



The Influence Factors of Inefficient Utilization of Human Capital: The Evidence from Chinese State-Owned Enterprises

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Abstract. State-owned enterprises is an important part of the economic system in China, which directly affect China's economy under the condition that Chinese economy have developed to a new stage called "the new normal of economic development". However, the problems about the low efficiency of human capital utilization on State-owned enterprises is still obvious. Chinese State-owned enterprises' low efficiency of human capital utilization can cause the decline of the competitiveness in market and the efficiency of business. This research is taken out to explore the main factors which cause the low efficiency of Chinese state-owned enterprises. The three main factors that can lead to the inefficient utilization of human capital are Professional skill, Initiative and Innovation ability.

Keywords: state-owned enterprises · human capital · person-job fit

1 Introduction

Human capital is used as the "engine" of the development of economy, which provide great contribution to the reducing of the gap between the regions in different economic situations (Dong, 2009) [1]. The well-long-term development of enterprises more depended on the rational allocation and effective use of human capital. Zhao Zhenchao illustrates that the efficient management of human capital is being more and more important because of the frequently changing situation of business and the lack of employees' professional ability. With the high efficiency of human capital utilization, the enterprise's strategy can be put into practice successfully. (Zhao, 2016) [2]. Schultz launched the theory of human capital, and his theory included the content with a close relationship with the efficiency of human capital, which illustrates the importance of the efficiency of utilization of human capital. In China, the economy is in a period of changing from high-speed growth to high-quality development which the corn driving force changing to technology and creativity. At the aging degree, demographic dividend accelerated, labor costs rise, and the original comparative advantage gradually faded while the new competitive advantage has not been fully formed. How to make the economy under the premise of maintaining moderate growth rate, enhance the enterprise innovation ability and steadily improve the quality of development, become an important problem to be solved in our

country. Yang Ruilong's research have mentioned that China is proving the state-owned enterprises' development to ensure the interests of people and promote country's modernization (Yang, 2022) [3]. Under this environment, for state-owned enterprises, in order to increase the competitiveness in market, managing a strong group, utilize human capital effectively is important.

2 Literature Review

2.1 Human Capital and the Efficiency of Human Capital Utilization

According to the research of Liu Chunyang, Gao Ke and Yang Chen, human capital is the stock of human skills and productive knowledge. The output of human capital depends on the worker's profitability, skill, and the decision making in and out of the market economy (Liu & Gao & Yang, 2021) [4]. The efficiency of human capital is the proportion of outcome made by human capital in the total capital. Ideal management of human capital can bring a much higher efficiency to enterprises' business, which means a more efficiency utilization of human capital. Efficient utilization of human capital is also called person-post fit. Yin Caibin mentions that there are two aspects in person-post fit in his research. The first aspect is that there should be specific person with the ability that the post completely required prepared for the post. The second aspect is that the people with certain ability should be placed at the proper post (Yin, 2021) [5]. The effect of person and post fit on the business have many aspects. Yang Jiaoping, Dai Wanliang and Li Hang illustrates that person and post matching have positive effect on the employee's innovation passion (Yang & Dai & Li, 2022) [6]. He Yuege argues that the low degree of person-post fit can increase the probability and degree of work burnout (He, 2021) [7]. This research also shows that inefficient utilization of human capital can lead to bad effect to the business.

2.2 Chinese State-Owned Enterprises

The research of Yang Ruilong illustrates that in 2015, China started to promote the state-owned enterprises to take classification reform and mixed-ownership reform. The policy aims to let the state-owned enterprises to adapt the market competition (Yang, 2022). The requirement of attending the competition in market means the efficiency of the enterprise is being more important for the state-owned enterprises. Facing this situation, the utilization of human capital is more required to raise the enterprise's performance. Zhang Yiping illustrates that under "the new normal of economic development", the scale and business scope of Chinese state-owned enterprises are exploding because of the restructuring reform (Zhang, 2022) [8]. The state-owned enterprises' influence in the economy is becoming larger, as a result, the scientific management is required for the enterprises.

In the management of enterprise, a higher degree of person-post fit means that the employees with constant ability can make a higher outcome. Especially for the Chinese state-owned enterprises, enterprises with millions of employees, an ideal human capital utilization can bring great contribution to the business and development of enterprise.

3 Evaluating Standard and Questionnaire

The efficiency of human capital utilization is usually reflected as person-post fit, which is mainly measured by experts but not models because of the diversity of certain standards. A meaningful standard of measuring the efficiency of an enterprises' utilization of human capital can bring great contribution to the exploring for the factors of the low efficiency of human capital utilization. The finding for the factors of the low efficiency of human capital utilization is also a key element for state-owned enterprises to promote the performance of business. This research references the standard in the research the person-post fit evaluating model of scientific and technical personnel based on BT neural network given by Dai.

Weidong, Jiang Rong and Li Tiexin. The evaluating standard system is divided into three level indicators: Knowledge, Basic quality and Personal ability. Knowledge indicator includes four secondary indicators: Education background, Work experience, Professional knowledge and Professional skill. Basic quality indicator includes six secondary indicators: Physical health, Sense of responsibility, Loyalty, Will power, Initiative and Professional dedication. Personal ability includes five secondary indicators: learning ability, communicative ability, innovation ability, planning and controlling ability, and cooperative ability. (Dai& Jiang & LI, 2018) [9].

According to the certain standard, the questionnaire is set to evaluate the employees' condition of person-post fit in state-owned enterprises. The degree of person-post fit can be reflected by the choice of the respondents after they complete the questionnaire.

4 Result

The questionnaire is sent to over 300 employees in state-owned enterprises in China. In total 283 valid questionnaires are collected. With the answers given by the respondents, the degree of person-post fit on the standards is evaluated. The degree of person-post fit are divided by level 1, 2, 3 and 4 according to the evaluation based on the answers given by the respondents. Higher level means better degree of person- post fit. The statistic valuation result can be seen in the Table 1.

The data collected from the samples is used to reflect the condition of person-post fit in state-owned enterprises. The mean of every secondary indicator reflects the average degree of person-post fit in the certain aspect of the respondents.

In Knowledge indicator, the mean level of for the four secondary indicators is 3.1325, which means the person-post fit degree of Profession skill and Profession knowledge is far lower than the average degree with the data of 3.00 and 3.03 separately. In contrast, Education background with the data up to 3.20 is much higher than the other items.

The mean data of Basic quality indicator is about 2.878. Among the six secondary indicators of this indicator, Physical health is the highest with the level of 3.35, while Initiative is the item with the lowest level.

The mean data of Personal ability is 2.83. The secondary indicator with the highest data in this level indicator is Communicative ability and the one with the lowest level is Innovation ability.

Table 1. Result of person-post fit questionnaire

Level indicator	Secondary indicator	Number of level 1	Number of level 2	Number of level 3	Number of level 4	Mean
Knowledge	Education background	27	45	56	155	3.20
	Work experience	33	47	61	142	3.10
	Professional knowledge	38	51	54	139	3.03
	Professional skill	45	52	45	141	3.00
Basic quality	Physical health	27	47	36	173	3.25
	Sense of responsibility	54	65	72	92	2.71
	Loyalty	47	36	34	166	3.13
	Will power	57	45	78	103	2.80
	Initiative	68	58	75	82	2.60
	Professional dedication	69	42	53	119	2.78
Personal ability	Learning ability	48	67	63	105	2.80
	Communicative ability	33	57	79	114	2.97
	Innovation ability	72	42	74	95	2.68
	Planning and controlling ability	58	51	53	121	2.84
	Cooperative ability	63	47	41	132	2.86

Self-generated

5 Conclusion

The secondary indicators with the highest levels in each level indicators are Education background, Physical health and Communicative ability. The three secondary indicators with the highest levels reflect that the Chinese state-owned enterprises perform well in employing people with proper study experience, health condition and communicating skill.

In the three indicators, the secondary indicators with the lowest mean levels are Professional skill, Initiative and Innovation ability separately. The data of Professional knowledge is close to the minimum data of its level indicator, which means it should be mentioned as one of the lowest data of the statistic conclusion. As the table shows,

the conclusion of the study is that the main factors of Chinese state-owned enterprises' inefficient utilization of human capital are Professional skill, Initiative, innovation ability and professional knowledge comparing with the other aspects in the indicator knowledge, basic quality and personal quality.

For the knowledge indicator, professional knowledge and skill are the main factor that reduce the efficiency of human capital utilization. For the state-owned enterprises, strengthening the training on profession for the employees and appointing the worker with the appropriate major knowledge should be more focused. Though the degree of education background is the highest in Knowledge indicator, keeping the employees studying major skills and knowledge after employing them can bring a higher efficiency on human capital utilization because of the all-round development on stuffs' knowledge.

Initiative is the main problem in the employees' basic quality. Enterprise with active employees can get similar productivity to the enterprises with high ability stuffs. Perfection of the incentive mechanism in the state-owned enterprises can bring contribution to the higher efficiency of human capital utilization.

The innovation ability is the main factor in person ability that affect the human capital utilization, the employees' cultivation and the improvement of working content and environment seems to be more important than the other measures that improve the employees' personal ability.

The study has the limitation that the number of samples can be larger. The difference of samples from different regions is also not be mentioned as a variable in the study. The factors of the study are according to the certain standard, as a result, the conclusion can be wider with a wider standard system.

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