individual behavior. Researchers indicate that access to new sources of knowledge is one of the most important direct benefits of social capital, and knowledge sharing is facilitated by intensive social interactions of organization actors[7]. According to Bourdieu and Burt’s view, social capital comprises both the network and the assets that be mobilized through that network[8].

But there is little empirical study about social capital and knowledge sharing intention. Basing on the social capital theory and TPB, we develop a new conceptual model to explain knowledge sharing intention (Fig.1).
DETERMINANTS OF KNOWLEDGE SHARING INTENTION IN ORGANIZATION

Fig. 1 A social capital model of knowledge sharing intention

**Individual motivators and knowledge sharing intention**
According to the TPB, beliefs about the likely outcomes of the behavior and the evaluations of these outcomes (behavior beliefs) are important considerations of behavior intention[9]. Behavioral beliefs produce a favorable or unfavorable attitude toward the behavior. So we can analyze what factors stimulate individual’s behavior intention in terms of individual’s self motivation. However, in TPB literature, the nature of the intention for specific intention of a behavior, such as knowledge sharing intention, is left unspecified. According to motivation theory, individual’s behavior is driven by needs. Researchers concluded many kinds of needs which stimulate individual’s attitude and behavior. In our study, we propose sense of self worth and expectation of reward, as indicators of individual motivators, would have direct effects on knowledge sharing intention, although Bock believes that sense of self worth (SSW) has no significant effect on intention[10]. Accordingly, we propose that:

_Hypothesis 1~2: (1) Sense of self worth; and (2) expectation of reward is positive predictor of knowledge sharing intention._

**Structural dimension of social capital and knowledge sharing intention**
The fundamental proposition of social capital theory is that network ties provide access to resources. For example, the strong, symmetrical ties frequently associated with the development of affective relationships, in turn, influence individuals’ motivation to engage in social interaction and thereby, exchange knowledge[11]. Our study focuses on structural dimension and relational dimension of social capital developed by Nahapiet & Ghoshal. The structure dimension is the character of network configuration. Here, we consider one of the network configurations, depth of relationship. Depth of relationship refers to the average strength between individuals in terms of network closeness, it reflects the frequent of interactions.

_Hypothesis 3: Depth of relationship is a positive predictor of knowledge sharing intention._

**Relational dimension of social capital and knowledge sharing intention**
Another important construct of social capital is the embeddings of resources in social networks. Naphiet concluded a relational dimension of social capital, such as trust, norms, obligations, and identification[12]. In this study, we focus on trust and social norms.

Misztal defines trust as the belief that the “results of somebody’s intended action will be appropriate from our point of view”[13]. Research indicates that where relationships are high in trust, people are more willing to engage in social exchanges in general[23][26]. Among numerous classifications, affect-based trust and cognition-based trust appear as two generally accepted factors of trust. For affect-based trust, emotional ties linking individuals provide the basis for trust. Alternatively, the basis of cognition-based trust is cognitive reasoning

Social norm, in social capital theory, refers to the “expectations that bind”[14], the socially defined right to control an action, but not hold by the actor rather than others. Adler and Kwon described shared norm as some motivation force for social exchange. Such norms are with significant influence on exchange processes, opening up access to parties for the exchange of knowledge[15]. Thus, we propose that cognition-based trust and social norms would have direct effects on knowledge sharing intention. Ajzen explains successfully the role of group benefit on individual’s knowledge sharing. TPB also find that individual’s behavior sometimes affected by social influence, more than affected by individual’s factor (such as attitude)[16].

_Hypothesis 4~5: (4) cognition-based trust; and (5) social norms in the workplace is a positive predictor of knowledge sharing intention._
METHOD

Sample
To examine the effects of social capital variables on individual knowledge sharing intention, we conducted a field study. The data were collected from managers and technologist working on knowledge-intensive organizations via self-report questionnaires. The sample for this study was drawn from Guangdong, China. A total of 1100 individual surveys were distributed and the response rate was 49%. 87.2% respondents are 21–40 years old. 63.2% respondents are male. Most of them had high levels of education: 93.1% had either attended college or attained a bachelor’s or graduate degree.

Measures

**Dependent variables.** Knowledge intention assessment was adapted from Ajzen’s measurement[^17]. Respondents were asked to assess knowledge intention in terms of 5 items. The rating scale ranged from strongly disagree (1) to strongly agree (5). A sample item is “I intend to share my experience or know-how from work with other partners more frequently in the future.”

**Independent variables.** Assessment of Sense of self worth was development by Bock[^18]. Respondents were asked to assess sense of worth in terms of 5 items. The rating scale ranged from strongly disagree (1) to strongly agree (5). A sample item is “I think I should share my knowledge with other members in the organization.”

**Expectation of reward**. We develop a 4-item assessment basing on Bock’s 2-item measurement[^19]. Respondents were asked to assess expect reward in terms of 4 items. The rating scale ranged from strongly disagree (1) to strongly agree (5). Two new items are “My partners will receive better performance assessment in return for their knowledge sharing behavior; My partners will receive encouragement in return for their knowledge sharing behavior.”

**Depth of relationship.** The assessment of the depth of relation was adapted from Holland et al[^20][^21]. Depth of relationship includes 6 items, such as network closeness, socialization and emotional support received. Responses were on a 5-point scale (1 = not at all/a little close; 3 = moderately; 5 = extremely close). The extent of emotional support received from each person was measured by asking a question: “To what extent does each person give you emotional support?” Responses were on a 5-point scale (1 = not at all, 3 = moderately, 5 = a great extent).

**Trust** was measured in terms of cognition-based. A assessment was using a 6-item adapted from a measure developed by McAllister[^22]. Responses were on a 5-point scale ranging from strongly disagree (1) to strongly agree (5). An example item of cognition-based trust is “This member approaches his job with professionalism and dedication.”

**Social norms** assessment was adapted from Ajzen’s measurement[^23]. Respondents were asked to assess norms in terms of 6 items. The rating scale ranged from strongly disagree (1) to strongly agree (5). An example item is “My colleagues think I should share my knowledge with other members in the organization.”

**Control variables.** We select task dependent and education as controls. Task dependent was assessed using a 4 item assessment adapted from Jarvenpan & Staples.’s measurement[^24]. A sample item is “I can only finished my work by partner’s cooperation”.

RESULTS

The means, standard deviations, alpha reliability estimates and the Pearson’s correlations among the variables are presented in Tab.1.

<table>
<thead>
<tr>
<th>Variable</th>
<th>Means</th>
<th>S.D.</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
<th>8</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Knowledge sharing intention</td>
<td>4.26</td>
<td>.83</td>
<td>-.06</td>
<td>.01</td>
<td>-.26</td>
<td>.32</td>
<td>-.12</td>
<td>-.21</td>
<td>-.12</td>
<td>-.14</td>
</tr>
<tr>
<td>2. Sense of self-worth</td>
<td>4.45</td>
<td>.75</td>
<td>.57</td>
<td>(.93)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3. Expectation of rewards</td>
<td>3.70</td>
<td>1.01</td>
<td>.40</td>
<td>(.93)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4. Depth of relationship</td>
<td>3.64</td>
<td>1.09</td>
<td>.25</td>
<td>(.80)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5. Trust</td>
<td>4.20</td>
<td>.91</td>
<td>.42</td>
<td>.31</td>
<td>.23</td>
<td>.45</td>
<td>(.88)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>6. Social norms</td>
<td>4.20</td>
<td>.92</td>
<td>.55</td>
<td>.43</td>
<td>.41</td>
<td>.24</td>
<td>.32</td>
<td>(.80)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>7. Task dependent</td>
<td>4.20</td>
<td>.92</td>
<td>.34</td>
<td>.31</td>
<td>.19</td>
<td>.25</td>
<td>.21</td>
<td>.27</td>
<td>(.85)</td>
<td></td>
</tr>
<tr>
<td>8. Education</td>
<td>2.77</td>
<td>.87</td>
<td>-.26</td>
<td>-.12</td>
<td>-.21</td>
<td>-.01</td>
<td>-.12</td>
<td>-.14</td>
<td>-.10</td>
<td>(-)</td>
</tr>
</tbody>
</table>

* p < .05, ** p < .01, *** p < .001

To investigate further the relation strength of the relationships between the antecedents and knowledge sharing intention, we conducted a multiple regression analysis. The results, as presented in Tab.2, illustrated that the antecedent variables accounted for a significant portion of the variance in knowledge sharing intention \((Adjusted R^2 = 0.51, \ p < 0.001)\). The multiple regression analysis provided strong support for hypotheses 1, 2, 4 and 5 but hypothesis 3. As expected, social capital (i.e. trust and social norm) and individual self beliefs (sense of self worth and expectation of reward) were found to be positive related to knowledge sharing intention, \(\text{Trust: } \beta = 0.20, \ p < 0.001; \ \text{Social norm: } \beta = 0.29, \ p < 0.001; \ \text{Sense of self worth: } \beta = 0.32, \ p < 0.001; \ \text{Expectation of reward: } \beta = 0.07, \ p < 0.05\). Unexpectedly, depths of relationship, which represent of more opportunity of sharing, were not related to knowledge sharing intention \((\beta = -0.06)\), and the...
direction is negative.

**Tab. 2: Results of multiple regression analyses**

<table>
<thead>
<tr>
<th></th>
<th>Knowledge sharing intention (N=539)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Control Variable</strong></td>
<td></td>
</tr>
<tr>
<td>Task dependent</td>
<td>.32***</td>
</tr>
<tr>
<td>Education</td>
<td>-.23***</td>
</tr>
<tr>
<td><strong>Independent Variables</strong></td>
<td></td>
</tr>
<tr>
<td>Depth of relationship</td>
<td>-.06</td>
</tr>
<tr>
<td>Social norm</td>
<td>.29***</td>
</tr>
<tr>
<td>Trust</td>
<td>.20***</td>
</tr>
<tr>
<td>Sense of self worth</td>
<td>.32***</td>
</tr>
<tr>
<td>Expectation of reward</td>
<td>.07*</td>
</tr>
<tr>
<td><strong>F</strong></td>
<td>81.09***</td>
</tr>
<tr>
<td>df</td>
<td>7</td>
</tr>
<tr>
<td>R-Sq</td>
<td>.517</td>
</tr>
<tr>
<td>Adj. R-Sq</td>
<td>.510</td>
</tr>
</tbody>
</table>

* p < .05, ** p< .01, *** p < .001

**DISCUSSION AND CONCLUSION**

This study was aimed at investigating the relationships between individual beliefs (i.e., sense of self-worth and expectation or reward), social capital variables (i.e., depth of relationship, trust, norms) and knowledge sharing intention. Previous research on intention was primarily on how individual level characters influence the intention. The role of social variables on knowledge sharing has generally ignored. The results of this study indicated that individual motivators (i.e. sense of self worth and expectation) and the resource embedded in social network (i.e. trust and social norms) were significant predictors in individuals’ knowledge sharing intention. Although Bock’s believe that a felt need for extrinsic rewards may very well hinder the development of favorable attitude toward knowledge sharing, our study find by empirically validated, a felt of need for individual benefit, whether intrinsic or extrinsic return can promote the individual’s knowledge sharing intention. While the intrinsic need (sense of self-worth) was much more important than extrinsic rewards (expectation of rewards). Such a finding may be a reflection of phenomena in China, which managers and professionals pay more attention on salary than those in developed countries and the most important need for them is the self achievement[24]). So in China, efforts in satisfying employees’ individual benefit will stimulate employees’ knowledge sharing intention directly and effectively. Although social capital as a concept is still in its infancy stage, according to Naphiet & Ghoshal’s concept framework, we find trust and social norm, reflect relationship quality of actors of social network, can help individual decrease the orientation of hoarding knowledge. Unexpected, depth of relationship, which reflects the more opportunity of social interaction, had no directly influence in knowledge sharing intention. It is might because of the depth of relationship generally means employees has working together for long term, their knowledge tend to be homogeneous. So the intention of sharing knowledge has decreased.

This study also faces a number of limitations. First, how character of knowledge influence individuals’ knowledge sharing intention. Second, how to assessment social capital well and truly, for example, our study explored the cognitive-based trust, how affect-based trust influence knowledge sharing intention. Last but not least, our finding may be vulnerable to threat of single-source bias.

To summarize, the present study considered the critical issues of social capital and TPB. The well understanding of social interaction and individuals’ needs, will help managers increase employees willingness of sharing knowledge and speed up knowledge management performance.

**REFERENCES**

[2][10] [18] [19]GW Bock, etc., Behavioral intention formation in knowledge sharing: examining the role of extrinsic motivators, social-psychological forces, and organizational climate. MIS Quarterly Vol. 29. No.1, pp.87-111