

A Model of New Ventures Knowledge Management Based on Dynamic Capabilities

Yang Zhaoli¹, Li Yaxiong²

1 School of Management, Wuhan University of Technology, Wuhan, P.R.China, 430070

2 City College of, Zhejiang University Hangzhou, P.R.China, 310015

(E-mail:yangbrand@163.com)

Abstract New ventures knowledge management is a new area of entrepreneurship research, and knowledge management research based on dynamic capabilities is a hot topic in related research. Knowledge is a key resource for enterprises to have access to sustainable competitive advantage. Therefore, improving knowledge management of new enterprises is an effective way to enhance competitive advantage. Compared with established firms, new ventures knowledge management is unique and important. Based on the literature review, this paper integrates theory results of knowledge management and dynamic capabilities and analyzes the process of new ventures knowledge management. Based on defining the concept of new ventures and dynamic capabilities, this paper constructs a knowledge management model for new ventures based on dynamic capabilities.

Key words New ventures; Knowledge management; Dynamic capabilities; Knowledge management model

1 Introduction

There are huge differences between new ventures and established firms. New ventures face many liabilities of new enterprises growth. So how to obtain sustainable competitive advantage is guarantee of new ventures' healthy development. Resource-based theory represented by Barney (1991) considered that values, rareness, imitation difficulties and strategic resources which cannot be replaced are the basis of enterprises' competitive advantage, and venture resources are essential for the sustainable development of new enterprises.

In the rapidly changing dynamic environment, enterprises must be able to quickly integrate, build and reconstruct their internal and external resources and capabilities to create new competitive advantages. The so-called dynamic ability is the process that enterprises use resources, particularly the process of acquisition, creation and integration resources to adapt or create the market transformation. The object of this paper is to build new enterprises' knowledge management model based on dynamic capabilities. This paper first proposed the classification of new enterprises' knowledge management activities, then defined the dynamic capabilities dimensions of enterprises knowledge management, further analyzed the relationship between dynamic capabilities of knowledge management and competitiveness, finally built the system model of knowledge management chain.

2 Review of Related Researches

2.1 Definition of related theory

Global Entrepreneurship Monitor (GEM) report considered that new ventures were enterprises whose setting up time is less than 42 months. In the field of entrepreneurship, scholars primarily concerned with entrepreneurship features of new ventures followed by the length of creation time. In this paper, new ventures are defined as legal entities which have entrepreneurship features and have been created no more than 6 to 8 years.

Knowledge management has got widespread concern in recent years, research on enterprises' sustainable competitive advantage found that knowledge is a vital source to provide organizational competitive forces. Holsappel & Singh (2001) proposed a knowledge chain model for knowledge management activities, which referred to Porter value chain model. This model divided knowledge activities into two basic types, and defined five major knowledge management activities in the basic activities. Eisenhardt & Martin (2000) considered that dynamic ability was the process that enterprises used resources, particularly the process of reconfiguration, build and integration resources to adapt the market transformation. Therefore, with the conflict, fission, evolution and decline in the market, dynamic ability is organization and strategic practices in order to achieve new resources organization.

2.2 Activities classification of new ventures knowledge management

According to Holsapple & Joshi’s (2002) classification and the characteristics of new ventures, this article classifies new ventures’ knowledge management activities as three types of basic activities which include knowledge acquisition, knowledge creation and knowledge integration, as well as two types of ancillary activities which include entrepreneurial leadership and knowledge utilization.

3 Dimensions of Dynamic Capabilities in New Ventures Knowledge Management

According to the above definition, dynamic capabilities dimensions of new ventures knowledge management include knowledge acquisition capability, knowledge creation capability and knowledge integration capability.

3.1 Knowledge acquisition capability of new ventures

Knowledge acquisition capability of new ventures refers to dynamic capabilities acquisition of external knowledge by purchase, licensing, mergers, attracting and hiring. Mathews & Cho(1999) pointed out that weak base of knowledge resource is the most important issue when new ventures are in the start-up phase. Many new ventures in our country which have weak resource base offset the shortage by effective external knowledge acquisition and achieve success when they compete with established firms. Such as Sina, Tencent, Baidu, Alibaba and other network-known enterprises which have achieved great successes in China’s market by transferring foreign knowledge resources.

3.2 Knowledge creation capability of new ventures

Knowledge creation capability of new ventures is that new ventures achieve accumulation of internal knowledge resources and acquire dynamic capability of new knowledge through research and development, staff training, organizational learning, etc. Knowledge creation is the basis of new ventures sustainable development. Therefore, neglecting knowledge creation would seriously affect the future competitiveness of new ventures. While acquiring external knowledge resources is available to help new ventures solve key issues such as technical bottleneck, relying solely on external resources and neglecting accumulation of internal resources would leave hidden troubles for new ventures sustainable development.

3.3 Knowledge integration capability of new ventures

Knowledge integration capability of new ventures is to create an open structure and regroup dynamic capabilities of knowledge resources, which includes the reorganization capacity of the internal knowledge resources and the integration ability with the external environment. The significance of knowledge integration for new enterprises reflects in open market changes. It is difficult for new ventures to step across different fields to integrate knowledge. And the integration of technical knowledge and market knowledge has more practical significance. For example, Tencent creates entrepreneurial performance far beyond the study benchmark through imitating the instant messaging technology of the United States and integrating with China’s internet market.

4 Knowledge Management Model for New Ventures Based on the Dynamic Capabilities

4.1 Model construction for knowledge management of new ventures

Referencing knowledge chain model for knowledge management activities proposed by Holsappel & Singh (2001), and combining the characteristics of new enterprises, this paper presents knowledge management model based on dynamic capability: the system framework of new ventures knowledge management. This model divides knowledge management into a number of interrelated processes, also defines the process and ability composition.

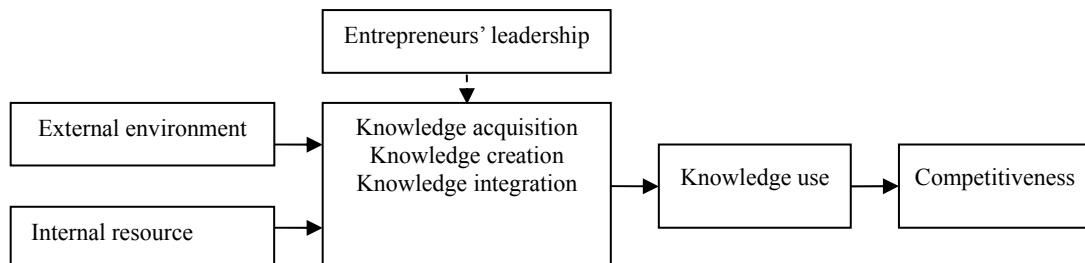


Figure 1 Knowledge Management Model for New Ventures Based on Dynamic Capabilities

As the newborn's growth liability and growth stage are different, the constitute basis of knowledge

management model for new ventures is quite different from established firms. Compared with Holsappel & Signh's (2001) knowledge chain model, in this paper, knowledge protection would be included in the process of knowledge applying. Moreover, knowledge leadership, coordination, supporting processes of control and evaluation would be merged in the process of entrepreneurs leading. This paper also highlights that entrepreneurs and entrepreneurial team of new ventures play an important and complementary role in knowledge management.

4.1.1 Relation model for knowledge acquisition capacity and competitiveness of new ventures

The mechanism of enhancing competitiveness for knowledge acquisition capacity can be analyzed from the following aspects.

First, new ventures have access to gain ideas on technology innovative from the customers and suppliers, and so as to find more business opportunities. Second, new ventures can directly gain the necessary technical knowledge through technology transfer, licensing and other forms, which can improve business performance. Furthermore, customers, partners and competitors can be important sources for new ventures to obtain market knowledge.

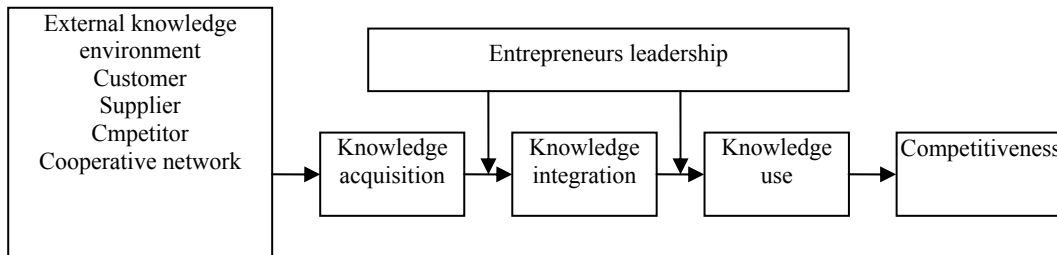


Figure 2 Relation Model for Knowledge Acquisition Capacity and Competitiveness of New Ventures

4.1.2 Relation model for knowledge creation capacity and competitiveness of new ventures

Knowledge creation capability has important implications for competitiveness. This not only because it can obtain the tacit or critical external knowledge resources so as to enhance competitiveness, but also because it can improve absorptive capacity of external knowledge by enhancing the knowledge resource base and thus indirectly enhance competitiveness.

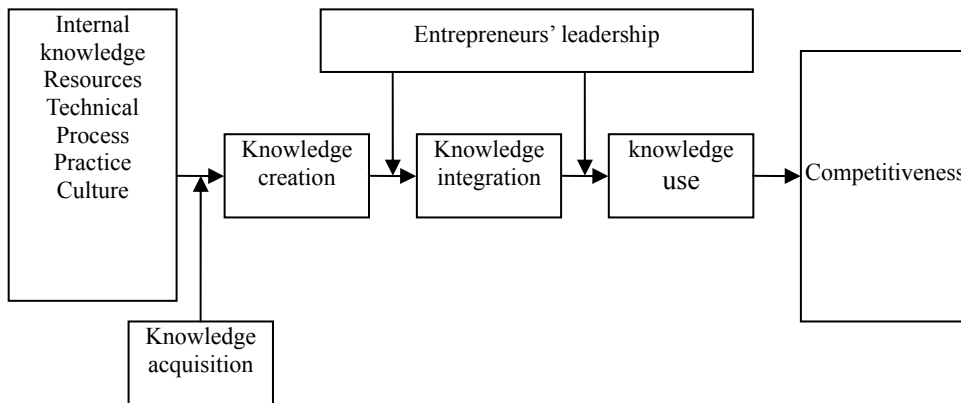


Figure 3 Relationship Model for Creation Capacity and Competitiveness of New Ventures

4.1.3 Relation model for knowledge integration ability and competitiveness of new ventures

The required knowledge of new ventures scatters in the internal organization and external supply chain. Therefore, combining company's own knowledge resources and other subjects' knowledge in the supply chain plays an important role in raising competitiveness.

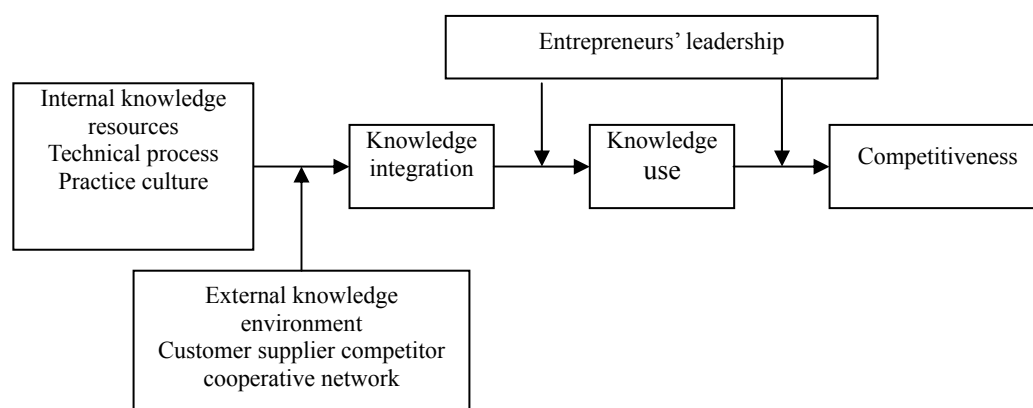


Figure 4 Relation Model for Integration Capacity and Competitiveness of New Ventures

4.2 The correlation between entrepreneurial leadership and knowledge management dynamic capability of new ventures

Knowledge strategic planning, knowledge acquisition direction, knowledge creation field, knowledge integration rules, knowledge use strategies of new ventures systematic planning heavily rely on the entrepreneur and entrepreneurial team. Entrepreneurs have a close relationship with knowledge management activities, coordination, control and policy. Carrying out these management processes depends on the leadership or guidance of entrepreneur and entrepreneurial team. Many of the entrepreneurial processes have become part of the culture. Leadership style, personality and behavior of the entrepreneurs guide the corporate culture, and have a profound impact on the knowledge management behavior of new ventures. For new enterprises, the dynamic capabilities of knowledge management reflect their overall knowledge increment, which is controlled and led by the entrepreneur and entrepreneurial team. The leadership of entrepreneur and entrepreneurial team is a key element which influences dynamic management capabilities of new ventures.

4.3 The correlation of knowledge use and knowledge management dynamic capability, as well as competitiveness of new enterprises

Knowledge use includes the processes of knowledge storage, sharing, learning, commercialization and protection, especially the process of applying and using knowledge resources that already exist. Among them, effective knowledge storage can allow enterprises to quickly create new knowledge, sharing and learning can significantly enhance the ability of knowledge creation, knowledge commercialization can also enhance the ability of knowledge integration. Therefore, as an intermediate variable linked by knowledge management dynamic capacities and competitiveness, knowledge use has an important impact on enhancing dynamic capabilities and competitiveness.

5 Conclusion

Based on such theories about knowledge management and dynamic abilities, this paper proposes a knowledge management model for new ventures based on dynamic capabilities. Conclusions are as follows.

Knowledge management activities of new ventures have three types of basic activities which include knowledge acquisition, knowledge creation and knowledge integration, as well as two types of activities which include entrepreneurial leadership and knowledge utilization. The dynamic abilities of new ventures are defined to acquire, create and integrate knowledge resources to adapt or create the market transformation. Therefore, knowledge acquisition, knowledge creation and knowledge integration have great influence on enhancing competitiveness of new ventures, as well as entrepreneurial leadership and knowledge use.

For new ventures, knowledge management is a strategic problem, so it has important implication to study knowledge management of new ventures based on dynamic abilities. The knowledge management model proposed by this paper limits to the level of qualitative analysis, so following study will make quantitative determination and verification based on this model, so as to define the influence degree of different factors to knowledge management of new ventures, as well as correcting and improving this model through data analysis.

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