

OPEN ACCESS

EURASIA Journal of Mathematics Science and Technology Education ISSN: 1305-8223 (online) 1305-8215 (print) 2017 13(8):5615-5627 DOI: 10.12973/eurasia.2017.01015a



Organizational Construction of a New Type of University Scientific Research Team Based on Jingyou Thought

Shi-Tong Huang

School of Business Administration, Northeastern University, China Management School, Henan University of Science and Technology, China

Xi-Nan Zhao

School of Business Administration, Northeastern University, China

Song Chang

School of Business Administration, Northeastern University, China

Sen Liu

School of Business Administration, Liaoning University of Science and Technology, China

Received 5 March 2017 • Revised 3 July 2017 • Accepted 18 August 2017

ABSTRACT

To optimize the organization and management of scientific research team in university, this paper designs a new form of organization which takes into account of the common development of scientific research team (SRT) and team members. The study of this paper offers a new type of scientific research team which is based on Jingyou thought, and analyses the Jingyou SRT's characteristics, including the human-oriented scientific organization system, sincere, frank and truth pursuing code of practice, initiative and passionate working atmosphere, strategic behavior results in harmony. The last part of this paper presents the design of the basic operational mechanism, benefit distribution and harmonious development mechanism of the Jingyou SRT based on the individual advantage recognition method.

Keywords: scientific research team(SRT), Jingyou thought, Jingyou SRT, operational mechanism, individual advantage recognition

INTRODUCTION

Great changes have taken place in the economic form of human society, and the ability to innovate has become a key factor in the success of modern organizations (Ford, 1995). Knowledge has become a decisive factor in the development of productive forces, and knowledge workers and their productivity will be the most valuable asset (Drucker, 1999). Knowledge innovation is the inevitable requirement of various fields in the era of knowledge economy. The organizational innovation is based on the individual innovation and team innovation. Many organizations build knowledge teams or knowledge worker teams (Tjosvold, Tang, & West, 2004). A knowledge team is composed of knowledge workers and is a group with a certain task oriented. Besides teaching, scientific research is a typical high-level knowledge type practical activity in universities. The scientific research team (SRT) is the basic unit of scientific research activity and also the innovation subject of scientific research in universities.

© Authors. Terms and conditions of Creative Commons Attribution 4.0 International (CC BY 4.0) apply. Correspondence: Shi-Tong Huang, PhD candidate, School of Business Administration, Northeastern University, China. Address to 181 mailbox, School of Business Administration, No.195, Chuangxin Rd., Hunnan Dist., Shenyang City 110169, Liaoning Province, China. Tel: 0086 15566219899.

shitonghuang@163.com

State of the literature

- Several studies highlight that the operation and performance of SRT are closely related to knowledge management, and knowledge sharing is influenced by various factors.
- Studies mostly show that the cognitive model of the organization should be common and diversified, and
 it involves the design of organizational governance mechanism.
- However, there are few studies that have considered both humanism and scientific management mechanism
 which can optimize the adaptability and harmony of the management of SRT.

Contribution of this paper to the literature

- This study contributes to the literature by using Jingyou thought which is a new perspective to recognize the relationship between knowledge and people to enhance the management of SRT.
- This study constructs the Jingyou SRT which is a new form of organization and considered both humanism
 and scientific management mechanism, and designs relative mechanism.
- This study provides an analysis and evaluate method which is from the perspective of admitting evaluated SRT member's contribution as large as possible, in order to maximize the enthusiasm and initiative of the behaviors.

As a typical knowledge team, knowledge management of university SRT is of great significance. The goal of knowledge management is to improve the team knowledge integration behavior and ability through knowledge exchange and sharing, and to realize knowledge creation finally. Scientific research is essentially the process of knowledge innovation, including discovery of knowledge, improvement of knowledge, extension of knowledge utilization and knowledge creation. Therefore, the operation and performance of university SRT are closely related to the knowledge management of team members' intellectual integration and knowledge sharing. Knowledge sharing can help team members to apply or innovate knowledge, and is recognized as the most importance for creating a sustainable competitive advantage (Jackson, Chuang, Harden, & Jiang, 2006). Knowledge sharing and team performance are positively correlated (Mesmer & DeChurch, 2009). Meanwhile, knowledge integration has a positive effect on team performance (Jin & Sun, 2010).

However, it should be realized that knowledge sharing is not a natural behavior, it is influenced by various factors. In the knowledge management practice, in order to maintain competitive advantage, even if team members are willing to share their knowledge, they won't share unreservedly. In other words, the team members have a choice on whether to share knowledge or what knowledge to share. Social exchange theory has been adopted to explain team members' unwillingness in sharing knowledge (Alavi & Tiwana, 2002; Martins, Gilson, & Maynard, 2004; Haas, 2006) In addition, some researches have focused on ways and means to promote knowledge sharing. Both of evaluation and evaluation plus reward have a positive relationship with knowledge sharing (Wang, Noe, & Wang, 2014). Also, researches have discussed the impact of leaders and team culture on knowledge sharing and team innovation (Carmeli, Gelbard, & Reiter, 2013; Zhang, De Pablos, & Xu, 2014; Carmeli & Paulus, 2015).

Given the increased concern of the knowledge sharing, in addition, as a form of organization, how to realize the benign interaction within the SRT, how to reduce the political internal friction behavior in the organization, how to implement the humanistic scientific management, make team members happy to achieve team goals. Research on cognitive and mental model in the organization theory may have implications for these problems. The view of organizational cognition perspective is that cognitive influence behavior, and organizational behavior should be studied from the perspective of cognition. Koontz (1980) believed that Barnard was influenced by Vilfredo Pareto as he perceived social systems which he referred to as organizations, a system of cooperative and purposeful group interrelationships and behaviorally oriented. Augier and Sarasvathy (2004) noted that several scholars of organization theory had observed and utilized important connections between issues in strategic organization and the behavioral ideas. Then the organizational cognitive focus (Nooteboom, 1992) would be effective as a focus device (Strati, 1998; Nooteboom, 2006). A focus is needed of shared cognition, including forming a common understanding of interpretations, the perceptions of cognitive processes and shared values to achieve common goals in organizations. Organizational cognitive view focus on mind-set to make the communication,

cooperation and coordination among the members of the organization become more easily and united (Grandori, 2001). Cognitive distance (Nooteboom, 2004) between organizations or members can hinder or influence mutual coordination, communication and cooperation. Therefore, the cognitive model of the organization should be common and diversified, and it involves the design of organizational governance mechanism (Shapira, 2000).

Despite the existing studies have given rich and detailed consideration on knowledge management of SRT, most studies have shown that knowledge is a kind of competitive resource. And they haven't considered both humanism and scientific management mechanism which can optimize the adaptability and harmony of the management of SRT. The cognitive organization theory emphasizes the importance of research on organizational design and operational mechanism from the perspective of cognitive and behavior, provide a good basic idea for Jingyou SRT. This study focus on the organizational core value proposition from the organization management perspective. This new type of university SRT is based on Jingyou thought, it emphasizes the exploration and utilization of laws of things, and advocates the cultivation and full effective display of members' individual advantages. The purpose of this study is to enhance our understanding of knowledge by using Jingyou thought, to use a new perspective to recognize the relationship between knowledge and people, to design Jingyou management mechanism to optimize the organization and management of SRT, to realize the SRT and its members cognitive concept and behavior coordination during the operation, and finally to realize the strategic harmonious situation of the organization and its members, and the sustained development of the organization.

JINGYOU THOUGHT

What is Jingyou Thought

On the basis of reflections on the excessive emphasis on competition in human society, Jingyou thought is proposed by Chinese scholars Zhao, Liu, and Xu (2006). Jingyou thought refers to the rational behaviors (including organizations and individuals) competing to explore, know and use the evolution laws of things, to show their good behavior in social organizations; and promoting the core power of human and social development is not competition, it is people's competitive advantage behaviors, to show themselves accords with the natural laws and use the natural laws to change the environment for the benefit of nature and the benefit of the human race. It is a common behavioral model of actors summarized and abstracted on the basis of the law of people's behavior, the integration of philosophy, management, organizational behavior and other theories, as well as integrated analysis of the behavior motive, behavioral process and action effects of the behavior subject. However, due to many subjective and objective factors, there must be some different degree in accuracy and comprehensive when behaviors try to understand and use the natural laws, so it is difficult to judge who is absolutely right; therefore, when the effect of the behaviors is analyzed and evaluated, excellent performance should be recognized as far as possible in the context of the social concern and social macro pursue, in order to maximize the enthusiasm and initiative of the behaviors.

Jingyou thought has following meanings as basic points and central issues: First of all, it emphasizes the laws of things, and explores, understands and uses the laws of things as a prerequisite; Second, it implies a profound "humanistic thought" because the purpose of using the laws of things is to show the behavior's good behavior; Third, it contains openness and sociality, and implies that the behavior subject has social attributes; Fourth, "show good behavior" means social values have an impact on the behavior subject. Therefore, Jingyou implies that the individual and his or her organization (or social) has a win-win orientation.

Knowledge-Driven Function of Jingyou

The knowledge-driven function of Jingyou behavior mainly reflected in two aspects: One, from perspective of knowledge guides practice, the whole process of Jingyou behavior runs through the cognition and utilization of things in the subject of behavior. Therefore, behavior subjects based on the understanding of things to carry out Jingyou activities, is actually affected by the impact of knowledge-driven function. Compared with the competition by the system constraints, Jingyou behavior is guided by knowledge, and is possible to govern inactively. Second, from the perspective of knowledge originates in practice, in order to better create and enhance

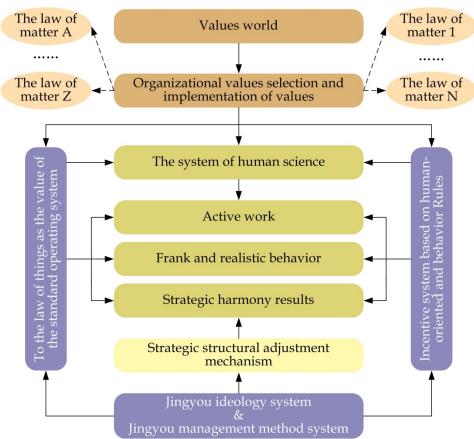


Figure 1. The characteristic and logical structure of Jingyou SRT

their own value, Jingyou also drive people to explore and understand the laws of things continuously, which means to behavior for exploring knowledge.

THE CONSTRUCTION OF JINGYOU SRT

Jingyou SRT

Jingyou thought provides a new perspective to design a new type of science research team in university, which implement Jingyou external and encourage Jingyou internal, which can be defined as Jingyou science research team (Jingyou SRT). Based on Jingyou thought, the most important feature of Jingyou SRT is internal system and culture, as well as the behavior of team members on the characteristics of Jingyou.

Characteristics of Jingyou SRT

But how can Jingyou SRT be designed best to deepen Jingyou thought, establish the value system based on the laws of things and the motivating system based on the laws of human needs? Through the interaction and the construction process shown in **Figure 1**, four main features are described below: the human-oriented scientific organization system, sincere, frank and truth pursuing code of practice, initiative and passionate working atmosphere, strategic behavior results in harmony.

(1) The human-oriented scientific organization system focuses on the members' benefit distribution system and its implementation. That refers to the organization is based on the laws of human nature, standardize management in an objective and scientific way. Each member can feel that the

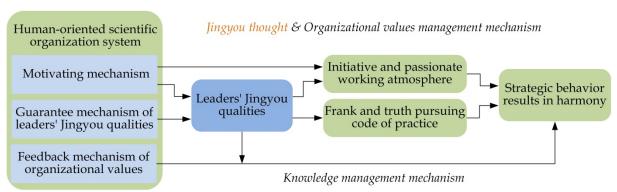


Figure 2. The characteristics of Jingyou SRT and the interaction mechanism

organizational system is based on the overall nature of the organization's members. Organizational system is based on the use of objective laws to improve the existing system, which encourage the members' Jingyou behavior and ensure the development of the organization. The former can cohesion of the members' effort, the later can show the scientific of organizational system.

- (2) Frank and truth pursuing code of practice is mainly due to understanding, strengthening and using of the laws of things, especially due to the guidance of the human-oriented scientific organization system. Members follow the laws of things, reduce organizational political behavior, simplify interpersonal relationships of the organization, and display good behavior around the core values of the organization. Make the organization members focus on the value of the organization, let everybody fully display his talents, form the organizational culture which is frank and truth pursuing.
- (3) Working initiatively and passionately is the typical behavior of members of Jingyou SRT. The Jingyou SRT uses Jingyou thought to guide the members "enjoy" to show good around the organization's core values, and human-oriented scientific organization system to encourage members to do Jingyou behavior. The taboo and incentive value of the human-oriented scientific organization system, objective and scientific implementation method and process, can make members make use of their respective advantages and characteristics, create and display their achievements.
- (4) Strategic behavior results in harmony are the pursuit of organizational survival and development. Members are different in the personal advantage, concerns about things, cognition of laws of things. That determines the individual must be different in hobbies, behavior and ability. According to Jingyou thought, the value advocated by the organization will be carried out by members. When there is a clear imbalance between the values advocated by the organization, the organization can set up motivation for organizational performance changes, such as setting incentives fund for weak content, bring qualified people in the work area corresponding to the weak value, etc. To ensure that members have strategic behavior results in harmony in the Jingyou SRT.

THE CONSTRUCTION OF BASIC OPERATIONAL MECHANISM OF JINGYOU SRT

The primary task of the construction of the Jingyou SRT is to spread the Jingyou thought to the whole organization and to implement it through the system, the policy and the effective implementation procedure. **Figure 2** presents the interaction which can help construct the operational mechanism of Jingyou SRT.

The Guarantee Mechanism of Leaders' Jingyou Qualities

In Jingyou SRT, leaders' Jingyou qualities are directly related to the Jingyou level of the team. Leaders' Jingyou qualities include good Jingyou thought, respecting the laws of things, guiding members to carry out Jingyou actively, implementing the human-oriented scientific organization system. Also, Jingyou SRT must construct the training and replacement mechanism of leadership, clarify the standard of Jingyou qualities

(including thought and action standard). Strengthen the monitoring function is another important task, system implementation, leadership supervision.

The Organizational Values Management Mechanism

The management of organizational values indicates that the top-level (ultimate) value and the mission (tool) level value of the organization, which determine the direction of the organization's long-term development and the organization's behavioral norms in the environment. In the Jingyou SRT, the organizational values are the basis of members to practice Jingyou. The diversity of organizational values can provide the members choices to make use of their advantages. It is possible for the members to contribute to the organization while enjoying the fun of work and the nutrient of life. Therefore, personal desire, personal interest and organizational desire, organizational interest can be matched and achieved with a high degree.

The Feedback Mechanism

First of all, Jingyou SRT must establish an effective feedback coordination mechanism. Master the laws of things from a global view, including members and members, members and organizations, organizations and society, then this mechanism can play a coordinating role in the overall situation. The feedback adjustment mechanism involves almost all aspects of the organization, especially the dynamic management of organizational values. In practice, the organization tends to focus on important value, such as economic benefits, innovation benefits, and neglect to maintenance in the public environment. Therefore, the feedback mechanism of the value should scientifically integrate the value which may affect the formal business into the value of organization, so as to ensure the correct guidance to the members. In addition, also includes whether the value of organization is integrated with the value of the external macro environment to ensure the overall development direction of the organization.

The Knowledge Management Mechanism

Jingyou behavior is driven by knowledge, the laws of things that people have mastered. The correctness and comprehensiveness of the knowledge and knowledge application directly determine the effect of Jingyou behavior. Knowledge is not only valuable, but also can be accumulated and spread. Jingyou SRT must strengthen the knowledge management in order to facilitate the members to accurately grasp the laws of things. At the same time, the value of knowledge determines people to keep the laws of things (knowledge) secret which they have explored. Therefore, it is necessary to set up a platform for promoting the exchange and contemplation of knowledge in the organization, form a committee of knowledge management, establish objective and impartial referee mechanism, and encourage and protect the departments and individuals who have made achievements in knowledge creation and utilization.

THE BENEFIT DISTRIBUTION AND HARMONIOUS DEVELOPMENT MECHANISM OF IINGYOU SRT

The Individual Advantage Recognition Mechanism

The technical method of individual advantage recognition is the basis for recognizing and exerting the individual advantages of the members of the organization. In the literature (Zhao, Zhu, Wang, & Jia, 2012), several kinds of concrete expression methods (effect function) based on value concept are provided, and several recognition methods of individual advantage characteristics are provided accordingly. Based on these methods and their principles, the individual advantage recognition mechanism can be constructed in Jingyou SRT.

Firstly, clarify the specific content of the organization's value proposition, which can be extended to the level of current job's responsibilities;

Table 1. Performance Values

Member —		Performance			
	f1	f2	f3	f4	
А	615	10	5	0	
В	643	30	7	8	
С	328	35	6	0	

Secondly, select and define a comprehensive expression (effect function model) for organizations' value proposition. This expression could be linear weighting model, the ideal point model, and so on;

Thirdly, determine the identification cycle for individual advantages' recognition, accurately acquire value ability or contribution information of organizations' members;

Fourthly, utilize the individual advantage recognition method to deal information of each member's value ability and to obtain the advantage characteristic and relative comparative advantage of each member.

Taking the ideal point model as an example, the maximum value of the individual advantage characteristic of *i*th member, which is evaluated under the m value items, is expressed by the equation (1):

$$\min d_2^2(f_i, \hat{f}) = \sum_{j=1}^m w_{ij}^2 (f_{ij} - \hat{f}_j)^2$$

$$s.t. \sum_{j=1}^m w_{ij} = 1$$

$$w_{ij} \ge 0, \qquad i = 1, 2, ..., n. \quad j = 1, 2, ... m.$$
(1)

In formula (1), f_{ij} , which is 0-1 normalized, denotes the ith member's value of item j; \hat{f}_j is the ideal value of all jth items. And the solution of equation (1) $w^*(i) = [w_1(i), w_2(i), ..., w_m(i)]$ is the weight structure that can maximize the contribution of ith member, which is defined as ith member's individual advantage structure.

Through comparing each member's individual advantage structures, we can obtain the comparative advantages for each member. This comparison is measured and modeled as Equation (2):

$$z_k(i) = 100 - 100d_2(k|i) \tag{2}$$

In equation (2), $d_2(k|i) = \sqrt{\sum_{j=1}^m w_j^2(i) \left(f_{kj} - \hat{f_j}\right)^2}$ is the evaluation of kth member under ith member's individual advantage structure. If, under its individual advantage structure, the ith member can be ranked as the first one or the top ten percent among all the evaluated members, it is said that ith member can achieve express a comparative advantage.

For example, one SRT of a university has four values on one job proposition and there are three similar staffs. Through strictly identification by human resources management department, the performance status of the three staffs is shown in **Table 1**.

According to equation (1) and (2), the individual advantages structures of these three staffs, as well as their comparative advantages are shown in **Table 2** and **Table 3** respectfully.

Table 2. Individual advantages structure of evaluated staffs

Member	Performance			
	f1	f2	f3	f4
Α	0.976846	0.007718	0.007718	0.007718
В	1/3	0	1/3	1/3
С	0	1	0	0

Table 3. Comparative advantages

Individual	Evaluation Results und	er every members' individu	ual advantage structure
individuai	Α	В	С
А	82.429	98.243	6.776
В	18.189	100	18.350
С	0	80	100

The Mechanism for Motivating and Coordination of Members' Individual Advantage

The Jingyou SRT, which is based on and guided by the laws of things, will fully excavate, cultivate and develop every member's individual advantages. In addition to the consideration and balancing of variety of laws in the decision-making of the organization's development direction, motivating every member to do Jingyou behavior actively should also be the principle for Jingyou SRT's human resources management. Therefore, based on the identification and inspiration of individual advantage structure, the specific method of human resources management for Jingyou SRT should at least including following three aspects:

(1) The arrangements of organizations' job post

Job post is a detailed refinement of the organization's business, which aims to make the organization run efficiently and make the value proposition being satisfied; the organization members also want to be able to work in their most competent positions. To meet the above two requirements, it should be in accordance with the following principles to achieve the match between human and job post: to maximize organization's value proposition as close as possible in accordance with the characteristics of organizational members. Therefore, processing mode of assignment problem in operational research can be referred and utilized to optimize the system. For example, according to the results of work analysis in industrial engineering, each post has corresponding skill requirements in certain level. On the other side, the individual advantage of every member is consistent with the value proposition of Jingyou SRT. Accordingly, the organization of the job post can be arranged in accordance with the standards which can make the overall matching highest.

Following the aforementioned example, if each value indicator corresponds to a research task, each person should have at least one task, and each person has the corresponding ability to finish it, it is easy to have following task arrangement: member A corresponds to task f_1 ; member C corresponds to task f_2 ; and member B corresponds to task f_3 and f_4 . So that the overall matching of the arrangement is obviously 2.64 or more, which can make every member effectively exerts his or her advantage.

In an excellent organization, although the job allowance, performance bonus, job promotion and so on are not necessarily the primary value for the members of the organization, these work welfares are often an important manifestation of the value of the members of the organization. The arrangement of this can directly affect the orthogonal organization and even directly.

(2) The arrangement of post allowance and performance bonus

of this can directly affect the enthusiasm of the members of the organization, and even directly determine the working direction of the organization members and organizational culture. The Jingyou SRT is constructed based on this law and uses scientific method, combined with the feature of job post and actual contribution, to manage the post allowance, bonuses and promotion and other personal interests involved in the distribution.

Take the previous case as an example: in the distribution of post allowance, member A and C are responsible for one task, and member B is responsible for two other tasks. In the case of indifference, the equivalent of job allowance is 1 for member A and member C and 2 for member B.

In terms of performance bonuses, it is possible to make objective and open arrangements by calculating the results of the "democratic proxy evaluation" of each member on the basis of the "individual proxy evaluation" of their respective advantages. Based on the solution of equation (2), for the *k*th member, the average evaluation of *n* members is calculated by equation (3):

$$z_k = \frac{1}{n} \sum_{i=1}^{n} z_k (i)$$
 (3)

In the previous example, we get the results of the "Democratic proxy Evaluation" of these three members are 33.539, 92.748, 41.709, which can be the proportion of performance bonuses.

It is necessary to apply same principle, which can inspire the development of every member's individual advantage, in the management of promotion of job position. According to the principle of job post needs, the basic requirement of job skill should be treated as necessary condition and the highest performance of "Democratic proxy Evaluation" should be treated as sufficient condition. Furthermore, after meeting the basic requirement of the job post, the promotion of the members' position should be ordered according to their performance. The order of declaration of members' position promotion in the preceding case should be B, C, A.

(3) Training of members' individual advantage

According to the actual individual advantages structure of every member, it is not a guarantee that every member of the Jingyou SRT has their comparative advantage, which may lead to the situation that for those do not have comparative advantage may be difficult to engage in their good work business. Although the Jingyou SRT is constructed according to the humanism and allows these incompatible employees continue working in the organization, but it is no good for the long-term development of whole Jingyou SRT. Therefore, the Jingyou SRT should not only encourage the members to tap their own potential and enhance their own individual advantages, but also actively carry out publicity of business needs and business skills training, so that members of the organization can accurately obtain relevant information, and constantly learn and improve their own level of individual advantage.

The Strategic and Harmonious Coordination Mechanism

An organization member can show his or her talent in one or some value which the organization advocates, and can be recognized by the organization. However, different values require different knowledge and technical skills. And the cost, effectiveness and difficulty of implementation are different, too. Therefore, the organization must be in accordance with the needs of organizational development, use objective, reasonable and scientific method to measure the cost of the corresponding value, establish structural indicators of various important values. For example, the value structure index is expressed by the weight coefficient, timely published to lead the organization members to form a reasonable division of labor.

When guide the value structure, the organization must clearly the target value structure in the value development and is able to control the actual structure of the organizational value development in order to adjust in time. The target value structure of organizational value development can be solved by the method of group decision, such as the analytic hierarchy process based on expert consultation. But the actual value structure of organization development needs to be calculated. Because the solution of equation (1) $w^*(i) = [w_1(i), w_2(i), ..., w_m(i)]$ shows the actual value structure of member i. The average result of all members' actual value structure reflects the overall actual value structure of the organization. Accordingly, we use the average result of $w^*(i) = [w_1(i), w_2(i), ..., w_m(i)]$ to show the actual value structure of organization development.

Table 4. Based on the actual value structure of the	e three members'	performance
--	------------------	-------------

Member	Performance			
	f1	f2	f3	f4
Α	0.976846	0.007718	0.007718	0.007718
В	1/3	0	1/3	1/3
С	0	1	0	0
Average	0.4367265	0.335906	0.1136837	0.1136837

However, due to the actual value structure and the target value structure will always be different, the overall arrangement should not be structural adjusted frequently. Therefore, the organization must clarify the threshold of structural adjustment criteria. Start the adjustment of value structure when the proportion of each value content below a certain threshold. When this situation has not yet appeared, the organization still develops in accordance with trend that decided by the members' Jingyou behavior.

In the previous example, the average result of individual advantages of the characteristics of the three members shown in **Table 4** can be obtained according to **Table 1**. It shows the situation that the first significant prominence and the second is more prominent, and the third and fourth relatively weak. If the proportion of the third value indicator cannot be less than 15%, and based on the actual value structure of all members is also shown in **Table 4**, adjustment need to be based on the effect between the organization's target value structure and the value of the content, to ensure that the actual value structure approaches the target value structure.

DISCUSSION AND CONCLUSION

When literature focus on SRT management, it has shown that team members' performance evaluation is a crucial point in the practice of knowledge management and organizational management. Previous studies have achieved good results in the organizational construction which is aware of the relationship between members and the organization. For instance, because it is not easy to construct a common vision from individual's viewpoint, the learning organization (Senge, 1990) is constructed from members' common vision. Moreover, the current era emphasizes the individuality and individual interest more than ever. The goal of learning organization needs to coordinate members' current interests and long-term interests, and current harmonious and long-term development as well. Therefore, it is the direction of organizational theory development to explore how to coordinate the relationship between members and the organization, which makes the organizational theory conforming to human nature more valuable to practice.

According to this study, a new style of SRT in university is constructed based on Jingyou thought. Compared with the learning organization, it pays more attention to the consideration of human nature and meets the actual needs. According to the Jingyou thought, knowledge is regarded as a law of things which people could explore and use sincerely. For individual, the diversity in cognition and choice of things is inevitable which lead to the diversity of team members. It is also difficult to enforce team members' cognition and behavior. So, without prejudice to the overall value orientation of SRT, this research put forward a proposal of changing the perspective of team members' guidance and evaluation.

It is also showed that the evaluation methods and techniques innovation of this study may be more valuable for practice. Some of the study of Werner and Souder (1997), in which the performance measurement techniques developed with needs of organizations, were complex and costly to use. Richard, Devinney, Yip, and Johnson (2009) and Bititci, Garengo, Dörfler, and Nudurupati (2012) also suggested that performance measurement research should be more theoretically grounded. This study supports their view and uses individual advantage recognition method and technique to evaluate team members' performance. At present, the performance evaluation of SRT members mainly adopts quantitative evaluation method, qualitative evaluation method and comprehensive evaluation method (Cordero, 1990; Werner & Souder, 1997). Most evaluations methods are based on the value structure of evaluation staff, and a unified weight coefficient is used to evaluate all the individuals. In that case, evaluated individuals, whose different value propositions cannot be expressed and individual advantages cannot

be identified, would not participate in the evaluation process and would reject the evaluation results. Comparing with those methods, this study shows that, the evaluation method is performed under definite value index system and ranking results, the analysis of the proportion of the whole value are not voted by experts.

As shown in **Table 2**, from the best perspective of individual's advantages, different value structures are obtained. The individual advantages are different because of the differences of individual's knowledge, ability and other factors. In this value structure, each individual corresponds to different indicators of value parameters and the size of the value parameters reflects the diversity of their advantages. The higher the value parameter, the better the relative performance of the individual has. For example, member A's individual advantage characteristic is (0.976846, 0.007718, 0.007718, 0.007718), which shows member A is outstanding in the aspect of index f_1 while weak in the aspect of other three indexes.

Table 3 shows the ranking results of evaluating for each individual by different individual advantage characteristics and value structures. An individual may get better evaluation and ranking result when the evaluation is performed from the best perspective of his own advantages structure. It should be noted that even evaluating from the best perspective of an individual's own advantage, the individual cannot be guaranteed to be the best one. Only if the evaluated object has a comparative advantage and it is impossible on the contrary. For example, from the perspective based on member A's advantage structure, member B received a higher score of 98.243 and got the first place, while member A got a score of 82.429, failed to obtain comparative advantage. And in the same way, member B and C got their best place from their respective advantages characteristics perspective and obtained a comparative advantage. From the calculation process of the numerical example, it has demonstrated that this feasibility method is simple and easy for organizations to use. This evaluation method, which makes team members receptive to the evaluation results, shows its humanistic and scientific.

In conclusion, this paper puts forward the construction of mechanism of Jingyou SRT, which is based on the Jingyou thought. Especially in the aspect of human resources interests, the use of humanistic objective scientific methods avoids the disadvantages of man-made voting or leader will and reduces the interference of subjective factors. The proposed mechanism, which is helpful in construction of healthy and harmonious relationships in the SRT, may guide the members focus on the organization's value and fully motivates members' subjective initiative.

Furthermore, several study limitations need to be considered. This study only focus on the concept and construction of Jingyou SRT in the university, more related research and practice, including how to embed the relevant mechanism into the existing organization and how to coordinate the organizational structure, are still open and need to be followed. This study calls for more exploration and practice to enrich and improve the theory of Jingyou SRT.

ACKNOWLEDGEMENT

The authors gratefully acknowledge the support by the National Natural Science Foundation of China under grant numbers 71271048.

REFERENCES

- Alavi, M., & Tiwana, A. (2002). Knowledge integration in virtual teams: The potential role of KMS. *Journal of the Association for Information Science and Technology*, 53(12), 1029-1037. doi:10.1002/asi.10107
- Augier, M., & Sarasvathy, S. D. (2004). Integrating evolution, cognition and design: Extending Simonian perspectives to strategic organization. *Strategic Organization*, 2(2), 169-204. doi:10.1177/1476127004042843
- Bititci, U., Garengo, P., Dörfler, V., & Nudurupati, S. (2012). Performance measurement: challenges for tomorrow. *International Journal of Management Reviews*, 14(3), 305-327. doi:10.1111/j.1468-2370.2011.00318.x
- Carmeli, A., & Paulus, P. B. (2015). CEO ideational facilitation leadership and team creativity: The mediating role of knowledge sharing. *The Journal of Creative Behavior*, 49(1), 53-75. doi:10.1002/jocb.59

- Carmeli, A., Gelbard, R., & Reiter Palmon, R. (2013). Leadership, creative problem solving capacity, and creative performance: The importance of knowledge sharing. *Human Resource Management*, 52(1), 95-121. doi:10.1002/hrm.21514
- Cordero, R. (1990). The measurement of innovation performance in the firm: an overview. Research Policy, 19(2), 185-192. doi:10.1016/0048-7333(90)90048-B
- Drucker, P. F. (2006). Knowledge-worker productivity: the biggest challenge. *IEEE Engineering Management Review*, 34(2), 29-29. doi:10.1109/EMR.2006.1679053
- Ford, C. M., & Gioia, D. A. (Eds.). (1995). Creative action in organizations: Ivory tower visions and real world voices. CA: Sage Publications.
- Grandori, A. (2001). Neither hierarchy nor identity: knowledge-governance mechanisms and the theory of the firm. *Journal of management and Governance*, 5(3), 381-399. doi:10.1023/A:1014055213456
- Haas, M. R. (2006). Acquiring and applying knowledge in transnational teams: The roles of cosmopolitans and locals. *Organization Science*, 17(3), 367-384. doi:10.1287/orsc.1060.0187
- Jackson, S. E., Chuang, C. H., Harden, E. E., & Jiang, Y. (2006). Toward developing human resource management systems for knowledge-intensive teamwork. *Research in personnel and human resources management*, 25, 27-70. doi:10.1016/s0742-7301(06)25002-3
- Jin, L., & Sun, H. (2010). The effect of researchers' interdisciplinary characteristics on team innovation performance: evidence from university R&D teams in China. *The International Journal of Human Resource Management*, 21(13), 2488-2502. doi:10.1080/09585192.2010.516599
- Koontz, H. (1980). The management theory jungle revisited. *Academy of management review*, 5(2), 175-188. doi:10.5465/AMR.1980.4288715
- March, J. G., & Simon, H. A. (1958). Organizations. New York, USA: Wiley.
- Martins, L. L., Gilson, L. L., & Maynard, M. T. (2004). Virtual teams: What do we know and where do we go from here?. *Journal of management*, 30(6), 805-835. doi:10.1016/j.jm.2004.05.002
- Mesmer-Magnus, J. R., & DeChurch, L. A. (2009). Information sharing and team performance: a meta-analysis. *Journal of Applied Psychology*, 94(2), 535-546. doi:10.1037/a0013773
- Nooteboom, B. (1992). Towards a dynamic theory of transactions. *Journal of evolutionary economics*, 2(4), 281-299. doi:10.1007/BF01200127
- Nooteboom, B. (2004). Governance and competence: how can they be combined? *Cambridge Journal of Economics*, 28(4), 505-525. doi:10.1093/cje/28.4.505
- Nooteboom, B. (2006). Beyond penrose: a cognitive theory of the firm. *Social Science Electronic Publishing*, 38(8), 29-59. doi:10.2139/ssrn.903746
- Richard, P. J., Devinney, T. M., Yip, G. S., & Johnson, G. (2009). Measuring organizational performance: Towards methodological best practice. *Journal of management*, 35(3), 718-804. doi:10.1177/0149206308330560
- Senge, P. (1990). The fifth discipline: The art and science of the learning organization. New York, USA: Currency Doubleday.
- Shapira, Z. (2000). Governance in organizations: A cognitive perspective. *Journal of Management and Governance*, 4(1-2), 53-67. doi:10.1023/A:1009945503527
- Strati, A. (1998). (Mis) understanding cognition in organization studies. *Scandinavian journal of management*, 14(4), 309-329. doi:10.1016/S0956-5221(98)00014-1
- Tjosvold, D., Tang, M. M. L., & West, M. (2004). Reflexivity for team innovation in China: The contribution of goal interdependence. *Group and Organization Management*, 29(5), 540-559. doi:10.1177/1059601103254911
- Wang, S., Noe, R. A., & Wang, Z. M. (2014). Motivating knowledge sharing in knowledge management systems: A quasi-field experiment. *Journal of Management*, 40(4), 978-1009. doi:10.1177/0149206311412192
- Werner, B. M., & Souder, W. E. (1997). Measuring R&D performance—state of the art. Research-Technology Management, 40(2), 34-42. doi:10.1080/08956308.1997.11671115
- Zhang, X., De Pablos, P. O., & Xu, Q. (2014). Culture effects on the knowledge sharing in multi-national virtual classes: A mixed method. *Computers in Human Behavior*, 31, 491-498. doi:10.1016/j.chb.2013.04.021

- Zhao, X. N., Zhu, C. H., Wang, Y. M., & Jia, J. F. (2012). Methodology and application of Jingyou evaluation. Beijing, China: Science Press.
- Zhao, X. N., Liu, B. D., & Xu, H. M. (2006). A Study on the Impact of the Thought of Conforming to the Natural Rule on the Progress of Human Society. *Science, Technology and Dialectics,* 23(2), 32-35. doi:10.3969/j.issn.1674-7062.2006.02.009

http://www.ejmste.com