

Research Article

Research and Application of Human Capital Strategic Classification Tool: Human Capital Classification Matrix Based on Biological Natural Attribute

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Abstract: In order to study the causes of weak human capital structure strategic classification management in China, we analyze that enterprises around the world face increasingly difficult for human capital management. In order to provide strategically sound answers, the HR managers need the critical information provided by the right technology processing and analytical tools. In this study, there are different types and levels of human capital in formal organization management, which is not the same contribution to a formal organization. An important guarantee for sustained and healthy development of the formal or informal organization is lower human capital risk. To resist this risk is primarily dependent on human capital hedge force and appreciation force in value, which is largely dependent on the strategic value of the performance of senior managers. Based on the analysis of high-level managers perspective, we also discuss the value and configuration of principles and methods to be followed in human capital strategic classification based on Boston Consulting Group (BCG matrix) and build Human Capital Classification (HCC) matrix based on biological natural attribute to effectively realize human capital structure strategic classification.

Keywords: Appreciation force, biological natural attribute, HCC matrix, hedge force, human capital strategy

INTRODUCTION

At the past decades, many scholars theorize that a combination of biological and social attribute determine human capital orientation. Therefore, Human Capital Management (HCM) in china has already emerged as a separate discipline to personnel over the ten years through 2013. In personnel management, human capital management strategy is developed through a process that is separate to the development of the business strategy and in which the primary focus of attention and effort is within the HR function and on the current state (Sami, 2007). In human capital management, personnel management strategy links to and cascades from the business strategy. It looks forwards from the current state, focusing on making incremental changes to the way people are currently managed in order to implement objectives in the annual business (Crook *et al.*, 2011).

Human capital strategy is developed based upon a diagnosis comparing the way people are currently being managed against the requirements of the new business plan. It deals with key issues about personnel management, such as whether the formal or informal organization should buy in or build its own talent (Rindermann, 2008). Once the strategy has been

developed, these activities then need to be followed by implementation and evaluation and reporting.

Moving up from personnel management to human capital strategy has served many organizations well. However, in today's business environment, organizations need to make transformational rather than incremental improvements in their products, services and the way they operate and manage their business (Wang and Holton, 2005). A strategic tool to HCM responds to this requirement by focusing on people's current and potential skills and abilities as a source of human capital and organizational transformation.

The event consists of a large group planning meeting that brings together a diverse group of stakeholders who are concerned with the way people provide value to an organization. Participants could include the CEO, other board members, the leadership team, HR, finance, IT and other functions, line managers, core talent representatives, other talent pools especially young people to balance what is likely to be a fairly senior group, customers and key shareholders, preferred suppliers of personnel management services, outsourcing partners and thought leaders connected with the organization (Fischer and De Vries, 2008).

In recent years, Human Capital Classification (HCC) is developed through a facilitated and creative process which starts with the development of a people

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vision and leads on, through diagnosis, to the development of human capital strategy and associated measures and benchmarks. We hope that HCC matrix based on biological natural attribute can provide a basis for creating value through people and providing ongoing competitive advantage.

MATERIALS AND METHODS

As we know, the Boston matrix matching strategy decision making tool (BCG matrix), uses two relative index (market growth rate and the relative market share), Chinese enterprise's production or business management is divided into four areas (business unit) and to evaluate each field and according to the evaluation results, determine the direction of resource classification matching (Hui *et al.*, 2009). Through demonstration analysis, application of the principle of the tool is Appropriately applied on human capital classification in human capital strategy.

BCG matrix reference theory in human capital strategic classification tool: In view of the application principle of BCG matrix, we can also construct a Human Capital Classification matrix (HCC matrix tool), to realize the goal of enterprise's human capital strategic classification in china. The horizontal axis represents hedge force of human capital, refers to the comprehensive capability and qualities of a staff in the current human capital compared with the same industry's biggest rival employee's transverse ratio, which reflects the relative hedge force in the same industry human capital competition (Xie *et al.*, 2008). The vertical axis represents appreciation force, refers to the continuous 3 years of work performance of certain types of employees' value-added longitudinal ratio, which reflects the relative appreciation force of a staff performance in this internal organization or department.

On the basis of height and lowness of the two basic parameters (usually 100% as the cut-off point to hedge force is divided into height and lowness; usually 10% as the cut-off point to appreciation force is divided into height and lowness), according to domestic and abroad scholars' study, the quality characteristics of human resources will be divided into six categories (Biological natural attribute: bee, monkeys, dolphins, lions, sheep, peacock type etc.) (Mingwei *et al.*, 2008). On the basis of the study, all the staff can be divided into four typical human capital style of bee, peacock, monkey and sheep, which were spread in four quadrants of the HCC matrix based on biological natural attribute, as shown in Fig. 1.

"Bee" style employees: Low appreciation force, high hedge force of "Bee" style employees, this type of employees are in a slow growth stages of their career. According to the characteristics of comprehensive quality, belongs to the rich working experience and easily to cooperation, to help others, discerning, persuasive, prestigious, strong sense of responsibility of





Hedge Force (%)	Lowness (<100)	Height (≥100)
Appreciation Force (%)	 Sheep style	 Bee style
	 Monkey style	 Peacock style

Fig. 1: Human Capital Classification matrix (HCC matrix) based on biological natural attribute

employees. According to the different layers of organization structure, exists in all levels. According to the different layers of age, the more belong to the old employees over the age of 45. Due to their knowledge structure not easy to update, or poor health or family, such influence factors as the upside in their careers is very small. The staff itself no longer need to business investment, for the improvement of enterprise's human capital structure play a positive role in helping others, to guarantee the sustainable and healthy development of the human capital base.

"Peacock" style employees: High appreciation force, high hedge force of "peacock" style employees, this type of employees are in a rapid growth stages of their career. According to the characteristics of comprehensive quality, belongs to the working experience, to have strong learning ability, imaginative, sense of responsibility strong, optimistic and confident, energetic, innovative spirit and to be fond of their opinions or ideas, strong control. According to the different layers of organization structure, exists in the lower level. According to the different layers of age, the more employees belong to 28 to 45 years old of middle-aged and young staff. But sometimes they lack cooperation spirit, need to business investment, to support its continued development. Due to their relatively new knowledge structure, energetic and strongly learning ability, adventurous, innovative spirit, such influence factors as the upside in their careers is a huge rise. For the improvement of the structure of enterprise's human capital play a positive role in leading, to guarantee the sustainable and healthy development of the main human capital force.

"Monkey" style employees: High appreciation force, low hedge force of "monkey" style employees, this type

of employees are in a rapid growth of the immature stages of their career. According to the characteristics of comprehensive quality division, belongs to the working experience, imaginative, energetic, adventurous, dare to struggle, asserting themselves to poor susceptible dominate, emotional, intuitive impulses, lack of sense of responsibility, lack of organized order and lack of transactional competence of employees. According to the different layers of organization structure, the more employees exist in low at the grass-roots level. According to the different layers of age, the more employees belong to youth workers under the age of 30. Lack of cooperation spirit and working experience, need to business investment, to support its continued development. Due to their relatively new knowledge structure, energetic and having strong learning ability and willingness to take risks, such influence factors as the upside in their careers is a huge rise. Is the improvement of the enterprise human capital structure can bring fresh blood, the fresh air, to guarantee the sustainable healthy development of the enterprises as the main human capital reserve base.

"Sheep" style employees: Low appreciation force, low hedge force of "sheep" style employees, this type of employees are in a slow growth stages of their career. According to the characteristics of comprehensive quality, belongs to the working experience, the poor insight, lack of imagination, lack of social ability, abiding by the rules, practical, not rich sensitivity, not good at dealing with people, but the strong sense of responsibility staff. According to the different layers of organization structure, the more employees exist in low at the grass-roots level. According to the different layers of age, belongs to the each age level of old and new employees. Due to their knowledge structure not easy to update, or not good at dealing with people, such influence factors as the upside in their careers is very small. These employees itself also no longer need to business investment, but for the improvement of enterprise human capital structure play a positive role in stable and well-being, to guarantee the sustainable and healthy development of the enterprises as the main human capital soldiers base.

Application of HCC matrix in human capital strategic classification and allocation: We build HCC matrix tool, its significance lies in effectively implementing the enterprise's aims and objectives of a strategic human capital structure classification, senior professional managers seek an intuitive vivid decision-making tool for the enterprise, also provide a discovering problems, analyzing and solving problems of the trilogy thinking mode.

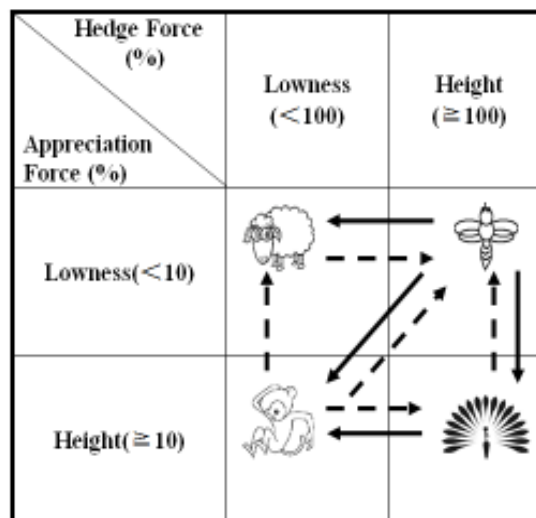


Fig. 2: Application of HCC matrix based on biological natural attribute in human capital strategic classification and allocation

Firstly: Just as BCG matrix, provide us with an intuitive and vivid human capital structure strategic classification and configuration tool.

Secondly: HCC matrix for our senior professional manager provides a configuration classifies human capital strategy decision-making process and the mode of thinking. "Solid arrow" prefer to tonic configuration process, "dotted arrow" prefer to the results of human capital structure strategic classification decision. Or, "solid" means "process", "dotted line" means "result". But also reflected HCC matrix is a "process" and "results" matching strategic decision-making tool. In shown in Fig. 2, in the classified decision, as the human capital base of "bee" style employees, focus on investing in the enterprise and under the strategic orientation of "peacock" and "monkey" style employees is the key issue. One of the results is the ideal outcome, a part of "monkey" style employees will be optimized for "peacock" style employees, a part of the "peacock" style employees will be optimized for "bee" style employees, a part of the "peacock" style employees can be optimized for the independent leader. The second result is not ideal, a part of "monkey" style employees will evolve into "sheep" style employees, a part of employees "peacock" will evolve into "monkey" style employees, even transfer their position and even leave their job temporarily, a part of "bee" style employees also gradually entered the "sheep" style employees' base, even take a back seat and even retire as shown in Fig. 2.

Finally: We use the two relative indexes "hedge force" and "appreciation force" to realize human capital structure classification, which embodies the vertical and

horizontal two lines is the logic of the objectivity and impartiality. Transverse ratios (the ratios of the transverse business performance with counterparts to embody hedge force) place in the outside and longitudinal ratios (the ratios of staff growth longitudinal performance to embody appreciation force) place in the inside, staff training and development, skill and quality information can be effectively tracked. So, objective and efficient human capital strategic classification and configuration decisions can be made, as well as can avoid the vicious competition between employees, enhance staff awareness of cooperation and team spirit.

RESULTS AND DISCUSSION

American economist, the creator of human capital theory, Schultz (1960) put forward the famous idea of his view that the factors influence the economic development, human factors is crucial, economic development mainly depends on the improvement of quality of people's economic development, rather than the abundance of natural resources desert or the amount of capital.

Today, we equally emphasize that the role of human factors is crucial. Based on "hedge force" and "appreciation force" of HCC matrix is constructed by two relative parameter to the classification of human capital, even more highlighted the key role of human capital value force. But in practice there are still some limitations, we put forward the corresponding countermeasure in advice.

Firstly: HCC matrix of two relative indexes measured parameter value is bad precision. Suggestions in actual operation, the "hedge force" parameter value measurement in human resource management department should take external information's data collection and internal evaluation. In this, we emphasizing the internal assessment tactics: One of the tactics is personality psychological evaluation, we use "onion quality model" or "iceberg quality model", assisted with "Rorschach Hector ink assessment", "thematic apperception test evaluation methods" etc (Gaskell *et al.*, 2004). The second of the tactics is "psychological quality and potential assessment", we can take advantage of the value assessment, evaluation on vocational interest, intelligence assessment, emotional intelligence assessment evaluation etc., (Xie *et al.*, 2008). The third of the tactics is "professional ability" evaluation, we can take advantage of "work scene simulation evaluation method" (including document processing simulation method, no leadership group discussion method, enterprise decision-making simulation competition method, interview method, role-playing method, extemporaneous speech method and case analysis method etc.) (Amador *et al.*, 2009), which is to compare with lateral external information collection to measure "hedge force" index parameter values. "Appreciation force" index parameter value measurement have been discussed in front, no longer here.

Secondly: HCC matrix applied to classification of human capital strategy is more suitable for large and





Index Style	Comprehensive quality characteristics	Hedge Force (%)	Appreciation Force (%)	Sampling number (The number of times)	Job nature/ biological natural attribute (reference configuration)	Remarks
"Sheep" style employees 	The working experience, the poor insight, lack of imagination, lack of social ability, abiding by the rules, practical, not rich sensitivity, not good at dealing with people, the strong sense of responsibility	(<100)	(<10)	160	Engaged in strictly fixed rule and method of repetitive work, habitual or technical work according to the requirements of a certain program. Such as secretarial, administrative assistant, operators, electricians positions etc.	Human capital soldiers base
"Monkey" style employees. 	The working experience, imaginative, energetic, adventurous, dare to struggle, asserting themselves to poor susceptible dominate, emotional, intuitive impulses, lack of sense of responsibility, lack of organized order and lack of transactional competence	(<100)	(≥10)	120	Engaged in the systematic creative activity. Such as technology research and development, network engineers, systems analysis, market research, graphic design and editing positions etc.	Human capital reserve base
"Peacock" style employees 	The working experience, strong learning ability, imaginative, sense of responsibility strong, optimistic and confident, energetic, innovative spirit, strong control	(≥100)	(≥10)	120	Engaged in needing courage, the risk and responsibility of activities, mainly refers to the work of management and decision-making. such as high-level management positions etc.	Main body of human capital
"Bee" style employees 	The rich working experience, and easily to cooperation, to help others, discerning, persuasive, prestigious, strong sense of responsibility	(≥100)	(<10)	160	Engaged in more time with people of persuasion, education, and treatment work, public relations, marketing planning and promotion, human resource positions etc	Human capital base

Fig. 3: The specific operation reference of HCC matrix based on biological natural attribute

medium-sized enterprises, small and micro enterprises can be customized as applications.

Thirdly: HCC matrix is suitable for more than three years service of the staffs, not suitable for less than three years service of the staffs. We suggest new employees can be put in the "monkey style employees" areas for consideration or investment tonic.

Fourthly: Two relative parameters of the boundary value ("hedge force" index parameter value is 100% and "Appreciation force" index parameter values is 10%) may be not suitable for this enterprise's specific operation and implementation. We suggest, according to their own specific conditions for floating up and down to adjust, is advantageous for the classification of human capital, is more matching with the needs of the enterprises and more conducive to the improvement of the human capital structure.

Finally: We create HCC matrix based on biological natural attribute in the human capital strategy classification, the application of the aim and the goal is to give high-level professional managers a tool to optimize human capital structure, a more objective and intuitive human capital strategy classification decision-making tool, a human capital strategy configuration tool. But in specific operations, to overcome the subjective opinion of the individual, the specific operation reference of HCC matrix is given, as shown in Fig. 3.

CONCLUSION

Based on high-level managers' perspective, drawing lessons from strategic human resource management ideas, this study discusses the application of BCG matrix in the Chinese enterprises' human capital structure strategy classification should follow the principles and methods of value. On the basis of the biological natural attribute's study, we build a operational and practical classification model of HCC matrix tool and application process. The combination of human capital and material resources, financial capital, can bring profit for the enterprise, bring wealth for shareholders. But as the same carrier of human capital, in the different nature of the enterprise, in different positions of the same nature of the enterprise, the value of human capital is also different. From the perspective of the marginal contribution rate of human capital, we create the human capital classification of "hedge force" and "appreciation force" of two relative parameters and give a more objective and intuitive classification matrix model. HCC matrix will not only provide us with a more objective and intuitive classification decision-making tool of Chinese enterprises' human capital strategy, also provide us with a based on the factors such as their own quality, age, level of employees in the organizational structure for people and things in the world, people and post of the effective strategy

configuration tool. On this basis, we construct a selecting, employing, educating and retaining system of human capital structure optimization.

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REFERENCES

- Amador, C., J.P. Emond and M.C.N. Nunes, 2009. Application of RFID technologies in the temperature mapping of the pineapple supply chain [J]. *Sens. Instrumen. Food Qual. Safe.*, 3(1): 26-33.
- Crook, T.R., S.Y. Todd, J.G. Combs, D.J. Woehr and D.J. Ketchen, 2011. Does human capital matter? A meta-analysis of the relationship between human capital and firm performance. *J. Appl. Psychol.*, 96(3): 443-456.
- Fischer, A.R.H. and P.W. De Vries, 2008. Everyday behaviour and everyday risk: an exploration how people respond to frequently encountered risks. *Health Risk Soc.*, 10: 324-389.
- Gaskell, G., N. Alum, W. Wagner, N. Kornberger, H. Torgersen, J. Hampel and J. Barbes, 2004. GM foods and the misperception or risk perception. *Risk Anal.*, 24: 185-194.
- Hui, S.K., P.S. Fader and E.T. Bradlow, 2009. Path data in marketing: An integrative framework and prospectus for model building. *Market. Sci.*, 28: 320-335.
- Mingwei, L., G. Huancheng and S. Yihui, 2008. Production Ecology Life the Planning and Construction of Sansheng One Body of Taiwan. *Leisure Agricultural Fields, Chinese Garden*, pp: 16-20.
- Rindermann, H., 2008. Relevance of education and intelligence at the national level for the economic welfare of people. *Intelligence*, 36(2): 127-142.
- Sami, M., 2007. Assessing human resources for science and technology: The 3Ds framework. *Sci. Public Policy*, 34(7): 489-499.
- Schultz, T.W., 1960. Investment in man: An economist's view. *Soc. Serv. Rev.*, 32: 110-117.
- Wang, G.G. and E.F. Holton, 2005. Neoclassical and institutional economics as foundations for human resource development theory. *Hum. Resour. Dev. Rev.*, 4(2): 86-108.
- Xie, G.D., L. Zhen, C.X. Lu, Y. Xiao and C. Chen, 2008. Expert knowledge based valuation method of ecosystem services in China. *J. Nat. Res.*, 23: 911-919 (In Chinese).