

How organizational capital affects the innovative capability building:

An explanation of the dilemma context.

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Abstract

This study examines the relationship among organizational capital, external organizational learning and innovative capability. Based on organizational level theory and organization learning theory, we demonstrate that there is a positive relationship between organizational capital with innovative capability, and a positive relationship between organizational capital with external organizational learning. Moreover, external organizational learning plays a mediating effect between organizational capital with innovative capability, and organizational capital plays a negative moderating effect between external organizational learning with innovative capability. With the data collected from Beijing, Shandong and Guangdong. We find that all the above relationships are supported. Then theoretical and managerial implications are discussed.

Key words: organizational capital; external learning; innovative capability; knowledge.

Introduction

With economy globalization, innovation is considered as an important factor for enhancing firms' competitiveness. As an emerging economic country, China undergoes a deep structural transformation characteristic which stimulates the Chinese firms to search more market opportunities for sustainable development. In order to meet the needs of dynamic external environment, accordingly, some organizational change activities should be done. The key of firm's sustain development is to be an innovative organization, which also means to complete self-adjustment. To face these challenges, some scholars proposed that firms must develop its innovative capability (Guan & Ma, 2003; Tuominen & Hyvonen, 2004). As one of the most important capabilities of capabilities' system, innovative capability can active the controlled resources to transform firm-specific strategic assets. Therefore, if firms own a firm-specific innovative capability, they will achieve some unique and difficult-to-imitate strategic assets to support sustain competitive advantages.

Now, more and more scholars had admitted the importance of innovative capabilities, and had regarded it as one source of competitive advantages. However,

most of previous researches are based on the assumption that the capability exists, and then to research how to affect firm performance (Helfat & Peteraf, 2003). Yet, comparatively few researches focus on capability building that how a firm develops and manages innovative capability to support its business activities. Just like Kusunnoki et al., (1998) had noted that “the elements and structure of organization capabilities still remain unclear”. And Ethiraj et al., (2005) also suggested that little work research has been done on understanding of where capabilities come from. Especially, modern capability theory research still cannot systematically illustrate the process of how firms build their innovative capabilities. The basic mechanism still cannot understand by now (Montealegre, 2002; Luo, 2002; Pan et al., 2007; Narayanan et al., 2009), thus it is difficult to provide some guidance with practical managerial activities. More, though some scholars begin to pay attention to the activities of capability building, they still focus on some organizational activities within the internal organizational boundary. Few of research work transfer to external prospects. Additional, despite more and more scholars pay more interest in capability building perspective, most studies remain theoretical and conceptual and call for more empirical research to examine and validate this perspective (Lavie, 2006). So the researches about how to build an innovative capability remain null, which needs to think deeply.

The paper tries to identify some major factors that are important for innovative capability building, especially, some organizational factors in organization level (Luo, 2002). Developing the innovative capability is especially important for companies in emerging economies. However, there are still existing volatile environments, and a lack of institutions and strategic market factors to support innovation (Luo, 2003; Zhang & Li, 2010). Although Chinese firms had achieved some innovative works in these years, they still have a gap with the firms of the developed countries in some innovative projects. Especially, most of SMEs have input little resource to the innovative activities, for example, R & D. Thus, one of important channels is to get some external knowledge for their innovative capability building by a learning mechanism. However, any innovative activity needs a basic for execution, for example, human resource, financial supporting, and material resource. We can name it as different of capitals, human capital, financial capital, and so on. Most of tangible capitals had show their importance, but some intangible capital had been overview. One of contribution of Subramaniam & Youndt (2005) is to show the importance of organizational capital, a kind of intangible capital, to innovative capability.

Tomer(1987) noted that organizational capital can integrate organizational relationship, members and information. As an institutional arrangement, organizational capital can contribute the organizational activities, for instance, to support knowledge operation (Bontis, 1998). If we regard the organizational capital as a quantifiable capital, whether means that the more is the better in the all process of the innovative capability building? For Chinese firms, how to build their innovative capability based on organizational capital within external orientation? These questions guide us to explore the research work. But few researchers follow the way to explore the path of how organizational capital affects the innovative capability.

The structure of the paper is as follows. First, we review the theory about innovative capabilities and the process of capability building. Next, we will discuss the mechanism of external orientation of innovative capability building, and get some hypotheses to build a theory model. In the subsequent section, some empirical research methods will be adapted to test the hypotheses. In the end, we are drawing some conclusions and pointing out future research directions in the field.

Theoretical Background

Recent research works in the fields of strategic management and organization theory begin to pay more attention to the concept of capability (Teece, et al., 1997; Teece, 2007; Mahamood, Zhu, & Zajac, 2011). Now, capabilities view has emerged as an important theoretical frame in the strategic management literature. Innovative capability is a muster of organizational knowledge to engage in value-creating activities through effectively capturing, collocating, integrating and developing a variety of controlled resources in order to achieve their strategic objectives in innovative activities within organization (Kim, 1998; Lawson & Samson, 2001). Innovative capability relates to the organizational innovative activities that use new knowledge to improve current products, processes, technology and so on (Romijn & Albaladejo, 2002), and to attain of market value (Zhao & Stank, 2005), which is crucial to gaining dynamic competitive advantage in a complex external environment because when firms own a powerful innovative capability, they can integrate the limited and controlled resources effectively, for example, utilizing controlled resources to facilitate creating new assets to achieve competitive advantages (Burgelman et al., 2004).

Capability building is a key building block and a major source of competitive advantage (Luo, 2002). Teece et al., (1997) argue that the nature of capability building is to form firm assets which can create competitive advantages at any time. To date, many research works try to expropriate capability building (or development) from different perspectives. Some scholars focus on knowledge base deployment (Madhok, 1996; Knight & Cavusgil, 2004), and point out that capability building origins from knowledge activity, but omit to analyze its process. Following the dynamic process perspective, two separate ideas are presented. One focusing on the evolution of capabilities to unravel the building blocks of capability building process (Zollo & Winter, 2002; Winter, 2000). While the other one concentrating on the strategy process, and dividing the process into several stages (Montealegre, 2002; Helfat & Peteraf, 2003; Narayanan et al., 2009). Although, scholars have different viewpoints about capability building, in summary, a combinative cognition can be admitted that capability building is a multi-dimensions knowledge activity through a dynamic process. The final outcome is to form new knowledge aggregation at firm level to create value. Yet, the exactly aspects of how organizational knowledge gets accumulated and utilized to building innovative capability remain unrevealed clearly (Subramaniam & Youndt, 2005).

Many perspectives had note the internal activities of capability building, for example, Helfat & Peteraf (2003), Narayanan et al., (2009). They believe that firm capability is unique (Amit & Schoemaker, 1993), and it is formed with resources

through a complex interaction in a long time. It cannot be obtained through outside strategic factor market, but by relying on the accumulation inside the firm (Dierickx & Cool, 1989). In instance, Kusunoki et al., (1998) considered that capability comes from the knowledge interactional activities inside the firm, and knowledge activities on different levels would bring corresponding capability. Similarly, Schreyogg & Kliesch-eberl (2007) also noted that capability is formed in the condition of firm resource allocation, and then has been embedded in the heterogeneous organizational structure that is a specific behavior pattern inside the firm. The view of inside development orientation believes that some knowledge interactional activities can create new knowledge continuously to update knowledge muster of the firm by knowledge exploration and exploitation (March, 1991), and then complete the innovative capability building activities. Recently, some research has found that external networks would promote capability building by facilitating internal coordination and recombination, for example, Mahamood, Zhu, & Zajac (2011), Capaldo (2007). Except for the external factors effect innovative capability building, relatively little is known about the internal behavior of the activity, for example, the basic and means.

Some scholars have point out that intellectual capital can promote innovative capability (Subramaniam & Youndt, 2005; Davenport & Prusak, 1998; Nahapiet & Ghoshal, 1998; Schultz, 1961). The organization should use different paths to accumulate and utilize their knowledge, and the types of activities also show the different functions of factors of intellectual capital. The boundary of factors is very simple to regard human and organization as dividedly in intellectual capital in prior research works. Thus, they divide the intellectual capital to two parts. The outside of human capital boundary belong to social capital, for example, Coleman (1990)'s research. When firms own appropriate human capital, they can impetus knowledge transaction activities (Carter. 1989). Gupta & Singhal (1993) also argued that if firms have more human capital, they can influent innovative through the case study of the Motorola, 3M, Dupont, and HP. About social capital, some researchers regard it as the important source of achieving innovative capability (Pennings & Harianto, 1992; Frombold-Eisebith, 2002). Social capital implies that the firm takes active attitude to involve in dynamic knowledge exchange activities by external links to enhance innovative capability.

Following the organizational level theory is brought into modern management theory. Scholars begin to understand organizational activities under complex and dynamic organizational system (Hitt et al., 2007). According to organizational level theory, the scope of human capital is limited within the boundary of individually, and the scope of social capital is restricted to the network activities of external organizational boundary. Thus, a gap is existed between human capital and social capital. Some scholars begin form the concept of organizational capital to fill up the blank scope within firm. Gort, Grbaowski & McGuckin (1985) introduced the organizational capital as an extending of human capability in organizational level. Youndt et al., (2004) and Subramaniam & Youndt (2005) define the concept as the institutionalized knowledge and codified experience residing within and utilized

through databases, patents, manuals, structures, systems, and processes. As a special capital, organizational capital is embedded in internal organizational structure. When firms invest the organizational capital, they will achieve sustain promoting of productivity, and promote performance through enhancing and changing organizational activities (Tomer, 1987). Although, Subramaniam & Youndt(2005) had used empirical research to test the relation organizational capital and innovative capital, the internal mechanism is still unrevealed. Especially, organizational capital is one of firm's capitals, which are the stock to support organizational activities, and innovative capability is a final outcome. Obviously, there is an important bridge or link between them. Additionally, organizational capital as a capital stock, which exists through the process of innovative capability building. Whether the capital has the same effect in different stages, it is still need to explore deeply.

Some researchers focus on organizational learning (Kale & Singh, 2007; Lukas & Bell, 2000; Luo, 2002; Zahra & Nielsen, 2002), which is a useful method to deal with knowledge in the process of innovative capability building. Calantone et al., (2002) argue that the organizational learning orientation can promote innovative capability, and organizational learning exists in environmental observance. In the role of organizational learning, innovative capability building is based on prudent and effective adjustments of their knowledge (Zollo & Winter, 2002), that is, learning patterns impact firm capability building activity through altering the efficiency and effect of knowledge transferring. For firms, they need sufficient patience to get the proprietary knowledge through accumulation, mainly taking "learning by doing" as its main pattern of capability development. The essence of innovative capability building is the knowledge transferring and accumulation in organizational learning process to continue supply, enhance and substitute the original knowledge master within innovative capability. Following the new organizational knowledge flows into firm, the organizational knowledge structure is change, and a new structure is created which means a creative idea to deal with resource in innovative activities. Now, scholars had known the importance of organizational learning in the process of innovative capability building, but they still limit the organizational learning in the firms' internal boundary. However, the firms can't create enough new organizational knowledge through cross-level activities within firm boundary. Thus, it is an appropriate way to achieve new knowledge from external environment. In order to extend the organizational learning theory, Cohen & Levinthal(1990) used the concept of absorb capacity to emphasize the characterizers of get some new knowledge from external environment. However, there are still a tautology between capacity and capability. So the focus should transfer to how the external organizational learning support innovative capability building. Especially, even firm can get appropriate knowledge, how to integrate the external knowledge with internal knowledge base? It still needs to understand more.

Synthesizing these insights, in this study, we will focus on how organizational capital influent innovative capability by external organizational learning in the different stages. Following, the paper develops some hypotheses and builds a theory model. And

then, we use empirically research methods to test the hypotheses, and get some conclusions.

Hypotheses

Nowadays, most firms face an increasing competitive environment, which becomes more important to develop innovation capability for firms. In order to execute the innovative capability building activities, it is necessary to have some capitals. Organization is a systematic combination to achieve its strategic object, which includes structures, processes, and systems of organizational level. Organizational capital is the institutionalized knowledge and codified experience residing within and utilized through databases, patents, manuals, structures, systems, and processes (Youndt et al., 2004; Subramaniam & Youndt, 2005). One important functions of organizational capital is to provide a key support for interaction between firm boundaries to promote the systematic construct of organizational activities. And then, they can reduce transaction cost, and develop multi-business through combine the other capital to involve in co operational interaction, and necessary use of relative factors. Therefore, organizational capital is crucial for exposing an organization to external environment.

In the process of innovative capability building, firms need to reinforce its knowledge base through transferring the new knowledge to the knowledge muster of capability. However, firms have to face a lot of difficulties. For example, organization needs to renew some old and obsolete, the knowledge maybe becomes the core rigidity to hinder the firm to adapt to new competitive environment. (Leonard-Barton, 1992). At the same, some organizational changes want to use new knowledge, but organizational inertia will block the utility of new knowledge (Tushman & Anderson, 1986), which can block innovative capability building. Thus, for these knowledge activities, organization need take some institutional responding and managerial measures to facilitates firm to seek, integrate, renew, and utilize the new organizational knowledge. Such institutionalization of an organization's means to preserve knowledge and the mechanisms to use it recurrently is most evident in its organizational capital (Subramaniam & Youndt, 2005). As a guarantee managerial mechanism of supporting organizational knowledge activities, organizational capital provides institutional safeguard to drive the knowledge flow fluently in the firm (Cantwell, 1995; Collis, 1991). Under the supporting of organizational capital, some new knowledge will be contribute to innovative capability building, and encourage repeated use of new knowledge (Hansen & Hass, 2001). Therefore, we think organizational capital to enhance the reinforcing the activities of new knowledge to influence an organization's innovative capabilities. Therefore, we get a hypothesis,

H1: The positive relationships between organizational capital with innovative capability.

Organizational capital is rooted in the corporate value system, organizational system or structure. As an organization-specific capital form, which facilitate to integrate all the resources inside and outside enterprises, and to present as a business

operation and management activities of an institution. The knowledge which firm needs may exist inside the firm, included in some departments, team and individual within the firm, and also it may exist outside the firm, included in the other firms or social subjects. It is very difficult for any organization to create enough new organizational knowledge in the boundary of firm to supply the need of innovative capability building. Thus, firm captures some knowledge and information from its outsider of boundary is important. Now, some scholars had proposed that organizational learning with capability building orientation can not only be applied in the organization, but also among the organizations (Lavie & Rosenkopf, 2006). For example, Joint ventures, alliances and other cooperative manners can achieve cooperation and interaction among firms, and also can expose firm to new ideas, new information and opportunities, and acquire relevant knowledge to achieve “settle problem together” (McEvily & Marcus, 2005).

External organizational learning plays an important role in external orientation knowledge activities. In this external interaction, the external learning activities contribute new knowledge required to firms. However, any learning activities have the risk and cost, especially for external learning. It is inevitable to have collision in the of knowledge activities (March & Simon, 1958) When the conflicts occurred, it is easy for companies to suspicion the role of external learning, which led to difficult learning or failure. Therefore, the firm must take into account its internal organizational operational mechanism to make the activities fluently. In order to ensure normal organizational learning, the firms have to use some interventions to promote learning. So the knowledge gained from outside can be recognized, accepted, and enhancing the efficiency of knowledge activities (Okhuysen & Eisenhardt, 2002). At the viewpoint of the cost, the firms tend to use an internal behavior managerial mechanism with collective cognition to adjust organizational learning. Under condition of enough organizational capital, firms will carry out interactional activities with other firms or institutions by formal or unformed contract relationships. The capacity of organization capital will greatly affect the activities in the external knowledge to be effective in understanding, identifying and acquiring new external knowledge, which determines the efficiency of organizational external learning activities. Therefore, we get a hypothesis,

H2: The positive relationships between organizational capital with external organizational learning.

Innovation is a fundament to achieve sustained business growth and generate substantial new resources in the development. Only firm have an appropriate innovative capability, which will be able to create higher organizational performance. And the dynamic environment will have an impact on the value of innovation, which lead the contribution to competitive advantage be weakened. So it is necessary to building a new innovative capability by upgrading or exploitation (Zhan & Luo, 2008; Luo, 2002). Innovative capability building activities can not only be derived from inside development, but also acquired from outside by different learning process or

imitation (Zahra et al., 2003). Especially, when the knowledge muster in organizational level cannot meet its developing needs, firms have to acquire new knowledge to complement, replace and reconstruct the original knowledge muster, at last to form new innovative capability. The view of external orientation believes that innovative capability building begins from recognizing and capturing the outside knowledge which have important effect on firm operation. Following, they will analyze, process and expatiate the knowledge and information acquired from outside, and to absorb it into firm's existing knowledge muster (Szulanski, 1996). However, the organizational activities need some exactly organizational capital to provide a guarantee to execute it. Based on this perspective, organizational capital plays a base role for innovative capability building. And then firms can execute some operational measures to deal with organizational knowledge activities.

Due to most of SMEs achieve limit new knowledge from their internal learning through cross-level transferring from individual level to organization level. It is nature to emphasis the importance of some knowledge sources exist external environment which impetus the innovative capability building. Therefore, the firms need to use external-orientation organizational measures to get some new knowledge for development. Obviously, external organizational learning is an important measure to deal with knowledge, which can provide a problem-solving through combining knowledge elements to create some new strategic assets from outside (Damanpour, 1991). Just as Day (1994) has stated that if firms want to develop their innovative capability, they have to face the external market to form new firm's knowledge base.

When firms have more organizational capital, they can establish appropriate management mechanism to implement the supporting policy of knowledge activities. The firms also are exposed to new markets, new culture to absorb external ideas with low risk and cost to get the relevant knowledge (McEvily & Marcus, 2005). The result is the specific knowledge exchanging and teaching activities in external organizational learning are achieved by direct interaction among firms, groups, and individuals by external learning under the support action of organization capital. After the external knowledge is brought into firms can add the internal knowledge collection. The knowledge structure of innovative capability will be change, and achieve new functions. Therefore, we get a hypothesis,

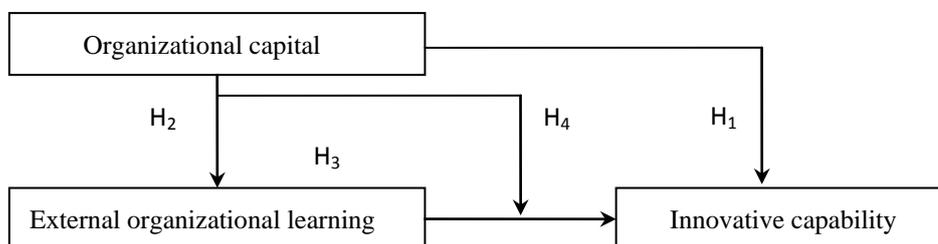
H3: External organizational learning plays a mediating effect between organizational capital with innovative capability.

Even the firms acquired some market information, technical information by exploration and exploitation from outside the firm (March, 1991), they still face a problem to make the new knowledge integrate with the existing knowledge muster (McGrath et al., 1995). How to internalize external knowledge becomes a difficulty for firms after they get the appropriate knowledge. Nonaka & Takeuchi (1995) uses the concept of internalization to explain the organizational knowledge activity. It is inevitable to result of risk of conflicts and confrontation to prevent the orderly organizational knowledge activities. Hurwitz et al., (2002) pointed that organizational

capital can adjust the flow of knowledge within the organization and supply rate in operation processes by rational utilization. For example, designing an appropriate structure of can be learning faster and easier to change in innovative activities.

Turner & Makhijia (2006) have also pointed out that it is necessary to take into account the specific mechanism of organizational activities, which appears results to create a completely different knowledge management processes. When the enterprise has more organizational capital, the internal mechanism will also be more strict and specification. At this point, the organization will become increasingly institutionalized and standardized, and with more bureaucratic organizational structure. Thus, the subjects of different levels will more rigorous select the heterogeneity knowledge from outside, which results in a lot of potential station that some useful knowledge is kick off because of strict knowledge of appropriate institutionalized and standardized. The firms can't achieve enough knowledge to supply the need of innovative capability building. At the same time, the institutionalization of such a mechanism within the organization will strictly affect all levels of the main subjects to accept of new knowledge, reducing the speed of the absorption of external knowledge, and limiting the scope of knowledge activities. Therefore, if firms cannot appropriate use organizational mechanisms, they likely to restrict efficiency of the knowledge activities (Kogut & Zander, 1992), and increase the uncertainty caused the failure of innovation.

H4: Organizational capital plays a negative moderating effect between external organizational learning with innovative capability.



Methodology

Sample and data collection

All of questions in the questionnaires was origin from some English-language academic articles, and then be translated into Chinese by two Canadian-Chinese scholars with sufficiency research experience in the subject area. In order to avoid cross-culture bias, the translated Chinese questionnaire was translated to English version again to match the original one. It is necessary to check some mistakes that might due to translation. The first edition questionnaires were sent to twenty top manager students of training program of a university to check whether the items are problematic. And then, we revised or eliminated some items according to their suggestion. At last, we began to collect our data in three provinces in China in 2009, including Beijing, Shandong, and Guangdong. The sample firms come from our randomly selected from the list of local yellow book. Firstly, we give a call to the top

management members to ask whether they will to accept the questionnaire by letter or email. If yes, we will mail the questionnaire to them. A month later, we call them again to make sure the questionnaires are return, or still not finish.

We obtained data from 202 firms from this survey, and effective rate is 36.8 percent. All of information is show following:

Table 1 Description of sample data

	Number	Percent		Number	Percent
Firm's age			Firm's member		
1~3 years	14	7.61%	1~100	50	27.17%
4~6	39	21.20%	101~300	41	22.28%
7~9	35	19.02%	301~500	30	16.30%
10~20	70	38.04%	500~1000	13	7.07%
Above 20	26	14.13%	Above 1001	49	27.18%
Individual information of responding people			Owner style		
Board Chairman	14	7.61%	State-own	38	20.65%
General manager(CEO)	69	37.5%	Group-own	6	3.26%
Other top managers	101	54.89%	FDI	34	18.48%
Industrial characteristics of firms'			Private-owner	100	54.35%
Industry	68	36.96%	The other	6	3.26%
Non-industry	116	63.04%			

Measures

All of the perceptual measures were rated based on a five-point Likert scale (1 = not at all and 5 = very much). For multi-item constructs, we averaged the items to create the scores for the constructs. Organizational capital from was measured by four items adapted from Subramaniam & Youndt(2005). External organizational learning was measured by four items adapted from Schroeder, Bates & Junttila (2002). Innovative capability was measured by five items adapted from Lin (2007).

Control variables

The nature of the industries organizations compete in is known to influence their innovative capabilities. Following suggestions in Dess, Ireland, & Hitt (1990) and Lane et al., (1998), we controlled industrial characteristics to avoid effects. The firm size can influent the knowledge stock and structure of firm, thus, we control the construct. According to the suggestion of Bacharach et al.,(2002), we regard the number of people to as firm size. There are different ownership styles in Chinese context, which can affect the internal organizational activities. Especially, the different development strategic orientation exists between SOEs and Private firm. Lubatkin et al., (2006) also point out the importance of ownership on organizational activities. At last, firm age is one of important construct for organizational knowledge activities. For example, the process of capability building follows the development of a New Venture.

Generally, a mature firm might have enough organizational capital, which influent strategy selection.

Adequacy of the measures: reliability, validity, and common method variance

To ensure the validity and reliability, we use several step to deal it. Just as noted above, we first sent the questionnaires to some top managers for survey, which make the items be accepted by most of responding people. Because the all constructs is first time using in Chinese context, so we conducted an exploration factor analysis to assess the convergent and discriminate validity of the multi-item constructs.

The component factor loading of four items of organizational capital are 0.774, 0.847, 0.768, and 0.539. All numbers is bigger than the least accepted number 0.5. And the Cronbach's Alpha is 0.754. The component factor loading of four items of external organizational learning are 0.816, 0.861, 0.862, and 0.500. And the Cronbach's Alpha is 0.827, which be accepted because they bigger than the least number 0.7 according to Nunnally (1978)'s suggestion. The component factor loading of four items of external organizational learning are 0.723, 0.772, 0.812, 0.774, 0.686, and 0.116. The Cronbach's Alpha is 0.687. Obviously, the factor loading of the sixth item is too small, and the Cronbach's Alpha smaller than the least number 0.7. In original questionnaire, the sixth item is reversed question, but most of Chinese can't accept this type of question. Thus, we delete the sixth item. The component factor loading of five items are 0.715, 0.767, 0.812, 0.780, and 0.697, and Cronbach's Alpha is 0.812. Therefore, the questionnaire provides an evidence of good validity.

By the way, most survey research argues that the use of perceptual data for both independent and dependent variables in this study may raise the concerns of common method variance. Podsakoff et al. (2003) noted, collecting the measures of variables from different sources 'makes it impossible for the mindset of the source or rater to bias the observed relationship between the predictor and criterion variable. In order to avoid the mistake, we use we used Harman's one-factor method to test the presence of common method variance (Podsakoff and Organ, 1986). Significant common method variance would result in one general factor accounting for the majority of covariance in the variables with the first factor accounting for only 19.5 percent of total variance, which suggests that common method variance is unlikely to have caused any significant relationships among variables in the study.

Analysis and result

Table 2 shows the means, standard deviations, and correlations among the variables examined in the study. Table 3 presents the results of the multi regression models. Hypothesis 1, we proposes that the positive relation between organizational capital with innovative capability. The results in Model 4 suggest the organizational capital with innovative capability are positive and signification ($b = 0.296$, $p < 0.001$). Thus, Hypothesis 1 is supported according the result of empirical test.

Hypothesis 2, we proposes that the positive relation between organizational capital with external organizational learning. The results in Model 2 suggest the organizational capital with external organizational learning are positive and signification ($b = 0.467$, $p < 0.001$). Thus, Hypothesis 2 is supported according the

result of empirical test.

Hypothesis 3, we propose that external organizational learning plays a mediating effect between organizational capital with innovative capability. The results in Model 5 suggest that when external organizational learning bring into model, the signification of organizational capital is disappeared. And the external organizational learning is positive and signification with innovative capability ($b = 0.296, p < 0.001$). Thus, Hypothesis 3 is supported according the result of empirical test.

Hypothesis 4, we propose that Organizational capital plays a negative moderating effect between external organizational learning with innovative capability. The results in Model 6 suggest that when the interaction construct of organizational capital and external organizational learning is bring into model, we can get a negative and signification result about interaction construct($b = -0.275, p < 0.001$). Thus, Hypothesis 4 is supported according the result of empirical test.

Table 2 Correlation、Mean and Standard Deviation

Variable	1	2	3	4	5	6	7
1 Firm age	1.000						
2 Ownership	-.240**	1.000					
3 Industrial sector	.114	.175*	1.000				
4 Firm size	.463**	-.137	.218**	1.000			
5 OC	.101	.064	-.031	.340**	1.000		
6 EOL	.021	.182*	.025	.204**	.537**	1.000	
7 IC	-.168*	.219**	-.049	.036	.305**	.474**	1.000
Mean	3.357	3.143	.391	3.072	3.519	3.731	3.425
Std. Deviation	1.189	1.227	.489	1.835	.676	.621	.681

** . Correlation is significant at the 0.01 level (2-tailed).

* . Correlation is significant at the 0.05 level (2-tailed)

Table 3 Result

Variables	External organizational learning		Innovative capability			
	M1	M2	M3	M4	M5	M6
Firm age	.008	.003	-.187*	-.190*	-.191**	-.193*
ownership	.259***	.191**	.215**	.178*	.121	.096
Industrial sector	-.060	.021	-.092	-.047	-.053	-.034
Firm size	.216**	.053	.172*	.083	.067	.094
OC		.467***		.258***	.120	.108
EOL					.296***	.283***
OC×EOL						-.275***
R^2	.091**	.282***	.087**	.145***	.209***	.282***
ΔR^2	.070***	.261***	.066**	.121***	.181***	.253***

Discussion and Conclusion

In this paper, we study the mechanism of how organizational capital affects innovative capability building. We build a theory framework including organizational capital, external organizational learning, and innovative capability according prior research works. In detail, we proposed four hypotheses in the study, and examined the relationships among these constructs. With data on a sample of 184 firms in three provinces in China, we examine the hypotheses, and all are accepted. In this paper, we found that organizational capital plays a very important role in the process of innovative capability building. Firstly, it is a base to initial the building process. Secondly, organizational capital wills influents innovative capability through affecting external organizational learning. Thirdly, as an internal capital stock, organizational capital provides a guarantee for the process, which affects the relationship between external organizational learning and innovative capability with negative significant.

We follow the research work of Subramaniam & Youndt (2005) to find the internal mechanism. But one interesting conclusion is presented that the firms have to face a dilemma context. When external organizational learning brings some new knowledge into organization, if firms own more organizational capital, they cannot facilitate knowledge activities. Although, organizational capital can pulls the knowledge flow in organizational system by the interaction of management, operational process, technology, structure and culture (Dzinkowski, 2000; Hurwitz et al., 2002), it is not means organizational capital has same function in the other context. For knowledge activities, when firms own more organizational capital, they begin to emphasis institutional management. Which will restrict the accept content of new knowledge of individuals, groups or departments within organization. Therefore, some new organizational knowledge can't to assimilate into original knowledge base to promote innovative capability building. Therefore, organizational capital will be used carefully. Or firms will reduce efficiency.

Contributions

In this paper, we identify the importance of organizational capital in different stages of innovational capability building. For an exactly organizational activity-innovative capability building, organizational capital plays two very important roles in different stage in the process. The first is to play an external orientation supporting function, which is a base to initial knowledge seeking. The other is to play an internal orientation supporting function after the new knowledge was brought into firm. Although, the characteristics and contents are different, the importance is showed. In the first stage, organizational capital has a significant influent to external organizational learning. In the second stage, it plays a negative influence on the relationship between external organizational learning and innovative capability. It is obviously that organizational capital has two-side for organizational activities, including positive and negative. Therefore, managers should pay more attention on it, and identify the different importance on different stages in the process of innovative capability building.

Future research directions

The important function of innovative capability is the processing and utilization of the holistic resources of the firm, and then to make it translated into the strategic asset. In this paper, we begin to track the path of innovative capability building from organizational capital and external organizational learning. But it is not the only choice for firm to building its innovative capability, how to find the other ways to building innovative capability? It is a future research direction. Although we use organizational knowledge to understand innovation capability, there are two methods to create organizational knowledge to enhance capability. One is Nonaka & Takeuchi (1995) had note that new individual knowledge is create in human, and then use organizational learning to cross-level transfer to organization level(Crossan, et al., 1999). The other is to use external orientation to complete knowledge activities in this paper. However, how to balance the use of the both methods at same time cooperatively still need to be analyzed in future. By the way, when external knowledge is brought into organization, some important factors will influent the using of knowledge except for organizational capital, for example, including organizational climate, organizational culture, top manager involvement, and so on. How about these factor influent the knowledge activities of innovative capability? The future research can explore in these field deeply.

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