The Literature Review and Future Prospects of Talent Management Research in China

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Abstract—Due to the tremendous changes in economic globalization, labor force structure, knowledge economy and information technology, the human resources market and management mode have been challenged severely. Talent management has become a new area of great concern to enterprises and academia. Through a systematic literature review on talent management in recent years, this paper clarifies the current research situation of talent management in China, focusing on five areas: macro-policy and concept, talent category, talent evaluation, enterprise nature and definition of talent management. Furthermore, the paper analyzes the shortcomings of existing research: (1) lack of empirical research; (2) vague definition of theoretical boundary of talent management; (3) lack of a leading theoretical framework. Finally, this paper summarizes the conclusions of the study and points out the direction of further research in the future.

Keywords—talents; talent management; literature review

I. INTRODUCTION

Since the term "the war of talent" was formally put forward in McKinsey's "better talent is worth fighting for" report published in 1998, the issue of talent management has gradually attracted intense attention from industry circles and academic circles. In the past two decades, due to the tremendous changes in economic globalization, labor force structure, knowledge economy and information technology, the human resources market and management methods have been challenged severely. Talent management has become a new area of great concern to enterprises and academia.

Firstly, economic globalization brings challenges to talent management. Economic globalization has brought about changes in the business environment, thus affecting the quantity, quality and characteristics of the required talents. Under the background of internationalization and globalization, the competition for talents is more intense, and the business model has shifted from market-oriented and financial mode to "talent-oriented" mode. The reason is that talents can bring huge profits and value to enterprises. With the development of economic globalization, the business of transnational corporations is closely connected with that of developing countries, and the transnational flow of labor force is increasingly common. Talent management has become a new field of great concern to enterprises in developed countries, especially multinational corporations. As the social and cultural backgrounds of different countries are quite different, how to attract, use and retain talents in different countries is a difficult problem many multinational corporations have to face. The talent war is developing towards globalization, but international competitiveness of Chinese local enterprises is relatively weak, and pressure of talent competition is more prominent.

Secondly, changes in the structure of the labor force bring about challenges. China's population has undergone a transition from quantitative growth to structural adjustment, and gradually from young to old-age population structure. According to the National Population Development Strategy Research Report, the population of the aged over 60 will increase to 16.0% in 2020, it is expected to reach the peak of 430 million in the late 1940s, accounting for 30%. Population aging means that a large number of existing labor force will face the choice of withdrawing from the labor market.

Although the retirement time of the elderly population can be delayed, it is still unavoidable that the number of workers withdrawing from the market will be larger than the number entering the market. This will bring a great challenge to all kinds of organizations - how to ensure that there will be no fault in the personnel structure. As the age structure of the labor force is aging, at the same time there are also problems of insufficient skills and experience in young labor force.

Finally, the integration of information technology and knowledge economy brings about challenges. In the era of knowledge economy, the development of information technology has changed the traditional operation mode, accelerated the acquisition of knowledge and information, and intensified the difficulty of management of knowledge workers in enterprises. The shift from product-based to knowledge-based economic growth requires employees to be able to handle complex tasks. Although there is a superficial phenomenon of "excessive talent" in China's labor market, there are not many high-level talents available for enterprises.

While the total amount of skilled personnel is short, there appears a structural imbalance too. There are more junior skilled workers and scarce high-skilled personnel, with a gap of more than ten million. In the era of knowledge economy, talents have increasingly become strategic resources of various

organizations. Schuler et al. (2011) thought how successful enterprises should effectively identify and manage talent [1]. How to attract and retain the core staff in the fierce talent competition, enhance the value of human capital, and then improve the core competitiveness of the organization, is the concern of every manager. But nowadays, enterprises generally face the dilemma: on the one hand, the uncertainty of external environment makes it difficult for enterprises to predict supply and demand of talent in the external labor market; on the other hand, it is difficult for enterprises to attract the talents they need, and it is difficult for enterprises to retain the talents enterprises has spent a lot of resources on personnel training.

In view of the importance of talent management, this paper first combs the domestic literature on talent management, clarifies main focus areas of talent management research in China, analyzes the shortcomings of existing research, and finally puts forward research conclusions and future prospects.

II. THE MAIN PERSPECTIVE OF TALENT MANAGEMENT RESEARCH IN CHINA

The research on talent management abroad has exerted a great influence on the domestic academic circles. Especially since 2000, the number of research literature on talent management in China has increased dramatically, covering a wide range of fields and disciplines. The main focus areas are the following five perspectives:

A. A Perspective of Macro Policies and Ideas

This kind of research mainly concentrates on the research of talent management policy. The representative ones are: Zheng Dailiang and Zhong Shuhua (2012) analyzed the prominent characteristics of the current policy of high-level talents in China, such as "weak legalization", "incentive bureaucratization", "project fragmentation", "weak entrepreneurship" and "emphasizing introduction rather than self-cultivation". They believed that the mechanism of "making the best use of talents and talents" should be realized by creating knowledge accumulation environment: publishing the basic law of talents, perfecting and perfecting the legal system of talent policy with Chinese characteristics; practicing the strategy of strengthening the country with talents, starting the strategic transformation of "training as the main part and introducing as the supplement"; innovating the evaluation mechanism of policy, perfecting the evaluation index system of talent policy effect; reforming the system of international integration, strengthening the policy orientation of talents with enterprises as the main part[2].

Wang Tongxun (2013) pointed out, in talent work, we should not only consider how to build nests to attract talent, retain talent, but also consider how to understand talent and attract talent. It is important to introduce talents, but scientific management talents are the basic criteria for making good use of talents [3].

Qiu Zhiqiang (2016) pointed out that modern society needs the guidance of new social theory, which provides a theoretical basis for government, market and society to participate in social management. In the process of management, the government interferes excessively and loses its role; the market and social organizations have not fully played their guiding role, and their respective responsibilities are not clearly defined [4].

Sun Yue (2016) pointed out that there were some problems in the management of government talents, such as misplacement, offside and inadequacy

At present, the theoretical circles still lack in-depth discussion on how to improve the talent management system in China. Based on the analysis of the basic framework, operation mechanism and related problems of the talent management system in China, this paper puts forward some suggestions for further improving the talent management system and building a modern talent management system, aiming at promoting the strategy of priority development of talent in China [5].

B. The Perspective of Talent Category

The existing literature mainly studies high-level talents, scientific and technological talents and core talents. The representative viewpoints are as follows: Wang Jian et al. (2012) pointed out that the lack of influential scientific and technological personnel in the world is a prominent obstacle to building an innovative country and entering the ranks of the world's talent power.

How to train and bring up high-level innovative scientific and technological talents has become an urgent problem in education, science and technology, and talent. This paper probes into the important problems of talent training, such as the cultivation of young talents, the combination of industry, education and research, the investment in science and technology, the reform of the system of science and technology, education and talent work, the construction of the supporting system of talent development and the creation of innovative culture, and puts forward some suggestions for further improving relevant policies.

Li Jianzhong (2012) used the full-text database of Chinese periodicals to search, and obtained 114 research papers on core talent management in the past ten years. It found that the research on core talent mainly focused on the loss and retention of core talent. The research institutions mainly concentrate on enterprises and universities. Most papers used qualitative research methods. There were fewer empirical research papers and complex data processing methods (such as structural equation model, etc.) have not been widely used [7].

Xu Wei, Zhang Xiaoping and Zhan Lintao (2015) analyzed the influencing factors of scientific and technological talent management from the outside and inside of the organization, and constructed the promotion mechanism of scientific and technological talent management based on the perspective of management. It found that the internal factors of science and technology talent management mainly include incentive structure, development prospects and working environment, while the external factors mainly include economic support, policy orientation and cultural atmosphere [8].

Chen Jianwu and Zhang Qianqian (2015) believe that although the number of scientific and technological talents in

China continues to grow, there is still a shortage of high-level innovative scientific and technological talents. It is necessary to build a coordinated guarantee mechanism for scientific and technological talents, involving governments at all levels, scientific and technological enterprises, universities, scientific research institutions and the whole society, implement flexible policies for the introduction of scientific and technological talents, and improve the training mechanism for innovative scientific and technological talents. The government should create a suitable working environment for scientific and technological talents'innovation, establish a scientific and rational evaluation system and incentive mechanism for scientific and technological talents, attract and retain high-level innovative scientific and technological talents, train scientific and technological reserve talents, fully stimulate their work enthusiasm and creativity, and promote the continuous development of scientific and technological innovation activities [9].

Wu Jianping, Yao Jianxiong and Feng Riguang (2017) surveyed 1875 scientific and technological talent questionnaires in Guangdong Province and found that there were some problems in the management of scientific and technological talent in Guangdong Province, such as inadequate policy propaganda, inadequate innovation atmosphere, unbalanced distribution of scientific and technological resources, unscientific talent evaluation, weak incentive effect and imperfect mobility mechanism.

On the basis of empirical investigation, this paper puts forward some measures, such as improving regional innovation system, remolding talent evaluation orientation, doing a good job of "logistic support" for scientific and technological talents, and breaking down the obstacles of the system and mechanism hindering the flow of talents, etc. [10].

C. The Perspective of Talent Evaluation

Xiao Mingzheng (2009), following the basic idea of scientific development concept and on the basis of comprehensive analysis of relevant literature, put forward the viewpoint on talent evaluation mechanism, which is not a talent evaluation system, nor a general talent evaluation activity, but a systematic and scientific development form of talent evaluation. It is a dynamic system of talent development and management based on evaluation procedure [11].

Yang Heqing and Chen Yi'an (2013) constructed the evaluation index system of the effect of overseas high-level talent introduction policy, which is the basis of quantitative research on the effect of overseas high-level talent introduction policy. This paper establishes an evaluation index system for the effect of the policy of introducing overseas high-level talents from three aspects of "attracting, retaining and using ". Taking the "Thousand People Plan" of the central government as an example, it evaluates the implementation effect of the policy of "Thousand People Plan" from the perspective of policy input-output [12].

Li Xiyuan, Bian Shuangying and Zhang Wenjuan (2014) used second-hand data and quantitative and qualitative analysis methods to evaluate the effectiveness of talent policy from two aspects: input-output and effect persistence based on

the statistical yearbook data of Donghu Hi-tech Company from 2006 to 2012 [13].

Sun Yue (2015) believes that the evaluation of the implementation effect of talent strategic planning is an important part of promoting the talent strategy to achieve systematic closed-loop management [14].

Sheng Nan et al. (2016) believe that the scientific evaluation system of scientific and technological talents is not only conducive to the training and use of scientific and technological talents, but also plays a guiding role in the growth of scientific and technological talents[15].

Shanghua and Wang Suyi (2017) believe that the enterprise talent ecosystem, as a complex ecosystem formed by the interaction of the internal and external environment of the core talents, is gradually becoming the most important energy source of enterprise competition. From the perspective of the value chain of human resources, this paper uses the methods of literature analysis and empirical analysis to construct the talent ecosystem model of enterprises, identify the evaluation factors of the talent ecosystem of innovative enterprises, and construct the talent ecosystem evaluation index system including three first-level indicators of talent competency, organizational ability and regional environment [16].

D. The Perspective of Enterprise Nature

Zhang Yichi (2004) found that the traditional state-owned enterprises and private enterprises lagged behind foreign-funded enterprises in the basic work of human resources management and internal procedural fairness through comparative analysis.

Traditional state-owned enterprises lag behind private enterprises and foreign-funded enterprises in both ways of work organization and external talent introduction. Further analysis shows that there exists structural imbalance among internal policies of human resource management model in Chinese enterprises. It reveals that the relationship between human resource management model and ownership nature of Chinese enterprises, which reflects contingency and institutional environment. Joint effects [17].

The research of Li Peixiang (2013) shows that the research on talent management of private enterprises in China is still insufficient in quantity. At the same time, many studies have used a lot of length of an article to introduce the connotation, current situation, existing problems and countermeasures of talent management in private enterprises, but in-depth research is insufficient, and there is a very obvious homogenization phenomenon. At present, there is insufficient literature on the research of talent management tools and applications in private enterprises, and the research on the mechanism, mode and technology of talent management in private enterprises is still very scarce [18].

Zhang Jinxiang (2014) pointed out that innovative talents are one of the most critical factors affecting the technological innovation and development of small and medium-sized enterprises. Many small and medium-sized enterprises are weak in risk awareness of technological innovation talents

management and lack experience in avoiding talent management risks. This paper analyses the causes of the risk of talent management in technological innovation of small and medium-sized enterprises from three perspectives: social level, enterprise level and individual level, and puts forward some suggestions to avoid the risk of talent management in technological innovation of the enterprises, such as strengthening government policy support, striving to achieve the matching of flexible management and rigid management, implementing comprehensive salary management, establishing innovative enterprise culture and talent drain prevention system[19].

E. The Perspective of Connotation of Talent Management

There is no uniform standard for the definition of talent management in China. Relatively speaking, it is representative of the definition of talent management in the first enterprise talent management report "Talent management: a new era of human resources management in China" issued by Renmin University of China Labor and Personnel College and Beisen Assessment Co. Ltd. in April 2010 in Beijing. That is to say, "talent management is to recruit, identify, develop, manage and retain key talents through effective technology and management means, so as to help enterprises and individuals to make the best use of their long-term advantages and provide sustainable talent supply for organizations".

III. SHORTCOMINGS OF EXISTING RESEARCH

In the past two decades, the topic of talent management has attracted more and more attention, but there has been a heated debate in academia and business circles. The academic research on talent management in China lags behind that in western developed countries. There are three main shortcomings:

A. Lack of empirical research

Empirical research on talent management has not been widely applied in China. In tracking foreign academic frontiers, it mainly focuses on the introduction and conceptual description of foreign research results, and lacks empirical research in the Chinese context. Domestic research on talent management focuses on the government's macro-policy and qualitative research. From the perspective of research methods, there are many qualitative analyses, most of which are descriptive and suggestive papers. The main purpose is to analyze the existing problems and give some advices or solutions. Designing questionnaires, collecting data and testing the reliability and validity of questionnaires, using statistical and other theoretical methods, putting forward theoretical model hypothesis and testing hypothesis, studying the relationship between multi-variables, and using SPSS, AMOS software for data processing empirical research is less. Similarly, normative case studies are rare.

B. The theoretical boundary of talent management is vague

Although the field of talent management has developed, so far, scholars have not succeeded in establishing a clear definition of talent and talent management. The term "talent" is ubiquitous, but the confusion about the meaning of talent hinders the establishment of widely recognized theory and practice of talent management, thus hindering academic progress [20]. Many literatures have deliberately or unintentionally avoided the definition of talent and talent management. The confusion between the concept of talent management and human resource management， and the ambiguity of the theoretical boundary of talent management hinder the development and maturity of its theory.

Many theoretical foundations of talent management in China still follow the traditional human resource management, and the research topics are scattered. Relatively speaking, there are many literatures on talent strategic planning, training and development, recruitment and selection, incentive and evaluation, and academic innovation and systematicness are insufficient. In addition, domestic literature mainly focuses on talent strategy, talent evaluation and talent policy at the government and industry levels. At the level of enterprise research, many existing domestic literatures are mainly based on the traditional human resources management theory to qualitatively study the talent problem, and carry out countermeasures. They have not jumped out the inherent stereotype, and are also insufficient in academic contribution. Although there is no consistent definition of talent management, scholars generally pay attention to: exclusiveness and inclusiveness of talent system; performance or potential, key positions; internal development and training of talent, or the introduction of external labor market [21].

C. Lack of leading theoretical framework

Talent management is based on the theory of human resource management and organizational behavior. It pays attention to the current organizational practice, but it often lacks a leading theoretical framework, which limits the development of talent management theory. In terms of the quality of domestic Journal papers, there are fewer papers published in core journals (based on CSSCI), and most of them have less content and lack of theoretical depth.

The multi-perspective of talent management is valuable for the development of talent management research, but traditional academic research is rarely integrated or linked in a broader perspective. To strengthen the theoretical basis of talent management, it is necessary to build and integrate human resources management and organizational behavior theory.

From the theoretical basis of the study, common theories include knowledge management, psychological contract, resource-based view, career management and cross-cultural management, institutionalism and social constructivism, grounded theory and organizational commitment. In the existing literature, many articles do not or avoid using the theoretical framework, and there is no leading theoretical framework at present. Broad-sense talent management model encourages every employee to realize their potential, while narrow-sense talent management focuses on high performance or high potential employees [22].

Talent management practices and activities are to attract, develop and retain talents. Normally, human resource practices

and activities are now applied to the field of talent management, or the management of outstanding talent [23]. If this field is to mature, it is necessary to fragment the literature and push it to a more general paradigm in a closer way, which is what we urge scholars to pay attention to.

IV. CONCLUSION AND PROSPECT

In summary, although in the past two decades, the topic of talent management has attracted more and more attention，and some research results have been achieved in many fields, there has been a heated debate in academia and business circles. The research on talent management in academia lags behind the practice of enterprises, and the academic research on talent management in China lags behind the western developed countries. Specifically, the existing research has the following shortcomings: first, empirical research is less. Although empirical research has increased significantly since 2012, it still needs to be further strengthened in terms of quantity and quality. Secondly, the theoretical boundary of talent management is vague. The unclear theoretical boundary of talent management and the confusion with the concept of human resources management hinder the progress of research. Third, there is no leading theoretical framework. Talent management is based on the theory of human resource management and organizational behavior. It focuses on the current organizational practice, but it often lacks a theoretical framework.

Future research should not only strengthen empirical research, but also pay attention to the following aspects of research: Firstly, the conceptualization and implementation of talent management are studied. Future research should not only study the different definitions and models of different stakeholders'holding, but also study the implications of holding certain models for organizational performance, attitudes and perceptions of employees (including participation and commitment). Therefore, future research may explore the extent to which these models and definitions are applied in practice and whether they differ in different areas, scales and countries. Secondly, it studies the reasons why different types of companies adopt talent management. At present, almost all the experience materials of talent management come from multinational corporations, but other types of enterprises, such as state-owned, private, joint venture and public, may also show different characteristics related to talent management and human resources management. Thirdly, talent management literature is based on the theory of human resource management and organizational behavior. To strengthen the theoretical basis of talent management, it is necessary to construct and integrate the theory of human resources management and organizational behavior. The operational mechanism and effectiveness of talent management are discussed from the organizational and individual levels. Fourthly, voluntary and non-profit organizations are also undeveloped areas, which are also research gaps in the field of talent management in the future [24]. Fifthly, the academic research on talent management is mostly carried out in the context of western developed countries, and the research on talent management in emerging countries or developing countries is the future direction of development.

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