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On Dynamic Evolution of Knowledge Management Model Based On Deepening Of Knowledge Intension

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Abstract: With the desire for the progressive deepening of the understanding of knowledge intension, correspondingly, the knowledge management models go through a dynamic evolving process. Each theory model of knowledge management in evolving has promoted the development of knowledge management, but there are also their own limitations at the same time. To overcome these limitations is subject to further deepening people's understanding of knowledge and its management models.

Keywords: knowledge intension, knowledge management model, dynamic evolution

1. INTRODUCTION

There are authors who try to make an inquiry investigation about the theory of knowledge management model, for example, Haslinda, a. & Sarinah, divided knowledge management mode into eight types, Kenneth A. Grant & Candace T. Grant divided knowledge management mode into three types, Jie Wang-chu combed genres on knowledge management from home and abroad dimensions, Chang Ping-lu researched the knowledge management mode from the breadth and depth perspective of the knowledge management, but the researches are limited to the perspective of transverse static, have not yet further reveals the connotation of knowledge progressive deepening and knowledge management mode of the relationship between the dynamic evolution, this paper try to that make up this deficiency.

2. THE CONNOTATION OF KNOWLEDGE TO DEEPEN

At the beginning, people regard the knowledge as information, the object, the resources and the ability, gradually, people realize that the knowledge is capital from a deeper angle. As figure one shows:

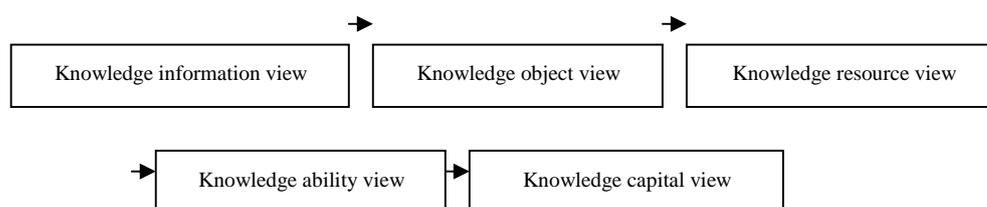


Fig.1 Progressive deepening of knowledge connotation

Knowledge originates from the digital information, therefore, early knowledge view regards knowledge as information. This view considers that knowledge is the human's understanding and generalization on the nature and human social movement rules through the information, and it also is the integrated information that through brain's integration of the systematic thinking to information, which is the most valuable part. Knowledge information view revealed the information nature of knowledge, and is the generalization of essence on knowledge cognition view. Knowledge objective view think, knowledge exists in the object form, is Knowledge Object which main body practice activities and understanding activity point to, is the deepening concept of

knowledge information view. Objective knowledge divided into curing knowledge and active knowledge, the former includes the printing on books, burn on a CD, solidification in building and freezer in machine knowledge, etc. The latter refers to the knowledge in the brain, the auxiliary or extensions, automatic control system or computer memory .Knowledge's resources view, and the ability view is the strategic conversion of knowledge objective view. The former is the result of regarding object of knowledge as resources, the latter is the result of internalizing object of knowledge as potential, dynamic, invisible subjective dynamic conditions of the main body. Knowledge's resource and ability view rise with the theory concept of strategic management's resource and ability view. Strategic management's resource view think that only knowledge resources is the source of organization's competitive advantage, Strategic management's resource view think that only knowledge resources is the source of organization's competitive advantage; but the ability view think, only the capability of knowledge is the source of organization's competitive advantage. Knowledge capital view regards company's knowledge as the capital which can bring the rent for company, is the further development of knowledge's resource and ability view. This view think that knowledge management is mainly the knowledge capital management of company, and the knowledge capital is series of systematically scientific and technical knowledge, which company creates, purchases, integrates for production purpose. It can be called the accumulation of knowledge of the company. The cumulative knowledge may constantly be rich through the information flow, and can be used in the process of production. The deepening paths of the knowledge connotation suggest that people's understanding of the knowledge experienced a process from the simple to the complex.

3. EVOLUTION OF KNOWLEDGE MANAGEMENT MODE

Difference of knowledge view determines the difference of knowledge management mode. As the people's awareness of the knowledge deepening, academics' research on knowledge management mode is constantly moving on. View of knowledge experiences a deepening process which the knowledge is resources, information, and object before, then is the capital; The corresponding is that knowledge management experiences information management model, learning management model, knowledge engineering model, creation management model, process management model, strategic management model, and capital management model ,which is a dynamic evolution process.

3.1 Knowledge management mode based on the knowledge information view.

Knowledge management is based on the point of view that knowledge is information when first used 'this may be traced back to the literature of management information system. Marchant described Knowledge management as a selective strategic information management terms in 1983 'and think that knowledge management is the last stage of information management evolution. Information management view based on the knowledge pay attention to the information collection, storage, classification, organization, control, processing, disposing, transmission, retrieval process. This shows that knowledge management appears as information management at the first. Knowledge management mode based on the knowledge information view includes information management mode and knowledge engineering mode.

3.1.1 Information management mode of the knowledge management

The model think, knowledge management is mainly the information management, which is closed with information technology development. Ponelis and Fair Wessels concluded that the knowledge management is a new latitude of information management. Knowledge management scholar Y. Mathotra thinks that the essence of knowledge management is the ability of information technology processing data and information, and people's ability to create new and organic combination organization process. Domestic scholars Wu Jia-pei thinks knowledge management is the extension of information management, is the new stage of information

management development, and it also is the change that information transformed into knowledge, using the knowledge to increase the specific organization's strain ability and the innovation ability. Chen Rui also scope knowledge management into information management. The key point of information management mode of knowledge management is exploration of the right package in order to promote knowledge management. The software vendors always wrapped the existing products as their knowledge management system as much as possible to strengthen the faith of the enterprise in the technical aspects. Information system is accepted by management groups as the key thought to the future of the enterprise, this belief is rarely doubted. The concept includes the orientation of implicit computer thought, the key issue is the knowledge management exists in storage and sharing of knowledge, and that knowledge can and should be used to express and share by the computer system. Visibly, this kind of knowledge is still knowledge of information levels.

3.1.2 Knowledge engineering mode of knowledge management

Knowledge engineering is the information technology use's further development of information management mode in knowledge management. As information management mode of knowledge management, it still insists the application of information technology. Knowledge engineering hair in the 1970s on basis of expert system and artificial intelligence. Then, in theory, people believe that building a kind of solution mechanism to the problem is feasible, this mechanism can read information and use its giant computing power to solve any problems. However, when trying to build this machine, people found that computing power is not the most major, knowledge acquisition is the most important. This kind of machine people trying to build is called expert system, the design purpose is to imitate experts, such as doctors, geologists and chemists' understanding and reasoning in the practice process.

However, the expert system's knowledge acquisition has become its own problem. Knowledge engineers found that the activity of getting enough high quality knowledge to build machines and available system is a long, costly activity. In fact, obtained knowledge becomes the bottleneck of construction of expert system. This makes knowledge acquisition becomes the main research field in knowledge engineering, the field goal is developing a kind of method and tool to achieve inputting expert knowledge into the computer with high efficiency, and this is a difficult task. Recent years, knowledge engineers transform, test and valid knowledge engineering methods in a real knowledge management plan, such as: cognition of knowledge engineering on different kinds of knowledge, different kinds of experts, statements of the different method of knowledge, these methods have greatly contributed to the development of knowledge management.

3.2 Knowledge management mode based on the knowledge objective view.

As people's further understanding of knowledge, knowledge management mode of knowledge objective view appears on the basis of the knowledge management mode of knowledge information view. Knowledge objective view think knowledge as some kind of object or things, which is independent of man's action, can be stored, retried and used. knowledge management mode based on the knowledge objective view concerned about the acquisition of organization knowledge, operation within the organization or significance of knowledge on the organization development. The difference to knowledge management mode based on the knowledge information view is that the former mainly emphasize the application of information technology in knowledge management, but the latter mainly emphasizes that the human element of knowledge management. Knowledge management mode based on the knowledge objective view can be divided into knowledge learning theory, knowledge transformation theory, knowledge creation process theory, and so on.

3.2.1 Knowledge learning management mode

Organization learning mode of knowledge management think, the study is our natural basic behavior, by constantly learning, human can conform to the changing environment. The organization composed by individuals, organization can learn only through personal learning, and individuals explain their phenomenon or

idea learning of achievement through language or action to ourselves or others, and gradually developed into the organization's common view and to internalize the consensus personal behavior patterns. There are lots of views about organizational learning, more representatives' point of view: Huber proposed that organizational learning can be divided into four parts: knowledge acquisition, information diffusion, and information interpretation and organization memory. Gravin argues that the organization learning is a process of organization's creating, accessing and the transmission of knowledge, etc. The organization learning mode stressed the external's obtain of object knowledge, is the deepening of the knowledge information management mode.

3.2.2 Knowledge creation management mode

Nonaka&Takeuchi think knowledge management created knowledge from the recessive knowledge to the dominant knowledge constantly. The organization can create knowledge through the knowledge spiral of socialization, the exteriorization, the combination and the internalization. Von Krogh thinks that the creation new knowledge fast and spreading new knowledge to every corner of the organization has become the most important issues in the organization knowledge management. The creation of new knowledge containing five stages:(1)members share their experiences and knowledge with each other;(2)according to share knowledge of members, creating new products' or new service's concept effectively;(3)for the company's vision, objectives, strategies, and market research to verify whether this concept correspond the market demand;(4)use the concept has been confirmed to develop the prototype of the product or service;(5)the organization will spread the new knowledge, new concepts and new prototype into the whole organization. The knowledge creation management mode stressed the subjectivity knowledge of the internal and the objective knowledge of the external, which is that the interaction of the internal and external factors, deepening the knowledge learning management mode.

3.2.3 Knowledge process management mode

Process management mode of knowledge management thinks that knowledge management is mainly a series of knowledge activities that connected with each other in management organization. Davenport&Prusak claim knowledge management is process of getting, distribution and use the knowledge effectively. Lavi&Leidner think knowledge management process consists of knowledge creation, storage, retrieval, and transfer and application activities. A lavvy describes KPMC consulting company's knowledge management process. The process think that knowledge management is that enterprise's employees can promote, sharing tacit knowledge, and other intellectual assets in order to better service for the process of customers, it consists of six continuous process structure, named knowledge acquisition, knowledge retrieval, knowledge filter, knowledge links, distribution and application of knowledge. Figure 2 shows:



Fig.2 Knowledge management process

Domestic scholars Wang Guang-yu proposed a partition from the point of view on the basis of comprehensive knowledge in process management ideas, knowledge management can be divided into 9 closely activities, described as K9 knowledge chain. Knowledge process management mode breaks through the oneness of knowledge management model (learning or creation), making the knowledge management activities deepening and systematic.

3.3 Strategic management mode of knowledge based on the concept of knowledge resources view and the ability view.

Strategic management mode based on the concept of knowledge resources view and the ability view see knowledge as resources or ability, greatly break through the narrow vision that see knowledge as specific objective thing and ,deepening the understanding of knowledge to a new realm, which promoted the

development of knowledge management mode once again. Enterprise knowledge management strategy point to the integration for a series of strategic management, strategy and management methods using enterprise's internal and external knowledge and ability under the condition of knowledge economy, in order to improve the organization of knowledge innovation ability, and achieve enterprise's sustainable competitive advantage finally. Enterprise knowledge management strategies include resource view of knowledge management and the ability view of knowledge management.

3.3.1 Enterprise knowledge management mode based on the knowledge resource view

When people see object knowledge as the organization's strategic resources, the knowledge objective view was replaced by knowledge resource view. Resource view of knowledge management think that resources which can help enterprise generate sustainable competitive advantage is the knowledge resources of the many resources, because only knowledge resources can meet the features of value, not fully imitation, scarcity and not equivalent alternative to help enterprise generate sustainable competitive advantage, can lead to the enterprise's sustaining competitive advantage. The resource view of enterprise knowledge management further think, enterprise is the aggregation of knowledge, the heterogeneity of the enterprise comes from the differences of knowledge which enterprise have, and these differences have lasting impact on the competitive advantage of enterprises. The difference of competitive advantages of enterprises stem from the difficulty degree of intellectual copy and transfer. The knowledge's exchange, turn, flow and absorb often rely on the interactions between subject groups, this interactive need the use of unique language and coding. Berger & Luckman think, individual knowledge transfer among groups due to learning a set of common values can turn into commutation language, the value concept provide the standardization which can tell how to organize, collect and the assessment knowledge constraint. This complexity organization exists as a social community, enterprises should further gain competitive advantage, we must construct a harmonious and unified organization culture system through using the common expression businesses for efficient communication, so that the knowledge exchange fees, transfer fees, flow fees and cost of absorbing can be more lower. Resource management mode of knowledge management sees knowledge object as strategic knowledge resources of organization and further apparent the effects of knowledge object in organization.

Enterprise knowledge management mode based on the knowledge ability view

When internalizes the knowledge object as the potential, dynamic, invisible subjective initiative condition of the main body, the knowledge ability view produced. Knowledge ability view think, knowledge is the underlying factors influence people's action, knowledge management is the core competitiveness when build the enterprise, Use the wisdom of the collective to improve the organization's strain capacity and the innovation ability through the knowledge's acquisition, transfer, application and creation, and, thus create value for enterprises and enhance the competitive advantage. Knowledge ability view comes from Prahalad&Hamel's core ability of thought. Prahalad&Hamel think enterprise's core competence is the accumulation knowledge of the organization, especially the knowledge about how to coordinate different production skills and organic combination of multiple techniques. And it also is the organic combination of enterprise technology and skills, the enterprise's overall ability, the ability tissue of the penetration, is ability other enterprise cannot easy to mimic through the long-term accumulation. Knowledge management mode of the knowledge ability view internalizes knowledge subject for the inherent quality of object, making the source of organization performance changing from external to the interior of the organization main body, strengthen the dependence of the organization's competitive advantage on main body condition.

3.4 Knowledge capital management mode based on the knowledge capital view

Knowledge capital management mode based on knowledge capital. This view thinks the knowledge of the company as the capital can help generate rent, it is the further development of knowledge resources and power

view. The mode thinks that knowledge management is mainly the knowledge capital's management of company. Knowledge capital can be defined as series of scientific and technical knowledge that the company create, purchase, integrate and schematize for production purpose. Knowledge capital is cumulative knowledge of the company, this cumulative knowledge become rich through the knowledge flow constantly, and it can be used in the process of production. So, knowledge an asset is a dynamic concept, by the company accumulation, and enriches and concordance through the different approach constantly, able to use and commercialize finally. The use of the knowledge capital or commercial target value creation is its main characteristics.

Enterprise's knowledge capital mainly include the enterprise's intellectual capital and social capital, then the enterprise's knowledge capital management mode mainly includes company intellectual capital management mode and social capital management mode.

3.4.1 Intelligence capital management mode.

As the rising of knowledge-based economy, the OECD described the intellectual capital of the economic value about two kinds of intangible assets, the organization capital and human capital. Organization capital point software system, the sales network and supply chain that company owned; Human capital including human resources in organization and the resources out of organization, the customer and the supplier.

Petrash thinks, intelligence capital consists of the manpower capital, organization capital and customer capital. As figure 3 shows:

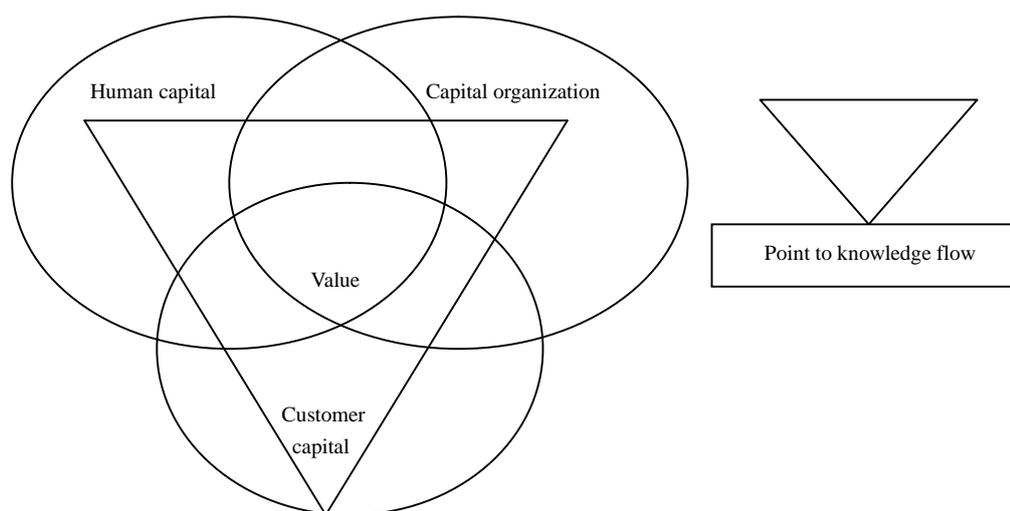


Fig.3 Intelligence capital model

Human capital figure the knowledge that everyone has had and produced in an organization; Organization capital refers to knowledge covered in the structure of the organization, organization operation and the culture of organization; Customer's capital is the knowledge point to the relationship between consumers and suppliers. This intellectual capital model describes the relationship between three intellectual capitals which create financial value for the organization. The dotted line says three kinds of assets management, the overlap of the three kinds of assets is bigger, the space organization to create value is larger ; Knowledge always transforms and flows between the organization, individual and customer's capital, and create value for the organization. Intelligence capital will be refined knowledge resources organization capital and human capital, and human capital is referred to the subjectivity of the factors in organization, therefore, the intellectual capital management mode of knowledge management is the organic integration of knowledge resource view and knowledge ability view, so promoted to deepen the knowledge management mode again.

3.4.2 Social capital management mode.

Social capital is knowledge resources embedded in the social network, it can be divided from three dimension, structure dimension, cognitive dimensions and relationship dimension. Structure dimension constitute by relevantly exchanged organization's social network connections. Cognitive dimensions provided two main mechanisms, which uses the same language and words, background and recommendations narratives in myth, stories, and the analogy form to share knowledge. The social capital of relationship dimension is the most important social capital, because it provides foundation that when access to the organization for knowledge exchange and motivating organization for exchange. Exchange itself is performance of trust, norm, obligation, expectation and identity. Trust is the foundation of the appropriate behavior. In mutual trust relationship, people are more willing to conduct knowledge's social exchange, and, with the passage of practice, the trust can improve cooperation standard of the willing to engage in social exchange, responsibility is promise or obligation to cooperate in the future behavior, it has obvious difference with standard, as promise is formed in the social special personal relationship. Identity refers to common understanding that the individual see themselves as the same as others and groups. Social capital management mode of knowledge management put intelligence capital in the organization's social network, deepens and enriches the intellectual capital management. Of course, as people's further understanding on knowledge connotation, the related knowledge management mode will arise.

4. CONCLUSION

Information management mode and knowledge engineering mode of Knowledge management emphasis more on the infirmness of knowledge and its dependence on information technology in management, made contributions for the development of early knowledge management ideas. Knowledge management mode based on the knowledge objective view get rid of knowledge management's completely dependence on information technology, this mode emphasizes the way (learning or creation) source of knowledge management comes and human subjectivities' express in knowledge management, knowledge management mode based on knowledge flow view see knowledge management as a before and after several nodes' following process, and, to some extent, touched the essence of knowledge management. Knowledge strategic management mode sees knowledge as resources or ability, which has the meaning of the milestone in the process of the knowledge management development. Knowledge capital management school regarded the basic elements from the organization and society as knowledge and further enriched and developed the thought of knowledge management. Although each knowledge management mode promote the progress of the knowledge management thought in different level, but these knowledge management thoughts also exist their limitations.

Information management mode and engineering mode of knowledge management bondage the subjectivity of the people for reliance on technology. Knowledge management school based on the knowledge objective view highlighted the subjectivity of knowledge management, but the school attach importance to the knowledge acquisition (learning), or attach importance to the knowledge creation, lack of integrity; But the flow sports process that regards knowledge management as a mutual contact node put forward the connotation of knowledge management quite comprehensively, but this view often makes managers hard to control focus link in the process of knowledge management. Knowledge management strategic mode regarded the organization of the knowledge as resources or ability from the perspective of resources and competence, which opened up a new path of knowledge management, but, this model can't overcome the confusion resource and ability view on knowledge or ability, still have arguments on whether regard the knowledge as resources or ability. Knowledge capital management mode of the knowledge management research the factors of organization and the factors of association between organization and society from the perspective of the knowledge capital, further develop the thought of knowledge management to the deeper and wider field, but it has the tendency of organization

knowledge generalization.

The insufficient to overcome of the above theory model rely on the people's further deepening understanding of knowledge connotation. As people's deeper understanding of the meaning of knowledge, increasingly scientific knowledge management theory mode will occur, which must develop and deepen the knowledge management theory constantly, so that the knowledge management can service for the development of enterprises, the progress of the society and the improvement of people's living standard service preferably.

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