

The Root Cause of the Hierarchical Structure of Enterprise Capabilities

Danhong Huang*, Weidong Li

School of Management, Xiamen University, Xiamen, 361005, China

* Email: danhonghuang@126.com

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Abstract

Based on the correlation between an enterprise' unique resources and capabilities in its functional influence, resource school specialized in strategic management artificially constructs a hierarchical structure that reflects enterprise capabilities. In fact, an enterprise's unique resources is substantially tacit knowledge, whereas the essence of an enterprise' multiple capabilities is a different type of knowledge in the form of tacit knowledge, explicit knowledge or self-transcending knowledge, all of which form an interdependent hierarchical structure during knowledge conversion process.

Keywords: Enterprise capabilities; Hierarchical structure; Conversion process

1. INTRODUCTION

Resource school specialized in strategic management believes that the competitive advantage of an enterprise comes from the heterogeneity of its resources that are valuable, rare, inimitable and non-substitutable (Barney, 1991^[1]). The capability branch of resource school considers enterprise resources as passive static stocks, and resources themselves are insufficient to form the competitive advantage of an enterprise. Only in the presence of unique capabilities of an enterprise could resources be such competitive advantage (Barton, 1992^[2]). The core capability branch of capacity school, however, believes that among multiple unique capabilities that an enterprise possesses, one capability stands out and dominates other peripheral capabilities. Also, only in the presence of such core capability could peripheral capabilities form the competitive advantage of an enterprise (Prahalad and Hamel, 1990^[3]). The dynamic capability branch of capability school believes that in addition to multiple unique capabilities that an enterprise possesses, another capability could help an enterprise to adapt to changes in the environment through self-adjustment. By doing

so, it could drive the changes of other capabilities, overcome their rigidity, and bring about sustainable competitive advantage of that enterprise (Teece and Pisano, 1997^[4]). Overall, the core logic of resource school could be summarized as following: as dynamic capability drives core capability, the latter could dominate peripheral capabilities, which are known to allocate enterprise resources. All capabilities and resources are unique, and as a result, a hierarchical structure of the capabilities of an enterprise is established.

Although resource school lists necessary conditions for the formation of unique resources and capabilities, namely the heterogeneity of its resources that are valuable, rare, inimitable and non-substitutable, from the point of view of an enterprise so that it could gain a competitive advantage (Barney and Zajac, 1994^[5]), it fails to reveal the essence of enterprise resources and capabilities, and the internal relations in essence between resources and capabilities of an enterprise. In other words, the so called enterprise capability architecture by resource school just shows some connections between resources and functions of an enterprise in the aspect of functioning, but fails to

reveal how they are really linked from a mechanistic perspective.

2. THE ESSENCE OF ENTERPRISE RESOURCES AND CAPABILITIES

Resource school believes that the necessary conditions for resources and capabilities to become enterprise resources or capabilities lie in the heterogeneity of these resources that are valuable, rare, inimitable and non-substitutable (Barney, 1991^[1]). A question follows: what kind of resources or capabilities could be considered as unique? Or, in other words, what is the essence of enterprise resources or capabilities? On the one hand, enterprise resources are commonly presented as some static forms, such as various substance elements, interpersonal relationship elements, experience and skill elements, as well as culture or habit elements. On the other hand, enterprise capabilities are commonly presented as some dynamic forms when above elements are configured and coordinated through different activities. Obviously, enterprise resources are the product when enterprises make sense of these static forms according to their value pursuits, and enterprise capabilities are the product when enterprises make sense of these dynamic forms according to their value pursuits (Weick, 1979^[6]). Therefore, such sense making process is also a process of knowledge accumulation. Specifically,

enterprise resources are presented as the form of knowledge stock, whereas enterprise capabilities are presented as the form of knowledge flows. In this sense, an exploration of the essence of enterprise resources or capabilities is actually an exploration of the essence regarding the knowledge extent an enterprise has grasped, or, in other words, what kind of knowledge is valuable, rare, inimitable and non-substitutable?

2.1 Different types of knowledge

Nonaka and Kanno (1998) classified knowledge as two general types: one type is explicit knowledge, which could be understood by using languages or words, and this type of knowledge could be communicated via media. Another type is tacit knowledge, which could not be expressed by using languages or words, and could not be communicated via media. Also, it could only be understood through realistic scenarios^[7]. Explicit knowledge is the kind of knowledge about surface awareness, whereas tacit knowledge is the kind of knowledge about deep awareness. Explicit knowledge covers more knowledge related to “what”, whereas tacit knowledge covers more knowledge related to “how”^[8]. Explicit knowledge contains more knowledge related to objective external objects, whereas tacit knowledge contains more knowledge related to subjective internal experience.

Table 1: Types and characteristics of knowledge.

	Scenario dependence	Type of awareness	Level of awareness	Type of content	Communication level	Self-transcending level	Objective-subjective dichotomy level
Explicit knowledge	Small	More rational	Surface	More answers to “what” related questions	Large	Smaller	Larger
Tacit knowledge	Large	More directivity in terms of emotion, will and value	Deep	More answers to “how” related questions	Small	Small	Large

Self-transcending knowledge	Larger	Complete directivity in terms of emotion, will and value	Deeper	More answers to “like it or not” related questions	Smaller	Large	Small
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Therefore, explicit knowledge represents abstract, symbolic knowledge, whereas tacit knowledge represents concrete and contextualized knowledge. Explicit knowledge contains more rational knowledge, whereas tacit knowledge contains more knowledge related to emotion, will and value-direction^[9]. Scharner (2001) believed that there is a special kind of knowledge, namely, self-transcending knowledge, which belongs to tacit knowledge category, and represents a more pure form of tacit knowledge^[10]. Since this kind of knowledge has the ability to self-transcendence, self-renewal or self-change, it neither belongs to the kind of knowledge that answers “what”, nor the kind of knowledge that answers “how”. Instead, it is the kind of knowledge that does not separate objective from subjective thought, contains more knowledge related to emotion and will, belongs to the kind of motivational knowledge that answers “to or not to”, and represents a deeper level of awareness. Table 1 shows the types and characteristics of knowledge.

2.2 Knowledge conversion process

Regardless of the type of knowledge (i.e., tacit versus explicit knowledge), Nonaka and Kanno (1998) believed that it could only get established after the dynamic conversion process, although it could still exist in the form of static medium after its establishment^[7]. The first step, or the basic step of knowledge conversion process, is the conversion from tacit knowledge to tacit knowledge, which is also known as the socialization process. The socialization process relies on common situations and party participation. Also, the party with tacit knowledge could be directly understood by the other party without the involvement of any medium. It should be noted that the socialization process is the conversion process that can convert the maximum amount of knowledge. On the basis of the

socialization, the conversion process from tacit knowledge to the explicit knowledge starts, which is also known as the externalization process. The essence of externalization is shared tacit knowledge that completed the conversion process of tacit knowledge. The expression of its partial content or characteristics is by means of metaphor and analogy so that words or symbols could be formed and used to refer to shared tacit knowledge. As a result, the exchange of tacit knowledge becomes possible through the exchange and sharing of these words or symbols, and these words or symbols become explicit knowledge. It should be noted that the externalization process could only help to finish the conversion of tacit knowledge with partial content done. On the basis of the externalization process, a new process called integration from explicit knowledge to explicit knowledge starts. The essence of the integration process is to integrate several decentralized explicit knowledge that are established after the externalization process into integral explicit knowledge. On the basis of the integration process, a new process called internalization from explicit knowledge to tacit knowledge starts. The essence of the internalization process is to allow systematized explicit knowledge to infiltrate into larger common situations and activities, so that the range of tacit knowledge could be further extended. After the completion of the internalization process, a new turn of knowledge cycle with larger level of range starts, and such process repeats again and again. However, Nonaka and Kanno (1998) did not answer the question that why knowledge conversion process would happen^[7]. Neither did they address the question that why the completion of a conversion period could lead to the next one so that such process continues repeating. Scharner (2001) believed that the reason such process continues repeating from one

cycle to the next is due to the function of self-transcending knowledge^[10]. Or, in other words, behind tacit knowledge there exists a kind of knowledge with self-renewal and self-changing function all the time. In addition to its self-renewal and self-changing function, this knowledge has a stronger power that propels knowledge conversion process towards tacit and explicit knowledge with a higher level of range. Therefore, self-transcending knowledge not only propels knowledge conversion process between periods, but also presents the driving force that propels knowledge conversion process at different conversion stages within periods.

2.3 The essence of enterprise resources and capabilities

Regardless of whether it is explicit knowledge, tacit knowledge or self-transcending knowledge, it represents the results of an enterprise's value pursuit activities, and serves as the premise for an enterprise to step forward to pursue its expected value. Therefore, knowledge of any of these types is valuable. Since explicit knowledge is easy to communicate, it is more likely to be obtained by those enterprises in pursuit of relevant value. However, since explicit knowledge does not display the characteristics of rareness, it could not provide a competitive advantage for an enterprise, or, in other words, it could not become one of the unique resources of that enterprise. By contrast, tacit knowledge and self-transcending knowledge contained in tacit knowledge are difficult to communicate or get possessed by enterprises. As a result, such types of knowledge are rare. In addition, since tacit knowledge is scenario-dependent, it is hard to be imitated or substituted. Therefore, only tacit knowledge embedded in the static elements of an enterprise could become the unique resource that would provide a competitive advantage for the enterprise, which means, the so called unique

resource by resource school is essentially tacit knowledge.

Socialization, as the knowledge conversion process from tacit knowledge to tacit knowledge occurs in individual scenarios, accompanied with the conversion of specific tacit knowledge, which leads to the promotion of use and combination of specific tacit knowledge embedded in specific static elements of an enterprise, and in fact, exerts its resource allocation function during such process. Therefore, the socialization process from tacit knowledge to tacit knowledge is the essence of an enterprise's peripheral capabilities. Given this, only those internal activities that support knowledge socialization process from tacit knowledge to tacit knowledge demonstrate an enterprise's peripheral capabilities. Since the externalization process from tacit knowledge to explicit knowledge, the integration process from explicit knowledge to explicit knowledge, and the internalization process from explicit knowledge to tacit knowledge share some common ground, namely, scattered knowledge in individual scenarios could be integrated to form integral tacit knowledge at larger extent or even extend to the scale of the whole enterprise, knowledge conversion process of above-mentioned three types of knowledge could also promote the socialization process from tacit knowledge to tacit knowledge. Therefore, these three processes together constitute an enterprise's core capacity, represent the essence of an enterprise' core capacity, and play an important role in affecting peripheral capabilities. Since self-realization capability not only promotes knowledge conversion process between periods in a continuous manner, but also promotes knowledge conversion process at different conversion stages within periods, it functions as the essence of an enterprise's dynamic capability. Table 2 shows the essence of enterprise resources and various capabilities.

Table 2: The essence of enterprise resources and various capabilities.

	Tacit knowledge	Socialization	Externalization	Integration	Internalization	Self-transcending tacit knowledge
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Unique resources	√					
Peripheral capability		√				
Core capability			√	√	√	
Dynamic capability						√

3. THE HIERARCHICAL STRUCTURE OF ENTERPRISE CAPABILITIES

Resource school proposes that in essence, dynamic capability drives the change of core capability, core capability dominates peripheral capabilities, peripheral capabilities allocate unique resources, and thus a hierarchical structure of enterprise capabilities is established. However, resource school fails to reveal the essence regarding an enterprise' unique resources and its various capabilities, and does not figure out the intrinsic link mechanism between dynamic capability, core capability, peripheral capabilities and core resources. Instead, it builds their inter-relations from the aspects of various capabilities and the requirement of resource functioning. The truth is that the relation between enterprise capabilities and resources is far beyond the relation between various functions endowed by our subjective viewpoints. Instead, it reflects the relation between knowledge and its self-transcending nature. As the essence of dynamic capability, self-transcending knowledge drives the circulation of knowledge conversion process, and thus is bound to promote the knowledge conversion processes including externalization, integration and internalization, which actually represents the essence of an enterprise's core capability. Furthermore, it promotes the knowledge socialization and conversion process of the essence of an enterprise's peripheral capabilities. Eventually, such activities would promote the movement of tacit knowledge, which represents the essence of an enterprise's unique resources. As a result, a hierarchical structure of enterprise capabilities is established, which is essentially based on knowledge

conversion process. Obviously, a hierarchical structure based on knowledge conversion process is essentially quite different from a hierarchical structure based on the requirement of resource functioning. Fig. 1 shows the hierarchical structure of enterprise capabilities based on functions. Fig. 2 shows the hierarchical structure of enterprise capabilities based on knowledge conversion process.

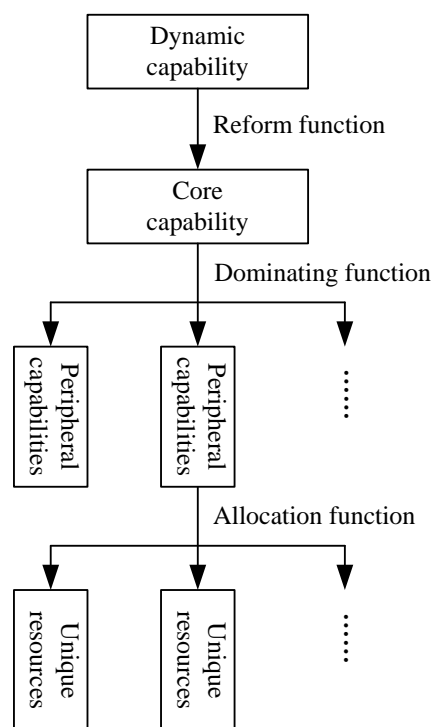


Fig. 1. The hierarchical structure of enterprise capabilities based on functions.

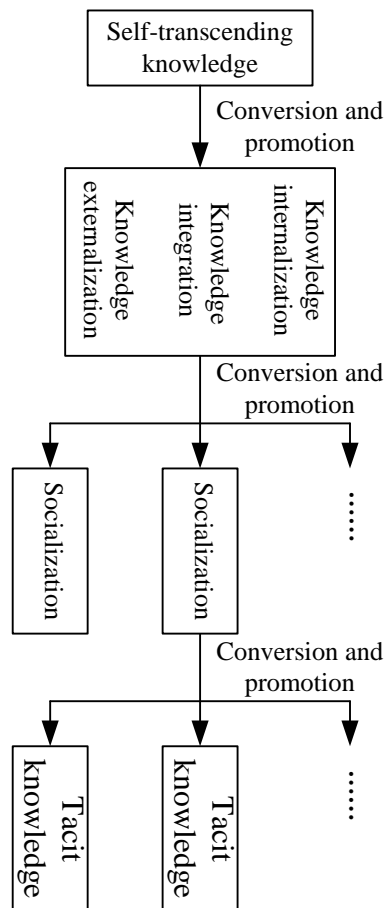


Fig. 2. The hierarchical structure of enterprise capabilities based on knowledge conversion process.

4. CONCLUSION

This paper argues that enterprise resources or capabilities are not present as the inner objective reality of an enterprise. Instead, they reflect the process of an enterprise's subjective sense-making, or the process of knowledge generation and expansion, when that enterprise is in pursuit of its expected value. Self-transcending tacit knowledge is known for its ability to regenerate and renew, and functions as the source and power of knowledge generation and expansion, which would then lead to the formation of an enterprise's dynamic capability. Self-transcending tacit knowledge drives the externalization, integration and internalization of knowledge, and promotes the formation of an enterprise's core capability. After the processes of externalization, integration and internalization, the socialization of self-transcending tacit knowledge contributes to an enterprise's peripheral capabilities. After such socialization

process, the sense-making of the inner objective reality of an enterprise via tacit knowledge leads to the formation of an enterprise's unique resources. On the basis of abovementioned knowledge generation, knowledge expansion and the sense-making regarding the existence of objective reality, an enterprise's dynamic capability is generated, which would then propel its core capability. Furthermore, an enterprise's core capability would dominate its peripheral capabilities. Finally, an enterprise's peripheral capabilities could allocate the unique resources of enterprise.

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