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Transformation & Countermeasures on Business Operation Models in Uncertain Environment

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ABSTRACT

In an uncertain environment, esp. facing a market transformed from sellers' market to buyers' market, each enterprise focus not just on competitors as traditionally, but on external system sources such as customer and government and inner system sources such as employee and material etc. As the globalization-economy, the market emphases and the influence of a government to an enterprise changed, and the importance of knowledge management in an enterprise's inner system emerged. Under this situation, the author thinks that we should not view an enterprise as a simple machine or just an open system any more, while a complex and conformity concept should be applied to research its operation model.

The traditional business operation model (BOM) is a closed "produce - sell" model. It focuses planning and decision, which means there should be a plan first then do it. In fact, the traditional BOM is a kind of initiative-passive model, the corresponding main management theory is management process and its function. While the modern BOM is an open "perceive - response" model. It emphases knowledge and intelligence, which means perceived something first and then feedback. Essentially, it is a passive-initiative model and the main relevant management theory is competition intelligence and knowledge management. Based on these analysis, the author think that relative to traditional businesses try to keep stabilization during a proceeding phase, i.e. quantitative change, the modern businesses should transform the perceived changes to profitable responses, i.e. qualitative change. We can use a loop course of "induction - explanation - decision - running - again induction" to explain it. In addition, facing the complexity, the management should pay more attention to "situation and harmony", but not just to "order and control".

Keywords: Uncertain Environment, Business Operation Model (BOM), Knowledge Management

1. FIRMS IN UNCERTAIN ENVIRONMENT

Almost all enterprises have realized that coming with commercial activities are the increasing transformation and unpredictability in the information age. In uncertain social environment, the objective a firm gamed with and the focus its gamed on both have been changed. To the external environment, the market transformed from sellers' to buyers' and the main problems that marketing faced are how to do a segmentation and how to operate the business according to customers' different demands. In the point of competitive strategy, there are so many discussions in traditional strategic theories, such as a series of competition theories from Porter. However, in the dynamic information age with more and more uncertainty, competitor will become copartner and strategies of cooperation and competition are often applied alternatively and the relevant strategy theories also become focal point of concern. Government regulation is very important to an enterprise's business operation no matter in the socialism market environment like China or in the pure capitalism economic environment like the U.S.. Especially in the process of economy's globality, the government control over enterprises is much stronger but not fainter than before. To the internal environment, intangible assets are more important than tangible assets.^[1,2] Therefore, it means

that service becomes more significant than product itself from the point of output and the most important resources to an enterprise are intangible assets such as technique, trademark etc. from the aspect of input because these intangible assets' value have already exceeded that of tangible assets such as land, machine, stock-in-trade and financial assets etc. Compared with traditional economy, knowledge become the vital production factor in new economy. The status of knowledge in new economy is just like capital in industrial economy and land in agricultural economy.^[3,4,5]

Even early in 1962, Simon pointed out that: "The change of pattern is inevitably to occur only if economics involves in the uncertainty research increasingly and pays more attention to the complexity of economy decision. Accordingly, business operation model (BOM) coincided with the economic circulation rules must be changed along with the increasing uncertainty of environment.

To the internal environment, an enterprise is an open dynamic non-linear system. First of all, an enterprise is an organism system communicating material, energy and information with the external environment and it has the motivity of self-perfecting and self-evolving. Second, an

enterprise is a non-linear system. This mainly attributes to the positive and negative feedback of an enterprise:^[6] The positive feedbacks interrelated to an enterprise include economies of scale, knowledge accumulation, credit and cooperation, culture and tradition, while the negative feedbacks include the empiricism and conservatism of administrators which will increase to hurt they gumption, the aging techniques because of difficulties to retreat which will lead to reduce its competitiveness, the internal nepotism coming into being which will weaken the validity of inner management, the increasing internal organizations and management levels which will affect the enterprise's efficiency, and the increasing demands for resources which will restrain the power of enlarging reproduction. To be different from a

traditional isolated system (simple machine) or an open system only emphasizing external communication function, modern enterprise should be treated as an open dynamic non-linear system. At the same time, an enterprise should give enough attention to both sides-inside and outside- and harmonizes all kinds of resources and elements.

2. THE PATTERN CHANG OF ENTERPRISE'S BUSINESS OPERATION MODEL IN UNCERTAIN ENVIRONMENT

There is some qualitative change about an enterprise's business operation model in uncertain environment. It is showed just as following table:

	Environment Condition	Organizational Structure	Operation Model	Emphases	Operation Characteristics	Management Theory in Mainstream
Traditional Enterprise	Predictable and Stable	Pyramid Multi-layer Control Rigidly	"Produce-Sell" Closed Model	Plan and Decision	Planning first then Running, Initiative-Passive	Management Process and it's Function
Modern Enterprise	Dynamic Unpredictable Unstable	Flat Multi-department 、 Flexible Unite	"Perceive-Response" Open Model	Knowledge and Information	Perceive first then Response, Passive-Initiative	Competition Information and KM

In the traditional enterprises, all kinds of operation processes are integrated only in one high-level flow mode, which pre-determined the interaction role of the processes do to each other. So just one or two decisions might be viewed as reasonable only if they are involved in specific plans or in the permissive range of schedule. Having standard operation processes, detailed order and a rigid controlled mechanism, the traditional enterprise tries to keep stable in an action phase, and want to enhance efficiency hence increase profit through repeating the same thing and learning curve effect. This business operation model is called "produce-sell" closed model. It will not response until outside environment changes are so severe that they cannot be ignored. Since this model pays attention to planning and deciding, manifests planning first and operating followed, its essence is initiative-passive. The mainstream management theory adapted to it is management process and its function.

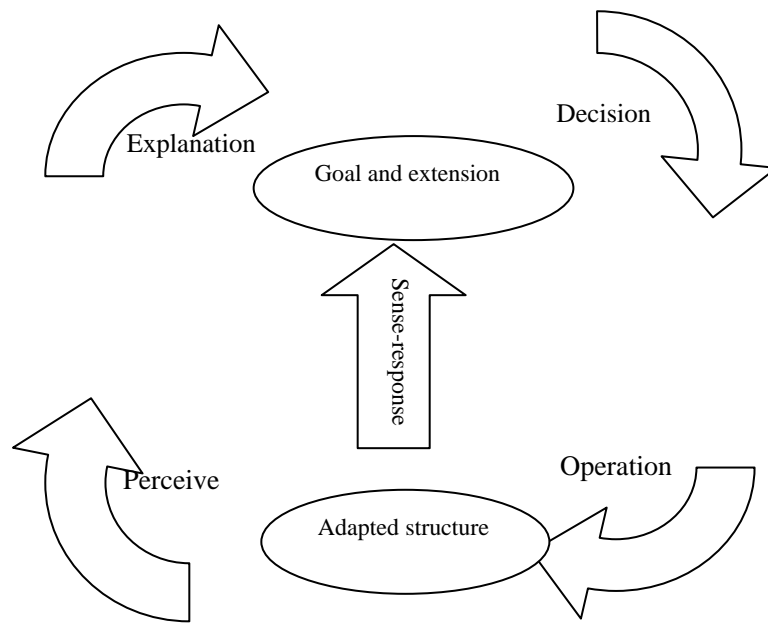
Facing complexities, modern enterprise must break the rigidity of its system and then divide the system into a few small parts, which are easier to manage. Like that, an enterprise can realize uniform action all over various functions, try to circulate in the adapted loop as quick as possible, and transform the perceived changes into a new profitable response. This business operation model (BOM) is called "perceive-response" open model, which doesn't ignore the environment's changes but focus on searching for developing signals actively, pays attention to knowledge and information, and gains great performance depending on the ability of adapting to

happence quickly. In essence, it is dynamic and unstable. So it will perceive initially and then response in action. It's a mode of passive initiative. The corresponding mainstream management theory is competitive information and knowledge management.

3. THE COUNTERMEASURE OF ENTERPRISE BUSINESS OPERATION MODEL IN UNCERTAIN ENVIRONMENT

In "sense-respond" model searching for scale adaptation, the following requirements of knowledge managements are especially important:^[7] Organization should appoint the employee who can identify effective model to the relevant posts as some elements of organization is very easy to be influenced by high-level uncertainty in environment; Providing these employees some special support information according to their posts so that their ability to identify disturb and respond rightly can be increased; It is required to described out how an organization will and how it can create value in a systemic way.

In order to realizing operation benefit, modern enterprises should continually transform the perceived changes into profitable response basing on knowledge management theory in adapted loop courses of "induction — explanation — decision — running — again induction", that is to say, qualitative change. This course should not be like traditional businesses, which tries to keep stable in a action phase and in which only quantitative change happens. In addition, facing to the



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complexity, enterprise management should pay more attention to “environment and harmony” besides “order and control”.

REFERENCES

1. Stewart, Tom, 1997, *Intellectual Capital: The New Wealth of Organizations*. New York: Doubleday;
2. Edvinsson, Leif, and Michael S. Malone, 1997, *Intellectual Capital: Realizing Your Company's True Value by Finding Its Hidden Brainpower*. New York: Harper Business
3. Quinn, J. B., 1992, *Intelligent Enterprise*. New York: Free Press.;
4. Drucker, Peter F., 1993, *Post-Capital Society*. New York: Harper Business.;
5. Burton-Jones, A., 2000, *Knowledge Capitalism*. Oxford: Oxford University Press
6. Huaide Liu, *The Research of Uncertain economy*, Shanghai University of Finance and Economic Press, 2001
7. Stephan H. Haeckel, 1999, *Adaptive Business' Knowledge-Management*, Harvard University Press