

Relationship of Internal Social Capital and Organization Performance

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Abstract. The purpose of this paper is to develop and test an integrated model to examine the relationship between internal social capital, knowledge creation, core competence and firm performance. It takes into account the moderating role of product modularity and explains how a firm's internal social capital to recognize the value of knowledge creation, assimilate core competence and in turn facilitate financial performance.

1. Introduction

Given the importance of firm's internal social capital in business practice, however, surprisingly, few studies in extant literature have investigated the effects of firm's internal social capital on its outcome, while the majority of the research focused mainly on firm's external social capital. Such unbalanced emphasis on social capital theory would shift the focus of firm's social capital from external to internal perspective (Tiwana,2008). Under such theoretical background, yet little did we know whether firm's internal social capital would matter to firm performance? If so, why and when it would matter? These are the research questions that this study would try to explore and answer.

By adopting knowledge-based view of the firm, this study intends to integrate the social capital theory and knowledge-based view to provide the complete theoretical understanding on the mechanism and contingency of firm's internal social capital(Kogut, 2000;Argyres &Silverman,2004).Using firm samples in Chinese manufacturing and information technology industries, this study empirically investigates whether, why and when firm's internal social capital matter to firm performance. By addressing these research questions, this study contributes to social capital theory in three facets:

Firstly, this study supplements the social capital theory by empirically examining the effect of its internal dimension which has been largely ignored in extant literature, rather than its external dimension, thus this study supplements the social capital theory by providing the alternative perspective to gain the more complete theoretical understanding on social capital theory. Secondly, given few attention in extant literature has been paid on the mechanism of firm's internal social capital on firm performance, this study bridges this gap by integrating social capital theory and knowledge-based view to explore the complex mechanism and "black-box" of firm's internal social capital on firm performance, further enhancing our theoretical understanding on why firm's internal social capital matters to firm (Arora, Belenzon, &Rios,2014).

2. Theory and hypothesis

2.1 Firm's internal social capital, knowledge creation, and core competence

The theory of social capital has intrigued scholar's interests from various disciplines, such as in the fields of sociology, organizational behavior, organizational theory, and strategy management (Heyden, Mariano, Sidhu, Jatinder, Van, Frans, Volberda, & Henk, 2012). Even social capital theory could be applied to different levels in extant literature (Kleinbaum & Stuart TE, 2014), such as individual, team, organization, inter-organization, industry, country or even inter-country level, this study focuses on the organizational or firm's level. From the external and internal dimensions, firm's social capital could be categorized into external social capital and internal social capital (Hoang & Rothaermel, 2010; Makri, Hitt & Lane, 2010). In extant literature, much attention has been paid to the consequence of firm's external social capital, and little attention has been placed on firm's internal social capital (except Leana & Van, 1999; Phelps, Heidl, & Wadhwa, 2012). In the path-breaking study conducted by Leana & Van (1999), they found that public school's internal and external social capital significantly affected student's math and reading performance. Moreover, their study also emphasized the importance of contingent effect in the social capital research, and suggested that moderating effects should be considered in the exploration of social capital's consequence effect.

From the knowledge-based view, social capital could facilitate firm's product innovation by speeding up the exchange of innovation-related information between internal and external actors (Zander & Kogut, 1995; Cuevas-Rodríguez, Cabello-Medina, & Carmona-Lavado, 2014). Firm's internal social capital is consisted of three dimensions: Structural, relational, and cognitive dimension (Adler & Kwon, 2002). In this study, we adopted the social interaction as the proxy of structural dimension, shared norm as the proxy of relational dimension, and shared vision as the cognitive dimension. In terms of structural dimension, firm's internal social capital could enhance its capability to absorb knowledge and share internal information. Employees within the firm could enhance their learning ability by informal ways, such as story-telling, communication, and discussions. Situated learning is especially important to improve firm's performance, while information exchange within firm's internal social networks could enhance employee's collaboration and responsibility, thus strengthen firm's knowledge creation capability. With regard to relational dimension, shared norms among employees are the critical facet (Leana & Van, 1999; Nahapiet & Ghoshal, 1998). When absent from the formal mechanism within firm, shared norm could effectively facilitate individual's cooperation and common actions (Onyx & Bullen, 2000), which might facilitates the exchange of potentially valuable information within firms. Regarding the cognitive dimension, shared goals and visions within the firm could reduce employee's opportunistic behaviors and increase the consensus among individuals with different background within the firm, which might reduce the barrier of knowledge exchange and communication (Kapoor, 2013; Argote & Miron-Spektor, 2011). Therefore, the three dimensions of firm's internal social capital could enhance firm's information sharing quality and knowledge absorbing capability (Leana & Van, 1999; Mohammed & Dumville, 2001), which might further improve firm's knowledge creation capability.

On the basis of the knowledge-based view, knowledge is regarded as an important source for firm's sustainable advantage. Knowledge could be categorized according to various perspectives. From the perspective of knowledge codification through formal and systematic languages. Polanyi (1966) categorized knowledge into two types: explicit and tacit knowledge. Tacit knowledge is highly situated, individualized, and hard to imitate, decode, share, and communicate (e.g., belief, experience, organizational culture, etc.). Explicit knowledge can be communicated through coding, which could be clearly expressed and transmitted to others, including facts, data, and reports. Firm's internal social capital might improve the information flow efficiency and knowledge integration capability; accelerate the speed of new knowledge creation, therefore, helps to facilitate firm's knowledge creation capability (Dyer & Singh, 1998). Moreover, firms with high internal social capital might find it easier to share and integrate absorbed knowledge effectively (Leiponen & Helfat, 2011). This

advantage makes firm generate a dynamic knowledge spiral process, thereby creating more explicit and tacit knowledge (Casciaro & Lobo, 2015). In the firm's knowledge creation process, tacit knowledge is the basis for explicit knowledge creation, and the transition from tacit to explicit knowledge is the consequence of knowledge creation in the knowledge spiral process, because tacit knowledge is hard to copy and transfer, it is deeply rooted in social relationships among organizational members (Kazadi, Kande, Lievens, Annouk, Mahr, & Domini, 2016). Since the process of knowledge acquisition is difficult and time-dependent, tacit knowledge represents the origin of firm's core competence (Hamel, 1991). In other words, firm's internal social capital could improve the firm's core competence by enhancing firm's knowledge creation capability. Therefore, we propose the following hypotheses:

Hypothesis 1: The more internal social capital the firm accumulates, the higher its knowledge creation capability.

Hypothesis 2: The higher knowledge creation capability the firm accumulates, the higher its core competence.

Hypothesis 3: Internal social capital affects the firm's core competence through the mediating role of knowledge creation capability.

2.2 Knowledge creation, core competence, and firm performance

The accumulation of firm's core competence is closely related to firm's knowledge accumulation and creation capability (Hammad & Nikolaos, 2013). To some extent, core competence is the knowledge that could coordinate firm's various resources and services (Chang, Hung, & Lin, 2014). From the knowledge-based view, firms can enhance their performance by transferring random innovation activities into routine innovative mechanisms (Coff & Kryscynski, 2011). In other words, firms could obtain sustainable competitive advantages and improve its performance by transferring random innovative incidents into core competence (Bo & Raphael, 1996). Therefore, we argue that firm's knowledge creation capability could enhance its core competence, which further improve its performance (Richtner, Åhlström, & Keith, 2014). In other words, a firm's core competence could be enhanced by its knowledge accumulation and creation capability (Dahlander & Frederiksen, 2012), and gradually lay the solid foundation for its sustainable competitive advantages. Based on above-mentioned discussion, we propose the following hypothesis:

Hypothesis 4: The higher the firm's core competence is, the better its performance.

Hypothesis 5: Knowledge creation capability affects firm performance through the mediating role of core competence

3. Data and samples

The data were collected from firms operating in Beijing and Guangzhou, which are large cities in China. The criteria to select sampled firms are: firm age should be longer than one year since its inception and firm size, measured by employees, in each firm should be more than 50. A research team was established, which included undergraduate students, master students, doctor students and assistant professors, to help enhance the data collection efficiency and effectiveness. We randomly selected firms in both cities and contacted the senior executives via phone calls. After introduction to the potential respondents on the relevance and importance of this study to their firm's development, 150 firms agreed to participate on this study. With such permission, our research team then visited those firms to deliver questionnaires to senior managers on site to enhance response rate. Given the distrust and unwillingness to participate on the survey, on-site data collection has been proved to be an effective way to guarantee the response rate in emerging countries like China. In total, 140 questionnaires were returned, and 133 were filled out completely by the respondents, with the valid response rate of 88.7%. The t-test of the responding and non-responding firms on the firm age and firm size were insignificant, indicating non-response bias was not a major concern in this study.

Among the sampled firms, in terms of firm age, 4.5% of the firm age are between 1~3 years, 16.5% of them are between 4~6 years, 16.5% are between 7~9 years, and the remaining 62.4% are more than 10 years. With regard to firm size (measured by full employees), 16.5% of the firm sizes are between 50~200 employees, 15.0% are between 201~500 employees, 33.8% are between 501~2000 employees, and 34.6% are more 2001 employees. As for industry sectors, 57.9% of the firms are from information technology industry, and 42.1% of them are from manufacturing industry.

4. Discussions and conclusion

Grounded on knowledge-based view of the firm, this study attempted to explain whether, why and when firm's internal social capital matter to the firm. By using the firm samples from manufacturing and information technology industries in China, this study empirically examined the mechanism and contingency of firm's internal social capital on firm performance. Our findings revealed that firm's internal social capital did matter. The process and mechanism of firm's internal social capital on firm performance was much complex, that was, through the sequential mediating roles of knowledge creation and core competence. Interestingly, in closer inspection, we found that firm's internal social capital could not directly enhance core competence, rather, it could indirectly improve core competence through fully mediating role of knowledge creation. However, knowledge creation could enhance firm performance by its direct effect, as well as the indirect effect through mediating role of core competence. In sum, combined such complicated mechanism, we concluded that firm's internal social capital could enhance firm performance through dual paths, that was, the first path was through the sequential mediating roles of knowledge creation and core competence, and the second path was through the mediator of knowledge creation. Thus, our study further emphasized the critical role of knowledge creation capability in the firm. Given this, firm's product or knowledge structure would affect the knowledge creation process and mechanism, and we found that product modularity, as a special knowledge structure, could positively moderate the relationship between knowledge creation and core competence, namely, firms with high product modularity level would strengthen the effect of knowledge creation on core competence.

This study concluded with interesting findings and had important implications for social capital theory and knowledge-based view of the firm. Firstly, different from the extant literature which mainly focused on the consequence effect of firm's external social capital, this study complemented the social capital theory by examining firm's internal social capital, given the fact that little did we know about whether firm's internal social capital matter to firm's development in the extant literature. As one part of the firm's private resource, firm's internal social capital is easier to accumulate and control (Gardner, Gino, & Staats, 2012), thus our study might call for the research on social capital theory to shift their focus from firm's external to internal social capital development. Even though, we did not devalue the importance of developing inter-organizational network with other firms aiming to acquire valued resources and knowledge, however, the application and exploitation of these resources and knowledge required support of high level of firm's internal social capital, otherwise these valuable resources and knowledge would become useless. In a word, our study calls for research on social capital theory to jointly and simultaneously pay attention to firm's external and internal social capital, and takes the ambidexterity perspective on firm's social capital development.

Secondly, by integrating the social capital theory and knowledge-based view of the firm, this study further unpacked the mechanism and "black-box" of firm's internal social capital on firm performance. Most research on social capital theory mainly focused on its direct effect on firm's outcome, while little effort has been made on its complex mechanism. Consistent with extant research (Leana & Van, 1999), our study revealed that firm's internal social capital could positively affect firm performance. Interestingly, our research extended the social capital theory and knowledge-based view by identifying dual mediating paths and mechanisms, which had not been investigated in extant literature. Thus, by re-emphasizing the critical role of knowledge creation capability within the firm,

our study integrated the social capital theory and knowledge-based view to shed light on the complex mechanisms of firm's internal social capital on its performance.

Thirdly, our study further clarified the boundary of social capital theory and knowledge-based view. Surprisingly, extant literature paid little attention on the contextual contingencies of social capital and knowledge creation, which left the unanswered research question: Do firm's internal social capital benefit all firms or some types of firms? If so, which types of firms would benefit more? On the basis of knowledge-based view of the firm, our study answered this research question by introducing a special knowledge structure, namely, product modularity, which had been applied in business practice while ignored in theoretical arena. Our finding revealed that firms with high product modularity would strengthen the positive effect of knowledge creation on core competence. Interestingly, this finding revealed that product modularity did not significantly affect knowledge creation and core competence. However, it required the interaction with firm's knowledge creation capability to jointly enhance firm's core competence. This finding explained, to some extent, why product modularization in business practice resulted in various outcomes, some firms succeeded while some firms failed, our study suggested that it depended on firm's knowledge creation capability, such joint and interaction would result in better consequence.

This study also has important managerial implications to business practice. Firstly, our theory suggested that, in order to improve firm performance, firms should gradually and continually develop the internal social capital, they should enhance the social interactions between employees as well as departments. Thus, besides formal meeting and routines, informal contacts and connectedness between individuals within firms also should be encouraged. In addition, shared norm and vision also should be advocated to reduce the communication cost and barriers. Secondly, most diversified firms recently began to re-focus on its core competence, such as Hair Corporation, a famous diversified firm in China, began to sell off its peripheral business and strengthened its core competence in specific industries. Our theory suggested that, knowledge creation capability was critical to the enhancement of core competence; thus, firms should effectively monitor and manage the knowledge creation process (socialization, combination, externalization and internalization).

Even our study has contributed to social capital theory and knowledge-based view, it also has limitations which might open new research avenue for future research. First, in future research, data from various sources within one firm would be much better to test our theory, such as firm's internal social capital would be rated by firm's presidents, knowledge creation would be assessed by human resource managers, core competence would be rated by operation managers, and firm performance would be examined by financial managers, product modularity would be rated by product managers. Data from five sources would be more effective to mitigate the common method variance and further enhance the reliability of the results. Second, we could not examine the causality of the variables in this study, there may be probability that firm with better performance would be able to have more capability to develop internal social capital, in the future, using the data from multiple time point would be better to test the causality between the variables in this study.

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