The Research on the Construction of a Mechanism for Enterprises with a Continual Development and Harmonious Unification of Innovation and Control

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Abstract: It is a basic requirement for Chinese enterprises to have a continual development based on the harmonious unification of innovation and control; therefore, the article explores the innovation and control ability in enterprises from different perspective. Then the author proposes a coupling interaction mechanism with harmonious unification of innovation and control, and attempts to put forward some constructive suggestions.

Key words: innovation and control, harmony, coupling, continual development

1. Instruction

The existence and development of enterprises in various market environments can be described like driving automobiles under different road conditions. If you are not a capable driver with good starting-up and control ability, you will fall behind others or be frequently involved in accidents. So it is thought that on the background of building a modern enterprise system, it is theoretically and practically significant to have the unification of innovation and control. At present, the problem is that our enterprises either incline to one of the two side powers, or have a universal phenomenon that the two powers are both weak. Massive enterprises die due to the inharmony between innovation and control. The innovation and control for enterprises is a basic problem for doing research and practice in management theoretical circle, which few scholars and experts have systematically discussed about, especially about the problem of mechanism and paradigm on harmony and unification of the two powers. Moreover, we are still lack of wholesome and concrete research at present. So in this article, regarding the continual development of Chinese enterprises as a hypothetical objective in this article, the author gives a superficial theoretical explanation about the problem of innovation and control, and attempts to propose a continual development mechanism with harmonious unification of innovation and control.

2. The definitions of “Innovation” and “Control”

In his representative book Theories of Economic and Development, Joseph A. Schumpeter explains the concept of innovation that innovation is to build up a new production equation, which means to cite a new combination about factors and condition of production into production system. Schumpeter thinks that the innovation or the new combination includes five situations: citing new products, citing new techniques, expanding new markets, finding new material supply sources and reorganizing enterprise[1]. Then American management scholar Peter Drucker makes a further explanation to innovation: “the innovation is a concrete means of expanding bravely. The creative activities give resource a new ability to create wealthy”. [2] Therefore, it can be concluded that innovation makes an enterprise have an effective revolution in the market, raise the quality of its products and drive enterprise to acquire more different abilities compared with its competitors. At last these different abilities let enterprise acquire competitive advantages in the market. For many enterprises, their growth processes are not smooth, almost with huge risks and frustrations. In fact, this is a “control” problem during enterprise’s growth process. From the perspective of management, control is a kind of ability, according to market regulations through which an enterprise can acquire more cost advantage by adjusting its strategic planning and daily management, restraining its activities not out of its abilities and cutting down management risks. [3]
3. Theoretical supporting on the harmony between “innovation and control”

3.1 Some management theories supporting harmony between innovation and control

Some foreign scholars have paid their attention to the problem of innovation and control. They have widely analyzed the problem of innovation and control from the growing process and periods, such as Ichak Adizes. In his books *life cycle of enterprises* and *Hold change*, he thinks that the growing process is mainly demonstrated by the relation of flexibility and control, which is similar to the organism. Young enterprises are full of flexibility, but weak in control. Whereas aging enterprises are strong at control, but their ability of flexibility has being weakened. “Young” means it is relatively easy for enterprises to revolute or change, but it is generally hard to estimate its behaviors because of its weakness in control. “Old” means that the control in its behaviors is stronger, but it is lack of vividness and the intention of revolution. If one has the ability of vividness and control, which means that it is neither immature nor very old, it can be hold that the enterprise is in the period of “the prime”, which has the advantages in both young and mature, and its performance is full of flexibility and control. Harvard Business College professor Robert Simons holds a similar viewpoint. In his book *the control problem in the time of authorization*, he strightly points out: “A key problem that managers need to face in 1990's is how to control an enterprise which requests flexibility and innovation.” Therefore, professor Robert Simons proposes four control systems: Control system for examining, believing system, forbidding system and interaction control system. Moreover, America professor Larry E. Greiner from Harvard University, in his model about enterprise’s growth, also proposed the problem of innovation and control during enterprise development. His model describes the whole growing process of enterprises which is from small to big, and from immature to mature. This process is divided into five stages, and every stage has two parts, evolution and revolution or crisis. The revolution or crisis of former stage will accelerate the evolution in the next stage. Special management methods exist in every stage, and one of evolution stages is based on dominant and urgent problems. The growth model of Larry E. Greiner shows us two aspects in enterprise growing process. On one hand, the growing process will appear a healthy situation which is good for its growth when enterprise has more experiences, more maturity, and is bigger during its conducting process; on the other hand, through harmonizing and solving the relation between the motivator which promotes enterprise to develop in every growth stage and the resistance which obstructs its growth, enterprise can break through the bottleneck in management, promote manage level, and make itself appear a growth situation in every stage. The Larry E. Greiner’s enterprise growth model has a directly leading meaning in development and harmony between innovation and control for Chinese enterprises. Now most Chinese small and middle sized enterprises lie in the third stage of Larry E. Greiner’s model. What our enterprises need is not only higher-level creative behaviors, but also strategically systematic control.

3.2 Game theory in explaining harmony and interaction between innovation and control

The essence of enterprise is to get continuous profits by highly efficient conversion in value. Enterprises must look for the market opportunities through continual creation, and acquire development motivation; meanwhile, to attain its profits and to avoid market risks in systematic control are also important. The innovation is the “instinct” for the development of enterprizes, and the “control” is a feedback when enterprises want to protect their profits and maintain their healthy development. Enterprises will find the most efficient balance point in economic game between creative opportunity and risk and the benefit and cost of control.

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<th>Possible benefits</th>
<th>Strong in innovation</th>
<th>Strong in control</th>
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<tr>
<td>Acquiring new opportunities in industry</td>
<td>Be sure of the normal organization and function</td>
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<tr>
<td>Acquiring new technology</td>
<td>Raising the economic efficiency in present business</td>
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<tr>
<td>Obtain new abilities and competitive advantages</td>
<td>Lowering the operation cost</td>
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<td>Raising the employees' enthusiasm</td>
<td>Regulating market risks and management risks</td>
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<td>Strengthening environmental adaptability</td>
<td>Good enterprise image</td>
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<td>Acquiring the policy that support innovation</td>
<td>Creating a fair competitive enterprise environment. …</td>
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Certainly, enterprises will face different game choices in innovation and control because of their different industries and market environments. Generally speaking, manufacturing enterprises are more efficient in management control than trade and market enterprises. But for the benefits from innovation, the manufacturing enterprises are relatively lower, and the enterprises adept in science and technology are relatively higher. Moreover, the game efficiency in innovation and control is also different in different life cycle stage. The developing enterprises’ innovative profits are higher than the mature, while the profits of declining enterprises in control are higher than the developing.

3.3 Ancient Chinese theories about harmony and interaction between innovation and control

It is clearly demonstrated that the philosophy basic on harmony and unification in innovation and control can be found in the profound and sophisticated ancient Chinese thoughts, such as Yi Jing. Its core thought is changeable. The relation between the changed and unchanged is transferable, which constitutes its philosophy thoughts. It recognizes “Yin” and “Yang” as two opposite powers in the cosmos. During the growing process of enterprises, the innovation represents “Yang”, whose characteristic is dispersion, which indicates creativity, openness, vitality and breaking the old balance. The control represents “Yin”, and its characteristic is astringency, which means control, norm and maintenance. Enterprises must have courage to innovate if they want to adapt to the continual change of exterior environment and stand up to the heated competition in market. At the same time, it is filled with risks in creative process, so efficient control is needed to make the innovation coming along in valid control. The relation between innovation and control is dialectic and complementary. The innovation gets away from the control to create a better balance, while the control guarantees the innovation success. They are necessary elements for the continual development of enterprises. Only by innovation, can enterprise exist and develop; and only by control, can enterprise steadily create and continually develop[6]. In addition, some thoughts can be found to support the unification of the two powers in Confucian doctrine of Mean. “Innovation” responds the “right” power of seeking for newness and revolution. “Control” stands for the “left” power of maintenance and conservation. Enterprise needs to find out the balanceable point to conduct stably.

4. The motive model and coupling interaction mechanism on innovation and control

The relation between innovation and control is dialectical unified and harmoniously interacted by citing and analyzing theories above. However, this abstract relation is difficult to arrive at in practices. In real operations, it is very difficult or almost impossible to attain the same quantity of the two powers. To obtain the result of pushing mutually and developing together, it is necessary to set up a coupling and interactive mechanism. At present, the author temporarily puts aside the complexity and arts of enterprise management, and tries to set up a continual development model according to the machine principle for our enterprises. Three couplings interactive wheels, including innovative driving power, steady control power and continual development power, construct the model.
This model seems simple at first glance, but it reflects abundant contents of continual management with the actual operation in innovation and control. Now, the author tries to explain the thought of harmony and unification about the two powers in this model.

4.1 The systematic control and the systematic innovation——several teeth equilibrium principle
The classic theories and practices show that all activities in innovation and control are systematic. Enterprises need appropriate innovation and control in management if they want to develop with balance and harmony. According to the creative theory of Joseph A. Schumpeter, the innovation teeth of enterprises include product innovation, technique innovation, organization innovation, management innovation, system innovation and market innovation etc. The control teeth of enterprises include strategy control, risk control, system control, plan control and culture control etc. To form a creative driving power and a steady control power, enterprise must guarantee that the wheel has several teeth which are balanceable, because any flaw or weak tooth will restrict the continual development of enterprises, just like the short plank in “wooden pail” theory.

4.2 The innovation driving enterprises to develop and the control making enterprises grow steadily——the turning principle of three wheels
The relation of the three wheels coupling driving is more complicated than a general turning principle. First, it is a relation about three wheels. The master wheel, as a continual development power for enterprise, which is a piece of forward turning axis directly driving enterprise to develop; but its start and revolving need the left and right powers to drive steadily. The control regulates its speed and the direction of development, like the control system of automobile, which adjusts its driving speed. The variety in their relation reflects the turning complexity in these three wheels. The innovation has a driving function and its power is strong enough to direct enterprises to move forward when enterprises are at the beginning. At present the control is relatively weak, and its position is next to the innovation. As the ability of enterprises become stronger in the process of development, the wheel of continual development will acquire active power, which comes from the innovation, and it can operate actively, but at the same time it can’t run short of equilibrium and harmony between the two powers. The two powers assure enterprises to develop steadily. At present, the control wheel changes from active to relatively less active. But when the enterprise needs to decrease the speed in development, the innovation needs to slow down, while the control wheel needs to become the main power at this time, and decrease the speed when it is too quick for enterprise.

4.3 Construction of a control mechanism of multi-class speed——the principle of different Moment
Enterprise will face various and complicated situations during the development process, so it needs to adjust its direction and speed at any moment to adapt to the “automobile situation” and the “road situation”. Therefore, enterprises need to build up a control mechanism with various speeds and to form a relation about the three wheels turning in different conditions. The relation between these powers can be changed by adjusting the radius of its wheels, which in practice is embodied by concern and resources-input. The radius of the innovation wheel will enlarge (the enlargement of the investment in innovation), when enterprises need to enlarge the market share and technique and to make profits during a short time. At present the control wheel can guarantee innovation and control risks. Otherwise, enterprises need to extend the radius of the control wheel and enhance its function and power, when it
faces great environmental change and market risk.

4.4 Holding innovation and control according to the development ability - the principle of coupling and sticking

In actual innovation and control activities, the innovation, control and the ability of continual development in enterprises don’t operate independently. The relations between them are not as simple as active or passive, or like a machine stops as you turn it off. In fact they are coupling and sticky. Therefore, turning speed, power and inertia of one wheel will directly or indirectly affect the power and speed of other wheels. For example, when the driving power of innovation gets stronger and faster, it will directly affect the continual development ability, so it will strengthen the control ability of strategies by raising its continual development ability which includes the strategy of management, basic management, technique innovation and marketing etc. At the same time, the three powers are sticky, which means that the turning of any wheel has the possibility of sticking in the perspective of time and power. For example, the innovation will affect the continual development ability and even convert it into new development ability after a period of time when the innovation is stronger. Once this influence occurs, the innovative wheel can still impel enterprises to develop for a period of time even if the innovation is ended. This is an accumulative and habitual (or inertial) power.

From the citing theory in the paper, it is easy to understand that innovation and control behaviors in enterprises are not only mutual influenced and functioned, but also closely related. Therefore, the biggest flaw lies in the explanation of the mixed relation of the two powers in the continual development model about the three wheels coupling driving for enterprises. Although the delivery and conversion between innovation and control are proposed in our model, it is not enough to explain the problem of the control in innovation and the innovation in control. In order to explain the relation that these two powers include each other, the author will firstly define the former concepts, and then put harmonious and unified thought into these two powers in the innovation and control of the second level. With regard to the “control” problem in innovation, it is necessary to control the innovation speed, not only depending on the continual development ability, but also depending on the control mechanism, which is in the “turning axis” of creative wheel. So the whole innovation activities will be controlled systematically to ensure the innovation activities are in control. Concerning with the “innovation” problem in control, it would be better to treat the control with a wider and newer view. According to its function, the mainstream research circle generally divides management into planning, organizing, leading and controlling etc. Control means “measure and certify the accomplishments in order to realize its targets and complete its plans for enterprises”. As one of functions, the control system encourages people to realize its targets. The end target, which is controlled by organization, is to encourage people to realize its targets. Its target does not aim to controls people’s behaviors in the designed way, but only to affect them and to make their decisions and behaviors accorded with its targets. This control system works only in the condition of a static state that the exterior environment is lack of change, but it is incapable when the environment is unusual, fast and obvious complicated, because the changing environment require entrepreneurs to make decisions as soon as possibly, when information is very deficient. This situation is full of risks. Therefore, the control in innovation needs means not only in control and technical innovations, but also innovations in control strategy. We need to control the management plan and results, the development strategy, and the harmonious and continual development process as well.

5. Conclusion

In conclusion, enterprises are requested basically to possess the ability of harmony and unification between innovation and control in the new economic environment. It is theoretically and practically significant to have the unification of innovation and control on the background of building a modern enterprise system. In this paper, the author not only adopts some management theories, game theory and ancient Chinese theories to support the view, but also sets up a continual development model according to the machine principle for Chinese enterprises. The mode is constructed by three couplings interactive wheels, including creative driving, steady control power and continual development power. At the same time, the model follows four principles: several teeth equilibrium principle, the turning principle of three
wheels, the principle of different Moment, and the principle of coupling and sticking.

References