

Research status of the innovation ability of township enterprises

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Abstracts

Nowadays, with the deterioration of the international trade environment and the impact of COVID-19, most township enterprises in China are struggling and facing great risks. It is urgent to improve the innovation ability of township enterprises. This paper sorts out the latest progress of the relevant research in the innovation capacity of township enterprises at home and abroad, and points out the advantages and disadvantages of the existing research. This paper helps to explore how to reasonably develop the innovation ability of township enterprises themselves, and to make some exploration and contribution to promoting the development of township enterprises in China. The finding found that domestic and foreign research has a more mature research on entrepreneurs' ability, and also pays attention to innovation ability, but the innovation ability of township enterprises is rarely studied.

Keywords: Research status; Innovation ability; Township enterprises

Introduction

On October 18, 2017, General Secretary Xi Jinping put forward the great strategy of revitalizing towns and towns in his report to the 19th CPC National Congress, and "agriculture, rural areas and farmers" has become an important part of realizing common prosperity and the great rejuvenation of the Chinese nation. As the epitome of China's rural economy, the development and reform of township enterprises have become problems that cannot be ignored. Township enterprises are the concentrated embodiment of the socialist economic system with Chinese characteristics in rural areas, which provides a strong guarantee for the nearby solution of rural employment, the development of agricultural economy and township revitalization. Township enterprises have become the most solid pillar supporting the rural economy. Then, with the advent of the era of knowledge economy and digital economy, innovation ability has become the key for enterprises to maintain long-term and stable core competitiveness. Most of the township enterprises in China belong to the planting and breeding, transportation, construction services, primary processing and other industries. The innovation ability and technology content are relatively low, so the competition is fierce, and the anti-risk ability is very poor.

Research Objectives

This paper helps to explore how to reasonably develop the innovation ability of township enterprises themselves, and to make some exploration and contribution to promoting the development of township enterprises in China.

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Research Methodology

The paper applies the literature research method. In order to comprehensively review the relevant research of township enterprises, this paper focuses on the search of Web of Science (WOS), and other international authoritative foreign language database and the National Knowledge Network of China (CNKI) database, with "Rural Entrepreneurs", "Township Entrepreneurs" and "Village Entrepreneurs" as the key words for the article title and theme search in the foreign language database. "Township enterprises" was searched in the China National Knowledge Network (CNKI) database.

Research Conceptual framework

Township enterprises research status quo

From the literature years of publication, foreign research on rural / town enterprises started early, and mainly individual private enterprises; our research on township enterprises began after the reform and opening up, in 2000-2002 peak, and then gradually fell, in recent years, less research, but the importance of township enterprises increased, so it is necessary to strengthen the research in this respect. The content of research on township enterprises in China mainly covers farmers' income, transfer of rural surplus labor, urban construction and other aspects.

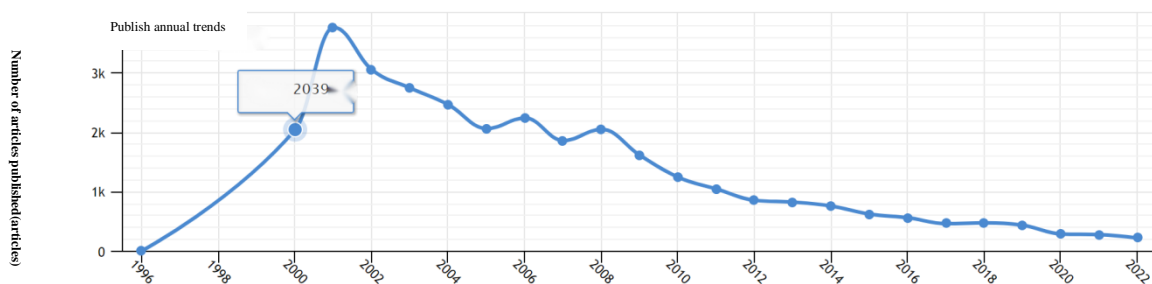


Figure 1 Publication of research literature on "township enterprises" in China

1. Research on the meaning of township enterprises

As the rural revitalization of the attention of the township economic development, township enterprise development has become an important research issues in the field of domestic social science in recent years, economics, sociology, management and other fields of scholars from different perspectives of township enterprises, but due to the different focus of different researchers, research distribution is scattered, the definition of township enterprises also has some controversy. Township enterprises were originally public-owned social team enterprises established by rural production brigades or people's communes. Later, due to the promotion of rural economic reform, in addition to the enterprises established by township and village cooperative economic organizations, township enterprises also included those local enterprises located in counties (low-level cities, districts), towns and villages, and established by individual township citizens or engaged in public-private joint ventures (Wu Yiqi, 2006 : 561-565). Jiang Chunhai (2003 : 43) believes that due to the reform of rural property rights system, the concept and characteristics of rural enterprises have changed greatly, not only the local government as the main investor and supporting farmers. Pei Xiaolin (1999) put forward from the geographical scope, township enterprises are all enterprises located within the geographical boundary of towns. In addition to defining township enterprises from the perspective of geographical location, there are also scholars who define township enterprises

from the development process. Deer League and Huo Guoqing (2007) pointed out that China's township enterprises have experienced three stages, from the social security and team enterprises under the people's commune system, to the township enterprises under the background of the household contract responsibility system, and then to the modern township enterprises under the market economy environment. Later, The State Council officially defined township enterprises as "enterprises held by townships and villages, cooperative enterprises jointly operated by some members, and other forms of cooperative industries and individual enterprises". With the deepening of the reform and development of township enterprises, some scholars believe that the concept of township enterprises needs to be redefined (Tang Pengzhu, 2011). Zheng Fengtian et al. (2011 : 44) believe that township enterprises are a comprehensive concept, involving factors such as ownership, scale, personnel composition and geographical restrictions.

As a special institutional arrangement and enterprise organization form, township enterprises have multiple characteristics in their own development, with multiple functions such as politics, economy, society and so on. Compared with other enterprises under the state of ownership system, township enterprises do not only take the goal of maximizing profits, but also achieve market goals more to serve non-market goals, such as poverty alleviation, transferring surplus labor force, and reducing the gap between urban and rural areas. Strengthening the performance of social responsibility of township enterprises is one of the key issues of deepening the reform of township enterprises, requiring township enterprises to highlight the active consciousness of fulfilling social responsibility, to achieve economic, social, environmental and other aspects of the development. Township enterprises achieve their own non-market goals through non-market strategies. According to the functional positioning of township enterprises, the non-market strategy of township enterprises also integrates the two sub-strategies of political activities and social activities. Township enterprises are not just a pure economic organization, but a unity of politics and economy. The party's leadership system over township enterprises is gradually formed and developed in the process of deepening the reform of township enterprises under the background of China's economic and social system.

With the process of urbanization in China, Qian Wenrong and Wu Jingqiong (2003: 561-565) analyzed the willingness and influencing factors of township enterprises to migrate. Xu and yuan hongqing (2011:6) through empirical analysis found that the technical efficiency of township enterprises in China is gradually rising, but the overall low and convergence characteristics are obvious, and regional township enterprise technology efficiency difference, from east to west, unlike the eastern region, in the central and western regions of villages and towns enterprises technology efficiency gap decreased significantly, convergence characteristics are also obvious. There are also scholars in the investigation after the reform of township enterprises organizational change and development, marketing and research and development strategy and change on the impact of the overall performance, believe that the change and development is driven by the local government plan and market forces, and its managers usually lack the necessary skills in marketing and business management, and may resist organizational change, may township enterprises into low cost, low technology product cycle, thus hinder any breakthrough in the development of their own quality brand. He Julian (2022) tested the effect of targeted training of backflow human capital to promote the innovation output of township enterprises through theoretical analysis and empirical evidence. The results showed that the better the targeting of backflow human capital training, the stronger the independent innovation ability, and the stronger the innovation ability of township enterprises.

2. Research on the development of township enterprises

The development power of township enterprises has been widely concerned by the academic circle. This paper defines it as: the driving force for those township enterprises who have basic conditions and have certain innovation ability. At present, the research on the development power of township enterprises mainly focuses on the source of development power, but also a part of the influence of development power. The sources of development motivation of township enterprises are diverse and different by enterprises / managers. Relevant theories can be classified into two categories. One is the direct application of motivation theory in management. For example, Dou Dahai and Luo Jin Lian (2011) divide development motivation into economic needs according to Maslow's level of demand theory and social needs. Yan Chunxiao (2010:7) believes that the development factors of township enterprises include guarantee motivation and achievement motivation. The second is to jump out of the framework of motivation theory, such as Huang Yongchun et al. (2021) based on the ability theory, that the development of township enterprises is the core driving mechanism driving enterprise innovation, and has a leading effect among many elements. At the same time, some scholars have reclassified the development dynamics. The type of development power divided by the Global Entrepreneurship Observation (GEM) report is widely recognized. According to the "driving theory" and "driving theory", it puts forward the survival and opportunistic development power, which correspond to the driving entrepreneurship and driving development power respectively. In addition, Zhu Huiling et al. (2010:32) proposed low, intermediate and advanced development motivation. Zeng Zhaoying and Wang Zhongming (2009:65) based on the literature regression and Chinese township enterprise managers interview data found that with GEM division of survival and opportunity development power, the development of Chinese township enterprise managers mainly includes career achievement and survival demand business achievement, mainly including achievement recognition, expand circle influence, become successful, entrepreneurial ideas, etc., survival demand type mainly includes salary income, provide economic security, hope no longer unemployment, etc. Lin Bao and LeiJiaSu (2012) through the analysis of data from different industries, found that China's township enterprises show three aspects of development power: fame and wealth motivation (including improving social status, social recognition, realize personal independence, accumulate wealth, solve employment), spiritual motivation (including creative ideas, challenge themselves, bring a sense of achievement), responsibility motivation (including promoting national economy, contribute to social development). Thus it can be seen that the development power of domestic township enterprises is mainly the extension and development of survival and opportunity. The research on different motives shows that the opportunistic development motivation is the main motivation for the development of township enterprises.

3. Research on the employment situation of township enterprises

The factors affecting the employment willingness of township enterprises can be mainly divided into individual factors and environmental factors. Individual factors include demographic characteristics, human capital, psychological characteristics, etc. Some scholars point out that with the growth of age, individuals usually have stronger work ability, more work experience, more economic and social support, and these personal resources provide the necessary support for individuals to choose non-township enterprises. In addition, there are also gender differences in the possibility of individual choosing employment in township enterprises. Women are significantly less likely to become workers in township enterprises than men, mainly because women are generally more risk-averse than men, and therefore tend

to avoid employment in township enterprises. In addition to age and gender, the most concerned demographic characteristics of scholars are marriage and child status. Based on work-life conflict theory, several studies have found that married women with children are more likely to choose employment in township businesses in order to balance work and family. In terms of family background, there is a certain intergenerational transmission of employment in township enterprises. According to 20 years of longitudinal panel data, the next generation of individuals such as farmers and migrant workers are more likely to become workers in township enterprises. In addition to parents, the study found that the type of work of spouses may also have an impact on whether women become township business workers. Specifically, spouses with employment from township enterprises are more likely to make women choose employment from township enterprises. In addition, the nearest workplace is also one of the factors that affect the individual to choose the township enterprise employment. Through semi-structured interviews with employees in township enterprises, it is found that being able to choose to work at home or in nearby areas is one of the important motivations to motivate individuals to become employees in township enterprises. In addition, the individual degree of education can significantly predict the township enterprise employment willingness, based on motivation theory, a number of studies found that the higher degree of education of individuals, have the necessary hard skills (such as qualifications, etc.) and soft skills (such as communication skills, etc.), in order to obtain a certain degree of freedom and challenges, it will choose the township enterprise employment. Conversely, the less educated groups are more likely to work in township enterprises. However, a small number of studies have found that the level of individual education is not related to the willingness of township enterprises.

Individual work experience can also affect the willingness of employees to choose township enterprises. Through in-depth interviews with individual employees of township enterprises, it is found that the past work experience may affect the employment willingness of individual township enterprises through two paths. Negative work experience will stimulate individuals to reflect on themselves and reconsider the possibility of occupation, thus prompting individuals to choose employment in township enterprises; and positive work experience can make individuals acquire knowledge and ability, expand vision, and make free of traditional organization employment become an ideal choice for future career. For work experience exploration can also be subdivided into short-term experience events and long-term experience accumulation, from the point of short-term events, Buttler et al (2020), was downgraded employees, especially female employees are more likely to become the township enterprise employers, from the perspective of long-term accumulation, the accumulation of work experience will greatly promote the individual choose the township enterprise employment. Individual tendency for risk will also affect the employment willingness of individual township enterprises. This is because the individuals who choose the township enterprises to work often only need to deal with the deterministic labor such as the production of low-end products, and do not need to be responsible for other affairs of the township enterprises, such as management, sales, decision-making and other activities. Therefore, the individuals who hate taking risks and taking risks are more likely to choose the township enterprises to work. Furthermore, individual work values can also have an impact on their career choices. In terms of internal values, individuals who pay more attention to the flexibility and autonomy of work and the balance between work and life are more likely to choose employment in non-township enterprises. In terms of external values, the pursuit of wealth also makes individuals choose employment in non-township enterprises.

In addition to individual level factors, in addition to individual level factors, environmental factors, such as working environment, organizational environment and economic environment, will also affect the employment willingness of township enterprises. Among them, the working environment is one of the most important influencing factors. A survey of employment and workers in township enterprises in the United States has found that free and flexible working places and flexible working hours are important "pulling forces" to attract individuals to choose employment in township enterprises. The impact of organizational environment is also mainly through the "thrust" to promote individuals to leave the original organization, and then choose township enterprises to work. Some studies believe that the individual shift from traditional employees to township enterprises is mainly due to the change of organizational environment. Domestic scholars Cui Yueqin and xiu-xiuli (2008) from the perspective of organization theory reveals the organization environment for individual choose township enterprise employment, research found that the organization forms tend to diversification, flexible employment relationship and the demand for highly skilled professionals is the individual choose the township enterprise employment, and bureaucratic and informal is also lead to the individual choose the township enterprise employment important "thrust". In the context of globalization with increasing capital liquidity and increasing competition pressure, on the one hand, the increasing employment pressure encourages individuals to choose township enterprises to increase their income. On the other hand, organizations are also facing increasing pressure, which will work on the working environment and reduce the employment demand of employees in township enterprises.

Based on the existing studies, there are few studies on the township enterprise groups. Most of the existing research focuses on the relatively mature field of entrepreneurs, and there is also a certain research on township enterprises.

Innovation ability, research status quo

1. Connotation of innovation ability

Economist Schumpeter was the first to put forward the relevant concepts of innovation, and pointed out that innovation is a combination of their existing knowledge assets to create new knowledge. Subsequently, scholars at home and abroad launched extensive discussions on the relevant topics of enterprise innovation. According to most scholars, corporate innovation should be defined as the ability of an organization to introduce new products / services or open up to the market by combining its strategic orientation and the organization's innovative behaviors and processes. Therefore, innovation ability is an important driving factor for enterprises to create value and maintain competitive advantage in an increasingly complex and rapidly changing environment. In addition, enterprise innovation ability can potentially generate economic value for the organization, thus increasing organizational profits and improving performance.

To sum up, this paper believes that the innovation ability can not only help enterprises to use the existing resources of the organization more efficiently, and improve the operational efficiency, the potential value of products and services, but also bring new intangible assets to the organization. In short, organizations with more innovative capabilities will be able to respond more successfully to customer needs and develop new products and services that will enable them to achieve better performance or achieve greater profitability.

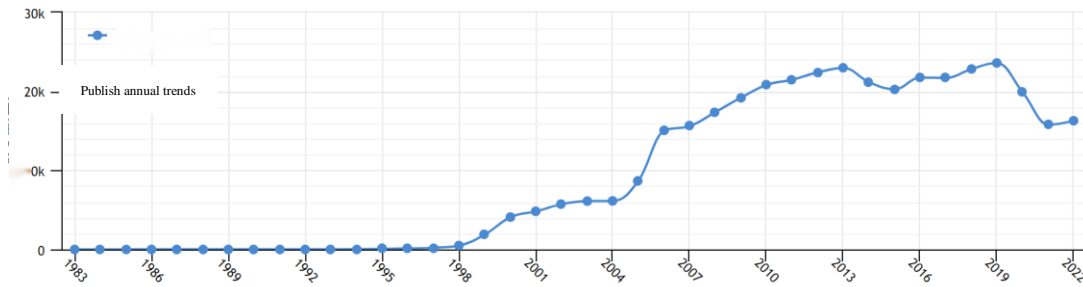


Figure 2 Domestic publication of "innovation ability" research literature

2. Measurement of innovation ability

On the measurement and evaluation of enterprise innovation ability, most scholars have discussed widely from the perspective of input and ——— output of innovation. Specifically, the evaluation indicators of enterprise innovation ability widely recognized by the academic circle are as follows: ——— scale and proportion of R & D personnel, R & D expenditure; output number of ——— patent index (including the number of new patent applications, the number of approved patents obtained, etc.) and enterprise sales revenue of new products. Jiang Tianying and Wang Junjiang (2009:8) stressed that the current r & d investment will not only affect the current innovation ability of the enterprise, but also be related to the later innovation ability of the enterprise, and affect the subsequent investment and allocation of innovation resources. Therefore, their research conclusions also support the idea that r & d investment represents the innovation ability of enterprises. On the other hand, from the perspective of R & D output, most scholars agree with the view that patents are the most important and reasonable form of innovation output for enterprises, but there are also some differences in this view. First of all, some scholars believe that patents are a concentrated reflection of the new products, technologies, new processes and services of enterprises, and that they are the best indicator of the innovation ability of enterprises. Some scholars believe that the importance of patents should be related to the number of citations. In other words, the innovation ability of enterprises cannot be directly characterized by the growth number of patents, but the number of enterprise patents cited in a period of time should be used to represent the potential value provided by patents for enterprise innovation. Similar to the value creation reflected in the patents, the research on 250 companies in the United States supports the innovation capacity of enterprises represented by the proportion of new products sales revenue to the total sales volume in the current period.

After sorting out the relevant literature, this paper finds that although the R & D investment reflects the changes of enterprise innovation investment, the R & D investment and new product sales revenue will be affected by many factors such as fraud in enterprise financial reports. The amount of patent applications can also objectively reflect the difference of enterprise R & d output and more intuitively reflect the technical level of the enterprise. Secondly, the current publicly available database in China fails to provide complete data on enterprise R & d expenditure. Patent application data are obtained through Guotai database, Wind database and iteng patent database; third, considering the time lag from application to approval, the number of patent applications can more timely feedback the impact of reverse transnational merger on enterprise innovation ability (Liu Xin et al., 2020).

3. Factors affecting innovation ability

Enterprise innovation ability has always been an important research topic of much attention. In the past, scholars have analyzed the different factors influencing the results of organizational innovation and its performance from different perspectives. However, the existing literature on the relationship between the influencing factors and enterprise innovation is often not comprehensive. The mechanism of the factors has not been analyzed in depth. Differences in the resource status, operation and management mechanism and other differences of different enterprises will directly have different effects on the innovation behavior and performance of enterprises. For example, organizational size, asset income situation, equity nature, financing constraints, enterprise knowledge base, and leadership behavior will all affect organizational innovation behavior. Among them, the difference of enterprise size represents the difference in organizational resources, organizational structure and other aspects, and large enterprises are significantly better able to resist market risks than small and medium-sized enterprises; small enterprises are more flexible in investment decisions and operations, especially have greater potential to improve innovation ability in the international market. However, no consensus conclusion has been reached among current scholars on what organization size is more conducive to promoting enterprise innovation (Lu Qiang et al., 2021). At the same time, some scholars believe that too high financing costs will affect the innovation incentive of enterprises. For example, excessive financing constraints hinder companies from discovering and developing promising innovation opportunities, and even lead to the organization's existing innovation projects. In addition, as an important subset of enterprise employees, senior executive team members are the key structural factors that influence enterprise information processing and organizational learning. On the one hand, executives with different domain experiences are more likely to build a broad knowledge base and have higher cognitive and information processing capabilities. Different cognitive modes and ideas in mutual communication and collision can create new value for enterprises.

Domestic and foreign research has a more mature research on entrepreneurs' ability, and also pays attention to innovation ability. However, the research on the innovation ability of township enterprises is still often mixed with the innovation ability and entrepreneurial ability of enterprises, with less targeted research.

Research Result

Based on the existing studies, there are few studies on the township enterprise groups. Most of the existing research focuses on the relatively mature field of entrepreneurs, and there is also a certain research on township enterprises. Combined with the existing research, the definition of township enterprises is defined as: the personality representative of undertaking operating risks, engaged in operating management and obtaining operating income for all kinds of enterprises below the county level (including township and village groups).

Discussion

Domestic and foreign research has a more mature research on entrepreneurs' ability, and also pays attention to innovation ability. However, the research on the innovation ability of township enterprises is still often mixed with the innovation ability and entrepreneurial ability of enterprises, with less targeted research. In addition, the innovation ability of township enterprises is usually discussed as a part of the entrepreneur ability, while the innovation ability of township enterprises is rarely studied.

Suggestion

In order to help the rural revitalization, the lack of research on the innovation ability of township enterprises should be filled. The research on the innovation ability of township enterprises can actively adjust their business strategy, improve their innovation ability, and effectively explore the development path of enterprises.

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