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Study on the Enterprise Knowledge Management Strategy Based on Human Resource Management

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Abstract: The knowledge staffs are the key factor for the enterprises to carry out knowledge management effectively, since they are the carrier of knowledge and the source of innovation. The paper points out that the main factors affecting knowledge management include knowledge staffs, organizational environment and human resources policies from the perspective of human resource management. On this basis, the paper suggests that the enterprise should take measures to improve internal environment and strengthen the selection, use, cultivation and retain of knowledge staffs.

Key words: Knowledge management, human resource management, knowledge staff

INTRODUCTION

Along with the rapid development of information technology right now, people acquire more and more information and knowledge both at work and in daily life. Knowledge is affecting people's life at an unprecedented breadth and depth. In 1996, Organization for Economic Cooperation and Development puts forward the concept of knowledge economy in its annual report "Knowledgebased Economy", it points out that knowledge economy is based on the production, distribution and application of knowledge and information. Today, the main power to promote the development of social economy is the invisible knowledge resources. Therefore, it is a core problem about how to transform knowledge resources into the enterprise's core competitiveness. Under this background, knowledge management comes existence.

In the process of knowledge management, many enterprises have invested heavily to develop information management system. Information technology becomes the major means to carry out knowledge management. However, knowledge management is a complex activity. The positive impact of information technology to knowledge management is very limited. Now most of the enterprises emphasis on the role of information technology too much and ignores the "human" factor in knowledge management. Actually, information technology is only an important tool of knowledge management. So it is the urgent problem about how to with "human" when the combine "technology" enterprises carry out the strategy of knowledge management.

KNOWLEDGE AND KNOWLEDGE MANAGEMENT

In daily life and work, people can obtain large amounts of data. Data is un-organized numbers, words, voice and image. People need to sort out the useful data from the "noise" of the data and converter it to information. Information is a kind of data which is addressed and aligned with a meaningful form. The knowledge is a kind of information which is disposed by people's brain; it's the personalized and subjective information about facts, processes, concepts, ideas and judgment. Beckman (1998) points out that knowledge is the process of reasoning data and information into operational state which help to solve the problem, make decision, learn and teach. The creation and application of knowledge is done by people. In this process, people will integrate their own experience and ideas into the knowledge. So knowledge itself is subjective.

According to the expression of knowledge, scholars divide knowledge into tacit knowledge and explicit knowledge (Yu, 2001). Tacit knowledge is attached to the individual. So it is difficult to expression and communication. Explicit knowledge can be formalized and institutionalized. It also can communicate with words. According to the Knowledge Transformation Model put forward by Nonaka and Katsumni (2006). The essence of knowledge process is the effective interaction among the tacit knowledge and explicit knowledge. Specifically, it refers to the conversion from personal tacit knowledge to explicit knowledge and then to the enterprise's internal knowledge. The managers need to create conditions for

the favorable conversion of knowledge and realize the effective utilization and sharing of knowledge in the enterprise. Domestic scholar Xia and Jin (2003) argues that knowledge management is the process to assist the enterprise to realize the production, sharing, application and innovation of knowledge by using of information technology.

In the process of enterprise knowledge management, people and technology are two essential factors. Information technology provides a powerful material guarantee for knowledge management and creates a convenient environment for knowledge production. However, it does not mean that knowledge management will have to start with information technology, it is certainly is not necessary to end with information technology (Charles and Daniel, 2004) people play a more important role in knowledge management. The staffs are the mainstays of knowledge management, as well as the knowledge decisive factors in creation communication. The staff management can overcome the obstacles appearing in the process of tacit knowledge management and finally realize knowledge sharing and innovation through reshaping the corporate culture, improving the enterprise environment, adjusting the organization structure, as well as taking various measures of human resource management such as acquisition, retention, development and coordination (Yang, 2006).

THE IMPACT OF HUMAN RESOURCE MANAGEMENT ON KNOWLEDGE MANAGEMENT

The implementation of knowledge management is affected by many internal factors. Zack (1999) argues that the effectiveness of enterprise knowledge management

depends on four factors, namely technical situation, strategic situation, organizational situation and knowledge situation. Technical situation can support the enterprises to establish the framework of knowledge management. But more importantly, the managers should combine knowledge with the strategy clearly and create a favorable organizational atmosphere and management system, so as to enable the enterprises with unique and innovative knowledge. Therefore, the factors of human resource management affecting knowledge management mainly include the knowledge staffs themselves, organizational environment and human resource policies (Fig. 1).

Impact of human resource factors on knowledge management: Unlike the explicit knowledge, the tacit knowledge is not easy to exchange and share. It is highly personal and mainly shared by the ways of interpersonal communication, experience exchange and apprentice succession. On the other hand, to some extent, the knowledge is the employees' status symbol and source of power in the enterprise. As the owner of knowledge, the knowledge staffs can obtain special interests due to grasping some key tacit knowledge or information. So they tend to worry about that knowledge sharing will potentially change their power and status, influence their value distribution in the enterprise. On account of the authority of knowledge, the knowledge staffs will inevitably generate the monopoly of knowledge. If the enterprise hasn't the protection of knowledge, it will become very difficult on knowledge transfer and sharing.

More worryingly for the enterprises, the knowledge staffs are the highest migratory group. Their loyalty to the profession exceeds the loyalty to the enterprise. Most of

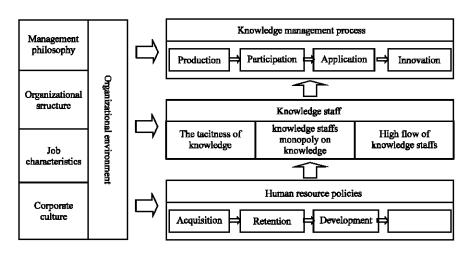


Fig. 1: Influence of human resource management to knowledge management

them change their jobs for many times and tend to have the same profession in the different enterprises. The power of knowledge makes them free to choose an enterprise which is more advantageous to use their expertise. The flow of the knowledge staffs will bring great risk to knowledge management and even the entire enterprise's development.

Impact of organizational environment on knowledge management: Unlike the exchange of substances, the benign interaction and communication among the employees are the premise of knowledge transfer and sharing. Therefore, the factor of organizational environmental factors has an important influence on the implementation of knowledge management. First of all, In the aspect of management philosophy, the employees' willingness to knowledge sharing and innovation consciousness will be in a low level, if the enterprise is backward on the idea, ignores the value of employees, tends to use the compulsory management approach and there are boundaries between the managers and the managed, the leaders at all levels can't realize the importance of knowledge management and come up with some effective incentives to encourage employees to share knowledge and create new knowledge.

Secondly, in the aspect of organizational structure, while the traditional beeline-oriented and function-oriented organizational structure has the advantages of well-defined duties and clear division of work, it easily makes the employees only know to comply with the system, each department operates in their own ways and the enterprise is failure to accommodate. In this case, the enterprise can maintain day-to-day business, but it is backward in the rapidly changing environment. It will be a negative impact on the implementation of knowledge management.

Finally, the creativity of the employees is affected by the corporate culture. Aggressive companies encourage employees to take risks, tolerate employees' experimental error. These beliefs provide fertile ground for the employees' innovation behavior. On the contrary, in the enterprise with excessive bureaucracy, the employees resist change and lack of innovative consciousness. Under the influence of this culture, the enterprise is very difficult to make a difference in the innovation of knowledge.

Impact of human resource policies on knowledge management: Human resource management refers to the whole process of management including personnel recruitment, enroll, training, use, turnover, promotion, transfer and even retirement (Liao, 2011). On the selection

of personnel, the enterprise should seek for those who can provide knowledge for the business activities of the enterprises. They should have the ability of innovation and a willingness to share knowledge. It can help the enterprise to acquire knowledge and make direct impact on knowledge production, sharing and innovation.

On the use of personnel, if the enterprise can adequately recognize the employees' intellectual contribution in the performance appraisal system, it will encourage the employees to actively participate in knowledge management. Effective incentive system also can make employees realize that knowledge sharing, application and innovation will benefit them. They will take the initiative to give up the monopoly of knowledge, to share knowledge with others and to maximize the application of knowledge and innovation.

On the cultivation of personnel, training can improve the employees' ability, which will bring benefits to knowledge production and innovation. In the training platform, the employees can share their knowledge and information. It will promote employees to grow together. In the long run, if the enterprise is committed to knowledge staffs' career planning and management, it will help them realize their career goals in the enterprise, which can lower their departure.

Finally, on the coordination and retain of personnel, the excellent team can directly affect knowledge sharing, application and innovation. If the team leaders are enlightened, they can give enough support to the innovation behavior of members and the team members have high morale, they are honest each other, mutual exchange of working experience and share knowledge without reservation, it will effectively promote the enterprise's knowledge application and innovation.

IMPROVEMENT OF ORGANIZATIONAL ENVIRONMENTINKNOWLEDGE MANAGEMENT

Organizational environment includes soft environment and hard environment. The hardware is mainly refers to the equipment and sites. Soft environment includes all the intangible factors in the enterprise, such as management philosophy, corporate culture, operation pattern and organization atmosphere, etc. Soft environment has a more direct impact on enterprise knowledge management activities. So the following will put forward some countermeasures to improve the organizational environment.

Reshaping management philosophy: Drucker (1988) points out that, in fact employees exclude "management" in their inner depths. The view is especially suitable for

the knowledge staffs. They are highly independent at work, don't go for blind faith to any authority and hope to have more flexible work schedules. So the enterprise needs to establish people-oriented management philosophy, give knowledge staffs enough concern and respect, satisfy their reasonable physical and psychological needs, create an independent and loose workplace, give them full autonomy and allow them to complete tasks independently under the guidance of organizational and personal goals. Only then can the enterprise arouse the knowledge staff's enthusiasm, initiative and creativity and keep them in the enterprise.

Recreating corporate culture: The implementation of knowledge management will inevitably involve the change of culture. As mentioned above, knowledge has the characteristic of monopoly and the knowledge staffs are often reluctant to share their knowledge and experience with others. Therefore, the enterprise needs to take the targeted management measures to encourage the knowledge staffs to exchange and share knowledge, to reward the behaviors of knowledge innovation. Davenport has pointed that the enterprise should establish knowledge-friendly culture in the process of knowledge management, put the knowledge employees' knowledge and experience into knowledge management system and share them, let the employees to learn actively, improve their professional ability and let them innovation cooperatively on the basis of knowledge sharing.

Adjusting organization structure: In order to improve the transfer efficiency of information and knowledge, avoid knowledge dissipation and distortion in the conversion process, the enterprise needs to adjust the existing organizational structure. Flat-organization has attracted much attention. Drucker(1988) has predicted that the layers of management in the typical enterprises would be less than half of today 20 years later, the managers were also less than one-third. In these enterprises, the jobs will be done by cross functional team of experts and the employees will rely more on self-discipline consciousness to coordinate and control. Now the developing trends are that many multinational enterprises aggressively simplify their structures to establish the flat organizations.

Redesign job position: Traditional flow-line-like method of production emphasizes on the Standardization and specialization. This method helps to improve the efficiency of production, but it inhibits the innovation of knowledge. More and more enterprises adopt the "Unit Production System" (Nonaka and Katsumni, 2006). In

these enterprises, the employees' scope of work is bigger. They may even be responsible for the whole production process. So they know more about the bottlenecks and problems in production and they are more likely to improve the working manners. "Unit Production System" regards the employees as the main body of innovation. When the staffs' creativity is triggered, they will be committed to the production innovation continuously and repeatedly. Job rotation system can also help the employees to better understand the operation of the enterprises and thus trigger the employees' innovative behavior. In addition, through the job rotation system, the enterprise also can build the inter-departmental social networks among the employees, which may eliminate the barriers of knowledge transfer and build a better combination of intelligence.

MANAGEMENT OF KNOWLEDGE STAFFS IN KNOWLEDGE MANAGEMENT

Through the effective management of knowledge staffs, the enterprise can transfer the tacit knowledge into explicit knowledge, promote the spreading and sharing of knowledge within the enterprise and ultimately realize the application and innovation of knowledge. Practices have proved that one of the keys to successful implementation of knowledge management is to formulate and implement excellent human resource management practices (Qi et al., 2003). The following will put forward management countermeasures to knowledge staffs from the selection, use, cultivation and retention of the knowledge staffs.

Selection of knowledge staffs: Human resources planning based on knowledge management breaks through the traditional operation modes. The key is to confirm the required knowledge resources in the future according to the strategic planning and take different measures to acquire these resources (Cao and Chen, 2005). To the existing knowledge resources, the enterprise needs to think about how to share and apply them. To the knowledge resources existing outside the enterprise, the enterprise may acquire them by the ways of taking some training courses, communicating or directly recruiting the experts, etc.

When recruiting, the enterprise should examine the candidates' structure and depth of the knowledge, their learning ability, innovation consciousness, consciousness of knowledge sharing, communication skills and team consciousness objectively and comprehensively to determine whether they meet the needs of job. In addition, in terms of competency-position

fit, if the candidates' personal values and the enterprises' value system are incompatible, they will find it's hard for them to blend in with the enterprises' learning process and also cannot share knowledge with other employees. Therefore, the enterprise needs to examine the candidates' personal values in the recruitment objectively.

The use of knowledge staffs: For better use of the knowledge staffs, the enterprise needs to know about their situation of mastering and sharing knowledge through regular assessment. The content of assessment includes their current levels of the knowledge and skills, their learning, sharing and innovation behavior. The enterprise may encourage the knowledge staffs to study, share and create new knowledge continually through paying close attention to their behavior of knowledge management in the performance evaluation, giving more rewards to the knowledge staffs who contribute to the knowledge growth of the enterprise and punishing the knowledge "monopoly".

Compensation system has good guidance function to the employees' behavior. The enterprise needs to stimulate learning enthusiasm of the knowledge staffs and continuously improve their innovation ability in the process of implementing knowledge management. The compensation system based on knowledge and skills can help improve the employees' abilities consciously and promote knowledge transfer and sharing among employees.

The cultivation of knowledge staffs: Knowledge management makes new demands on the enterprise employees. In order to make the employees adapt to these changes, the enterprise needs to provide the corresponding training. The focus of the training is to improve the employees' learning and innovation ability, help them set up the consciousness of knowledge sharing and teach them how to use the tools of knowledge production, sharing, application and innovation. Tutorial system is a good way of training. It can make the tacit knowledge spread and share within the enterprise through the way that the experienced staffs guide the new recruits.

On the other hand, compared with the ordinary staffs, the knowledge staffs pay more attention to their own career planning and hope more to gain the sense of achievement from career success. The enterprises should fully understand the knowledge staffs' professional demand and their willingness of development and provide suitable career paths according to their ability and individuality.

The retention of knowledge staffs: Today, with the rapidly changing external environment, the knowledge

staffs are more favored by the big enterprises, they flows more easily. So the enterprise needs to take some measures to reduce the damage of the knowledge staffs turnover. The enterprise can retain the knowledge staffs by fully respecting them and giving them more support at study.

At the same time, the enterprise also needs to standardize knowledge management and constraint the knowledge staffs through institutional design. When the knowledge staffs enter the enterprise, the managers may prescribe their obligations and constraint their behavior by the contract. The knowledge-intensive enterprises may define the scope of business secret and prohibit the employees to secret the beans to anybody outside the enterprise.

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REFERENCES

- Beckman, T., 1998. Designing innovative business systems through reengineering. Proceedings of the 4th Worth Congress Expert System, March 16-20, 1998, Mexico.
- Cao, L. and J.H. Chen, 2005. The flexible human resource management policies on improving the level of organizational knowledge management. Sci. Sci. Manage., 26: 86-91.
- Charles, D. and C. Damel, 2004. Present and Future of Knowledge Management. People's Posts and Telecommunications Press, China.
- Liao, Q.W., 2011. Human Resource Management. 2nd Edn., Higher Education Press, Beijing, China.
- Nonaka, I. and A. Katsumni, 2006. The Essence of Innovation-the Latest Cases of Knowledge Management about Japanese Well-Known Enterprises. Intellectual Property Press, Japan.
- Drucker, P.F., 1988. The coming of the new organization. Harvard Bus. Rev., 66: 45-53.
- Qi, S., C. Liu, L. Wang and Y. Huo, 2003. Research on achievement of knowledge value chain in enterprise sustained by human resource management. Sci. Manage. Res., 21: 100-103.
- Xia, J.H. and X. Jin, 2003. Knowledge Management. Mechanical Industry Press, China.

- Yang, P., 2006. Study on the application of HRM in knowledge management. Master's Thesis, Xiamen University, China.
- Yu, Y.H., 2001. Knowledge Management and Knowledge Innovation. Fudan University Press, Shanghai.
- Zack, M.H., 1999. Managing codified knowledge. Sloan Manage. Rev., 40: 45-58.