

An Evolving Entrepreneurial Environment: Some Rudimentary Findings from the SMEs in the Manufacturing Industry of China

Dirk Deschoolmeester

Professor of the Faculty of Economics and Business Administration, Ghent University, Belgium
Vlerick Business Management School, Ghent, Belgium

Zhan Jun

Lecturer of the Hebei University of Economics and Business, Shijiazhuang City, China
PhD Candidate of the Faculty of Economics and Business Administration, Ghent University, Belgium
E-mail: zhanjunok@yahoo.com
Telephone: 0032 9 264 3496

Abstracts

The world has noticed the economic achievements in China, and the size of the economy in this country has grown tremendously in the past years. Is China a country whose entrepreneurial framework conditions can cultivate the essential driving force required to keep its further economic development? This comparative research --- conducted at a firm level --- exposes empirical evidence that the entrepreneurship contextual conditions in Hebei, China are still not equivalent to that in Belgium, if the entrepreneurial behaviours within the enterprises from the two countries are compared along dimensions of innovativeness, proactive risk handling, and management professionalisation (3D of EO). Taking Global Entrepreneurship Monitor (GEM) model as a contextual framework, this research presents a number of determinants behind the inferior performance of the Hebei enterprises.

Entrepreneurial orientation (EO) plays an important role in explaining the growth and development of firms (e.g., Covin & Slevin, 1988; Wiklund, 1998, Wiklund and Shepherd, 2005). In the past decades, much research has been done on the entrepreneurial orientation (EO) and firm growth and development (e.g., Miller, 1987; Stevenson, 1996; Richards & Barnett, 2004). Researchers make studies on entrepreneurial orientation (EO) on a basis of multiple dimensions, which mainly include innovativeness, risk-taking, and proactiveness (e.g., Lumpkin & Dess, 1996; 2005; Covin & Slevin, 1996; Miller & Friesen, 1986). Review of the current literature points out that, in the existing theory on entrepreneurship orientation, the main shortcomings consist in the ignorance of the entrepreneurial orientation towards management and towards proactive risk handling. Hence, modification of the current entrepreneurial orientation theory is a necessity, and can be accomplished by the proposal that entrepreneurial orientation can be explained along the dimensions of innovativeness, proactive risk handling, and management professionalisation. These three dimensions are the so-called 3D of EO (Zhan Juan & D. Deschoolmeester, 2003). Innovativeness is in this 3D of EO research defined as ‘the propensity to engage in new idea generalization, experimentation and R&D activities by introducing new products, processes, degree of innovation, and entering of market’. (Zhan Jun & Deschoolmeester, 2003). Through the combination of the definitions of proactiveness and risk handling, proactive risk handling is defined as ‘the readiness and preparedness in face of business risks or uncertainties while

making risky resources commitments'. By combining what have been explained on management and professionalisation, management professionalisation is essentially defined in this research to be 'a propensity for a procedure, within which series of managerial activities or performance are expected to be accomplished according to professional standards' (Zhan Jun & Deschoolmeester, 2003).

Global Entrepreneurship Monitor (GEM) Model

Global Entrepreneurship Monitor (GEM) is a conceptual framework linking entrepreneurship to economic growth. Over the previous years, entrepreneurial framework conditions have been studied within GEM model. The assumption is that the framework conditions make up the general context in which new venture creation is stimulated or constrained, and more favourable framework conditions should encourage the blossoming of entrepreneurial activity within a country and region (GEM executive report for Belgium, 2003).

The central argument of the GEM conceptual model is that national economic growth is a function of two parallel sets of interrelated activities: those associated with established firms and those related directly to the entrepreneurial process. Activity among established firms only explains part of the story behind variations in economic growth. The entrepreneurial process may also account for a significant proportion of the differences in economic prosperity among countries.

When considering the nature of the relationship between entrepreneurship and economic growth, it is helpful to distinguish between entrepreneurial opportunities and entrepreneurial capacity. What drives entrepreneurial activity is the perception of entrepreneurial opportunities, combined with the skills and the motivation to exploit them. When opportunities are met with this kind of skill and motivation, the outcome is the creation of new firms and, inevitably, the destruction of existing firms --- new firms frequently displace inefficient or outmoded existing firms. This process of Schumpeterian "creative destruction" is captured in the model by business churning. Despite its negative connotation, creative destruction actually has a positive impact on economic growth as declining businesses are phased out as new start-ups competitively manoeuvre their way into the market. These dynamic transactions occur within a particular context, which is referred to in the GEM conceptual model as Entrepreneurial Framework Condition, in which 9 dimensions of entrepreneurship are defined as "Entrepreneurship Framework Conditions", which mainly include the following:

- Financial Support
- Government Policies
- Government Programmes
- Education and Training
- Research and Development Transfer
- Commercial and Professional/Legal Infrastructure
- Market Openness/Barrier to Entry
- Access to Physical Infrastructure
- Cultural and Social Norms

Research Methodology

Research methodology deals with the problems concerning the quality of this research. A brief introduction of the issues related to research methodology is made in the following sections.

Research Strategy

A case study is an empirical inquiry that investigates a contemporary phenomenon within its real-life context (Yin, 1981a, 1981b). In this 3D of EO research, study of the evidence on entrepreneurial orientation is implemented at a preliminary, exploratory stage by a comparison of a limited number of entrepreneurs or managers from Belgium and China. The evidence on the influence of the contextual determinants towards the entrepreneurs' behavior is investigated in its context at a firm level.

Population

The population of organization in this 3D of EO research is small and medium sized enterprises from Hebei, China, and from Flanders, Belgium. Since there is no clear agreement on the specification of small and medium sized enterprises in terms of firm size, in this research, to control the research setting, some requirements are demanded. For instance, the entrepreneurs from the firms with an employment of 200 --- 800, in existence of at least 10 --- 20 years in manufacturing industry, and with similar products and/or services can be the subjects of this research.

Unit of Analysis

The samples, taken from Flanders, Belgium and Hebei, China, must be comparable with each other being of similar size, and preferably in the same type of industrial activity and with at least similar types of products and/or services. As a result, entrepreneur groups (entrepreneurs and their collaborators including owner managers, managers, or key personnel, etc.) of the small and medium enterprises in both countries are sampled in the research, and entrepreneur groups are the units of analysis.

Table 1: General Information on the Firms Interviewed

The Flemish firms	A	C	E	G	I
Ownership status	Family owned	Family owned	Family owned	Family owned	Family owned
Interviewees	General manager and sales manager	General manager and sales manager	General manager and vice general manager	General manager and sales manager	Vice general manager and production manager
Industry	Plantation and forestry	Diesel engine	Textile machinery and spare parts	Metal stamping	Home use electronic appliance
Total employment	200	450	300	200	320
The Hebei firms	B	D	F	H	J
Ownership status	State owned	Private	State owned	Private	Private
Interviewees	General manager, and finance manager	General manager and vice general manager	General manager, and the sales manager	General manager and vice general manager	General manager, and sales manager
Industry	Plantation and forestry	Diesel engine	Textile machinery and spare parts	Metal stamping	Home use electronic appliance
Total employment	350	580	410	350	420

To expose how the entrepreneurship contextual conditions affect these entrepreneurs' behaviour within the 3D of EO, the influence of the major contextual determinants clarified in GEM model is investigated along each of the dimensions of 3D of EO. Thus, the causal factors behind the performance made by the Flemish and the Hebei enterprises can be made obvious and the question why the entrepreneurs take similar or different actions within the 3D of EO can be made answerable.

In this 3D of EO research, dimensional comparison was employed as a method of data analysing. In order to analyse the collected data, the researcher transcribed the tap recorded conversations from all the interviews, categorized what was gained by questionnaires, and rearranged the information from the transcription and categorization. With the recordings transcribed, the responses from the entrepreneurs to the questions raised during the interviews were taken as the evidence that the research has been looking for. A complete presentation of the evidence was a measure taken to overcome the subjective bias. Dimensional comparison, employed as a tool of rearrangement, helps to reduce the enormous volume of obtained data, to emphasize the evidence relevant to research questions, and to avoid reaching either premature and even false conclusions or uncontrollable volume of descriptive data (Eisenhardt, 1989).

Research Findings

The major contextual determinants that influence the Hebei entrepreneurs' behaviour in the 3D of EO are interpreted in a sequence of innovativeness, proactive risk handling, and management professionalisation. The research findings show that the determinants are more obstructive than supportive and imply that the entrepreneurship conditions need improvement. Besides, the

competences within most of the Hebei enterprises are not contributive to their performance within the 3D of EO.

The Major Contextual Determinants of Innovativeness Behaviour

The research findings reveal a number of contextual determinants affect the entrepreneurs and managers' behaviour and effort with regard to innovation. These contextual determinants proved to be: lower level of R&D capability, difficulty in accessing technology assistance and financial support, strategic perspectives for innovation, and less protective legal infrastructure. These determinants greatly obstructed the innovation effort made by the Hebei enterprises.

Lower Level of R&D Capability

Since the economic reform was initiated in late 1970s and early 1980s, great economic achievement has been made in China. The policy of 'Socialist Market Economy' has activated the stagnated economy caused by the former centralized planning system. Ownership reform has rehabilitated the vigour of the Chinese enterprises. However, in China, the level of R&D and technology development is still low. Thus, the in-house R&D and self-developed technology within the small and medium sized enterprises are not really encouraged by much support from the nation's self-developed competence in technology and innovation. The prevalence of low R&D in the Hebei enterprises exemplifies the shortage of innovation competence of the country. Within the Hebei enterprises, less effort has been made to cultivating in-house R&D and self-developed technology.

Limited Accessibility of Technology Assistance and Financial Support

Technology assistance and financial support are not easily accessible in Hebei. Difficulty in accessing technology assistance and financial support obstructs the innovation in the Hebei enterprises. China's economic system is still evolving. At present, China suffers from a low rate of commercialisation of new technology. Finding ways of increasing the effectiveness of technology transfer therefore has strategic implications. Barriers to technology transfer still exist, and enterprises have difficulty in accessing substantial technology information and assistance from government and research institutes. The research findings indicate that the effort made by the Hebei enterprises for the interaction with the scientific institutes is not encouraged because they cannot acquire substantial help for their innovation and technology development.

Financial support is another obstacle. Without strong competence in in-house R&D and self-developed new technology, the Hebei enterprises rely on imported technology. However, the limited financial resources of the Hebei enterprises curtail technology transfer. As a result, less competence of in-house technology and R&D forces most of the Hebei enterprises to turn to purchasing technology from outside sources. Yet, insufficiency of financial resources fails to supply the purchase with adequate financial capital. Difficulty in accessing financial support from banks and government once again doesn't facilitate technology transfer. Most of the Hebei enterprises have no choice but to rely on their own financial resources, and they cannot sufficiently invest in technology transfer and purchase of better machinery.

Nearsighted Strategic Perspectives for Innovation

The evidence from the cases shows that, for the Hebei enterprises, innovation has been associated with strategic perspectives for long-term innovation. Short-term profit return, rather than long-term innovation, is the strategic focus of the entrepreneurs and managers. For the Hebei state-owned enterprises, this strategic perspective is evidently closely tied to government policy. Pursuit of short-term profit has been used as an expedient to survive competition. According to the remarks made by the entrepreneurs from these Hebei private enterprises, profit earning and improvement of financial status are important for surviving the current intense competition. This strategic orientation to innovation has set back the intention to make a substantial investment in the innovation projects that are aimed at updating the future technology competence of the Hebei private enterprises.

As indicated by the evidence from the interviews, for the state-owned enterprises (SOEs) in Hebei, innovation is oriented to short-term profit return, rather than to long-term competence building. The local government's manager appointment policy discourages the innovation that could favour the creation of a long-term competence, because of the fact that the managers' performance is evaluated by the short-term profit return. Thus, for many enterprises, importing mature technology from developed countries is a shortcut that can result in fast short-term performance. In addition, some small and medium-sized state enterprises are reluctant to pay for technology transfer if no instant profit can be acquired. The evidence from the cases clearly reveals the constraint in this respect.

Less Protective Legal Infrastructure for Innovation

The local legal infrastructure is not so conducive to the Hebei entrepreneurs' effort made for implementing innovation and new technology. According to the evidence from the cases, less protection of intellectual property rights is revealed to be another impediment for innovation investment. This is because they worry about the results of their effort made for development of new products and new technology. The possibility of illegal imitation and copy of new products encumbers the intention and the endeavour made towards R&D and new technology. As a result, the legal infrastructure contributes less protection and promotion to the innovative activities within the Hebei firms. Less perfection in legal infrastructure makes the Hebei enterprises that have innovation capability reluctant to make more effort for R&D and developing new products.

The Major Determinants of Proactive Risk Handling Behaviour

As indicated by the evidence obtained from the cases, on proactive risk handling, there are several differences with regard to the behaviour taken by the entrepreneurs and managers from both countries. The behavioural difference in handling risks is a consequence of the impact of contextual factors and the capability and resources within the enterprises. The contextual determinants revealed in this research mainly include: business operational competence, venture capital funding and technology assistance, education system and government support, and legal infrastructure and government localism.

The Improved Operational Competence

The evidence obtained from the cases clearly indicates that improving the operational competence of the Hebei enterprises has promoted their capability of proactive handling operation risks, and the Hebei enterprises have developed a competence of taking proactive measures in handling most of these risks from operation.

The free market economy in China has developed Chinese enterprises. In recent years, the world could witness the economic development in China. From an international point of view, China has become the ‘factory of the world’, and its progress of achieving manufacturing power has been noticeable on an international scale. The manufacturing capability of the ‘factory’ is based on the overall improvement of the manufacturing competence of the Chinese enterprises. In this context, the Hebei enterprises generally have been equipped with a considerable manufacturing capability, and they have developed a competence strong enough to effectively handle most operational risks.

Furthermore, there is a severe increase of competition in the domestic market. The Hebei enterprises struggle to survive the competition. They have to take measures to strengthen their operational competence and to ensure that their operations are free from detrimental risks. The competition from the market has, in fact, stimulated the enterprises’ pre-cautiousness against possible damage from risks so that their capability of handling operational risks is improved. Remarkably, most of the Hebei entrepreneurs begin to realize that a proper handling of production risks is prerequisite. Due to the improvement of the operational capability, the Hebei enterprises handle most production problems in advance. Although most Chinese enterprises in the manufacturing industry are engaged in low-level production earning limited processing fees, it is worthwhile to notice that their ability of proactively handling the production risks has been notably improved.

Insufficient Venture Capital Funding and Technology Assistance

Less financial support, especially scarcity of venture capital, retards the Hebei enterprises from taking proactive measures in handling business risks. In China, the venture capital market is far less developed and the channels for financial resources are more limited. For most enterprises that intend to go public, the entrance amount is too high and the restrictions are too tight. Therefore, most Chinese enterprises, especially SMEs, are unable to access financial support from the venture market. Within the Hebei enterprises, the financial support provided by the government is very limited, and risk capital supplied by the government is rare. In fact, the Hebei enterprises have not much access to financial support. Therefore, insufficiency of financial supply and limited accessibility to risk capital obstruct these enterprises from handling these risks effectively.

Technology assistance is another major determinant that influences the behaviour of handling the technology-related risks. For the Hebei enterprises, less technology assistance has impeded utilization of proactive measures in handling this risk. Although notable improvements have been achieved in the Chinese manufacturing industry, China is not a country with a strong capability of knowledge production. For many years, China’s expenditures for R&D have been far behind the averages of the United States and the EU countries. For most Chinese enterprises, R&D transfer or importation of new

technology is the main source for their technology update. However, the fact that less effectual help in terms of R&D transfer and technology diffusion has been available from the external research institutes restrains most Chinese enterprises from effectively solving technology-related risks and problems. Thus, most of the Hebei enterprises operate in a situation in which their capability of in-house R&D is weaker and technology storage is more limited. Their capability of new technology development is not strong enough to be technologically proactive. Thus, they have difficulties in proactively controlling risks from introducing new products and new technology --- even though they can foresee these risks and their possible impact.

Less Effective Educational System and limited Government Support

The current education system and less government support for education are determinants constraining the Hebei enterprises from taking proactive actions against the risks from shortage of personnel expertise. Most of the Hebei enterprises lack a long-term perspective for the education and knowledge storage needed for future competition. Labour supply is an essential part of the business environment for small, medium sized and large enterprises. The availability of appropriately skilled workers will always be significant for all kinds of enterprises, and if enterprises face problems in obtaining a sufficient labour supply, there will always be a risk that will hamper the growth of the enterprise.

The Chinese educational system was established on a Soviet model, the problems caused by the planned economy also exist in Chinese education, especially in its higher education. Additionally, the Chinese education has been experiencing a shortage of investment. Since the early 1990s, the Chinese universities have enrolled much more students than in previous years. A larger enrolment has provided the Chinese higher education system with much more financial resources than before, it has ostensibly supplied the domestic labour market with more adequate higher educated human resources. The higher educational structure, to some extent, has been re-oriented towards profit hunting, and there is less consideration to the actual demands from the Chinese enterprises, the higher education system has lost its proactive considerations in preparing qualified graduates that are demanded by the enterprises. Therefore, the enterprises are short of technicians with special expertise, and the graduates who are not really needed by the enterprises continuously graduate from universities, despite the difficulties finding suitable jobs.

What is more, the education in this largest developing country cannot really play a role in promoting the skill and qualification of the overall labour force. Few education and training programs within the manufacturing industry have been initiated to update the qualification and skills of the labour force. Obviously, the educational conditions in Hebei or in China are not contributory to the improvement of knowledge competence building. In addition, due to the insufficiency of finances and the entrepreneurs' reluctance to make investments for necessary education, the employees in most of the Hebei enterprises have been provided with limited education and training. Seeing the surplus in labour market, the Hebei entrepreneurs and managers are less active to take actions to improve the skills and the knowledge of the employees in their enterprises --- although they have noticed that their production has been impeded by a shortage of special expertise. Due to the lack of perspective of long-term development, the Hebei enterprises are reactive towards risks from shortage of personnel with expertise.

Less Supportive Legal Infrastructure and Detrimental Government Localism

Legal infrastructure and government localism are exposed in this research to be the determinants that hinder the Hebei entrepreneurs from taking proactive measures in handling business risks. Less protection from the legal infrastructure and abuse of government localism makes proactive measures taken by the Hebei enterprises less effective in handling risks like illegal infringements, payment delay, and business fraud.

In China, the legal infrastructure is established with Chinese characteristics. The Chinese authorities have set up laws and regulations to create regularity in the market and competition in the past years --- these laws and regulations have given direction and supervision to the operation of the Chinese enterprises. Over legally compulsive issues, the Hebei enterprises can proactively handle the risks from changes of laws and regulations because of the dominant position of the central government.

Localism, however, still exists as a determinant destructing the legal infrastructure in China. Prior to the economic reform in 1978, China had a highly centralized fiscal system. Since 1978, fiscal decentralization has been introduced, which allows the local governments to retain a percentage of the revenue collected, and therefore, provides them with a strong incentive to protect local industries. The decentralization has, indeed, made remarkable achievements in speeding up local or regional economic development, but for the meantime, it has stimulated the awareness of localism as well. This is because some local governments have their own considerations to protect regional economic development and local interests. These considerations produce, to some extent, indulgence to the irregular activities committed by the local enterprises. As a result, the consideration of the local interest harms fairness of nationwide competition, thus the laws and regulations cannot completely enable regularity and fairness to be established in market and competition.

Irregularity in the market and in the competition is intractable. The legal infrastructure fails to protect competition and business operations. In this environment, intellectual property cannot be seriously respected by competitors, and brand violation and illegal copy are not rare among competitors in the same industry. Within a legal infrastructure with Chinese characteristics, the Hebei enterprises are unable to handle risks from violation of brand in advance, despite the fact that all of the Hebei enterprises can anticipate such risks.

The Major Contextual Determinants of Management Professionalisation

From the research findings, it is obvious that some contextual determinants constrain or support the behaviour and effort made for management professionalisation in the Hebei enterprises. The major contextual determinants prove to be: economic reform policy and economic system, strategic perspectives towards an unpredictable market, government policy on manager appointments, professional infrastructure and the managerial competence of the firm.

Constructive Economic Reform Policy

The economic reform in China is one of the greatest events that have significant influence on the

Chinese economic structure. Although the economic reform has been accomplished in a gradual and moderate manner, the enterprise system reform conducted in late 1990s has had a profound impact on the management structure of Chinese enterprises --- especially on small and medium sized enterprises. With an earnest intention to improve the performance of Chinese enterprises, the Chinese government adopted a policy to reform the current enterprises system. While keeping large enterprises under state control, the Chinese government decentralized the management authority and even privatised the ownership of small and medium sized enterprises. The ownership reform, which was carried out to privatise numerous small and medium sized enterprises, allowed for an upgrade of their management system.

For the entrepreneurs and managers from small and medium sized enterprises, change of ownership has aroused a stronger sense of responsibility for their businesses, thus more consideration has been given to strategic development, production effectiveness and efficiency, financial performance and so on. It is rational to see that the economic reform has agitated the endogenous motive of these entrepreneurs and managers from private businesses to employ professional measures in management.

Nearsighted Strategic Perspective to an Unpredictable Market

‘Nearsightedness’ in strategic perspectives concerning an unpredictable market is an obstacle to the professional management of the Hebei enterprises. The economic reform in China inputted dynamic in the market and revitalized the enterprises. The current market competition is more severe than what most of the Chinese enterprises experienced in the initial stage of the reform. The dynamic and less orderly environment provides Chinese enterprises with opportunities while at the same time it creates confusion. Confronted with increasing competition and a less regular market, some enterprises do not have a clear view of their strategic orientation towards an unpredictable market and competition. Although the Hebei entrepreneurs and managers from private enterprises intend to regulate a strategy, and effort has been made in this respect, in practice, opportunistic performance is more than perseverance to long-term development, and short-term profit is more emphasized than strategic development. ‘Nearsightedness’ in strategic perspectives and a decreased capability to conduct long-term strategic development are never contributory to professionalisation in strategic management.

Retarding Government Policy on Manager Appointment

To reform the state-owned enterprises, the Chinese government takes measures to separate management and ownership. However, a lot of managers in the state sector still live in a world of government direction and influence. Not only business efficiency is considered, but political elements are emphasized as well, while making strategic decisions within state-owned enterprises. Thus, involvement of Party into business management actually is inevitable, and thus restrains professional measures from being completely utilised within these state-owned enterprises in Hebei. Moreover, the government’s policy on manager appointment retards strategic management. The managers from state-owned enterprises serve for fixed terms and can be promoted to higher government positions. The performance of these managers is evaluated by the achievements of their enterprises made during the period of their administration. In a sense, the management is regulated with a focus on instant profit gaining; long-term development has not been really managed with professional methods.

Less Perfect Professional Infrastructure

Lack of professional infrastructure is another determinant constraining professional management in the Hebei enterprises. Although the economic reform has been carried out for decades in China, and much improvement has been made to the economic infrastructure, the economic infrastructure in this country is not developed to a level at which professional assistance can be made easily available. As demonstrated by the research findings, deficiency of professional consultant agencies, which can provide professional information on market and business environment and solutions of management problems, retards the progress of professional management. Scarcity of useful information about market trends and environment changes restrains, to some extent, professional practice in strategic management. In some Hebei enterprises, strategic decisions are made on a basis of individual discretion rather than a conclusion achieved through professional methods. Shortage of management institutes makes the Hebei enterprises finding solutions of management problems difficult, and their production cannot be completely regulated through professional measures that can further improve the efficiency and quality. Additionally, the help from the government and from professional trade associations is not adequate and substantial enough to meet the demands of the Hebei enterprises that intend to enter the international market, and there is less professionalisation in marketing management.

Weaker Managerial Competence within the Hebei Enterprises

A lack of managerial competence is, of course, another major obstacle that restrains professional measures from utilization in the Hebei enterprises. In the era of a former centralized economy, the production of most Chinese enterprises was not conducted to meet the market demand, but followed a government plan. Within the planned economy system, Chinese state-owned enterprises lacked flexibility in the marketplace; they did not develop the competence to compete in a free market economy.

The research findings clearly show that noticeable progress has been made in the management professionalisation of the Hebei enterprises. However, improvement is still expected. The Hebei enterprises, for example, still have difficulty in completely adopting professional measures in their management, especially in technology management and strategic management. Their management capability is challenged by the problems, either unsolved or recently created. Compared with Western countries, China does not have a long history of market economy, and the Chinese enterprises still need time to develop their capability to cope with the competition triggered by the economic reform.

Conclusively, the empirical evidences revealed in this research indicate that Chinese economic performance has profound impacts upon the performance of the Hebei enterprises. The contextual determinants come from the external and the internal. Through economic reform initiated more than 20 years ago, the performance of the Hebei enterprises are oriented to market demand, despite of the fact the further improvement of the entrepreneurial framework conditions in Hebei is expected. It is reasonable to imagine, as more efforts are given, the Hebei enterprises' performance in the 3D of EO will improve, and the entrepreneurial framework conditions in Hebei will become more supportive, although the course will be long and assiduous.

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