

SMEs Clusters & Innovation

中小企业集群与 技术创新

第七届西湖国际中小企业大会论文集

Proceedings of the Seventh West Lake
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Medium Business (Oct. 16~17, 2005)

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Preface

These years, small and medium-sized enterprises, due to their great number and wide spreads, have played an significant role in socio-economic development. It is generally agreed among international economics communities and academies that SMBs will play the leading role in economic development of the 21st century. Since 1990s, with intensified international economic integration and new economic revolution, developed countries have all taken measures to support the development and studies of SMBs. SMBs play a more prominent role in China. Summarizing every expert's suggestion, it carries great meaning in discussing small and medium-sized enterprises.

Since the First West Lake International Conference on Small and Medium Business (WLICSMB) which was successfully held in 1999, the preparation for Annual WLICSMB has received strong and wide attention and supports from small and medium-sized enterprises home and abroad, academic circles and government officials. Until October 2005, we have already held WLICSMBs for seven times.

The participants for this Conference are managers, academic scholars and officials, who prepared papers with their own views, from over 10 different countries and regions in the world. Parts of the papers are collected in this conference for discussion. I am sure that the discussion based on those papers will make access to the hot issues on SMBs and result in a constructive conclusion.

We do hope the seventh WLICSMB will promote the exchange and co-operation among academic circles and small and medium-sized enterprises in the world for the SMB sustainable development. These proceedings collect some of the papers in order to offer to the masses of readers as a reference.

Prof. Wu Tianzu
Chairman of WLICSMB 2005
Oct. 16th, 2005

序 言

近年来，中小企业凭借其数量多，分布面广，在经济社会发展中发挥了极为重要的作用。国际经济界、学术界普遍认为，中小企业是 21 世纪经济发展的主角。自 20 世纪 90 年代以来，随着国际经济一体化及新经济革命的深入，国外发达国家都在积极动手扶持中小企业的发展与研究，中国作为全球最大的发展中国家，中小企业的地位和作用更是突出。因此，集众家之长，对中小企业进行研究和探讨实际上是具有深远意义的。

自从 1999 年 10 月成功举办了第一届西湖国际中小企业大会以后，每年一届的西湖国际中小企业大会的筹备一直得到国内外中小企业界、学术界和各级政府的关注和支持。直至 2005 年 10 月，已经顺利召开了七届西湖国际中小企业大会。

第七届西湖国际中小企业大会的参加者有来自世界十几个国家和地区的中小企业学者、政府官员、企业家，他们提供了许多有见解的论文，相信通过与会者对这些文章的讨论，从各个方面探讨了中小企业发展的热点问题，并将产生有益的启示。本论文集收录了其中的一部分，以飨广大读者。

吴添祖

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Small Business Development and Governmental Promotion Policies in Hangzhou

Shen Jian

(Speech of the Vice Mayor of Hangzhou Municipal Government at the 7th WLCSMB)

1. General Situation of Hangzhou's Economy

Hangzhou lies on the south wing of Yangtze zone, with Shanghai and Nanjing to the north, Hangzhou Bay to the east, and Qiantang River running through Hangzhou is one of the seven ancient capitals, a key scenic tourism place and the historical culture cities in China chosen by State Council. Under the jurisdiction of Hangzhou there are 8 districts, 3 city-level counties and 2 counties, with a total area of 16 596 square kilometers and a total population of 6.4278 million. Hangzhou city proper covers an area of 3 068 square kilometers with a population of 3.79million.

Under the direction of national reform and open policy, Hangzhou implements the strategy of "constructing large metropolis, building new paradise." In 2004, the city's GDP reached 251.5 billion yuan, increased by 15% compared with last year in comparable price. The proportions among the three industries are 5.5: 53: 41.5. The total income of municipality budget was 39.58 billion yuan with a 10.1% rise. The industrial total added value accomplished 117.49 billion, increasing by 18.6%, which accounted for 46.7% of the GDP. The GDP of Hangzhou is ranked as the second of all provincial capitals and as the third of all fifteen sub-provincial level cities. In these years, Hangzhou has been honored with "the City of Best environment for investment in China" and "Top Ten China's most economic dynamic city," and is ranked as is fifth in integrative competitiveness among China's cities and the first of the best commercial cities in mainland of China, etc.

2. Characteristics of SMEs in Hangzhou

2.1 Large quantity

At the end of 2004, industrial SMEs accounted for 99% of all 75 000 industrial enterprises in Hangzhou. The proportion of total outputs of SMEs reached 75% out of all industria outputs, in which the general level is 60%.

2.2 Wide coverage

SMEs in Hangzhou cover 37 industries. In traditional industries, such as textile and clothing, paper making, printing, machinery, food processing, construction material and stationary, SMEs are very important. At the same time, SMEs also make a figure and show vigorous competence in high-tech industry. In High-New Technology Industries Development Zone of Hangzhou, the entrepreneurs coming back from abroad start more than 50 business, involving high-tech industry, such as environmental protection facilities, new material, biological product and medicine,

sanitation, software, photoelectron, etc.

2.3 Solid base

In the development of Hangzhou's industrial economy, regional economies are characterized as "one town, one product," "one village, one industry." There are more than 70 special economies scattering in Xiaoshan and Yuhang districts and five counties. After having developed for more than 20 years, there has been a group of specialized and advanced industries, which not only reflect the advantage of industry in Hangzhou, but also became a base for breeding and gathering SMEs. A group of SMEs developed rapidly based on specialized economy.

2.4 Important function

Most of Hangzhou's SMEs are labor intensive industry, which provide abundant job positions for rural redundant labors and urban citizens. In 2004, the population of the employees in local private enterprises is 1.555 million increasing 167 thousand positions, and per capita annual income is above 12000 yuan, which is 597 yuan higher than last year. SMEs play a more and more important role in the international trade as well. In 2004, Hangzhou's local private enterprises accomplished a foreign trade value of 69.66 billion, increased by 27.5%.

3. Methods of improving the SMEs in Hangzhou

Hangzhou municipal government high values the SMEs' development, develops a series of policies to support and improve the progress of SMEs, and set up special funds for SMEs in order to breed, support, and boost SMEs. In general, the policies and measures illustrate as below:

3.1 Developing by focusing on the importance

Municipal government decided to emphasize on breeding the growing-up SMEs. The government subsidizes the technical reformation and increases than 2% on the basis of enjoying the normal fiscal subsidization for technical reformation of crucial enterprises. Meanwhile, ten best growing-up SMEs and ten best potential growing-up SMEs are honored every year in order to encourage these enterprises.

3.2 Developing by improving credit system

Constructing the credit system step by step via evaluating credit of the SMEs widely. At the same time, reducing the financing pressure of the SMEs by perfecting the credit warrant organizations. Municipal fiscal department's policies in investment and compensation of the lost debts for credit warrant and re-warrant organizations improved the construction of the credit system.

3.3 Developing by improving service

The Government holds up trainings with different contents and methods, such as guidance for starting business for SMEs, operation management and professional improvement, or organizes the service of sharing common techniques among SMEs, encourages the SMEs' technical innovation and reformation, and provides SMEs with convenient service of organized cooperation and communication for their daily practice.

3.4 Developing by concentration.

In 2005, Hangzhou confirmed 56 specialized towns as industrial functional districts, formulating the policy of "Guidelines for further improving urban and rural specialized industrial functional district quickly and vigorously" with the regulations of assessment and encouragement.

Furthermore, Hangzhou authorized 10 industrial technical R&D centers as technical innovation base for Hangzhou municipal specialized urban and rural industrial functional districts, to promote SMEs' specialization and centralized development.

4. Plan for development of Hangzhou's SMEs

4.1 Continuously implementing the growing-up plan for SMEs

We should: recommend specially supporting growing-up SMEs to banks for loan backup; actively guide credit warrant organizations give priority to the SMEs that listed in growing-up SMEs for warrant service; actively encourage and support a group of SMEs to become public shared companies; implement the plan of government subsidizing and rewarding growing-up SMEs to encourage these enterprises becoming stronger and larger; implement the training program for SMEs' operation capability. and organiz the training course of financial management, international business, marketing explore, business management, human resource management and so on for growing-up SMEs, which aims to improve the capability of the chief and department managers, managerial staffs and technical employees. Starti up the plan of breeding micro and small business. Analyse developing situation of the micro and small business with annual revenue below 5 million yuan, adopt effective measures to encourage them to improve, and build micro and small business information system.

Improve the construction of specialized urban and rural industrial functional district.

Confirm the strategy of the developing priority to the industries in the industrial functional districts, further verify the special advantage positions of different industries in every industrial functional district, implement the differentiation progress, and encourage the industrial structure to advance and upgrade. Encourage SMEs to concentrate to industrial functional district, to form the enterprises group, industries group and regional group, and to connect with each others among industries. Guid group enterprises achieve resources sharing and specialized cooperation based on the industry value chain and credit level, which help SMEs to develop steadily in front of specializedand socialized competition. Encourage the local SMEs to cooperate with foreign and domestic large enterprises, which will be good for SMEs' economies of scale and vigorous progress. Strerg then the function of group development and fabric improvement help and push each other, use the group development to change and level up the enterprises' structure so as to accelerate the formation process of medium and small enterprises.

Make it as an axle that solving the trouble of medium and small enterprises' financial problem, perfect their credit insurance system.

And these ensure apartments should study on it, being classified into several kinds. Support the insurance of developing enterprises. According to how much do these insurance apartments contribute to the society, we should give them some suitable bonus and help. Strongly cultivate the insurance apartments which are built by town and village, and fully use them to solve the financial problem of local enterprises. Attract more and more money into these apartments and make this project bigger and more beautiful.

Build the social service system of medium and small enterprises.

Aiming at the problems they will meet during it's developing, we should not only use the

government management, but also strengthen some social associations' function of serving these enterprises, and build five service systems step by step, the five service systems are: Human resource developing and training service system, technology developing service system, information inquirement service system, financial and economic service system and marketing and sales service system. It is making full use of labor.

Make effort to enhance and improve government service.

Medium and small enterprises are often less competitive in the beginning, so providing more help to them must be the project of the policy. We should go a step further in opening the market and eliminate discrimination against these enterprises. In some aspects, such as industry admittance, item investment, bank loan, elites attracting, exploitation of the market, tax management, resources assorting and so on, we should build a complete, equal and unified system of policy, showing the government's intention to support the development of the enterprises, and to safeguard equitable competition. We must pay more attention to making the administrative activities more standard, to make sure that official way of work to be improved, to intensify the reform in administration approving system, to simplify the procedure of doing things. Furthermore, we must exercise of powers within the frameworks of the law, ensure that the administration of our government is in order, lawful, and standard, so as to protect those enterprises' rights. Meanwhile, we should protect those honest/legal enterprises, avoid illegal trades, and lead them to do trades honestly and develop healthily.

With the West lake international conference held in Hangzhou, with so many experts and entrepreneurs here, bringing up their opinions, Hangzhou's enterprises can have a good chance to get more experience, which we would treasure and make full use of. We would make more friends, learn more things, exchange information and look for cooperation, and then take it as a motivation to help the enterprises in Hangzhou to develop quickly and perfectly.

Dynamic Functions of Local Government on Cluster Innovation System: A Case from Shaoxing, China

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Abstract: Shaoxing Textile Cluster is a typical innovation system that is largely impelled by local government. Its lasting innovation activities are ensured by continuous interaction among enterprises, institutions, and governments, etc. in the system. Based on our review of evolutionary process of the innovation system, we conclude that local government is a key factor for the evolution system, and its functioning mode on the system is dynamically changing.

Key words: Cluster innovation system, Local Government, Functioning Mode

1. Introduction

Shaoxing textile cluster is stuffed with 4827 firms engaging in textile-related industries, which employ about 160, 600 persons. And the cluster contributes about 75% of industrial output of the county and account for 40% of regional GDP growth. During past decades, the cluster experienced a long-term rapid growth (see Fig. 1), and this was largely attributed to lasting flourish of innovation activities that was ensured of and driven by an integrated cluster innovation system within the cluster.

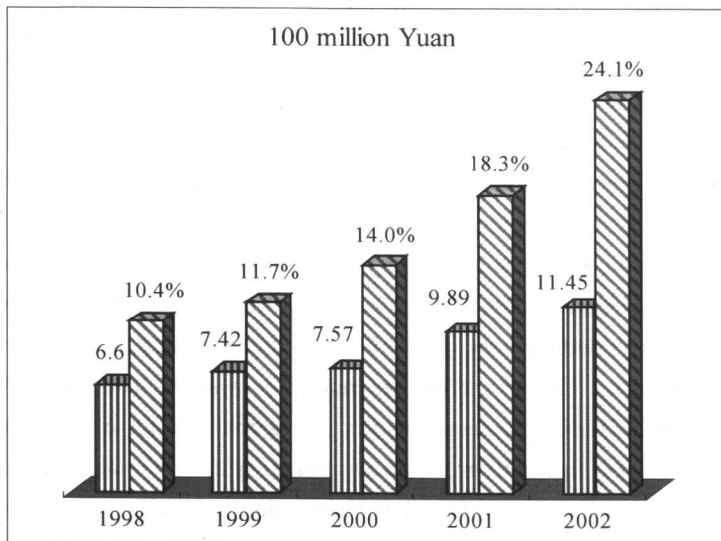


Fig. 1 Revenue & Its Contribution to Textile Enterprises in Shaoxing County During 1998 ~ 2002

Table 1 Registered Patent of Shaoxing Textile Industry During 1998 ~ 2002

<div>number \ year</div>	1998	1999	2000	2001	2002
Annual Number	88	12	63	58	110
Total Number	222	234	297	472	582

In general, Shaoxing textile cluster, which stresses technological innovation, respects market mechanism and well utilizes specialized markets, is a typical Zhejiang provincial industrial cluster that is largely impelled by local government. In the evolutionary processes, local government contributes a great amount of work to the emergence, establishment and enhancement of regional cluster innovation system. Further, its functioning mode on the cluster innovation system is dynamically changing along with the development of the system.

2. Elements and structure of Shaoxing cluster innovation system

The cluster innovation system is a aggregate of enterprises and organizations that are interconnected tightly with each other in related industry chains, and geographically centralized in a narrow space, as well as supporting system and environment (Tim Padmore and Hervey Gibson, 1998; Martin Andersson and Charlie Karlsson, 2002; Wei Jian, 2003; Zhao Tao, Niu Xudong, and Ai Hongtu, 2005). In fact, the whole industrial cluster is included in the innovation system; all elements of the regional industrial cluster are incorporated into the cluster innovation system.

Among elements of Shaoxing's cluster innovation system, two classes can be roughly seen, besides a serial of environmental factors. One is enterprise innovators embedded in regional industrial chains and local enterprise network; the other is organizational innovators including research institutes, universities, technology diffusion agencies, training organizations, industrial associations, and financial organizations etc. Besides the two classes, an innovation environment built on a serial of environmental factors such as local social network, innovation culture, innovation policy, etc. is included in the cluster innovation system.

A relative complete industrial chains based on finely specialized division exist in Shaoxing textile industrial cluster. There always are several core enterprises in a dominant industry, such as FAREAST FIBER GROUP in the local chemical fiber industry, who play leading roles in technological innovation, and whose innovation activities is most active. Around them are a group of small enterprises, whose energetic imitative innovations greatly accelerate technology diffusion and then force core enterprises to perform new innovation. Specialized market (such China Textile City) enjoys a special position in the cluster and cluster innovation system. The market Connects regional market and outer markets including domestic market and global market by the hands of residential sales agencies, reflects market fluctuations, spreads marketing and technological information, serves as stimulating factor in clustering technological innovation activities. Enterprises in dominant industries, related auxiliary industries and general supporting industries, together with sales agencies and specialized product market, form the core subsystem of cluster innovation system. Around the core subsystem, universities (such as Zhejiang University), technology diffusion agencies (such as Science Center for China Textile City), research institutes (such as Productivity Promotion

Center), financial institutions, industrial associations (such as China Textile Industry Association) and professional training agencies (such as Shaoxing New-Oriental Education & Training Center) construct supporting subsystem of the cluster innovation system. These elements interact smoothly and tightly with elements within core subsystem, and are embedded in local social network, guided by local governmental policies and institution, and influenced by regional innovation culture. These local social network, regional innovation culture and local official institutions and policies underlie the third subsystem environmental subsystem of the cluster innovation system.

In addition to above classification, we take local government as a separate element for our research purpose. The role played by Chinese local government is quite different from that of EU or US local governments. Like many other clusters in China, Shaoxing industrial cluster and its innovation system has been rapidly developing in a background of continuously institutional transformation, with the aid of profound intervention of local government, along with the deepening of Chinese opening and reform. So, governmental intention and governmental action are critical for emergence, forming, and development of cluster innovation system. And local government can exert influences by directly supporting elements in core subsystem and supporting subsystem, or by adjust and cultivate elements in environmental subsystem.

3. The evolution of Shaoxing cluster innovation system and dynamics of local government functions

3.1 The evolution of Shaoxing cluster innovation system and local government's contributions in history

The evolutionary history of Shaoxing cluster innovation system can be roughly divided into four phases: starting phase, emerging phase, forming phase and developing phase, along with the cluster experiencing initial phase, forming phase, developing phase and maturing phase. The characteristics and main innovations and governmental contributions to the system are listed in following tables.

Table 2 Summary of starting phase

<i>PHASE I : Starting phase (late 1970s to early 1980s)</i>	
<i>Characteristics</i>	Product Varieties that the local textile industry could offer were very limited (mainly chemical fiber cloth). And the local industry was combined by separated firms, not formed a complete industry chains. These firms usually purchased raw materials from Guangdong, Liaoning, Henan and Shanxi provinces, and sold their final products over the country by their salesmen. And local core enterprises bought equipments, introduced technologies and employed recruited technicians from Hangzhou and Shanghai.
<i>Major innovations</i>	Most innovation activities were limited in purchasing feasible equipments and processing technologies, aiming at imitating on-sale products. And major external technological sources were old state-owned enterprises in adjacent areas.
<i>Historical contributions of local government</i>	Quickly transformation of regulation system and governmental policies, special economic policy supporting rural enterprises offered an agreeable space for rapid development of local textile enterprises. Local governments directly supported core enterprises, helped them to introduce new technologies and talents to improve processing technologies.