

**Chapter 4    Current Status and Issues of Support Systems for  
Business Environments and Business Resource Improvements**

## **Chapter 4 Current Status and Issues of Support Systems for Business Environments and Business Resource Improvements**

### **4.1 Current Status of Financing at Small and Medium Enterprises**

#### **4.1.1 Current Status of Financial Framework for Small and Medium Enterprises**

The funds which firms in the manufacturing industry require (including the self-employed) are divided into two large groups. The first are funds which are called “equipment funds”, which promotes such things as product quality, quantity, performance, and improvement of design and efficiency of the manufacturing/producing department. In order to promote recovery one step at a time from within the sales costs of manufactured goods that use this equipment and/or technology, an extended period for recovery is required. The second are funds called “circulating funds”, which is needed for regular operations such as the purchasing of raw materials and the payment of wage to employees. It is possible for these funds to be recovered in a short period of time depending on the type of operation.

Finance is the act of banks advancing funds to firms in need, however depending on the kind of fund and its application, the terms for proper repayment vary accordingly. It is normal for circulation funds to accommodate/correspond with short-term loans, and equipment funds to accommodate with long-term loans. For loans that will require long-term repayment, it is easy to connect the causes for future late repayment and non-repayments to their own results. Banks have a function as a “fund intermediary” to allocate collected funds from depositors to the areas in need in the form of a loan. This is where banks bear the responsibility to recover the safe and sustained lending of money in place of the depositors, and where reliability of repayment is strongly emphasized. As for the financial conditions of the borrowing firms, they only granted loans after being thoroughly checked out, in whether or not their repayment schedules are feasible, and whether repayment can be ensured. It is normal to set the repayment method for a long-term period for funds that require long-term recovery, so that the borrowing firms are able to do the work as planned and do repayment timely, with the funds granted. This is the way commercial finance and industrial finance operates.

In the age of a state-planned economy, a firm nearly signified a state-owned enterprise, and funds required for expansion, implementation of improvements and new technology (Equipment funds) were also disbursed as planned from the National Treasury, and it was then when financial institutions intervened and did not provide long-term funds (industrial finance). After the launching of reform, in the advancement to convert to a market economy system, the government carried out destitization of state-owned enterprises, and the firms that were denationalized had to obtain required funds on their own. Of course, it may encounter for the need for product quality

improvements, production and productivity growth, etc., for such things as the renewal of equipment, expansion and implementation of new technology, the maintenance of industrial finance to accommodate such long-term funds will become required.

The People's Bank of China, (hereafter referred to the 'People's Bank') that manages financial policy, is calling for loan interest rates at separate terms at each financial institution in accommodating with times of financial excitement. The following are effective loan interest rates for separate terms, which have been fixed for a maximum of 5 years in order for each bank to be able to deal with the kind of long-term loans of industrial finance mentioned above. However, as for each bank granting loans to assist small and medium enterprises, which will be mentioned later, shortening the length of time will be promoted in order to alleviate credit risks, and long-term loans which is the intention of The People's Bank will only be applied in exceptionally rare cases.

#### Current Standard of Loan Terms and Conditions as Indicated by The People's Bank

Lending Period	Interest Rate
Up to 6 months	5.58 % per annum
6 months to 1 year	5.85 % per annum
1 year to 3 years	5.94% per annum
3 years to 5 years	6.03% per annum
More than 5 years	6.21% per annum

(Note) A small amount of premium of +0.3% to -0.1% on the above interest rates is recognized at each financial institution

(Reference) Under the planned economy for banking systems, there was the system for "specialized banks (4 state-owned banks which operated in specific business: Industrial and Commercial Bank of China, finance for industry and commerce, China Agricultural Bank, finance for agriculture and farming households, Bank of China, finance for trade with foreign countries, and China Construction Bank, finance for architecture) However, with the establishment of commercial banks after the reform being recognized, the Bank of Communications was established in April 1987, and 10 nationwide commercial banks of joint-stock cooperation type have been established. In order for the further financial support and integration of finance for national policy, which 'specialty banks' had enforced as a part of their business by the banking system reform of 1994, three "policy banks", the National Development Bank (for carrying out the National Project) Import and Export Bank of China (for the promotion of trading with foreign countries) Agricultural Development Bank of China (for the further development of Agriculture) were newly created and "specialty banks" were changed into state-owned commercial banks

### 4.1.2 Financial Conditions of Small and Medium Enterprises

When talking about small and medium enterprises, the government supported mainly state-owned large, medium and small enterprises in the age of the planned economy, private Small and Medium enterprises were one part of industry (a current small aggregate of every kind of industry, be more precise ) However, industrial finance was not conducted as mentioned above, and became alienated by emphasized policies of state-owned enterprises of the government. The idea to promote small and medium enterprises like this was once never heard of, nor having any experience in the lending mechanisms of preferential financial terms and conditions to support its financial policy and conditions and for the promotion of small and medium enterprises.

As previously mentioned, the government took notice of the roles of small and medium enterprises as main players of economic development, having absorbency of a surplus in labor generated by state-owned enterprise policy, and as promoters of a market economy, and the government included small and medium enterprises into the State Economy & Trade Commission in July 1998. This was the first time for small and medium enterprise policy to be seriously dealt with since the nation's founding.

Below list developments of succeeding years of the State and "The Peoples Bank" in relation to finance matters.

(1) The People's Bank called for the establishment of a "Financing Section of Small and Medium Enterprises" at each commercial bank beginning in 1998, and released a paper on the, "Further Improvements to Financial Service in assisting Small and Medium Enterprises" (published on June 20<sup>th</sup> of the same year {1998} No 278) to each financial institution in June. The document urged for regulation in management concepts and financial structures, as well as emphasis on and improvement in providing service to Small and Medium Enterprises. Below is the concurrent outline.

- 1) Completion of a financial service system to assist SMEs
- 2) Active support for rational funding requests of SMEs
- 3) Support with a focus on an increase in loan funding and good-standing SMEs
- 4) Active support of reemployment projects
- 5) Enhancement of financial aid services other than accommodation loans
- 6) Efforts for improvements in efficiency
- 7) Solving problems in borrowing collateral of SMEs
- 8) Alleviation of financial risks for the enhancement of loan managing and risk

8) Alleviation of financial risks for the enhancement of loan managing and risk assessment

(2) In 1999, the State Economy and Trade Commission announced “Guidelines for Establishing a System Model for a Credit Guarantee System for Small and Medium Enterprises”. The People’s Bank cooperated with governmental financial institutions for the maintenance and promotion of the normalization of credit guarantees for SMEs, and along with calling for close cooperation with credit guarantee organizations for each commercial bank, they also strived for the contribution of the credit guarantee of funds for business use to be handled by credit guarantee organizations.

(3) In November of the same year, The People’s Bank announced another paper on the, “Strengthening and Improvement of Accommodation Fund Services to Small Enterprises”, and emphasized the strengthening and improvement of accommodation fund services and financial services to small enterprises at each financial institution.

(4) On July 6<sup>th</sup> 2000, the State Economy and Trade Commission announced the, “Policies on the Support and Promotion of the Development of Small and Medium Enterprises”, and the in Chapter 4 of “Actively Expanding Financial Routes”, resolutions as a Nation are stated in the following

- 1) Support and Maintenance for corporate commercial banks, urban commercial banks, and urban and rural collective financial institutions targeting at services for small and medium enterprises.
- 2) Commercial banks, especially state-owned commercial banks support the establishment of accommodation fund promotion in assisting small and medium enterprises and mechanisms of informal consent, based on the security of accommodation funds. At the same time in guaranteeing the quality of accommodation loans, assurance in the rate of accommodation loans to small and medium enterprises rise.
- 3) Policy banks supporting to maintain development of SMEs, which conform with current National Industrial Policies, are marketable, highly skilled and are effective economically within the sphere of current business.
- 4) Continue to expand the range of lending rate changes/modifications of SMEs.
- 5) Complete a system of timely credit, logically decide on the assessment authority of accommodation funds of Prefecture-level banks, cut-down on fund assessment risks, and increase efficiency.
- 6) Researching and Developing accommodation fund services which commensurate with the advancement of SMEs, and further improvement of financial services such as settlement for banks’ SMEs, financial counseling, investment management.

### 4.1.3 Financial Conditions of Small and Medium Enterprises in Hangzhou

#### (1) The People's Bank of China, Hangzhou Center Branch

Other than carrying out each of the declarations of the previously mentioned 4.1.2 (1) and (3) at financial institutions in Hangzhou by the designation of member banks, the People's Bank, Hangzhou Center Branch made demands and recommendations to state and city governments for the improvement of loan services to assist SMEs in Hangzhou, as mentioned below, as well as instructing each financial institution on the loan utilization to SMEs.

#### 1) Affirmative Recommendations to Governments on Registration and Procedure of Pledge Assets and the Lack of Security of Township Enterprises

In the efficient lending to SMEs, there has been a strong demand for the relating institutions across the years to simplify security registration of land and buildings. The "Request for Security registration problems of Land and Buildings" was submitted to the state government in 1999, demanding such things as the integration of registration, registry at no cost, and to unenforce assessments. State governments basically accepted the above demands, and released a notice on "Security Procedures of Lands and Buildings", (Zhejiang Government Issuance No 176 )

This was the reason for these enforcement measures that provided enterprises with a great deal of advantages, lowering the raising costs of enterprises, making borrowing more convenient, and improving the efficacy of financial services.

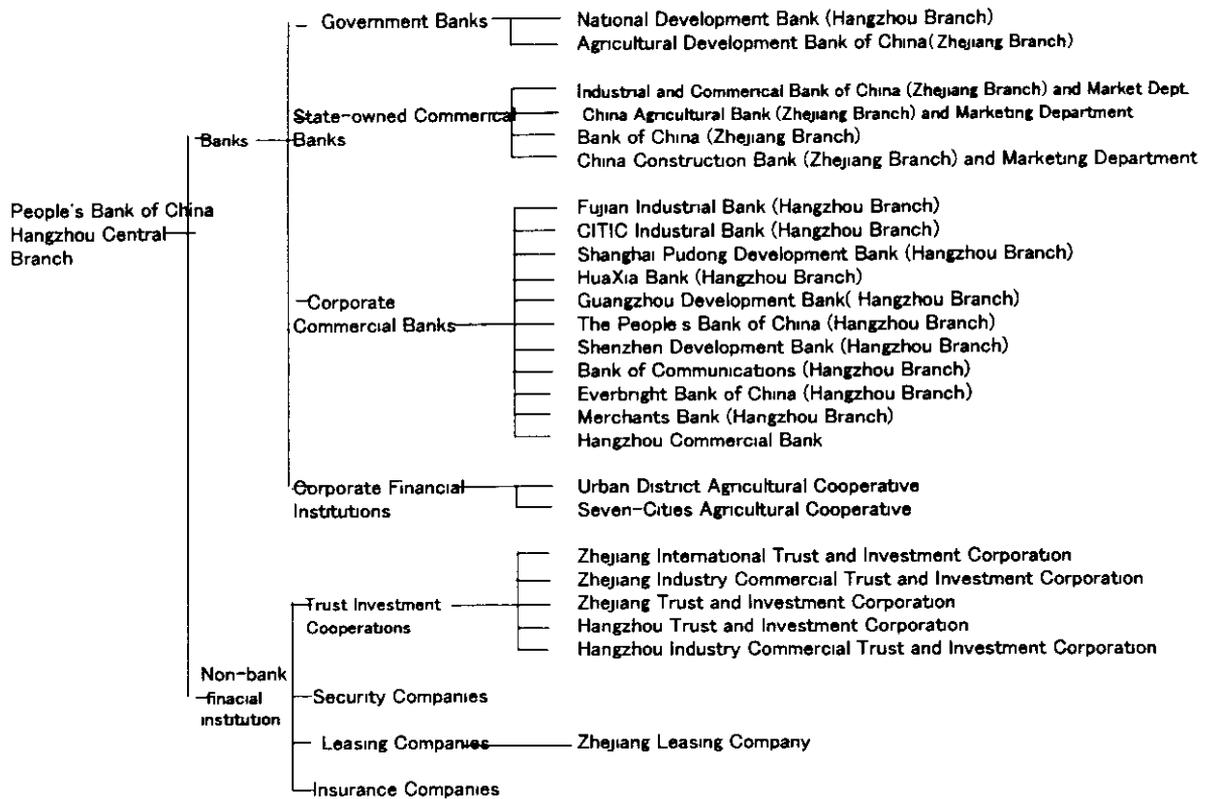
Regarding the problem that many SMEs, especially Township Enterprises, suffered lack of the effective pledge assets in the shift transition period, the government investigated the land problem of group enterprises, and upon the result, in such a manner that the government abandoned a part of the profits, it proposed that the transfer commission of the right of using land would be reduced, and that the land of group enterprises would be changed to state-owned. The city government released a Notice on the Rights of Land-use in the Transition Process of Township Enterprises in the Areas of Hangzhou, and defined the preferred policies on the acquisition of rights for land-use for township enterprises (in the case of acquisition by assignment, the enterprise will be refunded 70% of land transfer fees from the public finance. In the case of acquisition by loan, the borrowing charge will be determined at the land reduction rate of 4% at 20% of the appraisal value) This cut reduced costs for enterprises to acquire an essential production basis for the right of land-use to a great extent, and was excepted by many township enterprises. This is the reason why mortgages having valid assets such as land were available to a considerable number of township enterprises.

## 2) Establishing Social Trust and the Strengthening of Management of Financial Credit

The People's Bank made unscheduled announcements the "Black List" of companies who had fled leaving bank loans not yet paid for, and who had unpaid loan interest, and kept record of companies with no confidence by taking commensurable sanctions against the companies, in the attempt to boost more confidence of enterprises. In particular, unpaid interest and information of enterprises running out on bank debts was circulated to the People's Bank, Hangzhou Center Branch by a financial local area network of the Hangzhou Financial Credit Management Information System (an enterprise network that deals with over 300 credit loans in Hangzhou, due to The People's Bank established in moving into the forefront) which began operation in the year 2000. The information was gathered in the databases of member branches and was provided the information to all financial institutions in the city through an information website that investigates enterprises' credibility. Information discrepancies among financial institutions and enterprises were solved to some extent. Financial institutions within jurisdiction were pleased by these results.

### (2) Financial Institutions

In the financial system of Hangzhou, trust investment corporations of other than of banks, and leasing companies, etc, exist as non-bank financial institutions, and are both under the control of banks and People's Bank of China in Figure 4.1.1. For these institutions, visits and interviews are conducted at state-owned commercial banks which deal in finance in assisting SMEs, corporation commercial banks and leasing companies, as well as investigations on the financial conditions of SMEs



**Figure 4.1.1 Financial System of Hangzhou**

As explained in Figure 4 1 1, the first opening of 10 corporate banks of the entire country by the city of Hangzhou, had also opened another 4 state-owned commercial branch banks. Hangzhou Commercial bank, a corporate local commercial bank is added to these and raising the total to 15 commercial banks in business. In other words, finance in Hangzhou city is relatively progressing, and can be said that the Hangzhou enterprises are under an extremely endowed financial environment from the view of a banking system.

Out of a total of 65,545 enterprises in Hangzhou, (end of 1999 at present) 99.84% of them account for SMEs. (Statistics Bureau of Hangzhou) In order to ensure their security, the major sources of lending queries, by which of visits and interviews, were from SMEs. (Refer to the outline of Table 4.1.1 State-owned commercial banks, and the outline of Table 4.1.2 Corporate Commercial Banks) However, as explained in the tables, one thing which must be pointed out is that the same meaning of “Small and Medium Enterprises” is not the same according to all banks.

And visits and absentee interviews were conducted at all of the 15 commercial banks that have general or semi-branches in Hangzhou, (4 state-owned commercial bank branches/ 11 corporate commercial banks branches) well as at the Zhejiang Leasing Company. The current financial

general or semi-branches in Hangzhou, (4 state-owned commercial bank branches/ 11 corporate commercial banks branches) well as at the Zhejiang Leasing Company. The current financial conditions for SMEs which were discovered through these investigations are as follows.

1) State-owned commercial banks

Business is being conducted as an extension from the specialty bank era at any of the large banks. It was heard that major change occurred in the assessment/lending methods from the viewpoint of profit supplement/safety security after the change to commercial banks in 1994, however, it appeared that previous loan records and business in settlement of trust relations with clients based on this was being conducted. What was clearly recorded/shown was 1) no active movement by each bank for dealing with new clients or the withdrawal of matters. 2), which will be described in more detail later, In this questionnaire conducted, out of the answers which were received from the 50 companies, it was true that 30 companies (30%) had debt and credit relations with state-owned commercial banks (of as little as 3 banks had borrower relations with corporate commercial banks, in which the main banks were state-owned commercial banks). Furthermore, with the industrial commercial banks who are conducting financing centered around industrial commerce, 24 companies out of the above 30 companies possess debt and credit relations.

Based on these banks, the following are the problems and requirements to the government and The People's Bank in regards to the lending to the SMEs that are known.

a) Problems;

- SMEs are low on private funding, and there is a limit to their development
- SMEs have no ability regardless of their technology, knowledge, or product quality
- SMEs have no collateral security, and even if they did possess it, they would not have a collateral margin.
- SMEs have little knowledge of risk liability.
- Financial policies are not taught at SMEs (pending and incomplete documents, incorrect calculations)
- As for lending to assist SMEs, other than taking too time spent for assessments, there are many tasks that need to be tended to such as guidance before and after, various internal paperwork and credit management, is therefore it is too troublesome.

b) Requirements.

- Environmental conditions that will assist SMEs

In other words, the credit risk of loans for SMEs is extremely high for these banks, credit guarantee systems are not maintained, and as for the unclear conditions of government assistance, frankly speaking, it has been said that they are not exactly the most favorable candidates to lend money to. The amount of the loans are less than the amount that is desired to be borrowed, the funds accountable with loans terms are equipment funds, circulating funds, and have short-terms up to 1 year. (It is not an overstatement to say that this support in promoting SMEs is said to moving in a contraversely different direction.)

The majority of the problems of state-owned commercial banks mentioned above, it is natural assumption when lending funds to assist SMEs; there might a problem in accepting to think of SMEs as large enterprises. The amounts in lending for SMEs are relatively small; conducting the same procedure as for lending conditions for large quantities (mainly, the lending for large enterprises) is necessary. Guidance is necessary according to the kinds of forms to submit and the creation of documents when borrowers make applications. Conducting sufficient and thorough assessments in order for to understand he actual capacity of the borrowing enterprise are necessary. It is necessary to pay close attention to regular credit management even after the granting of the loan, without cutting off relations with the enterprise. (For example, an enterprise is visited at least 2 times a month without notice, and its actual conditions are monitored.) After debt and credit relations are made, it is necessary to be prepared for the bank and enterprise act as one to be committed to working towards management problems. There are various which takes a lot of time, effort and money, and for banks which treat these as equally as large enterprises, even if there is demand for cooperation from The People's Bank, there is no positive reason to lend to for SMEs.

Also for the actual conditions of industrial finance, an aural survey was conducted, and it was discovered that the Industrial and Commercial Bank of China provided 3 year lending period, and the China Construction Bank with a 3 to 10 year lending period for equipment funds. However, with both banks applying this only to loans for enterprises of superior standing, a 1-year period in principle has been set for the financing of operation funds for SME loans. (A period of 3 years for enterprises that have made many transactions and who have not caused any problems for extensions, etc.) A vice-president of a bank summarized the future of lending attitudes of state-owned commercial banks, "As it is normal for enterprises in China to conduct business investments with private funds, there aren't many applications from people wishing to borrow funds. This may why banks do not lend for equipment funds.

## 2) Corporate Commercial Banks

In the region of Hangzhou, Many banks are advancing into the Hangzhou areas due factors such as, 1) economic development seems to be fast and will continue to develop in the future; 2)

In the region of Hangzhou, Many banks are advancing into the Hangzhou areas due factors such as, 1) economic development seems to be fast and will continue to develop in the future, 2) the business sector is progressing and there is a large possibility of business expansion in commercial banks, 3) Many SMEs demanding a large amount of funds can be expected. However, the main purpose of these banks are the security of the profit pursuit and safety, and for this purpose, the need to become competitive with other banks including large banks. As described later on, these banks are making efforts to offer various kinds of services to clients, such as withdrawal and services, both day and night (Out of the 50 companies who replied to the questionnaire, as little as 3 companies were enterprises that had debt and credit relations with corporate commercial banks, as since the main bank was a state-owned commercial bank, the answers from the questionnaire didn't seem to reflect their relationships with these banks

The following are the problems in regards to lending to assist inquiring SMEs and demands to the government and The People's Bank from corporate commercial banks.

a) Problems;

- SMEs have little capital, have small business scale and hardly have any private funding.
- SMEs' market share is low and therefore are weak in the prevention against market risk.
- SME management is unstable.
- SMEs have no security strength
- Actual management conditions of SMEs is a very difficult to understand.
- The qualifications and moral sense of SME managers are low
- Control system of SMEs is not upgraded and there are discrepancies in their financial statements.
- Once SME establish financial relations, they become to strongly rely on borrowing funds
- The property of the company and the personal property of the manager become intertwined and a proper determination of the two cannot be made.
- No available environment where laws are enforced.

b) Requirements,

- An organization for mortgage loans
- An environment where laws are enforced

Table 4 1-1 Outline of State-owned Commercial Banks

Bank (Branch) Name	Industrial and Commercial Bank of China (Zhejiang Branch)	China Agricultural Bank (Hangzhou Branch)	Bank of China (Zhejiang Branch)	China Construction Bank (Zhejiang Branch)
1 Year and Month of Establishment, Location of Main Branch	January 1st, 1984 Beijing	1979 Beijing	1953 Beijing	1954 Beijing
2 Year and Month of Branch Establishment	1986	1986	1986	1976
3 Other Offices under Branch Office	11 Branch Offices (including Hangzhou Branches) with 27 offices under these branches as well as an additional 276 savings offices	Approximately 20 branches in Hangzhou City	This branch is overlapped with the Hangzhou Branch 10 Branches with 6 branches in Hangzhou City	15 Branches (City-level) and 7 Branches (Provincial-Level)
4 Number of Employees	4 500 (less than the Zhejiang Branch)	n a	n a	4 000 Employees (including 22 Branches)
5 Business Description	savings loans discount on a bill settlements credit guarantee etc	savings loans credit guarantee international settlements, valuation of assets etc	savings loans international settlements credit guarantees draft acceptance etc	savings loans international settlements credit guarantees draft acceptance etc
6 Definition of SME	According the government's definition, (An enterprise with less than 500 000 Yuan in capital and less than 5 Million Yuan in sales volume)	In the case of lending large regardless of being medium and small enterprises reliability future of the company are important and there is no need to make a clear distinction of SMEs based on these factors	According to the definition decided by the State ( less than 500,000 Yen in Capital and less than 5 million Yuan in sales volume) almost all loans are for SMEs	Based on the definition of the state
7 Amount Outstanding for Bank's Overall and loans (End of December 1999)	Total Assets 3 559 900 Billion Won Capital Funds, (after payments) 1 Trillion 674 2 Billion Yuan Amount Outstanding in Savings, 2 Trillion 982 400 Billion Yuan Amount Outstanding for Loans 2 Trillion 4 Billion 271 Million Yuan	n a n a n a n a	n a n a n a n a	Amount Outstanding for Savings, 1 Trillion 6 846 Billion Yuan Amount Outstanding for Loans, 1 Trillion 1 276 Billion Yuan
8 Amount Outstanding for Savings and Loans for Hangzhou Branch (End of September 2000)	Total Assets 760 Billion Yuan Amount Outstanding for Savings, 651 Billion Yuan Amount Outstanding for Loans 477 Billion Yuan	n a Amount of Savings 250~260 Billion Yuan (Goal for 2000 Fiscal Year 270 Loan Amount 200 Billion Yuan (Goal for 2000 Fiscal Year 210 Million Yuan)	n a n a Amount Outstanding for loans 100 Billion Yuan	n a Amount Outstanding for Savings 300 Billion Yuan (December 2000 of Present) Amount Outstanding for loans, 222 Billion Yuan (December 2000 of Present)
9 Financial Policy for Small and Medium Enterprises	For most operation funds with a one year loan period Applicable for 2 year period in equipment funds which is quite short (comments from bank)	Same lending terms and procedures with no distinction between large medium or small enterprises Lending terms depend on the instructions of The People's Bank	The promotion of short-term funds and reducing risk for both equipment and operation funds, in other words its control within 1 year	Short-terms loans up to 1 year in principle Percentage of equipment fund loans as little as 10% no prior record
10 Problems and Measures to be taken for SME finance	SMES have low reliability in general As banks we want to support them but since they have no security to cover credit risks we cannot lend to them	1) Each enterprise possessing no ability (private funding technology knowledge quality) etc 2) No collateral /reserve capacity 3) Not being taught any financial policies (incomplete / inadequate paperwork miscalculations)	False information in financial affairs and lack of collateral and capacity	of equipment fund loans for SMEs 1) For SMEs days after the establishment were short inadequate internal management system lack of maturity of the SME, unstable market product levels low little knowledge in risk prevention 2) Due to a small framework and a lack of assets trouble with bank credit security/control 1) Freelancer Users
11 Methods for Bringing in New Clients	1) Contact from newly registered corporations from Industrial commercial branches that have close relations is accepted. These enterprise are given new terms 2) If employees of client enterprises who have good business relations with our bank start new business they will be approached at the bank	Enterprises who do not take the initiative until clients consult them (taking a stance where they wait for the terms to be brought to them)	Depending on introductions from various routes of government such as planning committees and economic trade committees  (not taking own initiative in the setting of terms)	2) Receive information from branches responsible for development sections such as in Gaixin-Xiaoshan and proceed in searching 3) Security of clients and terms/conditions based on information from governmental sectors such as economic and planning committees
12 Policies in the future business activities for SMEs	1) Ordinary handling of enterprises that can create profits, regardless it being small or large 2) Lending via the provincial level branch offices to top-level enterprises of the region 3) Strict internal credit management and promote risk-reduction	From the financial side industrial promotion assistance (SMEs) in agricultural regions from the start of establishment and the continuation of this support in the future	Up until the present no active efforts, with no changes in the future security of profit pursuit or safety but wish to be a source of strength in supporting SMEs	SMEs that choose by the lender of funds  (1) are enterprises with clear property rights, (2) enterprises that have an attainable framework (3) enterprises having a market for its products with high-level science and technology
13 Demands to the Government and The People's Bank	1) Creation of a mortgage loan system 2) Take care of what needs to be taken care of even in bad debt Adoption of visible maintenance policies for the development of SMEs	To sense a contradiction of the existence of state-owned commercial banks  To reply in whether or not the imposed duty of state-owned commercial banks can conduct effective market economization	An environment available in supporting SMEs or in other words the presentation of valid policies for for the distinction of the concretisation of the definition of SMEs who are to be supported as well as for	1) Need for the establishment of a credit and security organization 2) Acceptance of the establishment of financial insurance companies that ensure the credit of banks 3) Making trends for SME support to be made clearer in explanation
14 Miscellaneous	* China's largest commercial bank * The 208th place in the list of the World's 500 largest bank in US "Time" magazine * 1999 Fiscal Year Annual Report  * Hardly any non-collateral loans for SMEs * Branch visits (Economic and Technical Development Section Hangzhou Branch)	* Refusal of Annual Report * Branch visits (Hangzhou City Cheng dong Branch)	* Refusal of Annual Report * According to the change from Specialized Banks to State-owned commercial banks in 1994 significant differences in assessment and lending methods can be seen This is the reason for the change from the viewpoint of security in profit pursuit and safety	* Annual Report not attainable due to lack of stock

Table 4 1-2 (1) Outline of Corporate Commercial Banks (No 1)

Bank/Branch Office Name	Fujian Industrial Bank(Hangzhou Branch)	CITIC Industrial Bank(Hangzhou Branch)	Shanghai Pudong Development Bank(Hangzhou Branch)	Huaxia Bank(Hangzhou Branch)
1 Year and Month of Establishment, Location of Main Branch	August 12, 1988 Fujian Fuhou	1987	January 1993 Shanghai (Listed on Shanghai Market in November of last year, being the first Chinese Bank to list) 94/03/01	1992 Beijing
2 Other Main Offices Established	May 2000 1 Branch (1 Branch to be opened in January 2000)	June 1994 Jurisdiction of Zhejiang (15 sub-branches, 5 offices)	8 sub-branches 11 branch offices that are under direct control (Naiha/Wenzhou are direct main branches) 24.1 Billion Yuan (Nation/national enterprise 40% a/the remainder private enterprise)	June 1 1995  Main Branch and 6 Branch Offices  25.0 Billion Yuan (Stockholders, 33 Large Domestic Governmental Enterprises)
3 Capital Stocks	22.9 Billion Yuan (80% of Fujian Government, 20% of Present Fujian Enterprises)	na (100% Chinese International Trust Investment Companies- CITIC)	24.1 Billion Yuan (Nation/national enterprise 40% a/the remainder private enterprise)	25.0 Billion Yuan (Stockholders, 33 Large Domestic Governmental Enterprises)
4 Number of Employees	100 Employees (This branch only)	600 People (including this branch the office under these branches and other offices)	430 Employees (including Sub-Branches and Branch Offices)	Hangzhou Branches and the same Branch Office, 270 Employees
5 Definition of SMEs	Depending on the definition of the Government (Capital at least 500,000 Yuan Sales Volume at least 5 Billion Yuan)	Determined by the State	It is no an especial definition Generally defined as "a smaller business"	No determined definition but generally defined as "small and medium enterprises"
6 Outline of Business				
1) Financial Conditions (All Branches)	(1999 Fiscal Year) Approximately 300 Billion Yuan Approximately 240 Billion Yuan	(1999 Fiscal Year) na na	(1999 Fiscal Year) 970 Billion Yuan 680 Billion Yuan	(1999 Fiscal Year) 508.0 Billion Yuan 301.4 Billion Yuan
2) Financial Conditions (Hangzhou)	(End of September 2000, Present) 11.3 Billion Yuan 5.68 Billion Yuan (9.1% for SMEs)	(December 1999 Present) (December 1999, Present) 70.1 Billion Yuan 103.6 Billion Yuan 50.8 Billion Yuan 60.0 Billion Yuan (70% for SMEs)	(1999 Fiscal Year) 90 Billion Yuan 67 Billion Yuan (75% for SMEs)	(1999 Fiscal Year) na na (80% of Loan Balance is for SMEs)
7 For SMEs	Although lending has been targeted to major listing enterprises in the past there have been cases where at times the bank can not meet the requests in their desired amount	Special importance placed on personal business management ability of an enterprise Loans are granted after close examination of the of client based on those factors Request for the submission of financial statements from each month of the past 3 years There will be no lending to enterprises that are unable to do this or to enterprises who state false information	Thinking about own security and profit first and foremost and with that outcome think about ones role in assisting enterprises This being true for both large small and medium enterprises	Real estate security as a principle As for lending to privately operated enterprises, privately-owned real estate of representatives are made to be provided as security
Attitudes toward loans in assisting SMEs				
8 Methods for Searching for new customers	1) The user in the employee's prior workplace comes to the branch 2) All the employees actively promote sales to the prospective enterprises 3) Introductions from Confidence Security Companies (20 out of 332 introductions are chosen)	The client who enquire about doing business there are many cases where clients come to conduct personal sales Not being competitive by just sitting at a desk and waiting around	1) Sales based on the experience of the employee that were former bank 2) Since the bank's name is also reputable customers will jump at the opportunity to do business there 3) Searching for clients using a variety of information sources	As competition between banks is fierce banks are not able to wait for new clients to Banks must takes the initiative to seek out new clientele
9 Characteristics in Enforcing Action in Hangzhou	Offering of financial service in many areas for SMEs along with economical research of the Zhejiang area especially the Hangzhou ministry making the direction for branch lending clearer	An area that has many SMEs Lending is conducted each time with the hope that enterprises will strengthen their confidence	Hangzhou is an area in which developing businesses were targeted at the time of the bank's establishment good economical conditions and many SMEs are very active	Areas where there is quick development and where there are privately-owned SMEs Implementing various systems for the active support of these SMEs
10 Problems/Measures to be taken For SME Finance	The biggest problems in Loans for SMEs is a credit guarantee problems As for SMEs self property the development is slow poor private funding no cooperative partners it makes it difficult to lend a large amount due to the high risk for lending was achieved with "loans to the buyer" "warehouse storage merchandise security" "account receivable"	* Lack of /insufficient credit guarantee system * The support from the many area is necessary for promoting SMEs * Need to consider the unfinancial causes	Important points in the examination of SMEs are there no problems with the manager's morals there are clear management strategies, having financial management abilities preciseness in every calculation in the financial statements, having a competitive edge control in financial affairs evidence of bad credit	Due to low confidence/security economic indicators/conditions of development of clients once a year are reviewed by dividing them into 4 ranks (absolutely secure maintained supported trust forbidden)
11 Future Efforts to be done for SMEs	SMEs with characteristics of Zhejiang they are even scheduled as targets of IT-related enterprises because there are only small banks, they may provide more detailed services to SMEs	Impossible to aim business at larger enterprises Putting emphasis on lending for SMEs in association with self-ability and economical development of the state business while to the economic development of the capability	Thorough examinations are conducted for the lending to large medium and small enterprises and the development of both are considered	Small and medium sized banks choose SMEs for service A desire to increase lending to SMEs in the future
12 Demands to the Government and to The Peoples Bank	* In order to raise the continuation and risk prevention ability demands to the government to make a systematic policy for the active support of SMEs  * Establishing the governmental financial organizations stock risk investment companies and smaller security companies There is a need to support prospective	Nothing in particular	* Improvements in laws The execution of mortgage property will not be made the bank's position regardless of winning the courts judgment  * Demand for improvements in confidence security	Desire to raise the contradiction between "support for SMEs" and "trust risk of Banks" In other words there is a problem of credit guarantee Knowledge of implementing debt and credit of the current mortgage structure
13 Miscellaneous	* No Annual Report Circulation * Percentage of SMEs involved in general business 36.6%	* Circulation of Business Outline for Hangzhou City * Bad loan has been controlled within 3 meantime, although it passed 6 after opening * SMEs are 85% of general business enterprises	* Circulation of Annual Report (All branches and sub-branches in Hangzhou)	* Circulation of Annual Report * Support to SMEs by "correspondence standards"  Namely, various kinds economic indicators/development conditions will be reviewed and the amount of trust will be determined Each enterprise will be divided into 4 groups for which to determine their trust "maintained", "supported" and "not trust worthy"

Table 4 1-2 (2) Outline of Corporate Commercial Banks (No 2)

Branch (Office) Name	Guangdong Development Bank (Hangzhou Branch)	The Peoples Bank of China (Hangzhou Branch)	Shenzhen Development Bank (Hangzhou Branch)	Bank of Communications (Hangzhou Branch)
1 Year of Establishment and Location of Branch Offices	1988 Guangzhou	1996/1/12 Beijing	1987/12 Shenzhen	1987/4 Beijing
2 Other Main Offices Established	July 16 1997 6 branches	2000/2 1 Branch serving under main branch ( 1 branch office scheduled to open by the end of 2000 )	1998/12/25 (Second Branch in the 華東 District ) 5 Branches which serves under this Branch  ( A Branch office scheduled to open in March 2001)	1988 17 Branches that serves under this bank
3 Capital Stocks	22.9 Billion Yuan ( 65% Guangdong Government, 35% Domestic Large Companies )	13.8 Billion Yuan ( Capital injection of 56 private firms- the first private-sector bank in China )	155.2 Billion Yuan ( Capital Injection of national organizations related to Shenzhen - approximately 30% )	138 Billion Yuan (End of 1999 of present) ( Capital Injection of 53.08 % of the State Administration of Communications )
4 Number of Employees	300	70 (sub-branches and branch offices combined )	177 (Sub-branches and branch office combined)	700 (including branch offices)
5 Definition of SMEs	less than 20 million of fixed assets for industry/manufacturing	Defined by the government (less than 5 Billion Yuan in volume sales and less than 50 Million Yuan in total property)	99% of enterprises in Hangzhou are SMEs, with 5 Billion Yuan in total assets at this bank SMEs are defined below	The economic committee defined large enterprises in a list of 500 enterprises to be announced and defined SMEs as being outside of that list
6 Outline of Business				
1) Financial Conditions (All Branches)	(1999 Fiscal Year) Balance of Savings 750.3 Billion Yuan Balance of Funds 577.8 Billion Yuan	(End of 1999 fiscal year) 430 Billion Yuan 285 Billion Yuan (of which, 40% are SMEs)	(End of 1999 Fiscal Year) 364 Billion Yuan 157 Billion Yuan	(1999 Fiscal Year) 2,520.7 Billion Yuan 2,827.1 Billion Yuan
2) Financial Conditions (Hangzhou)	(End of September 2000, at present )	(End of September 2000 at present)	(End of 2000, at present)	(End of 2000 at present)
Balance of Savings	na	na	22.3 Billion Yuan	93 Billion Yuan
Balance of Loans	8.1 Billion Yuan ( 41.9% for SMEs )	3.7 Billion Yuan ( of which 61% are SMEs ) ( 2.3 Billion Yuan in the short term )	9.2 Billion Yuan ( of which 90% are SMEs )	67 Billion Yuan ( of which 40% are SMEs )
7 For SMEs	No future changes from the past, regarding the view on making Attitudes toward loans in assisting	With the objective of more financial support to SMEs, there were certain circumstances created and SMEs are actively being assisted	Lending terms are from almost 6 months to a year and 3 years for long-term loans however, if there is no security for operating loans to SMEs banks cannot lend the funds	Short-term operating funds in principle An insufficient information route difficult to understand SMEs from such as an inadequate loan management system
8 Methods for Searching for new customers	Nor clients or business will come when just sitting at one's desk Take the initiative to go out and do sales Search for clients and business taking the time to look for areas where competing banks do not go out to venture	Recruiting done by a variety of methods (other than at teller windows at banks, by telephone, circulation desks, the internet, etc.)	The first job of Client Managers, which consist of 40% in employee staff, ( 63 managers at this branch ) is the opening of the market. The manager must also analyze lending risk Granting of loans is the decision of the manager	1) Conducting detailed searches for various information on government publications 2) Obtain information on enterprises by loaning out new registrations from sections responsible for new registrations at the Administration for Industry and Commerce 3) Introductions from the Administration of Communications which we have very close ties with
9 Characteristics in Enforcing Action in Hangzhou	Good economic conditions in the Zhejiang especially in the Hangzhou areas. Advancement of many commercial banks of which are opening branch offices so as to not miss out on any opportunity	Since there are many SMEs in Hangzhou business has progressed Due to the present deficiency in loan funding the banks id requesting assistance from the main branch	This branch adopts rigid policies in the lending for SMEs which is not restricted to branch offices  There is no lending of funds if there is no security such as joint guarantee and mortgages	There are many SMEs involved in contract manufacturing and the handcraft industry in the Hangzhou district, and there are few large enterprises  Therefore this also bank deals more with SMEs
10 Problems/Measures to be taken For SME Finance	* Unstable management, intertwining of personal assets of the company manager and that of the company leading to a large risk in trust  * Setting of terms, ( checking collateral management conditions and prospects the disposition and morals of the manager )	Problems in providing financial support to SMEs such as a) an insufficient bank network, b) insufficient mortgage structure that is reliable (security of a powerful organization) c) Slow in IT procedures on the side of banks	Problems in lending to SMEs 1) Loan pre-assessing is difficult 2) Checking the accounts of funding is difficult 3) Controlling of funds is difficult	Lending to SMEs takes a lot of time and effort, and is costly as well as having a high risk
11 Future Efforts to be done for SMEs	Since large enterprises do not inquire at small and medium sized banks we only have but to pursue SMEs as our target Place importance on first the selection of clients and put the matter of security second	Maintaining good relations with clients through financial documentation developing high-quality enterprises in continuing to provide guidance for them	Act prudently with loans for SMEs in the future  There are a lot of loans for manufacturers at this bank The bank need not worry about borrowers running away from debt, since these manufacturers have facilities (factories)	The bank will be promote for the support to SMEs however it can never deviate from the main large principle of profit pursuit
12 Demands to the Government and to The Peoples Bank	* Improvement of security framework for credit guarantee	* There are many people around who wish for the opening of a branch but The Peoples Bank sets restrictions as to the number of branch offices that can be established  * Request for the creation of a trust system in which banks can feel secure in the lending of funds	* Improvement of security structures * This bank wishes to set some sort of priority policy for SMEs  The current financial policies were created for state-owned commercial banks	* Proof of the granting of loans with the guarantee of * Creation of conditions that will improve the foundations of security companies and have the ability to subrogate
13 Miscellaneous	* Circulation of Annual Report * 93.7% (1,358 companies) of company clients are SMEs	* No Circulation of Annual Report * Comparison of short-term and long-term lending are indicated by the main branch * Bank's objective is for the supporting the development of privately managed privately-operated and high-tech SMEs	* Circulation of Annual Report * The reason why industrial finance has not developed in China is due to historical reasons Long ago operation funds were used for the purpose of buying new equipment. * A small bank such as this bank cannot be involved in industrial finance on the the side of funding	* Circulation of Annual Report * 60% of company clients are SMEs

Table 4 1-2 (3) Outline of Corporate Commercial Banks (No 3)

Branch (Office) Name	Everbright Bank of China (Hangzhou Branch)	Merchants Bank (Hangzhou Branch)	Hangzhou Commercial Bank (Main Branch)
1 Year of Establishment and Location of Branch Offices	1992 Beijing ( Merger in March 1999 China Investment Bank)	1986 Shenzhen	1996/9/1 Hangzhou
2 Other Main Offices Established	2000/11 6 Branches serving under this branch	1997/5 9 Branches (A Branch scheduled to open by the end of this year)	Total of sub-branches and office branches in Hangzhou 74
3 Capital Stocks	280 Billion Yuan groups)	na (Main Stocks Hong Kong Merchants Administration、Government-owned enterprises)	4.25 Billion Yuan (50% Hangzhou City, 50% Large enterprises in Hangzhou)
4 Number of Employees	140(including sub-branches and branch offices)	200 (This branch only)	1400(all banks)
5 Definition of SMEs	Defining "large enterprises" as well-known merged enterprises with having relations with government-owned companies/listed companies and large-scale enterprises SMEs	Enterprises with loan balances of less than 10 Million Yuan	Definition of small enterprises (less than 5 million in Capital and less than 50 million in Sales volume) having less than 100 Employees Anything else other than defined medium sized enterprises
6 Outline of Business			
1) Financial Conditions(All Branches)	(1998 Fiscal year)	(1999 Fiscal Year)	(2000/10/31 at present)
Balance of Savings	439.3 Billion Yuan	na	100.6 Billion Yuan
Balance of Funds	313.0 Billion Yuan	na	81.0 Billion Yuan (for all SMEs)
2) Financial Conditions(Hangzhou)	(1999 Fiscal Year)	(End of September, 2000 at present)	
Balance of Savings	na	na	
Balance of Loans	15 Billion Yuan (of which 40% are SMEs)	na (loan balances of which 26.5% are SMEs)	
7 For SMEs Attitudes toward loans in assisting SMEs	Not much time has passed since the enterprises establishment, its business framework is small any bad loans As for the applicable terms for SMEs from the viewpoint of risk reduction there are regardless of equipment loans	This bank was not active in lending to SMEs In lending to SMEs equipment funds are small and operation funds are in the mainstream as the conditions made by banks are unfavorable for SMEs. There seems to be in the trend that in the use of private funding for equipment funds	As being a city of credit clients are all SMEs focused on banking As a result the ranked in the mid top of commercial banks
8 Methods for Searching for new customers	of enterprises in choosing one that commensurate with the type of support our bank offers old mature young enterprises and focus on the younger enterprises	active contact with various individuals who are interested in doing business/ who have low risk There are cases where some users are extremely eager to do business with the bank	As customers will not come by waiting the banks take their own initiative to conduct active sales
9 Characteristics in Enforcing Action in Hangzhou	Hangzhou is an active city both economically and financially ( Considered to in lead of the whole country as for savings) The development of enterprises is very active and their products are distributed throughout the country branches		A majority of the companies in Hangzhou are SMEs
10 Problems/Measures to be taken For SME Finance	The first problem is that their structure is small risk fact that the bank continues to lend to individuals with a lot of assets/property through substantial business managers	The first is a security problem The structure of SMEs are small and have low prevention of risk no provision can be made for valid security The second problem is insufficient business management There is a lot of family management, and no arise and the risks high	* Management is unstable and the personal assets of the company and that of the business manager are intertwined Therefore the trust risk is very high * In the terms for lending to small companies such as possession of collateral conditions in business and potential of the company no problems with the morals and disposition of the business manager
11 Future Efforts to be done for SMEs	advantage to the bank Support is targeted towards enterprises who have managers with good morals and character and who have strong solid products	Branch offices and sales office instructed for the financial support of SMEs which came from the orders of the main branch at the Peoples Bank In the future the bank intends to grant loans to SMEs which will be done by narrowing down to the enterprises with marketable goods and enterprises with good management	Priority to lending to SME regardless of larger enterprises wanting to borrow from them Targeting SMEs in Hangzhou in the future
12 Demands to the Government and to The Peoples Bank	government is there for backup is indispensable	* The Peoples bank requests the adoption of excellent policies for their SMEs * An environment where lending to SMEs can be conducted more conveniently	their their own private rules
13 Miscellaneous	* Circulation of Annual Report(All Branches and all sub-branches of Hangzhou)	* No Annual Report available for circulation * Percentage of SMEs involved in general business 51.3%	* No circulation of Annual Report * At the beginning of its establishment 67% accounted in bad loans, it is currently being controlled at 22% (Aiming for 10% in three years). * Targets for business is the city of Hangzhou only * The only bank that conducts business of state revenue of the city government

As described above, although there are many problems involved in lending money to small and medium enterprises, there are numerous shareholder-owned commercial banks in Hangzhou that would like to lend money to larger industries but are unable to, and these banks are staking their own existence on lending money to small and medium enterprises. The objective of these banks is financial gain, and when money is lent, the certainty of recovering the loan is an absolute condition of the lending. The necessity for succeeding in competition with other banks induces them to approach their operations with a certain wisdom and sagacity. For instance, these banks make themselves available at times and in locations where other banks are not operating, in order to search out new customers, and they visit the pertinent enterprises repeatedly to conduct discussions with the sales personnel, in order to ascertain for themselves what kind of people make up the sales staff. They work together with sales personnel to uncover materials that might serve as collateral, and make loans available to small and medium enterprises.

The following are specific cases that can be cited.

(1) Bonded warehouse type of loans

These are aimed specifically at small and medium enterprises that produce productive items. In small and medium enterprises where fixed assets are inadequate to serve as collateral, the volume of goods is normally determined based on equity capital, and the goods are sold and the loan money recovered before the next goods are stocked. This system means a longer product distribution cycle, and the speed at which the enterprise develops and grows is likely to be slower. When a bank lends money to this type of enterprise, the company signs an agreement to transfer the goods used as collateral to a warehouse specified by the bank. The bank then lends and recovers the funds based on the volume of goods in the bonded warehouse. Not only does this solve the problem of small and medium enterprises not having enough collateral to borrow money; it also promotes the distribution of the goods. Goods are used as collateral that can be easily stored and easily realized or converted, and for which prices are stable, so loan periods can be shortened. This system also has the advantage that, if a problem does occur with a particular shipment of goods, the organization storing the goods bears the impact of the loss, thus effectively controlling the risk of the credit loan.

Because of this system, the volume of goods transacted by one enterprise that also solved the problem of procuring funds rose in 1999 by 2 billion yuan in comparison with the previous year.

(2) Lending of export refund tax collateral

Because the export refund tax bracket is insufficient in relation to the volume of goods being exported by enterprises, it takes a certain amount of time for these refund tax funds to be returned to the enterprise, causing a shortage of funds on the enterprise side. In such cases, if a commercial bank has lent money to make up the difference, future refund tax funds can be used

as collateral. Before the bank lends money to the enterprise, it concludes an agreement with the company and the account designated for the export refund tax approved by the Tax Office of the government for that particular company is regulated, so that confirmation is made prior to the funds being lent that there are no problems with the refund tax application. The money is then lent to the enterprise, and when the loan comes due, it is withdrawn directly from the refund tax account, to repay the loan. This effectively solves the difficulties experienced by small and medium export-oriented enterprises and at the same time supports the growth and development of the enterprise.

(3) Loans based on joint sureties

The joint surety method takes advantage of the features of small and medium enterprises that are involved in a specialized market. Five or six of these enterprises are grouped together to configure a joint surety organization. Funds are lent to two or three companies within that organization at a time, while the other companies underwrite the trust guarantee.

(4) Loans based on a link between a small or medium enterprise loan and a corporate representative

Most small and medium enterprises operate on a small scale and involve a high element of risk. The corporate representatives of such enterprises are not always of the most upstanding character, and are not always cognizant of their trust obligations. For this reason, most commercial banks are reluctant to lend money to small and medium enterprises. Given these circumstances, some commercial banks, in order to avoid the risks involved in trust loans, link the small or medium enterprise and the corporate representative, so that the loan to the small or medium enterprise is shifted to an individual person who is the head of the small or medium enterprise. Alternatively, the assets of the corporate representative may be used as collateral for the small or medium enterprise, thus avoiding the risk of a trust loan.

(5) Loans for which the moveable collateral of a small or medium enterprise is transferred to a large enterprise, and the large enterprise assumes responsibility for the collateral to the bank

A small or medium enterprise that has a high credibility level turns over its own moveable properties (goods) as collateral to a large enterprise with which it has had an ongoing business relationship, and the large enterprise provides the collateral for that small or medium enterprise to borrow money. This system allows the small or medium enterprise to procure funds, and at the same time lessens the risk to the lending bank.

(6) Loans based on accounts receivable collateral or purchasing

This is called the factoring business, and is practiced by some commercial banks, but it is still at a somewhat experimental stage, and basically targets only large-scale enterprises with a high credibility level (naturally enough with the claim of accounts receivable). The volume of business handled in this manner is still low, and it will take some time before this practice is

enterprises

Incorporating this type of loan as a part of industrial finance was also studied, but the majority of shareholder-owned commercial banks said this type of loan would require small and medium banks such as themselves to lend large sums of money over long periods of time, and that, if they were to provide such loans, they would have to check the necessity for the small or medium enterprise to introduce the equipment for which the loan was requested, as well as the efficacy of the equipment and a diverse spectrum of other factors. Small and medium banks do not have the necessary personnel resources, funds, and physical capabilities to conduct such audits, and will be unable to be involved in such financing for some time to come.

### 3) Zhejiang Leasing Company

The overview of the company is as follows:

- The company was established in 1994 as a "Small and Medium Enterprise Leasing Company" and is the only leasing company in Zhejiang that has been approved as a people's bank (one of 14 such companies nationwide).
- As of the end of 2000, the company was capitalized at 240 million yuan (38% of which was provided by the government), had sales of 1 billion yuan, and employed 155 people (at the headquarters only).
- The company leases equipment to manufacturers in order to provide support for manufacturing operations, which was one of the objectives for establishing it. Last year, over 50% of the equipment leased was for manufacturing purposes (specifically, spinning machines, paper-making machines and other general-purpose equipment made by either domestic or overseas manufacturers with a high conversion rate).
- The definition of a small or medium enterprise is used extremely ambiguously. However, the Zhejiang Leasing Company targets companies that have a high likelihood of growth and are zealously involved in technological restructuring, regardless of the size and scale of the company. Frankly speaking, however, small and medium enterprises in general tend to have a small scale and a high risk factor, and it is difficult to include these enterprises as applicable targets.
- (When asked about specific cases) For equipment leased at 1 million yuan, the leasing conditions are a period of three years, and if lease payments to be made monthly, the monthly payment is 30,000 yuan. If payments are made every three months, the lease payment is 100,000 yuan. As a guide, the lease payments consist of half of the enterprise's ordinary operating funds. Five- and ten-year leases are also available, but mainly for medical equipment for use at state-run universities. When the lease conditions are set, the lending conditions in effect at that time at banks, which are competitors of the leasing company, are taken into consideration. After the lease has expired, the leased items are presented to the enterprise that

leased them (in effect, these are installment sales).

- As collateral, the company requires joint sureties from managers capable of providing them, in addition to the pertinent equipment, and the recovery rate is 99%.

As can be seen from the above, the Zhejiang Leasing Company was established for the purpose of providing support to enterprises by enabling them to invest in equipment in the form of a lease (to supplement industrial financing beyond the scope of what commercial banks can handle), and has proven to be effective in that respect (in actuality, there has been a case in which an enterprise turned down by a bank for financing was able to obtain a 5-year lease on 1 million yuan of equipment). However, as evidenced by the high recovery rate, the company evaluates its candidates extremely strictly, and chooses only those that are zealously involved in technological restructuring, and that have a high level of credibility and positive future prospects

(2) The current state of financing as seen by small and medium enterprises (results of questionnaire survey)

1) Actual responses from small and medium enterprises

The survey group visited 52 companies introduced by the Hangzhou Enterprise's Municipal Economy Commission, Enterprises Office, conducted discussions, and distributed questionnaires to them. From the standpoint of the banks, there are various reasons and excuses for the positions taken by the banks, as described above, but in the discussions and surveys, the enterprises stated the complaints listed below concerning the banks, and complained of unfairness, dissatisfaction, and financing problems.

- a) Banks take a negative stance with regard to financing for small and medium enterprises.
- b) The content of the bank review is not made clear, and takes too much time.
- c) Borrowing funds for equipment is extremely problematic (banks are reluctant to lend funds),
- d) The procedures for borrowing money from banks are complicated.
- e) Applicants are treated unkindly by bank supervisors.
- f) Banks refuse to lend the necessary sums (the financing sums are too low)
- g) Banks are reluctant to lend money to enterprises in rural areas.
- h) No time is allowed for installation of the equipment (or the time allowed is extremely short)
- i) Long-term borrowing is not permitted.
- j) Only short-term borrowing is permitted, even for loans of equipment funds. (This means that repayment of the loan must begin even before the machinery and equipment is in full-scale operation, which puts an extremely heavy burden on the enterprise. Under the present conditions, borrowing money from banks to purchase new equipment or expand

existing equipment is impossible.)

- k) When a new loan is first made, personnel from the bank visit the plant, but rarely visit after that (even though money continues to be borrowed).
- l) There is no public credit guarantee system.

## 2) Results of the questionnaire survey

Under "Items Important to Business/Sales", procurement of funds was listed as the second problem in importance. Because of that, the questionnaire results were analyzed and tabulated separately for each item related to financing. The results are listed in Table 4.1.3, with the following items being ascertained from those results.

When the results were tabulated, the figures were based on responses from 50 enterprises, with large enterprises being defined as those having capital funding of 50 million yuan or more, medium enterprises being defined those with capital funding of between 20 and 50 million yuan, and small enterprises being defined as having capital funding of 20 million yuan or less. In terms of employees, large enterprises are defined as having 500 or more employees, medium enterprises as having between 100 and 500 employees, and small enterprises as having 100 or fewer employees. As a result, based on capital funding, there were six large, eight medium, and 36 small enterprises. Based on the number of employees, there were 15 large, 30 medium, and five small enterprises.

- a) Compared to Japan, Chinese enterprises have a relatively low level of funding, but it can be inferred that they have a large number of employees.
- b) Many of the enterprises that answered the questionnaire have borrowing relationships with state-owned commercial banks, and only three enterprises that have borrowing relationships with shareholder-owned commercial banks. Even in those cases, the main bank was a state-owned commercial bank, as explained earlier. (Multiple replies were permitted in the questionnaires, so the figures do not necessarily match the number of enterprises )
- c) Of the borrowed funds, 64.4% (29 out of 45 cases) were for operating funds, and the remainder were for borrowed for equipment use.
- d) Of the enterprises that borrowed money, 70.7% (29 out of 41 cases) had a repayment term of one year or less, and the remaining number of slightly under 30% had repayment terms of over a year
- e) Thirty-eight out of 50 enterprises (76%) replied that they have a need for funding. Ten said that they needed the funds for operating capital, while 12 said the funds were needed for equipment and 16 said the funds were needed for both operating capital and for equipment. A total of 28 enterprises, comprising 56% of the whole, that said they needed funding for either equipment purposes or for both operating and equipment expenses.





f) Asked about problems with borrowing funds from banks, 22 enterprises cited difficulties in borrowing money because of insufficient collateral or sureties. Other problems cited were complex procedures and too much time involved (16 enterprises), banks not lending the full amount requested (11 enterprises), banks having a negative attitude towards financing (9 enterprises), and the lack of a public credit system (5 enterprises).

[Reference] A large percentage cited complex procedures and too much time involved as complaints, but because banks are responsible for assuring a secure recovery of the funds lent, they need to examine the business of the pertinent enterprise carefully before lending money to small and medium enterprises, and to sufficiently assure that the funds will be recovered. This results in long periods of time being required for examination in some cases, and small and medium enterprises trying to borrow money need to have some understanding of this situation.

g) A large number of small enterprises (based on classification by capital funding) complained that banks have a negative attitude with regard to financing and that banks will not lend the full amount requested. The fact is that state-owned commercial banks (most of the enterprises targeted by the questionnaire survey have a borrowing relationship with state-run commercial banks -- see b. above) do indeed have a negative attitude concerning lending to small and medium enterprises, or decrease their risk by decreasing the amount of money lent.

#### 4.1.4 The current status of the credit guarantee system

(1) There are said to be eight credit guarantee companies operating in the Hangzhou district, seven of which replied to the questionnaire concerning the current situation. The following results were ascertained based on their responses (see the overview of credit and securities companies in Table 4.1.4)

- 1) All of the companies were established relatively recently, and have been making regular repayments, so there are no cases in which subrogation has been required.
- 2) Capital funding is low (96.36 million yuan for the seven companies in total, with the lowest capital funding being 4.04 million yuan for the Jianggan Credit Guarantee Promotion Assembly of Jianggan Area Small and Medium Enterprises and the largest being 40 million yuan for the Risk Fund of Bio Factor Engineering Enterprises).

Table 4.1.4 An overview of credit and guarantee companies

Definition	Credit Guarantee Center of Xihu Area Small and Medium Enterprises	Credit Guarantee Promotion Assembly of Jianggan Area Small and Medium Enterprises	Hangzhou Huimin Credit Co., Ltd	Hangzhou Hi-tech Investment Guarantee Co., Ltd	Zhejiang Zhongzai Guarantee Co., Ltd	Credit Guarantee Company of Hangzhou City Gongshu Area Small and Medium Enterprises	Risk Fund of Bio Factor Engineering Enterprises
Date established	Sept 1999	Reorganized Aug 2000	Jan 27, 2000	Mar 29, 2000	Aug 24, 2000	Mar 2000	Aug 2001
Capitalization	4.92 million yuan	4.04 million yuan	10.4 million yuan	15 million yuan	20 million yuan	2 million yuan	40 million yuan
Investors	Municipal 85.4% Limited liability companies 14.6%	Jianggan Bureau of Finance 99% Private limited-liability companies 1%	City and district finance administration 28.8% Industrial / commercial enterprises 4.8% Private enterprises 66.3%	Gaoxin Technology Development Committee 83.33% Gaoxin technological enterprises 16.67%	___ 40% ___ 35% Gaoxin ___ Co 25%	District financial administration 90% Private Industry Association 10%	City financial administration 100%
No. of employees	3	2	5	4	12	5 (incl. plural offices)	N/A
Target company conditions	Small or medium enterprises in Xihu area	Small or medium enterprises in Jianggan area	Small or medium enterprises in Hangzhou area	Small or medium enterprises in Gaoxin technical development area	Small or medium enterprises in Hangzhou City	Small or medium enterprises in the district	Small or medium enterprises in biotechnology fields
Definition of small or medium enterprise	Unclear (considered as capitalization of 5 million yuan or less)	Unclear	Unclear	Unclear	Unclear	Unclear	N/A
Max /min securities amount	Max 1 million yuan Min 100,000 yuan	Max 500,000 yuan/enterprise Min 40,000 yuan	Max 9 million yuan Min 300,000 yuan	Max 2.5 million yuan Min 200,000 yuan	Max 5 million yuan Min 50,000 yuan	Max 500,000 yuan Min 100,000 yuan	N/A  N/A

4.1 Current Status of Financing at Small and Medium Enterprises

Guarantee term restrictions	1 year max	As a rule, 6 months, 1 year max	Operating capital 1 year max	Less than 1 year	1 year	3 months to 1 year	3 years max
Aggregate amount of consent	13.75 million yuan (Feb 2001)	32.06 million yuan (Feb 2001)	83.85 million yuan (Jan 2000)	27.20 million yuan (Feb 2001)	21 million yuan (Feb 2001)	4 million yuan (Feb 2001)	20 million yuan (Feb 2001)
Balance of guarantee	8.8 million yuan (end of Feb 2001)	9.12 million yuan (end of Feb 2001)	46.05 million yuan (end of Jan 2000)	17.1 million yuan (end of Feb 2001)	1 million yuan (end of Feb 2001)	2.1 million yuan (end of Feb 2001)	N/A
Percentage of guarantee covered	100%	50%	100%	100%	80/100%	N/A	N/A
Contrapuntal repayment	None	None	None	None	None	None	None
Amount of recovery or compensation	None	None	None	None	None	None	None
Percentage guaranteed (Calculated as annual rate)	Less than 3 months 0.96% annually 3-6 months 1.2% annually 6 months or more 1.44% annually	None	Less than 3 months 1.2% annually 3-6 months 1.5% annually 6-9 months 1.8% annually 9-12 months 2.8% annually	Based on loan amount, term, and whether or not reverse mortgage exists	Max monthly interest 0.3% (3.6% annually)	N/A	N/A
Deposit system	1/5 of guaranteed amount percentage	N/A	1/5 of guaranteed amount percentage	None	None	N/A	N/A
Rate of guarantee multiplication	Capitalization x 5	Capitalization x 5	Capitalization x 5	Capitalization x 5	Capitalization x 8	Capitalization x 5	N/A
Name of bank to which guarantee is made	N/A	City commercial banks only	Many in addition to commercial banks	Construction banks, other	N/A	N/A	N/A
Notes		*Formerly Jiangnan Small and Medium Enterprise Securities Fund, estab May 1999	*Formerly targeted only small and medium enterprises in the Commerce Federation				

3) Seven of the companies can be classified in the following two categories, based on the personalities of the investors.

[1] Companies established through financial funding (an investment ratio of 50% or higher): 5

[2] Companies in which the enterprise has put up 50% or more of the funding: 2

4) The following results when the seven companies are classified based on the target of the guarantee:

[1] Companies formed in order to support the development of high-level new technology and bio-technology: 2

[2] Companies formed in order to support small and medium enterprises in the region: 3

[3] Companies formed in order to provide overall support to small and medium enterprises in Hangzhou: 2

5) The guarantee multiplication for each company is 5-fold (8-fold for one company), but capital funds are the only financial resource for subrogation.

6) A security guarantee term of less than one year is too short (the term is three years only for one company), and in general, the guarantee rates are too high.

7) The number of staff, including overall accounting staff, is only three to six people, which is too low (only one company has 12 people), and although independent inspections are being carried out, there is some doubt as to the ability to carry out inspections in some cases. Also, if subrogation is implemented, the part of the party demanding repayment can anticipate delays, and it is not clear how such situations are being dealt with.

8) The rate of securities covered is 100% for many companies

(2) Problems and hopes cited by banks

1) Problems

a) Many enterprises have been established fairly recently, and have not sufficiently matured.

b) Capitalization is too low, and the ability to handle subrogation is questionable. As a result, there is a cap on the amount of funds used.

c) Judging by the number of staff, most enterprises are probably not carrying out adequate inspections

d) In many cases, the employees of guarantee companies are not sufficiently familiar with banking operations.

2) Hopes

Banks would like to see enterprises seek methods such as, for example, clarifying governmental responsibilities, so that the credit guarantee system can be used without worrying.

(3) Problems and hopes cited by guarantee companies (items that come up at seminars)

1) Problems

- a) Currently, guarantee companies do not have the ability to handle subrogation.
- b) Guarantee amounts are too low, and the wishes of enterprises and banks cannot be fulfilled
- c) Guarantee companies would like to see guarantee cover rates lowered, and would like to see banks assuming some of the risk.
- d) There are no measures for governmental support and preferential treatment.

2) Hopes

- a) Guarantee companies would like to see re-guarantee companies established at the national, county, and city levels, in order to diversify risks.
- b) Training programs should be implemented for supervisors overseeing securities operations, and these programs should be sponsored by the Economics Committee.
- c) Guidance should be provided in configuring a network to keep companies apprised of current conditions at small and medium enterprises

#### **4.1.5 Financial issues and improvement measures being implemented by Hangzhou City to promote small and medium enterprises**

(1) Financial issues

Following analysis of the current financial situation at small and medium enterprises in Hangzhou City, the following items were pinpointed as problems when the city provides financial support to promote small and medium enterprises.

- 1) The significance and scope of small and medium enterprises cannot be clarified.

There is no standardization as to how financial organizations approach and handle the question of how small and medium industries are defined, and their scope. Depending on the organization involved, (1) the organization depends on the definition provided by the state (fixed assets of 50 million yuan or less, capitalization of 500 million yuan or less), (2) any enterprise with fixed assets of 50 million yuan or less is defined as a small or medium enterprise, (3) a definition is provided only for small enterprises (those capitalized at 50 million yuan or less, 100 or fewer employees, and sales of 50 million yuan or less), while any other enterprise is defined as being medium sized,

or (4) enterprises are defined as small or medium based on no firm grounds. Thus, the definition and scope of a "small or medium enterprise" differs from one bank to another.

2) The various commercial banks are providing the financing for operating funds (commercial financing) required by enterprises involved in manufacturing, despite various problems involved therein. However, funding for financing for equipment funding (industrial financing) is provided by the city of Hangzhou only for a number of large enterprises with outstanding records, and no such benefits are provided for small and medium enterprises.

3) Dedicated financial institutions that should be serving as the nucleus of lending for small and medium enterprises do not exist.

As explained earlier, financing for small and medium enterprises involves extreme delays and high costs, and if carried out in parallel with financing for large enterprises, financing for small and medium enterprises is pushed aside, with a strong possibility that such financing will be extended only in a negative and passive manner. If these small and medium enterprises are to be promoted in terms of financing, we will need banks that will serve as a nucleus to push through financial support, led by various financial organizations.

4) Currently, there are no preferential treatment programs (low-interest, long-term repayment) available through financial institutions for the promotion of small and medium enterprises.

Financial support for auxiliary financial grants (funds for scientific and technological development, funds for technological renovation, seed funds, etc.) are available for enterprises in certain fields, and these can be used by small and medium enterprises, but various stringent conditions apply, preventing many small and medium enterprises from accessing these funds.

5) The government is not providing any trust and credit measures to lessen the risk assumed by financial organizations for providing credit to small and medium enterprises.

Government and people's banks request that various financial institutions provide active financial support to small and medium enterprises, but those financial institutions do not have sufficient trust, collateral or integrity to follow those policies even if they are willing to do so in the first place. Commercial banks, which operate based on the industrial objectives of the pursuit of profits and the assurance of stability, are limited in the amount of risk they can assume should they take on the burden of providing financial support. For this reason, governments are being called on to provide guidance and leadership in establishing credit and securities mechanisms.

## (2) Directions of improvements

Many of the small and medium enterprises in Hangzhou City face problems when it comes to procuring financing, and some of these, although they appear to be stones in the rough, could well

turn out to be valuable diamonds with the right polishing. Active support of such polishing is a key element of promoting small and medium enterprises, and means are needed to move in that direction. For this reason, it is necessary to find solutions to the problems noted above, and the following steps merit consideration when contemplating possible solutions.

1) Establishing industrial financing to support the promotion of small and medium enterprises from a financial standpoint

City governments serve as the representatives of regional societies that are the primary beneficiaries of promoting small and medium enterprises, but these governments need to take rapid steps to establish the frameworks for industrial financing that cannot currently be supplied by commercial banks. The following present a detailed view of specific items and measures for achieving this goal.

2) Clarifying the scope of small and medium enterprises to be promoted (types of enterprises, scopes of enterprises, etc.)

(This has already been pointed out in other chapters) It is necessary to clarify the scope of "small and medium enterprises" entitled to receive significant support from a financial standpoint.

3) Establishing financial institutions specifically for the purpose of lending money to small and medium enterprises

Even if government-run and people's banks are willing to establish the policies and regulations for financial support for small and medium enterprises, in practical terms, certain banks should be identified as the nuclei through which lending to small and medium enterprises is carried out, because of the delays and costs involved in such lending. In order to do that, it is important to set up banks specifically for the purpose of lending money to small and medium enterprises.

Possibilities are being studied for creating state-based "small and medium enterprise development banks" that would have political orientations. According to unofficial information, the primary objective of creating such banks would be to support the listing of small and medium enterprises on the stock market, and this objective does not necessarily match that of Hangzhou City in promoting small and medium enterprises in the future. The specific contents involved in creating such banks have not yet been clarified, either, and this is being seen as a state-based problem, so that all that is considered necessary on our part is to study the question of how Hangzhou City will handle such banks if they were to be created.

It might be better to study the possibility of setting up specialized banks at the level of the regional government. If establishing new facilities is not a possibility, Hangzhou City needs to study the possibility of converting existing commercial banks in Hangzhou, from a developmental standpoint, into banks specializing in the promotion of small and medium enterprises in the city.

4) Setting conditions for borrowing money that make it easier for small and medium enterprises to borrow and repay funds

When establishing steps and policies for promoting small and medium enterprises, it is necessary to regulate "low-interest, long-term financing conditions" that make it easier for small and medium enterprises, which are the borrowers, to borrow and repay funds. Currently, when small and medium enterprises borrow the funds necessary for renovating equipment, building new facilities and installing state-of-the-art technology, repaying the loan within a year is a condition of the loan. This financing condition can hardly be said to further the promotion of such enterprises. A repayment period of no less than five years is requisite, with an initial grace period of six months.

Currently, interest rates are low, and although borrowing enterprises were not asked about unfair practices and complaints involving appropriate interest rates, it is conceivable, given that interest rates fluctuate in response to the financial situation in effect at the time, that the rates will exceed 10% at some point in the future (reference: Table 4.1.5, Trends in deposit and loan interest rates), and it will no longer be practical to borrow money for equipment and facilities because of the high interest rates applied. Consequently, special consideration needs to be given to holding interest rates at a fixed level of around 5%, even if actual interest rates rise past that point in the future.

**Table 4.1.5 Trends in deposit and loan interest rates**

## 1) Lending interest rates (unit: annual interest rate %)

	1996 5.1	1996 8.23	1997 10.23	1998.3.25	1998 7.1	1998 12.7	1999 6.10
Less than 6 months	9.72	9.18	7.65	7.02	6.57	6.12	5.58
6 months to 1 year	*	10.08	8.64	7.92	6.93	6.39	5.85
1 year to 3 years	13.14	10.98	9.36	9.00	7.11	6.66	5.94
3 years to 5 years	14.94	11.7	9.90	9.72	7.65	7.20	6.03
More than 5 years	15.12	12.42	10.53	10.35	8.01	7.56	6.21

\*Operating capital funding loan interest rate 10.98% Equipment funding loan interest rate 11.52%

## 2) Deposit interest rates (unit: annual interest rate %)

	1996.5.1	1996.8.23	1997.10.23	1998.3.25	1998.7.1	1998.12.7	1999.6.10
Ordinary deposits	2.97	1.98	1.71	1.71	1.44	1.44	0.99
Fixed-term deposits 3	4.86	3.33	2.88	2.88	2.79	2.79	1.98
6 months	7.20	5.40	4.14	4.14	3.96	3.33	2.16
1 year	9.18	7.47	5.67	5.22	4.77	3.78	2.25
2 years	9.9	7.92	5.94	5.58	4.86	3.96	2.43
3 years	10.8	8.28	6.21	6.21	4.95	4.14	2.70
5 years	12.06	9.00	6.66	6.66	5.22	4.50	2.88

(Source) People's Bank of China, Hangzhou Branch

It is also necessary to investigate whether or not support efforts also target operating funds and equipment funds, when considering the above conditions for preferential-treatment loans. This fact-finding organization, judging from the results of surveys conducted on the status of various operations being carried out at commercial banks, and on the degree to which the demand for loans is being satisfied by people's banks, considers that operating funds required for daily operation can be left to commercial banks, and that there is no need for support to be provided in the form of special preferential-treatment loan conditions. It is thought that preliminary moves need to be taken to introduce preferential-treatment conditions that will facilitate the equipment investment loans (funds to purchase or lease equipment and various operating funds that are necessary when the equipment is introduced and installed) that contribute to measures encouraging the development and expansion of regional economies, given that such economies promote small and

medium enterprises and absorb surplus labor.

5) Setting up credit guarantee mechanisms (including reinsurance systems)

Because no clear mechanisms have been set up to clarify governmental responsibilities when the government or a governmental organization reinsures the debt guarantees of a credit guarantee company, commercial banks provide only the minimum necessary cooperation to small and medium enterprises, in order to lessen their own lending risks. The result is that, in extreme cases, the amount of the loan may be reduced, or the loan period may be shortened, placing an even heavier burden on the small or medium enterprise that is borrowing the funds. A system is called for that establishes credit guarantee mechanisms for clearly defining governmental responsibility in order to lessen the risk incurred by commercial banks when lending funds to small and medium enterprises; specifically, the establishment of a reinsurance system is called for under which the government will assume the majority (70% to 80% in Japan) of the debt guarantees of credit guarantee companies.

Should such credit guarantee mechanisms be established, however, the credit risk analysis of the applicant enterprise currently conducted by commercial banks might well become easier, so it is necessary to consider means by which part of the risk will be shared by financial organizations, for example, by setting the credit guarantee limit for the credit guarantee company at 70% of the amount being lent. This would also tend to reduce the fiscal burden involved in the reinsurance of debt guarantees.

6) It is necessary to consider means by which commercial banks, particularly those that are shareholder-owned, will continue the efforts currently underway to reduce lending risks, making it easier to polish the "diamonds in the rough" that can become valuable assets.

In order to encourage commercial banks to continue their current efforts to find blue-chip borrowers (to discover the "diamonds in the rough"), they need to be incorporated into a financial structure that promotes small and medium enterprises. To do this will require two approaches: one is to leave the lending of operating funds for small and medium enterprises to commercial banks, as described earlier, and the other is to establish credit guarantee mechanisms through the guidance and leadership of city governments, in order to lessen the burden of credit risk that plagues commercial banks

(2) A financial assistance organization (proposed) to promote small and medium enterprises in Hangzhou City

Taking into consideration the financial issues and the potential solutions noted above, a financial assistance organization is proposed as shown in Fig 4-1-2, to promote small and medium enterprises in Hangzhou City

**Fig. 4.1.2 A financial assistance organization (proposed) to promote small and medium enterprises in Hangzhou City**

Equipment funding -- Industrial financing -- Lending operations at state-run banks Measures.

[1] Establishment of dedicated state-run banks that deal specifically with financing involving small and medium enterprises -- Developmental restructuring of commercial banks in Hangzhou City

[2] Approval of preferential-lending conditions (low interest rates and long repayment terms)

Standard conditions: Lending rates within 70% of the overall required amount of the loan (= meaning that the enterprise provides equity capital consisting of 30% or more)

Interest rates: Annual 5% base (fixed), regardless of the financial situation)

Term: 5 years or more (including the period for equipment installation)

Security: Joint sureties of new equipment and manager

[3] Determination of lending target and lending conditions -- Setting conditions for preferential treatment that go beyond the standard conditions (for example, modernization of equipment, strengthening production capabilities, items related to environmental conservation, labor-intensive enterprises, etc.)

[4] Investigation of lending methods --- Introduction of deputy loans and equipment leasing

[5] Investigation of methods by which loan sources can be assured -- Borrowing from people's banks, independent procurement, government funding deposits, etc.

Operating funds -- commercial financing -- practical use of commercial banks

Measures: Refurbishing of the trust guarantee organizational structure

(1) Introduction of a reinsurance system by city governments -- Reinsurance of 70 to 80%

(2) Establishment and refurbishing of industrial (nonfinancial) firms under the guidance and leadership of the city government

(3) Equity and membership in such industrial (nonfinancial) firms by firms that are currently credit guarantee companies -- Establishment of a system for joint responsibility

(4) Relaxation of conditions under which credit guarantees can be accepted, partial sharing of risks with banks, and other measures

## 4.2 The present situation and the future development of the risk capitals

### 4.2.1 The background and the situation for promoting the development of the risk capitals

The latter half of 1980s falls on the incunabula of the risk capital business (hereinafter referred to as 'the venture capital') of China. Venture capitals affiliated with respective government offices and local governments were established one after another starting with the first venture capital in China, 'China Venture-tech Investment Co., Ltd', that was founded in September 1985 with the ratification of the State Council. Most of these venture capitals were funded 100% by the government. The management of those venture capitals was uncertain and rough. While declaring the emphasis placement on investment in high-tech ventures as one of their policies, the venture capitals actually invested mostly in real estate companies and commercial establishments. Their management was so shoddy that they were even involved in illegal loans. Under such circumstances, most of the venture capitals fell into slumping business by early 1990s. With the breakup of China Venture-tech Investment Co., Ltd. in June 1998, the incunabula of the venture capital of China turned out to put an end without bringing any promising results.

On the other hand, though the Chinese economy had achieved as high as approx 10% of annual growth rate on average since 1978, it sharply slumped since the latter half of 1997. The high economic growth was achieved by throwing in a good deal of fund and personnel, i.e. it was achieved by an expansionism that placed quantity before quality. The slowdown of the economic growth in 1997 intensively opened the eyes of the Chinese government that such an economic policy had already reached the limit and that they need an economic growth with pursuit of substantial efficiency. Large problems that the Chinese government is facing on the current economic policies are a buildup of competitive power in preparation for the post-affiliation to WTO and upgrade of the industry by the high technology, which is closely related to this paper.

Based on those situations, the People's Construction Center made a proposal, so-called 'proposal No 1', to the effect that "China should develop the national venture capital immediately consulting the experiences of foreign countries", at the National Political Conference in March 1998. This proposal aroused an echo both on the government and the private sector and triggered the current venture boom. Moreover, the Chinese government issued an official announcement, 'Decisions made by the Central Committee of the Chinese Communist Party and the State Council on Technology Innovation and Buildup, High Technology Development, and Promotion of Industrialization' in August 1999. This 'Decisions' gave the fosterage of high-tech industry the status of a national level project and advocated a support by the state. Specific support policies are composed of nine fields such as upgrading of the direct financial market including the venture capital. To meet the policies, 'China International High Technology Trade Conference' was co-hosted in October of the same year by the Ministry of Foreign Economic and Trade, the

Ministry of Science and Technology, the Ministry of Information Industry, the China Science department, and the Shenzhen government. This conference, where venture companies of both domestic and international, investors, and investment management companies gathered in a hall, built up momentum for the venture company fostering activities by both the government and the private sector at a stroke.

As of November 2000, there are approx. 100 venture capitals and the total registered capital amount reaches approx. 9.3 billion yuans. The representative venture capital is 'China High Technology Small and Medium Enterprises Investment Fund' that was established in June 1999. This fund is backed up comprehensively by the State Council and run jointly by the Ministry of Science and Technology and the Ministry of Finance. The fund is supposed to invest in the subjects recommended by the respective local governments on a scale of one billion yuans every year for three years from 1999. It already invested the total amount of one billion yuans in 1,200 subjects in 1999. Out of the total amount, approx. 21% was invested in a national level R & D project and in industrialization of '863 Project'. Approx. 26% was invested in a collaborative project by industry, academia and government. Approx. 24% was invested in support for business establishment by those engaged in research and development. Approx. 10% was invested in support for business establishment by returnees from study abroad. The fund provides a system that allow the companies that obtain investment from this fund to simultaneously obtain a loan from the government-owned commercial bank

**Table 4.2.1 Top 13 venture capital (VC) in terms of the capital scale**

Name of Firm	Time of Establishment	Capital as of 1998 (Several dozen thousand yuans)	Capital as of 2000 (Several dozen thousand yuans)	Key Investment Field	Major Investor
Shenzhen City High Technology Venture Investment Co., Ltd	Jun 1998	70,000	160,000	IT industry, etc	Shenzhen Science and Technology Department
Beijing Science and Technology Venture Investment Co., Ltd	Oct 1998	50,000	50,000	IT industry, electronics, new material, biotechnology	Beijing government (Ministry of Finance)
Beijing High Technology Industrial Investment Co., Ltd	Oct 1998	31,000	31,000	Bio-pharmacy, modern agriculture, environment, system development	Beijing government (Science and Technology Committee)
Shanghai Venturetech Investment Co., Ltd	Aug 1999		60,000	IT industry, new material, bio-pharmacy	Shanghai government (Ministry of Finance)
Guangdong Science and Technology Venture Investment Co., Ltd	Oct 1997	20,000	50,000	IT industry, electronics, new material, biotechnology	Guangdong government (Ministry of Finance)
Jiangsu High Technology Venture Investment Co., Ltd	1992	15,000	65,000	New material, the fields recommended by the province government	Jiangsu government (Ministry of Finance)
Shenzhen High Technology Industrial Venture Investment Co., Ltd	1995	10,000	45,000	Credit guarantee for loans against the fields or projects recommended by the Science and Technology Department	Shenzhen government (Science and Technology Department)
Shenyang Science and Technology Venture Investment Co., Ltd	1992	8,000	10,000	New material, IT, electronics	Shenyang (Science and Technology Committee)
Zhejiang Science and Technology Venture Investment Co., Ltd	1993	6,000	10,000	IT, biotechnology, new material, environment	Zhejiang government (Ministry of Finance, Science Committee)
Tianjing Science and Technology Development Investment Co., Ltd	Oct 1997	5,000	14,000	Electron, electronics, anti-counterfeit technology	Tianjing government (Science and Technology Committee)
Shanxi Science and Technology Development Fund Co., Ltd	1993	12,000	12,000	Biotechnology, electronics, upgrade of traditional industries	Shanxi government (Science and Technology Committee)
Wanxiang Venturetech Investment Co., Ltd	Nov 2000		30,000	Bio-pharmacy, IT, system development, environmental conservation	Lead by the private capital
Zhejiang Tiantang Guigu Venture Technology Investment Co., Ltd	Nov 2000		15,680	Software development, chemical pharmacy, electronics	Joint capital by the government and the private sector

(Source) Researched by JICA research group

## 4.2.2 Policies to foster high-tech industries and the incubation business of the government

### (1) Fostering of high-tech industries

There is no unified concept or recognition for the venture company even now in China because the related laws and regulations have not introduced yet. Policies to foster venture companies are interpreted not in the category of policies to support SMEs or policies to create jobs but in the category of policies to create new industries and policies to upgrade industries. The organization for exclusive management of the policies is the National Department of Science and Technology and the recipient is 'National High-Tech Industrial Development Area' (Chinese version of incubator). In other words, policies to foster venture companies are synonymous with policies to foster high-tech companies. Companies are hailed as venture companies and admitted to enter 'National High-Tech Industrial Development Area' only when they are certified to be high-tech companies.

Specifically, there are two steps to be certified as a 'high-tech company'. Firstly, the business must be classed as a field of high-tech industry specified by the National Department of Science and Technology. Secondly, the company must meet the 'specific conditions'. The National Department of Science and Technology (Science and Technology Committee at that time) specified the following 11 fields as certified high-tech industries in the 'Conditions and Procedures for Certification of High-Tech Company in National High-Tech Industrial Development Area' they notified in March 1991

- Microelectronic science and IT technology
- Ecology and environmental conservation technology
- Earth science and ocean development technology
- Space science and astronautics
- Basic substance science and radiation technology
- Photoelectron engineering and electronics
- Medical science and bio-pharmaceutical technology
- Life science and biotechnology
- Other new technologies and construction techniques applicable to upgrade of traditional industries
- Materials science and new material technology
- Energy science, new energy and energy saving technologies

(Source) 'Conditions and Procedures for Certification of High-Tech Company in National High-Tech Industrial Development Area' Article 4

A company which is classed as one of the above mentioned business fields can be certified as a high-tech company if they meet all of the under mentioned seven 'specific conditions'.

**Table 4.2.2 Specific conditions to be certified as a high-tech company**

Points to Certify	Contents of criteria
Entrepreneur	Whether or not he or she is a specialist in the field of business?
Registered capital	Whether or not it is 100 thousand yuans or more?
Administrative ability	Whether or not the company is equipped with a sound corporation charter, an organization, and a management regime?
Business requirements	Whether or not the company has secured a place of business activities and essential establishment?
Product structure	Whether or not the company holds high-level technology and product? And whether or not the sale of service or products they provide based on their technology accounts for 50% or more of their gross turn over?
Employees' composition	Whether or not employees with academic background of college graduate or higher account for 20% or more of the total number of employees?
Investment in R&D	Whether or not an annual R & D expense accounts for 3% or more of the gross turn over?

(Source) Digest from 'Conditions and Procedures for Certification of High-Tech Company in National High-Tech Industrial Development Area'

(2) Other relative projects lead by the government

① 'Challenge-cracking project'

It is an R & D project concerning key fields of the basic science that the National Planning Committee, the Economic Committee, the Science and Technology Committee and the Ministry of Finance have jointly promoted since 1983. The purpose of this project is to promote R & D by picking up such fields of basic science that may contribute to the future development of the economic society based on the 'five-year project for the development of the national economy'. During the term of 'the eighth five-year project for the development of the national economy', approx. nine billion yuans of research and development expenses was thrown in and research results extending over 60 thousand items were achieved.

② '863 project'

This project is also referred to as 'high technology R & D project'. It is the first 'pemmican of the high technology development project' in China that was advocated by four prominent scientists including Prof. Wang Daiheng of the China Science department in March 1986 and created by a joint research group consisting of 200 scholars and specialists. This pemmican describes the project to catch up with the global standard in six fields (15 fields in specialism) of biotechnology, aerospace technology, telecommunication technology, laser technology, energy development, and new material development in 15 years from 1986. The project intends to make the most of those technologies as the prime motor of the sustainable economic development in the 21st century.

③ 'Torch project'

This is a technology transfer project that the National Science and Technology Committee has advocated since August 1988. It aims to upgrade the level of industry by applying and transforming the results of R & D to the industry and accordingly to increase the constituent ratio for high-value added products in the export amount and the gross national product. This project has been promoted by the National High-Tech Industrial Development Area, the Venturetech Service Center, and high-tech companies in a kind of three-cornered tie. Most of venture companies that are in the later stage at present were established in this project.

④ 'Collaboration project of industry, academia and government'

This project was started by the collaboration of the Production Office of State Council, the National Education Board, and the China Science department in 1991. This project built a university network on a nationwide scale with emphasis on the technological transfer between a university and a company and the fosterage of venture companies at universities. Listed companies were born from many universities such as Beijing University, Tsinghua University and Harbin University under this project.

⑤ 'Technological progress project for SMEs'

This project was started in June 1999 under the initiative of the National Department of Science and Technology and the Ministry of Finance. It intends to introduce technology of SMEs and support high-tech venture companies. In addition to the fund supply of local governments, the project provides small businesses with an aid for loan interest and makes an equity investment in them with the object of supporting venture companies in seedtime or in the early stage.

(3) Incubator

The high-tech companies that could get the above mentioned assistance are expected to play a role of hard-core venture companies in China today. 'High-Tech Industrial Development Areas' of

the nation and local governments that have been established all over the country, 'Venturetech Service Center', and 'International Venturetech Service Center' are supposed to take charge of the incubation project for those companies. 'National High-Tech Industrial Development Areas' have been already established in 52 places since the State Council announced 'Interim Provisions of Some Policies on National High-Tech Industrial Development Areas' in 1991. The number of companies that made an entry to the industrial development areas by 1998 amounted to 16,097. The industrial development areas in Beijing, Shenzhen, Shanghai, Xian and Suzhou are enjoying the highest prominence.

**Table 4.2.3 Overview of the National High-Tech Industrial Development Area**

Item	1992	1996	1997	1998
No. of companies	5,569	13,772	13,681	16,097
No. of employees (thousand)		1,290	1,475	1,836
Sales amount (hundreds of million yuans)		2,300	3,387	4,939
Net profit (hundreds of million yuans)	23.93	140.5	206.6	256.2
Export amount (hundreds of million US\$)	16.35	43.0	64.8	85.3

(Source) Materials of Torch Development Center, Science and Development Department

#### 4.2.3 The current status of Hangzhou and the local government's policies to promote supports

##### (1) Classification of venture companies in Hangzhou

The nature of the venture company varies widely. The venture companies in Hangzhou are classified into the following five types based on the background of the entrepreneur, the description of business, the features of management and so on.

Type 1 is a group of high-tech companies such as IT industry and biotechnology. Most of the entrepreneurs of those high-tech companies have high level of academic background and are mostly in their thirties or forties. In many cases, they started an enterprise by making the most of the results of R & D they participated in at an official R & D project or an R & D study at a university.

Most of those venture companies are located in various kinds of incubators and obtain assistance from Science and Technology Committees of ministries or cities in the form of fund and so on. Also they are one of the most cynosural type of company group for the venture capital. Zhejiang University Haina Science and Technology Co.,Ltd, Hangzhou Jiuyuan Gene Co.,Ltd, and Hangzhou Honghua Computer Co., Ltd are typical examples. On the other hand, the technology of the companies classified in this type is grasped only by a small number of management and therefore the endurance of their businesses is likely to face a difficulty in case they retire from the business. Such an example of failure is included in the investment by Hangjiahu Venturetech Center.

Type 2 is a 'type of technological improvement and regime reform'. It is a group of ex-government-owned companies (especially those engaged in such a traditional industry as processing industry) that had come to a deadlock from rigidification of management and obsolescence in technology, but found a means of survival by the reform of the regime, introduction of a new technology or a start of a new business and got on a rapid growth path. Hangzhou Xinhua Papermaking Factory and Hangzhou Xihu Television are representative examples of this type. Although the constituent ratio for the secondary industry in the GDP of Hangzhou is still as high as 50%, most of the industry is composed of low-level traditional industries. Many venture companies of this type are likely to be born. The Hangzhou Municipal Economical Committee, the organization for exclusive management of the secondary industry, should strengthen its support for this type of companies from now on. The reason for it is that pursuing the measures that may lead to upgrade of the conventional industries is considered to be more down-to-earth and efficient than entering into the nationwide 'high-tech wars'.

Type 3 is similar to Type2 in some points but a group of private companies centering on the township enterprises. The entrepreneurs of this type are mostly homegrown and have low or no

educational attainment. In other words, they are representative of so-called 'Zhejiang Spirit' (hungry and abundant in the active nature). They entered the market economy wave without hesitation started 20 years ago under the policy of 'Economics Reforms and the Open-door Policy'. In other words, they had created wealth and accumulated capital by a simple domestic factory and a peddler-style sales means. However, they sank into economic doldrums due to the shoddy management that was appreciable from the beginning and the advent of 'the era of superfluous commodities for the low level income'. They faced the challenge of 'Secondary Initiation' and not a small number of companies were culled out as a result. On the other hand, such venture companies were also born that made rapid progress by unification of their existing businesses like Wanxiang Corp. and that renounced their conventional businesses and succeeded in a completely new fields like Zhejiang Biology Baiken Co., Ltd.

Type 4 are 'joint ventures' that obtained funds from overseas companies. They are the most excellent companies in technology, status of fund and management. However, the 'favored treatment policy for foreign capital' that they have enjoyed will be abolished and the 'domestic citizen treatment' or the same competitive condition as general companies in China will be imposed on them from now on, accompanied by the affiliation of China with WTO. In that case, it is likely that the companies of this type will take on two changes from now on: ① the shift from processing-trade-oriented to domestic-market-oriented will be accelerated, ② affiliation with other domestic companies over the self-inclusive management will be strengthened. This group of companies is not likely to be a direct target of the governmental venture support, but it seems to strengthen its influence on other venture companies more and more in future.

Type 5 is a group of venture companies founded by returnees from study abroad. They started their business through the use of high-level knowledge and a wide range of human network they built up in such an advanced country as the United States or Japan. They have a constant advantage over other types of venture companies in the business development. There are many examples that this type of companies made a rapid business development in a short period of time. A representative example is 'Hangzhou UT'. It can be said that this type of company is a futuristic view of the Chinese venture company. This type of company is likely to further increase in future.

(2) The incubation project of the government

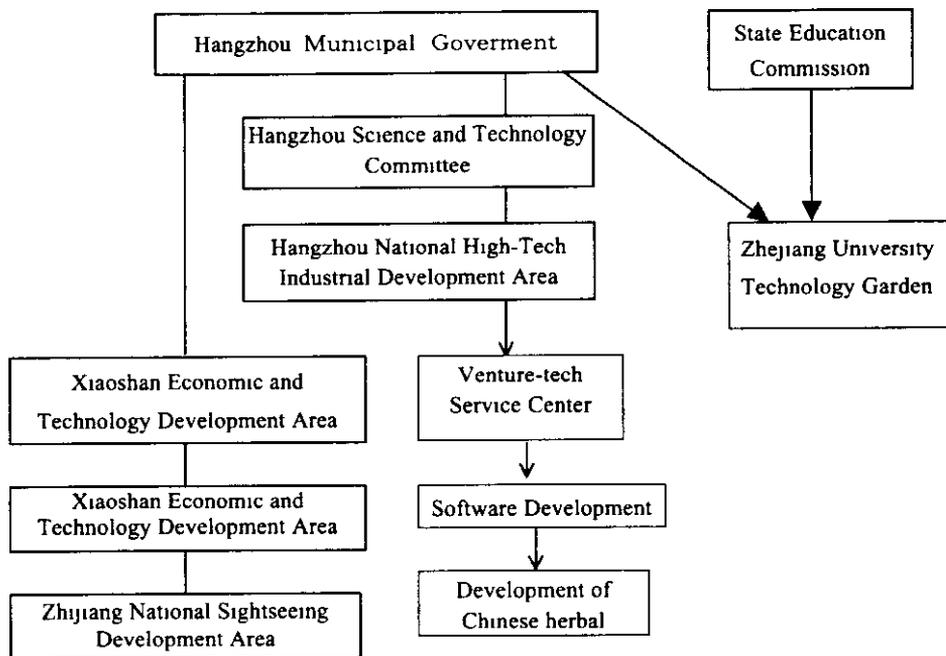
① National High-Tech Industrial Development Area (incubator)

The incubation project of Hangzhou government has been operated under the administrative system of 'City government → City Science & Technology high-tech industries department → incubators such as High-Tech Industrial Development Area' (refer to the below chart). The

incubators are placed as a branch office of the local government under the guidance of Science and Technology Commission.

'Hangzhou National High-Tech Industrial Development Area' was certified as one of the 53 'National High-Tech Industrial Development Areas' of China in 1991. As of the end of 1999, 'Hangzhou National High-Tech Industrial Development Area' occupied 27 square kilometers and accommodated 680 companies with the gross sales amount of 12.8 billion yuans. It is ranked No 18 in sales amount and No.34 in export amount among all the 'National High-Tech Industrial Development Areas'

**Figure 4.2.1 Hangzhou incubator-related facilities**



At present, it is hard to say that 'Hangzhou National High-Tech Industrial Development Area' is carrying out a function to foster venture companies at full length for the following three reasons. First of all, although the import of foundation of the National High-Tech Industrial Development Area is similar to that of Silicon Valley, Hangzhou tends to place importance on enticement of investment, viz measures for inviting foreign companies or wooing large businesses rather than fostering venture companies. Secondly, although the Venturetech Service Center, a subordinate organization of 'Hangzhou National High-Tech Industrial Development Area', has a role to support various kinds of businesses in seedtime, it is actually specialized in the fields of 'software development' and 'development of Chinese herbal medicines'. The fact leads to a situation that

other fields of business are avoided. Lastly, while the important fields of development for the 'Hangzhou National High-Tech Industrial Development Area' are ① microelectronic communication, ② bio-pharmacy, ③ new material, ④ electronics and ⑤ computer applications, main businesses of Hangzhou are ① machinery/electron, ② food processing, ③ light industries and ④ textile industry. Thus the interrelationship between the two is weak and a mutual spread effect is not promising. In order to overcome such a situation, the Hangzhou Municipal Economical Committee, which is well versed in the overall economy of the region, should be more involved in the upgrade of the incubator.

② The mechanism of fund supply by the Hangzhou Science and Technology Committee

In order to promote commercialization of technologies and advancement of the industry, the Hangzhou government is planning to found a special fund called 'Fund for Conversion of Science and Technology Results' for high-tech type of small businesses. The Hangzhou government is expected to throw in 50 million yuans every year through the fund for three years from 1999 to 2001

**Table 4.2.4 The construction of the fund**

Nature of the fund / annual scale	General contents	Remarks
1) Risk capital (30 million yuans)	Operated by 'Hangzhou High Technology and Science Investment Corp' 20 million yuans will be directly invested into venture companies and 10 million yuans will be appropriated for credit guarantee of venture companies	It includes the investment in the 'three items of Science and Technology Expenses (Remark 1)
2) Venture capital for technologies of SMEs (Remark 2) (5 million yuans)	A fund for exclusive use for small businesses certified as high-tech type (small businesses certified by the 'State's Torch Plan') The national treasury and the local treasury bankroll 50% of the fund respectively	The qualification is given by the combination of the National Science Committee, the Municipal Finance Bureau and the Municipal Science Committee
3) Fund for companies in seedtime (5 million yuans)	A fund for investing in and fostering companies that entered the Hangzhou incubator It is invested from the local treasury	" "
4) Fund for loan interest aid (5 million yuans)	A fund for aiding loan interest of high-tech small businesses The fund is invested from the local treasury	" "
5) Fund for high technology ventures and quality upgrading (5 million yuans)	A fund for supporting small businesses for their autonomous technology development, quality upgrading, and acquirement of ISO9000/9002 It is invested from the national and local treasuries	The qualification is given by the Municipal Economical Committee and the Municipal Science Committee.
<p>Remark 1 This governmental spending is founded annually per the central government, the province government, the municipal government and the prefectural government in order to support the three fields, viz ①the basic science research, ②the new product development and ③the intermediate examination The scale of spending varies depending on the financial status of the individual government The annual spending scale of Hangzhou since 1996 is approx. 30 million yuans, 20% of which is incorporated into the risk capital</p> <p>Remark 2 This is a national project started in May 1999 where investment is made from the financial budgets of central, province, municipal and prefectural administrations by three ways, viz free of charge investment, interest aid and venture capital, in order to support the R &amp; D and the application of high technology of small businesses The provisional implementation period is the three years from 1999 The capital scale for the national administration is 1 billion yuans and the local administration is supposed to cover 50% of the capital required by respective companies Hangzhou obtained 26 cases of the supporting project with total investment amount of 20 million yuans from the nation in 1999</p>		

### ③ Overview of the Small Business Service Center

Under the policy of State Economy & Trade Commission, PRC, for the reinforcement of the function of intermediary service for small businesses, the foundation of the Small Business Service Centers was started in 1999 all over the country one after another and one was founded in Hangzhou in June 1999. The Hangzhou Small Business Service Center serves as an implementation organ of the small business policy of Hangzhou as an affiliated organization (self-financing) of Hangzhou Municipal Economical Committee. Although the capacity of the staff is nine people (including the High Technology Small and Medium Enterprises Center), the number of actual staff in service is seven.

#### Function and Organization :

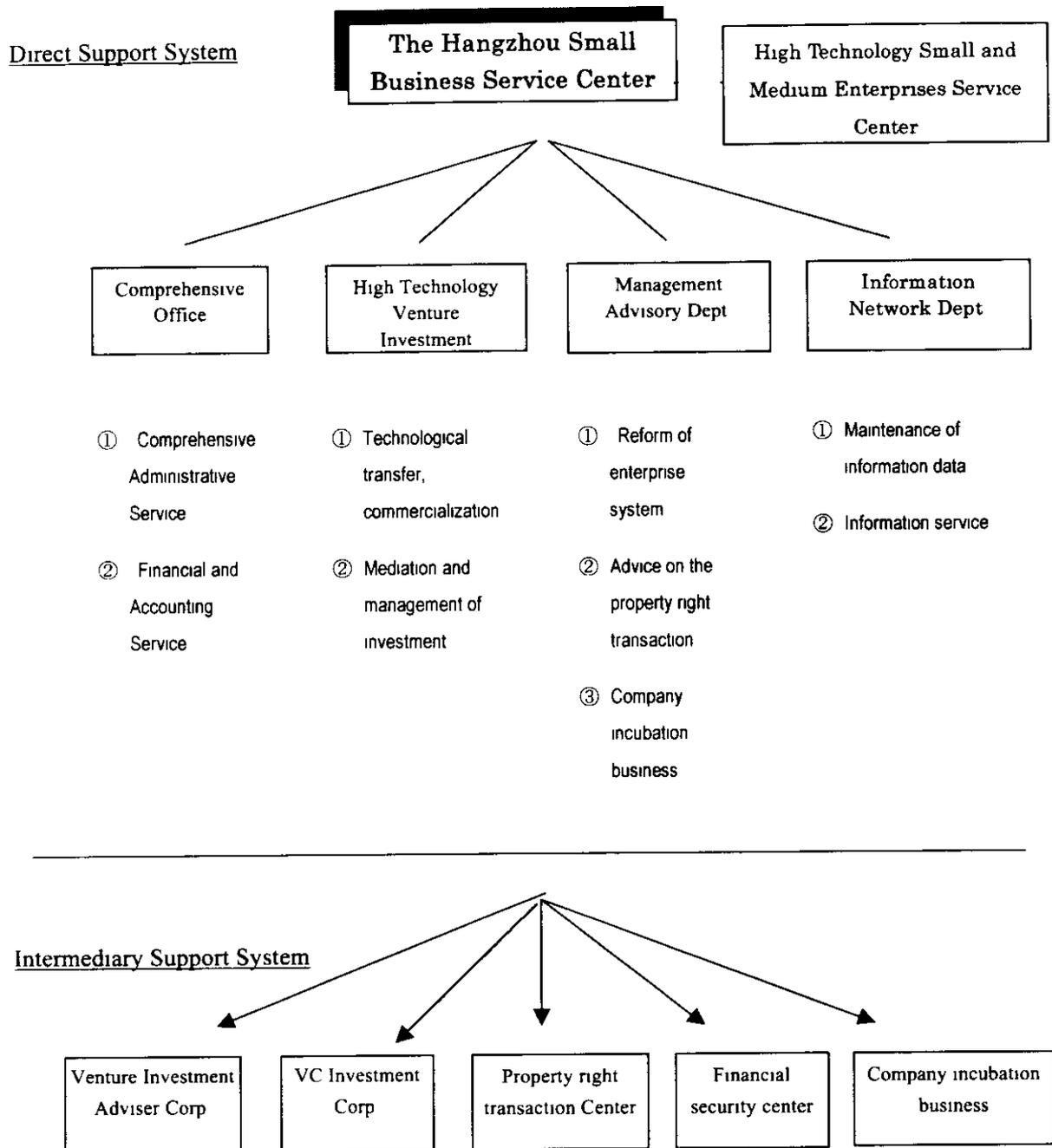
The Hangzhou Small Business Service Center provides the support through the two means, viz 'direct support' and 'intermediary support'

#### Direct Support System

The Hangzhou Small Business Service Center provides the following three support services chiefly through its in-house organization.

- a It puts fund into companies that entered the company incubator in the National High-Tech Industrial Development Area of Hangzhou.
- b It positively struggles the preparation for startup of venture capitals aiming at expansion of the support function by direct investment
- c. It works to recommend candidate companies to go public in the venture company's security market expected to be founded in Shenzhen.

**Figure 4.2.2 Image Chart of Organization / Function of The Hangzhou Small Business Service Center**



The intermediary support business is expected to be promoted through the above five companies into which the Service Center will put fund. Since these five companies, however, have not come into existence yet, the intermediary support business is still in the stage of vision.

The specific description of business of the Service Center is as follows.

- a. It will found the Small and Medium Enterprises Credit Guarantee Center to operate a guarantee business for loans relevant to operating capital, equipment replacement, or R & D of small businesses
- b. It will obtain 25% of the share of Hangzhou Property Right Transaction Center and provide small businesses with the intermediary service of corporate restructuring, property right transaction and stock transfer.
- c. It will found the Outside Specialist Committee and the Small and Medium Enterprise Association at an early stage. The Outside Specialist Committee will be composed of business entrepreneurs, learned people, etc, and will provide small businesses with supports against various problems they will face everyday in management, technology, finance and so on. The Small and Medium Enterprise Association is an organization that will aim at networking small businesses of all the municipalities according to the type of business and the scale. It has already had 500 candidate companies for registration and it is likely to be formally founded by the end of 2000.
- d. It will build a technological data bank to indirectly support small businesses for their technological development. It will improve the database chiefly centering on the three points of the latest R & D results, the market trend and the technological needs of companies. Furthermore, it will advocate the improvement of the system in order to promote the research and development (R & D) of small businesses using the information of this database
- e. It will promote networking of the small and medium enterprise information (refer to the Pilot PJ) to strengthen the affiliation with the existing intermediary organization.
- f. It will found a base of entrepreneur training. It will foster professional entrepreneurs through a seminar, a study session, and a regular/irregular technical training chiefly in cooperation with universities or large corporations.

④ Overview of Hangzhou Property Right Transaction Center

Overview of the foundation / business

Hangzhou Property Right Transaction Center is a quasi public corporation professionally engaged in corporate property right transaction. This center was founded in December 1993 as

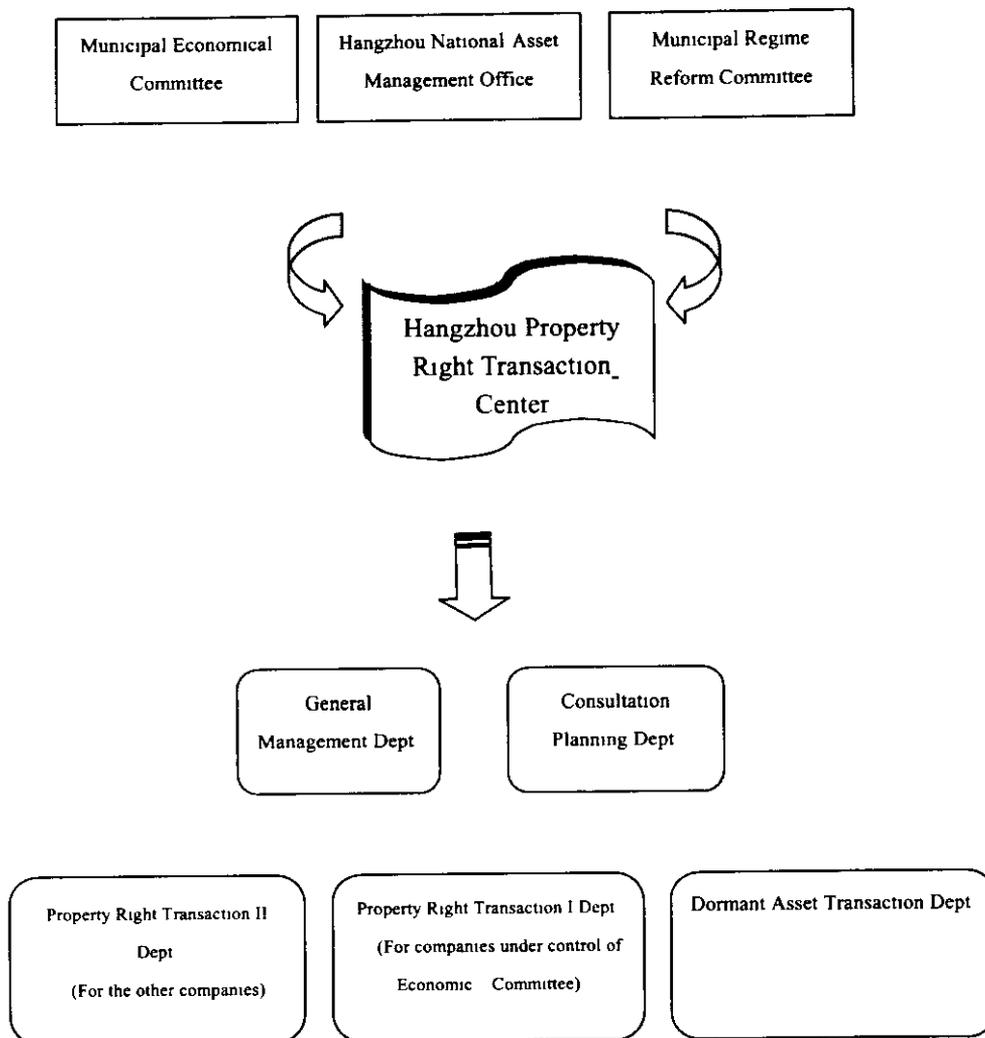
' Hangzhou trading post'. Although the description of business had been limited at that time, the range of business was expanded later as the national company reform developed rapidly. Accepting a financial spending from the Hangzhou National Asset Management Office, the Hangzhou Municipal Economical Committee and the Hangzhou Regime Reform Committee in August 1999, the Hangzhou trading post was renewed as the Hangzhou Property Right Transaction Center. The auction sale was opened eight times at this center to date and the center has become the largest intermediary organization for the corporate property right transaction in the Zhejiang zone with the total transaction amount reached 2.5 billion yuans. The contract price of 'Overseas Chinese Hotel Hangzhou' that was traded at auction in September 2000 was 208 million yuans and it is the largest transaction subject since the center was founded.

Current major description of business of the center is as follows:

- ① Intermediary service on corporate M & A.
- ② Investigation of transaction participants and the risk examination business.
- ③ Valuation of property / consulting business
- ④ Organizing of a bid tender / auction.
- ⑤ Vicarious agent business of various procedures such as the change of names and the asset registration accompanied by the corporate property right transaction.

#### Organizational composition

In order to pursue the above-mentioned business, the organization of the center has been made up as follows. The total number of employees is 23 at present and the most officers are sent from government organizations.



**Figure 4.2.3 The organization of the Hangzhou Property Right Transaction Center**

**Transaction system**

Transaction methods at the Hangzhou Property Right Transaction Center are chiefly classified into the three systems: ‘auction’, ‘bid’, and ‘negotiated disposition’.

- ‘Auction’ system: This system is chiefly used for sale of assets of bankrupt government-owned companies. Participants in the auction are invited by the official announcement of the center. Participants in the auction are obliged to pledge a deposit and submit a ‘letter of acceptance on the care for employment of former

employees' in advance. The Property Right Transaction Center will toll approx 1 – 3% of the transaction amount as a commission

- 'Bid system' It is a typical public tender system. The commission rate is unknown. The system is often used for the transaction of idle facilities or bankrupt companies
- 'Negotiated disposition system' The center invites people who are interested in the transaction by public announcement and provides an intermediary service to gain the consent of the both transaction parties. The commission rate is unknown. The system is heavily used for the transaction of general industrial type of government-owned companies.

#### What remains to be seen

It can be said that the Hangzhou Property Right Transaction Center is faced with an important trial at present. Since the national company reform project of Hangzhou finishes a round in 2001, it is expected that the needs for conventional 'intermediary service on the property / capital transaction' decrease dramatically. Therefore the change of function is an inevitable problem for the center. One direction of the change of function is considered to be a provision of capital transaction market for small businesses in Zhejiang. To be more precise, the business is to develop a private equity market for small businesses by making the most of the market intermediary function of the Property Right Transaction Center. Zhejiang is a region of highly developed private economy with many excellent small businesses scattered around. The region also has an abundant stock of potential investment fund in the private sector. On the other hand, it falls behind in the improvement of the capital market where the center is likely to find a means of survival.

#### ⑤ Collaborative business of industry, academia and government

As in the other regions of China, Hangzhou has always encouraged the commercialization of R & D results at the university and the positive involvement of professors and students of a university in the corporate business. In this field, Zhejiang University has played a large role as the core existence. Although the companies showed a low interest in the patent / technology of a university origin in the 80s, their interest grew without stopping in the 90s. It is a completely sellers' market at present. It can be said that this shows that the needs of corporate management changed from growth of production to the technological industry. However, the situation is not facilitated enough at the stage of intermediary of universities' patents / technologies to companies for the chaotic system, flooding of intermediary organizations and the shortage of mentor activity to companies. There are three organizations in Hangzhou at present as coordinators of the collaborative business of industry, academia and government - ① 'Hangzhou Product Education Research Institute',

② Productive Forces Improvement Center of Hangzhou Science Committee, and ③ Zhejiang Hangjiahu Technology Development Co., Ltd. These businesses are, however, complicated among the three parties and are operated under a kind of 'delicate relationship'. The other challenges on the commercialization of the patent / technology of university origin includes the following points.

Firstly, since the system for obtaining the patent or technological license has not been well built on the university side, there is an aspect that the technology of the university origin is unprotected by the intellectual property right.

Secondly, since the function for initial application development and the intermediate examination against the patent / technology of the university is incomplete, a considerable temporal / technological process is required for the commercialization of the technological results, forming a bottleneck in the technological transfer.

⑥ Examples of existing venture capitals in Zhejiang  
**ZHEJIANG VENTURE CAPITAL (ZVC)**

a. Summary of business

ZHEJIANG VENTURE CAPITAL (ZVC) was founded in 1993 as the first venture capital in Zhejiang and a wholly owned company by the Zhejiang government. ZVC invests in the companies that entered the Hangzhou Semi-national Science Park and the Semi-provincial Science Park. The kinds of business of the companies in which ZVC invest include information and telecommunication, biotechnology, new material, mechatronics, energy saving / environment protection.

**Table 4.2.5 Summary of ZVC Business**

<p>1. Business Operation Guidelines</p>	<ul style="list-style-type: none"> <li>• Investment principles of ‘development, reality, streamlining, efficiency’</li> <li>• Development of way to VC operation suited for the Chinese reality</li> <li>• Specification of Zhejiang science parks as the important investment region</li> <li>• Commercialization of high technologies and provision of massive service for small and medium high-tech companies.</li> <li>• Emphasis is put on the quality of entrepreneurs and the description of business</li> <li>• Limit the ratio of shareholding by respective investing companies to 20%</li> </ul>
<p>2. Investment Fields</p>	<ul style="list-style-type: none"> <li>• Venture investment against the fields of information and telecommunication, biotechnology, new material, mechatronics, and energy saving / environment protection.</li> <li>• Consulting business on the technology, information and the business management</li> </ul>
<p>3. Criteria of investment selection</p>	<ul style="list-style-type: none"> <li>• High-tech type of companies corresponding to the national industrial policy</li> <li>• The founder ‘s abundant business experience / management ability and high total quality. A strong network with entrepreneurs of other companies is also required.</li> <li>• Ownership of original know-how / patent.</li> <li>• Distinct marketing strategies.</li> <li>• High growth potential with possibility of sustainable development</li> <li>• Possession of favorable business environment in the business category and secure means of capital recovery.</li> </ul>
<p>4. The decision making process for investment</p>	<ul style="list-style-type: none"> <li>• Acceptance of a business plan→analysis / verification→feasibility study→ evaluation / analysis of the research results→development of an investment plan and negotiation→conclusion of investment contract / implementation of investment→fosterage consultation / value-added business</li> </ul>

b . Corporate organization

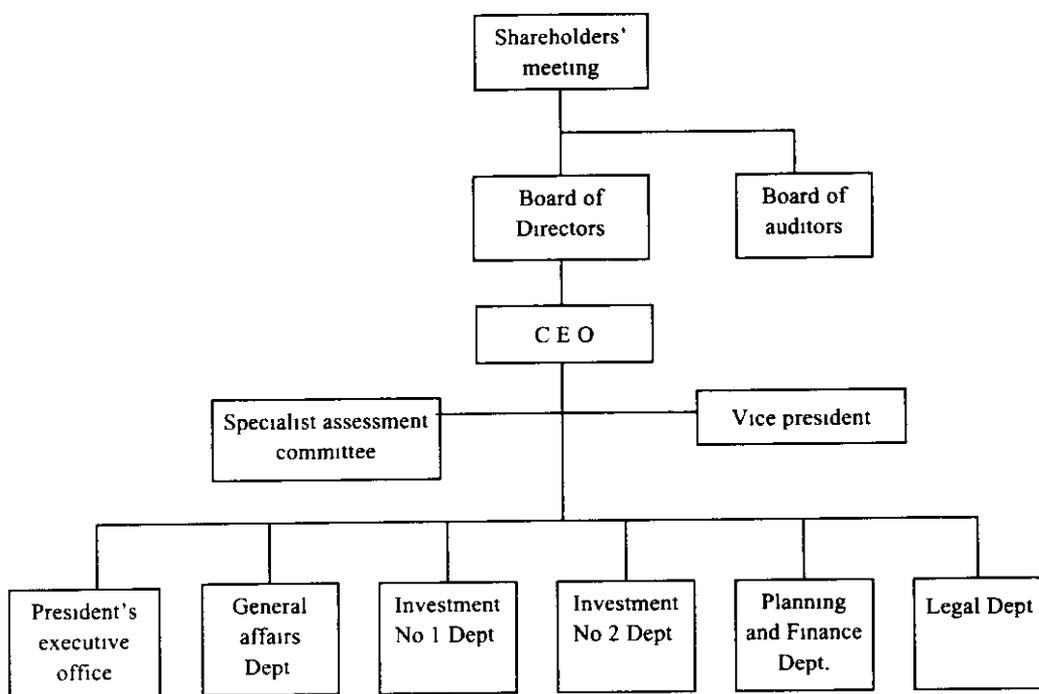


Figure 4.2.4 Organization structure of ZVC

c Business Operation Status

Business conditions of ZVC have been generally favorable since it started the business activity in 1994. The capital expanded from the original 30 million yuans to the level close to 100 million yuans, the return on equity remains the level of 50% (according to the acquisition cost method), and the number of employees reached 17. ZVC had been involved in 52 projects by October 2000 and made investments in the 24 venture companies out of the projects.

Although ZVC is ranked in the middle class or under in terms of the scale of capital among the existing venture capitals of China. It is, however, categorized as 'winners' among the 'earlier group' in the middle of 90s in terms of the business situations. The backgrounds of the success include ① a conclusion of package contract which is complementary to each other in order to overcome the lack of legislative preparations for the venture capital (to be detailed later), ② prioritization of subjects 'under development' rather than 'already developed' subjects and ③ provision of value-added activities to the companies in which ZVC invests in.

**Table 4.2.6 Business situations of the 24 companies in which ZVC invested**

①Capital withdrawal from six companies	• The investment in the three companies out of the six went uncollectible
②Two companies went public	• Zhejiang University Haina Science and Technology Co.,Ltd (Shenzhen Stock Exchange) ★Case 1 • Zhejiang Shenghua Baike Co ,Ltd (Shanghai Stock Exchange) ★Case 2
③Four companies are expected to go public	• Candidate public companies on the 'Shenzhen Venturetech Market' that is expected to be founded in 2001: one software development company, one digital communication equipment company, one system development company, one bio-pharmacy company.
④Two companies are expected to be listed	• Expected to be listed on the existing stock exchange: one environment-protection-related company, one less-polluting agricultural chemical company
④Ten companies are monitored	—

★ Case1: Zhejiang University Haina Science and Technology Co.,Ltd (Shenzhen Stock Exchange/ September 1999)

It is a collectively owned venture company affiliated with Zhejiang University utilizing the R & D results of the university. Its central business activities are the development and manufacturing of the silicon chip, automated control of industries, and the development of computer-related systems. As of 2000, the company holds seven patents and the production of the silicon chip is largest in the state. When the company faced difficulty in cash flow and the bank rejected their application for a loan in 1994 (in its early stage), ZVC made an investment of 8.5 million yuans in it. Not more than four years after the investment, the company grew rapidly and its net asset increased four times. Before the company was listed on the Shenzhen Stock Exchange in 1996, ZVC once collected the invested capital (interest and principal), reformed the company to a corporation as one of the new promoters and holds 2 million shares (stock price-1.5 yuans per share). As of November 17, 2000, the stock price of the company is 40 yuans per share.

★ Case2: Zhejiang Shenghua Baike Biology Co.,Ltd (Shanghai Stock Exchange/November 1999)

It originates from a township enterprise but is the largest bio-agricultural chemical company in China. ZVC started its investment in this company in 1996. The investment scheme is same as the above case.

d Issues concerning the business operation of ZVC

1. Institutional constraints:

——Constraints by ‘Corporate Law’——

- Constraints of resale and transfer of shares of listed companies
- Lack of security against the right on the preferred stock
- Constraint of incorporation of intangible assets into the capital by the intellectual property right (up to 20%)

2. Market constraints –

- The stock market for venture companies have not been well prepared.
- Lack of functions for the Private Equity Exchange.

3. Management constraints:

- For the most VC are lead by the government, they lack in flexibility.
- Shortage of operating capital.
- Shortage of venture capitalists well-equipped with expertise.

e Future vision of ZVC

ZVC is currently struggling for preparation to obtain the certificate of VCISO9000, aiming to be the first VC with ISO9000 in China.

**WANXIANG VENTURE CAPITAL Co., LTD (WVC)**

a. Business Outline :

WVC is the most biggest venture investment specialty company in Chekiang Province, in terms of capital scale. WVC was created by a prominent private company, Wanxiang Corp., in November 2000. Its capital mainly consists of private funds.

**Table 4.2.7 Outline of WVC's Business Operation**

<p>1 Business Operation Guidelines</p>	<ul style="list-style-type: none"> <li>• It shall be administrated by a private business entity, based on private funds and market principles, and be supported by a local government</li> <li>• Investments shall be focused on firms within Chekiang Province</li> <li>• A full-scale research shall be given to an investment site during an investment-review stage and business operations shall be entrusted to it after investment</li> <li>• The upper limit to the amount of investment shall be 20 % of an investment site's necessary financial total and 5 % of its capital</li> <li>• A capital recovery plan shall be established at the time of investment</li> <li>• The investment period shall be less than 5 years</li> <li>• Investments in a stock market shall not be done</li> </ul>
<p>2 Selecting Conditions for Investment Sites</p>	<ul style="list-style-type: none"> <li>• Industry in line with a national industrial policy</li> <li>• Management organization with a strong teamwork, whose founder has sufficient business experiences and management abilities at home and overseas</li> <li>• It shall have excellent management environments in the industry concerned and be the industry-leading company</li> <li>• Investments shall be targeted on expansion and pre-IPO companies for the time being</li> <li>• It shall have a reliable method of capital recovery</li> </ul>
<p>Investment Decision-Making Process</p>	<p>Reception of a business plan→Analysis and verification→Due diligence (for operators, employees and customers)→Feasibility study→Evaluation and analysis of research Investment planning and negotiation→Conclusion of investment contract→ (If necessary, consultant incubator and value add businesses)</p>

WVC specializes in investing in industrial fields such as ① new materials, ② information and telecommunication, ③ software and system development, ④ biotechnology (mainly in the field of environmental conservation) and ⑤ high-technologies linked to advancement of traditional industries, among companies located in Chekiang Province.

b. : Company Organization

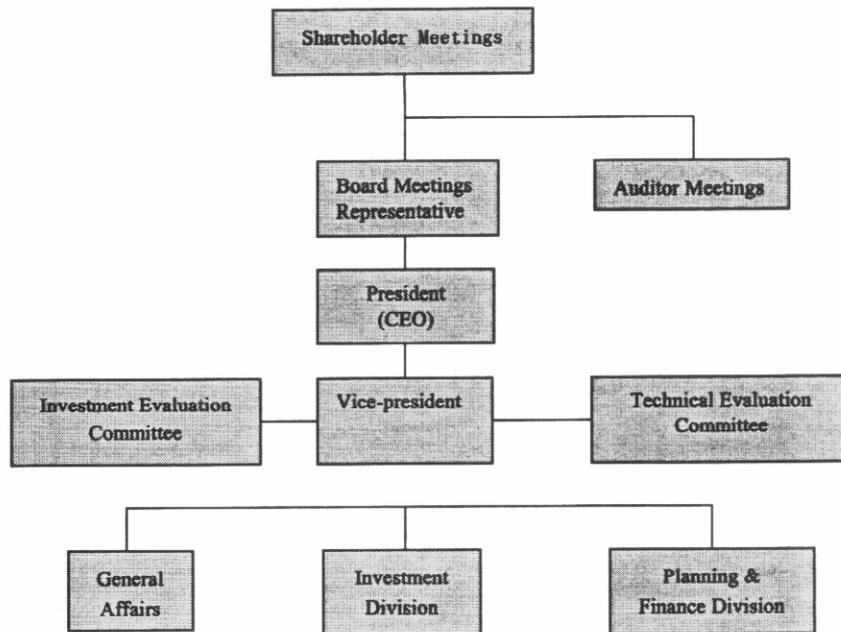


Figure 4.2.5 WVC Organization

WVC has 11 employees. According a simple calculation, the average amount of managed assets per capita is about 27 million yuans. This value far exceeds the average level of VC (7.5 million yuans/person) in China. Most of management executives including a accounting manager are dispatched from Wanxiang Corp. It can be said that the original founding mind and management expertise are effectively utilized.

c. Stockholder Composition :

The registered capital of WVC is 30,000 yuans, 13.34 % of which is from public financing, and the rest of 86.66 % from by the main Wanxiang Corp. and other private business companies. Initially, the Chekiang government intended to provide 50 million yuans, however, the side of WVC adhered to a private funds-led principle and finally received only 10 % of the province governmental funds. Based on the same concept, it received only 1.67 % of the funds of Hangzhou and Xiaoshan City governments, respectively. This stands in contrast to that most of VCs in China depend on public funds.

**Table 4.2.8 Stockholder Composition in WVC**

Stockholder	Holding Number (million)	Holding Ratio
Wanxiang Corp	21,085	70.28%
Chekiang Province government ( Representative stockholder Zhejiang Science and Technology Venture Investment Co ,Ltd ,Chekiang	3,000	10.0%
Shenzhen Wanxiang Venture Investment Co ,Ltd	2,500	8.33%
Chekiang Orient Communications Umbrella Industry Corp	1,000	3.33%
Shanghai Lingyu Automobile Electronic Commerce Co ,Ltd	1,000	3.33%
Hangzhou City Government (Representative stockholder Finance Development Co , Ltd, Hangzhou City	500	1.67%
Xiaoshan City Government (Representative stockholder National Assets Management Co ,Ltd, Xiaoshan City)	500	1.67%
VENTURE EQUITIES MANAGE—MENT, INC	207.5	0.69%
POWERDRIVE EUROPE LIMITED	207.5	0.69%
Total	30,000	100%

d. Business Operation :

Wanxiang Corp initiated to prepare for establishing WVC in January 2000. It visited main VCs across China to collect information about the state of their management and financing before its preparation. As a result, it was found that most of existing VCs were government-funded companies that did not accomplish good business performance, in which “bureaucratic idea-based operation” and “investment methodology based on the theory of industrialized countries” were mixed. Some VCs in the black generated the profits derived from investment in a stock market and a bond market. Considering the findings, it was decided to select private funds and a market principle-based operating method. WVC plans to invest about 1 billion yuans during 2001, and has already invested in five companies or is reviewing the investment. For example, the planned investment activities include, ① It has already invested in a designated company for infrastructure business to import fabric makers, ② Ongoing negotiation with a cellular phone parts maker, ③ Ongoing final negotiation with a biotechnology animal feed maker and ④ Ongoing negotiation with a drug maker.

#### e Method to Select Investment Sites

WVC implements qualitative and quantitative analysis, using its own method, a “triangular interview survey”, when selecting investment sites. The survey includes ①Front interview survey. to obtain first information from direct interviews with a operator and his/her employees, ② Contrary interview survey to hear the opinions from rival companies and firms in opposition and ③Side interview survey. to hear the opinions form third parties, to identify market future potential based on interviews with a customer of the company concerned. WVC tries to conduct qualitative analysis on the basis of the above three directions

### 4 2 4 Stock Market in China

#### (1) Current State and Reform of Stock Market

##### ① Development of Stock Market

A stock-market system was introduced into national firms in July 1984. With the issuance of par value 100 yuans-30,000 stocks by Beijing Tianqiao Department Store Corp., China moved into the age of full-scale stock dealing

The Shenzhen Stock Exchange, the first exchange in socialist countries, opened in December 1990. Also with the establishment of the Shenzhen Stock Exchange in July 1991, China start to construct open stock markets. Also in November 1991, Shanghai Vacuum Valve Co.,Ltd issued 1 million B stocks to first foreign investors in this country and was listed on the Shenzhen Stock Exchange in February 1992, which prepared the way for foreign stock investment.

When Deng Xiaoping visited southward during the lunar New Year's days in 1992, he announced that China should drastically introduce a capitalist method, while a socialist market economy was decided to be introduced into the Chinese market” in the 14<sup>th</sup> communist party convention in autumn of 1992. This gave impetus to the conversion of a national company to a stock company. First, Tshingdao Beer Co.,Ltd listed its stock on the Hong Kong Stock Exchange in July 1993. As of July 2000, 46 Chinese companies are listed on the Hong Kong Stock Exchange. “Venture Board”(GEM), the second section market of the Stock Exchange was established in November 1999, and as of July 2000, 41 companies are listed on GEM. Also Chinese private firms' listing on GEM is permitted, and as of July 2000, two private companies are listed on the second section of the Stock Exchange. The authorities promote Chinese companies' listing on foreign markets. More and more Chinese companies, such as Shandong Huaneng Electric Power, United Communications and Chinese Oil & Natural Gas, are listed on the foreign exchanges in New York, London and Singapore

Through trial and error over ten years, the environments surrounding Chinese securities markets, including the selection method of listed companies, a disclosure system and securities-related laws, have been substantially improved. The Securities Supervision and Control Commission has started to review listing on Chinese stock markets by joint venture companies and fully owned companies, industrial funds for Chinese and foreign joint venture and creation of venture capital funds, since 2000. China has been addressing liberalization of capital markets to construct a capital market befitting a member of WTO

## ② Stock Market Structure

Considering that the ratio of market capitalization to GDP was 32.3 %, as of the end of 1999, it can be said that the scale of a Chinese stock market is still small and domestic companies' financing overwhelmingly comes from an indirect finance source. For example, the amount of financing from domestic stock markets in 1999 was 94.4 billion yuan, which accounts for only 7 % of the increased financing amount by financial institutions at the end of 1999. Also the amount of issued bonds remains 20 billion yuan. Therefore, it can be said that a major source of corporate financing is still a national budget and bank financing.

### a. Supervision Institution

Corporate reform (establishment of a stock company and privatization, etc.) as part of economic reform toward the establishment of a socialist market economy, was scheduled to be jointly conducted by five institutions, such as the State Economy & Trade Commission, the National Development Planning Commission, the Office of State Council of Economic System Reform, the Ministry of Finance and the People's Bank of China. However, in order to supervise securities problems in a more concrete manner, the Securities Commission of State Council and its execution institution, the China Securities Supervision and Control Commission (CRSC) were formed in October 1992.

Securities supervision organizations were unified by allowing them to have the function of the securities commission's developing securities policies. Since the "Securities Law" went into effect in 1999, the State Economy & Trade Commission and the National Development Planning Commission have had the authority to review a company that applies for stock issue, but the right of final review on new listing and capital increase of a company has become concentrated on CRSC (specifically, Issue Review Commission). CRSC is vested with the following powers, in addition to the review right:

- Prepare stipulations and regulations that supervise and control securities markets and exercise the rights to review and approve or validate
- Supervise and control issue, dealing, registration, consignment storage and liquidation.

- Supervise and inspect the state of information disclosure on securities issues and dealing.

On the other hand, the Securities Industry Association is an independent supervision organization and implements the following job responsibilities.

- Educate and organize the members so that they can fulfill laws and administrative regulations about securities business, in cooperation with CSRC.
- Develop business exchanges among the members by preserving the members' legal interests and organizing business education for their employees.
- Supervise and inspect the members' acts and punish them in accordance with the provisions when they violate laws and administrative regulations or agreement bylaws

The both of the Shanghai and Shenzhen Stock Exchanges were originally place under administrative control of the local government (Shanghai City and Shenzhen City), but the State Council decided to place them under direct control of CSRC in August 1997.

#### b Listed Companies

Stock exchange listing of a stock company is stipulated by (1) the "PRC Securities Law", (2) the "Provisional Ordinance of Stock Issue and Dealing and (3) the "PRC Corporate Law". B stock issue and listing are defined by (4) the "regulation concerning to foreign investment stocks of a corporation listed on Chinese markets", while public offering overseas of national companies is defined by (5) the "special regulation concerning to stock subscription and listing overseas of a corporation".

#### Listing Standard:

A stock company shall meet the following requirements to apply for listing:

- Stock are issued after the approval from the Securities Commission of the State Council and CSRC
- Paid-up capital is more than 50 million yuans.
- The stock company has been operated for more than 3 years since its foundation and generated profits in the most recent three continuous business years. However, when a stock company is formed due to the organizational changes of a national company, the profits can be calculated on a pro forma basis.
- The number of stockowners that own stocks at a nominal value of 1000 yuans shall not fall short of 1,000, while the number of stocks issued to general stockowners shall not fall below

25 % of all stocks issued. Concerning to a stock company whose paid-up capital exceeds 400 million yuans, the number of stocks issued can be over 15 % of all stocks issues

- A stock company has no experience of violating laws and regulations during the past three years and there can not be found untrue entries in its balance sheet.
- A stock company is recommended by 1 to 2 members of the stock exchange.(Listing rules),
- A stock company meets the requirements of complying with laws, regulations and rules promulgated by national organizations and rules of the stock exchange.

#### Listing Procedures

Pre-review on a B stock issuing company, which had been required in the past, was abolished on June 2, 1999, based on the notification of CSRC. First, a B stock issuing company shall be reorganized to a limited-liability company or form a limited-liability company after its restructuring. When a new company meets listing requirements, it can apply for listing and be listed on the stock exchange, in conformance with given rules.

#### Number of Listed Companies

The number of listed companies, as of the end of June 2000, reached 997 companies totally in both stock markets (509 in Shanghai and 488 in Shenzhen). Their market capitalization exceeded 4000 billion yuans (49 15 billion dollars) and became about a tenth of the aggregate market value on the first section, the Tokyo Stock Exchange (TDK). The listed stocks (negotiable stocks except national and corporate bonds), however, accounted for only 32.0 % of all issued shares, which means that they are considerably small-scale markets. The number of B stock issuing companies reached 107 as of the end of June 2000, while their market capitalization was only 42.1 billion yuans (5 1 US dollars).

More than 200 companies annually went public during 1996 and 1997, and particularly in 1997, listing of large companies on the exchange was successively taken place, which marked a record of the financing amount. In 1998, however, the market became sluggish due to a deterioration in earnings performance, and the number of newly listed companies fell to 106. In 1999, the number decreased to 96, but the financing amount in itself achieved more increase than that in 1998 due to capital increase. Even in 2000, the trend remained same as in 1999.

**Table 4.2.9 Stock Market Capitalization Trend**

(Unit) million yuans

	Total			Shanghai Stock Exchange Market			Shenzhen Stock Exchange Market		
	A stock	B stock	Total	A stock	B stock	Total	A stock	B stock	Total
1992	97,809	7,006	104,815	52,055	3,785	55,480	45,754	3,221	48,975
1993	332,766	21,386	353,297	207,665	12,954	220,620	125,101	8,431	132,678
1994	351,603	17,458	369,062	248,354	11,659	260,013	103,250	5,799	109,049
1995	331,058	16,371	347,428	243,371	9,195	252,566	87,687	7,176	94,862
1996	944,856	39,383	984,238	531,613	16,168	547,781	413,243	23,215	436,457
1997	1,715,419	37,504	1,752,924	903,245	18,561	921,807	812,174	18,943	831,117
1998	1,929,930	20,636	1,950,565	1,052,538	10,054	1,062,592	877,391	10,582	887,973
1999	2,616,763	30,355	2,647,118	1,444,072	13,975	1,458,047	1,172,691	16,379	1,189,070
2000 6	4,026,919	42,080	4,069,000	2,145,829	20,487	2,166,316	1,881,090	21,594	1,902,684

(Source) Shanghai Stock Exchange Market "Statistics Yearbook"/ "Statistics Monthly Report" Shenzhen Stock Exchange Market "Market Statistics Yearbook"/ "Market Statistics Monthly Report"

In the first half of the 1990s, most companies simultaneously issued A and B stocks, but companies issuing only B shares increased in the second half the nineties. 18 of companies issuing H stocks in Hong Kong issued A stocks in Shanghai and Shenzhen. CSRC, however, announced "a notification of some added problems concerning to bond issuing operations", indicating that B and H stocks issuing companies, in principle, can not issue A stocks, while A stocks issuing companies can not issue B and H stocks. The price difference between A and B stocks, in spite of the same bond, results from the disparity between investors and demand-supply balance. CSRS took these measures so that two values to one stock would not become penetrated in the market. CSRS, however, changed its policy completely in 2000 and decided to allow H stock companies to issue A stocks.

c Financing Trends

The financing amount of companies expanded rapidly in 1992 and 1993 since the opening of the stock exchanges. Initially, since the development of investors did not keep pace with the rapid increase of financing, demand-supply was out of balance and the stock price continued to

be sluggish. In 1994, transaction of government bonds and government bond actuals and futures was introduced in the exchanges. Due to that compensated interest was added to nominal coupon of interest in consideration of rising inflation, in addition to principal guarantee, investors concentrated on government bond transactions. This also caused a deterioration of stock demand-supply.

Since the governments of Shanghai and Shenzhen announced policy supports for listed companies in 1996 and policy interest was reduced in May 1996, a stock market became active again and financing resumed an upward trend. In 1997, the stock market became overheated during the first half of the year, considering the return of Hong Kong to China as an economic active factor. The number of newly listed issue names reached 222 in total of A and B stocks, while the financing amount after new open broke 70 billion yuans. After Asian economic crisis, however, Chinese companies were forced to suspend financing overseas, affected by the sluggish markets in Hong Kong and Tokyo. During the year of 1998, the number of listed Chinese companies on the Hong Kong reduce to 1, while only five companies issued B stocks for foreign investors. Due to the change of economic situations, financing of large national companies became concentrated on national A stock markets.

**Table 4.2.10 Corporate Financing Trends through Domestic Stock Markets**

(Unit) million yuans

	Total	A Stock			B Stock		
			New Issue	Capital Increase		New Issue	Capital Increase
96	34,044	28,888	21,798	7,090	5,156	4,510	646
97	92,140	81,543	61,744	19,800	10,596	8,449	2,147
98	77,488	75,126	41,380	33,746	2,362	2,362	0
99	86,564	86,208	52,095	34,113	356	189	167

(Source) Chinese Securities Supervision and Control Commission

#### d Secondary Market

In conformance with the "Securities Law", stocks, corporate bonds and other securities shall be transacted in a securities market. Generally, negotiable personal stocks and B stocks for foreign investors are dealt in the exchanges of Shanghai and Shenzhen. It is possible to input trading order data also in 27 securities transaction centers across China. On the other hand, corporate shares can not be listed on the exchanges and assignment of the shares must receive approval from the authorities. Some of the shares were transacted over the counter (OTC), called STAQS(Securities Trading Automated Quotation System) and NETS(National Electric Trading

System) based on Peking, but actually the systems hardly functions as a trading market for corporate shares due to their few issue names.

③ Stock Exchange

A stock exchange shall be supervised and controlled by the State Council, in conformance with the “PRC Securities Law” in effect on July 1, 1999 and the “Control Measures of Stock Exchange” in effect on 10 November, 1997. The Shanghai and Shenzhen Exchanges were established respectively on 19 December, 1990 and on 1 December, 1990.

**Table 4.2.11 Trend of Exchange Member Number**

	Shanghai Stock Exchange			Shenzhen Stock Exchange		
	Member Number	Foreign-affiliated Member Number	Booth Number	Member Number	Foreign-affiliated Member Number	Booth Number
1991	26	--	--	15	0	--
92	171	--	--	177	0	--
93	481	20	--	426	8	348
94	550	53	3,305	496	11	782
95	558	33	4,900	532	12	887
96	623	37	5,313	542	13	1,125
97	467	37	5,693	373	15	1,343
98	330	38	5,395	329	15	1,413
99	310	38	5,391	318	13	1,555
2000 6	311	38	5,170	321	13	1,616

Note Except foreign-affiliated member number concerning to booth number

Source Shanghai Stock Exchange Market “Statistics Yearbook”, “Statistics Monthly Report”, “Annual Report”, each year edition  
Shenzhen Stock Exchange Market “Market Statistics Yearbook”, “Market Statistics Monthly Report”, “Annual Report”, each year edition

On the other hand, with the environmental change of industrial structures and capital markets in China, the stock exchanges are reaching a great turning point. The plan to create a stock market for venture businesses in the Shenzhen Exchange is moving forward step by step since 1998, with the understanding of common the government and private sector, and detailed tasks about going public of venture businesses were almost finished, as of October 2000. Operating regulations for this “venture market” include some important rules. For instance, since the rule on a trading system for “corporate shares” of public companies is absolutely contradictory to

the current "Corporate Law", the preparation of "special notice" by the State Council is urgently necessary to resolve the contradiction.

#### 4.2.5 Problems about Venture Investment Business Surroundings

##### (1) Overview of Basic State

The following table shows a simple comparison between China, Japan and US about venture business founding and operating environments. Both of Japan and US are in the midst of the third venture business boom, while China is entering into the first stage of the boom. It is said that US, a master of venture business, has not only its enormously accumulated venture know-how, but also holds superiority in nationality (founding mind) and various systems for venture. In terms of nationality, US people has a stronger sense of belonging to organization and groups, instead of looking to venture founding independence. On the other hand, venture business founding and operating environments in China characterize the following matters in comparison with Japan and US.

First, VCs in China have a much shorter history than Japan and US, but have been rapidly growing since 1998. 80 % of 100 VCs, currently operating across China, were formed after 1998. In this sense, it may be naturally understood that the current "venture boom" in China is a VC establishment boom rather than a venture founding one. There are three factors behind this boom, ①Effects of a industrial advancement policy recently promoted by the Chinese government, ②Stimulus from US typical venture businesses and VCs in Silicon Valley and ③Promotion of developing securities markets for venture businesses.

Next, Chinese people have roaring business minds and a stronger willingness for founding independence that are their deep-rooted national characteristics. Especially in Zhejiang Province, various venture businesses exist mainly in the regions of Great Hangzhou and Wenzhou, where private firms and small-medium companies are prominently making a good showing.

Lastly, it should be pointed that the establishment of basic systems is urgently necessary. China, in the stage of moving to a market economy, should make more efforts to improve and construct law systems about venture business and investment.

Since the lack of the law systems may be the biggest stumbling block to the promotion of venture business, I'd like to review these problems every field in the following sections.

Table 4.2.12 China-Japan-US Comparison about Founding Environments

		China	Japan	US
Finance and Taxation	Resource Supply	<p>Personal investor</p> <p>△ Personal investors tend to positively invest in venture businesses</p> <p>Venture capital</p> <p>△ The resource supply is unevenly distributed to science parks, mainly to high-tech firms and later</p> <p>△ The VC venture incubation is in the starting stage.</p> <p>Public small business finance</p> <p>× The financing amount and guaranty of liabilities are at low level</p> <p>Private financing</p> <p>× There are few financing opportunities for small-medium companies.</p> <p>Publicly held stock</p> <p>× Strict going public standard, conservative review stance.</p> <p>Institutional investor</p> <p>× There is little money supply by institutional investors</p>	<p>× Personal investors scarcely invest in venture businesses.</p> <p>△ The supply is unevenly distributed to financial institutions and big cities, mainly later.</p> <p>△ The venture incubation of VCs is in the course of development</p> <p>○ The financing amount and guaranty of liabilities are at world top level.</p> <p>○ There are lots of investment opportunities for small-medium companies.</p> <p>△ Strict going public standard, conservative review stance</p> <p>× There is little money supply by institutional investors.</p>	<p>○ Rich in personal investors (angle)</p> <p>○ The resource supply is distributed in various investment fields and regions.</p> <p>○ Strong function of developing VC venture.</p> <p>Credit guarantee by SBA, financial supports by state governments</p> <p>△ There is a few investment opportunities for venture businesses.</p> <p>○ Flexible going public standard, district disclosure requirements</p> <p>○ Pension funds, universities and foundations supply money via VCs</p>
	Finance and Taxation			<p>△ Deregulation direction (special market, lowering of going public standard)</p> <p>Stock market</p>

		Asset management control	× Pension funds and banks 's VC investment is prohibited.	× Pension funds and banks 's VC investment is prohibited.	○ The investment requirements of VC funds by Pension Funds are established.
		Capital gain tax	△ Tax incentives for investing in high-tech companies	○ Tax incentives for personal investment in prelisted shares started	○ Aggregation of profits and loss can be done in personal capital loss of prelisted shares.
		Stock option	△ The stock option system started.	△ The stock option system started	○ Stock options are available for large companies and venture businesses.
Venture Support	Technical Development	Seething creation by universities and research institutions	○ Place importance on commercialization of research results	△ Universities and institutions tend to give importance on basic research.	○ Recently US places importance on commercialization of research results
		Incubator	△ Rushing to construct incubators.	△ There is a problem concerning to the operation of incubators and science parks	○ University staff and students have a strong willingness to become a entrepreneur
		Science park	○ They are distributed across the country, and their scales and contents are of quality.		○ There can be found competitive corporate founding on a state basis.
	Indirect	Human resource supply to venture businesses	△ Experts about technical evaluation, law and tax are increasing.	△ The supply for venture businesses is in the course of development.	○ Labor liquidity, many consulting companies for professional human resources
		Tax/Law, consulting	× Short of professional venture capitalists	△ The supply for venture businesses is in the course of development	○ Accountant and attorneys specialized in venture business

	University	<p>Job training, management education</p> <p>Internship</p> <p>VB management guidance by universities</p>	<p>× There is a few courses to develop entrepreneurs.</p> <p>△ There is an internship system in technical universities</p> <p>○ There is no VB management education, but university teachers are positive in venture founding activities</p>	<p>△ There is a few courses to develop entrepreneurs.</p> <p>× There is little internship</p> <p>× There is little education on VB management.</p>	<p>○ There is an entrepreneur course in many graduate schools</p> <p>○ An in-house training is certified as university course.</p> <p>○ Free consulting by graduates</p>
Business Control		<p>Market access regulation, Business regulation</p> <p>Anti-Monopoly Law</p>	<p>× There is a discriminative barrier to market access in a private sector</p> <p>× There is little monopoly</p>	<p>△ There are extensive regulations and regulatory practices.</p> <p>△ The ratio of shareholding by companies and financial institutions is regulated.</p>	<p>○ Deregulation (transportation, finance and communications) has been continuing since the 1980s</p>
Study and Research		<p>Venture management study</p> <p>Information disclosure on venture business and VCs</p>	<p>× Its is in the starting stage</p> <p>× Negative information disclosure</p>	<p>△ Study on small-medium firms drawing a dual structure theory.</p> <p>△ There is still no information disclosure on VBs and VCs</p>	<p>○ There are venture management researchers in each region</p> <p>○ Lot of public information and many special magazines</p>
Climate Practice Culture		<p>Employment liquidity</p> <p>Large company-oriented, stabilization-oriented</p>	<p>○ The liquidity of human resources is increasing. The resources mainly consist of old graduates.</p> <p>△ Some are large company-oriented and other are independence-oriented.</p>	<p>× There are less job opportunities for mid-career transfer and the markets are not established</p> <p>× Graduates directly out of universities and graduate schools are large company-oriented.</p>	<p>○ Most of labor markets are for old graduates</p> <p>○ Independence-oriented</p>

View against venture business	△ They respect founding action	△ Jealous society, envy for success	○ They respect entrepreneur success
Difference among elite images	△ They feel a social status in entrepreneurs and politicians	△ They underestimate venture businesses.	○ Various races and minorities are independence-oriented
Values to business failure	○ They have traditional values, based on the proverb that failure teaches success.	△ They feel a high status in government offices and prestige big companies	○ Entrepreneurs are highly evaluated Some US presidents used to be entrepreneurs
National idea	○ They make assets through corporate funding, donate them to the society and leave them to children	△ They have a strong fear that failure immediately leads to bankruptcy	○ Culture of restart
Historical difference	○ They make assets through corporate funding, donate them to the society and leave them to children	△ Look for a big tree when you seek shelter They wish group belonging, in stead of independence.	○ American dream
	○ There is no house like home (Overseas Chinese merchants) When you are at Rome, do as Rome does.	△ Place importance on prestige, tradition, history and genealogy.	○ Success of venture managers (continental crossing, oil, etc )

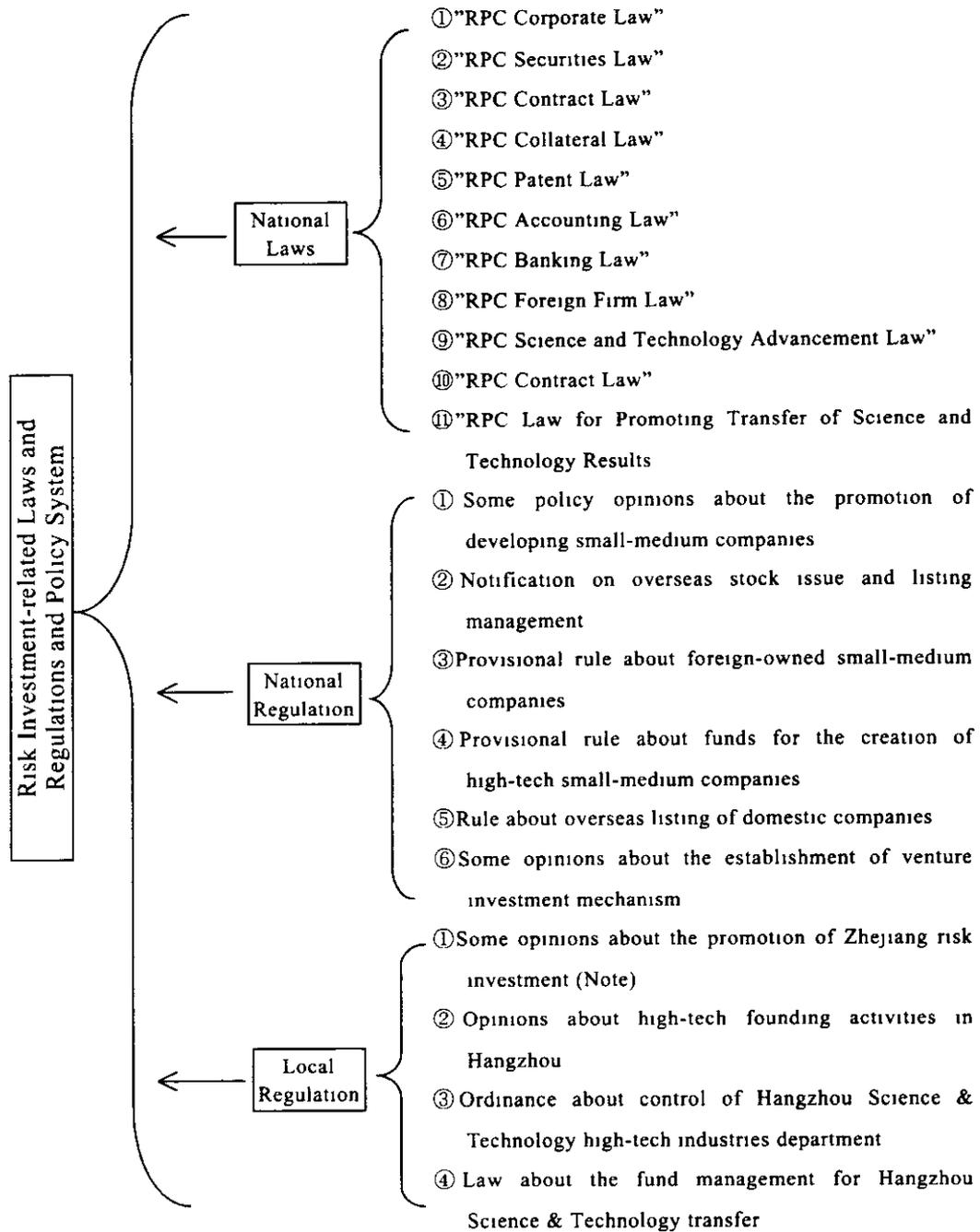
(Data) In the above table, the data on China are based on the hearing survey in Hangzhou, Shenzhen and Shanghai implemented by of the JICA team. The data on Japan and US are based on the research results of Nissei Basic Research Institution (Originating from "Practical Knowledge about Venture Founding and Investment", written by Mashito Ono, published by Tokyo Keizai Shinpo )

## (2) Problems about Basic Legal Systems

The law concerning to venture investment is currently being devised, and the rules governing basic matters, such as the positioning and operation of venture capitals or the relation between VCs and VBs, are not still established. China is also lacking in various systems concerning to the "protection of intellectual property", "evaluation on technical results", "definition of venture capital business scope and tax incentives for VCs", "responsibility scope of investment management companies and the protection of investors' profits", "introduction of a qualification system for venture capitalists", "preferred stock" and "no-par value stock". For this reason, the operation of venture investment business is forced to depend on wide-ranging laws and regulations. Due to that one agreement is subject to many laws, a package contract (several contracts are concluded at the same time.) is provided to complement existing laws. These existing laws had a lot of defects because they did not assume VC activities when they were established

A delay in establishing these legal system provided a great bottleneck to market inflow of risk money and caused a phenomenon in which the actually invested amount remained smaller, in comparison with the scale of funds

**Figure 4.2.6 Risk Investment-related Laws and Regulations and Policy System**



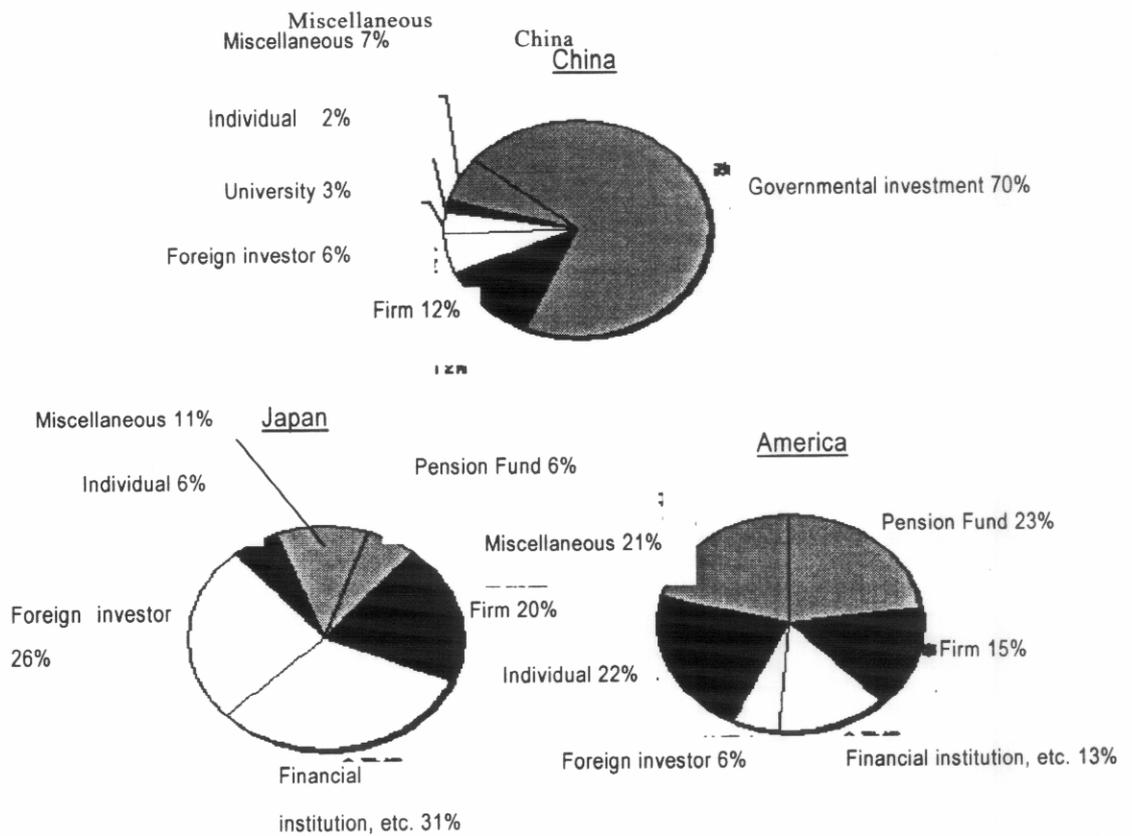
Note "Some opinions about the promotion of Zhejiang risk investment" was released on 30 November, 2000

Data Based on JICA Survey Team

(3) Problems about Business Operation

The first problem is a limitation of venture capitals' financing. Since most of VCs are owned by the government, they are forced to depend on the governmental budget. In addition, financing methods, such as issuing of convertible bonds (CB) and bonds with stock purchase warrant, are not widely penetrated. Due to that a limited partner system (investment business cooperative system), in principle, is prohibited under the current system, the resources for VCs are forced to depend on proper funds. This restricts the expansion of business scales.

**Figure 4.2.7 Financing Resources of China, Japan and US Venture Funds**



Data: Data on China is based on the survey of JICA team (October 1998 to December 2000), while data on Japan and US is based on the Nikkei Shinbun (Japan data from July 1999 to June 2000, US data in 1999)

Secondly, there is a mismatch about information and needs between VBs and VCs. Due to a weakening of information infrastructures on VC firms and VC and the function of objectively evaluating them, it is difficult for VC to find a venture business appropriate for an investment site or it is difficult for a venture business to find a VC as a partner (information mismatch) On the other hand, an investment stage is unevenly distributed to a period of Growth (Expansion, Later Stage). The period of Seed with the highest fund needs, the Start-up and the Early Stage are apt to be kept at a distance, in terms of risk avoidance (Needs mismatch)

**Table 4.2.13 Growth stage of VC**

**Seed Financing**

The small amount of funds is available for entrepreneurs. The funds are used for establishment of a business concept, founding resources raise, preparation of a business plan, organization of a management team, market research, product and service development, etc

**Start-up**

The funds are used for completion of product and service development and initial marketing. A company is during the creation phase or in the stage of less than 1 year after establishment. Services are still not sold commercially. In this stage, the company will have already finished market research, collected main management members and completed a business plan. The opening of business is just around the corner.

**Early Stage**

The funds are available for a company that has consumed initial capital. Prototype products are introduced on the market and are under testing. The funds for full-scale production and sale are required.

**Expansion Financing**

The funds are used for operating resources to conduct full-scale production and sale due to the increase of trade account receivable and stock. Corporate evolution can be observed, but a profit can not still be made.

**Later Stage Financing**

Sales increase and exceed the break-even point, which shows an initial profit. The funds are used for full-scale business expansion. The funds for plant expansion, marketing, operating costs, development expenses for product improvement are required.

It can be said that the relation between VBs and VCs after investment is close to the relation between creditors and debtors in an indirect financial market, instead of a closer partnership found in developed countries. The side of VBs has a roaring

foundation spirits, while generally less willing to disclose information about their own companies and to be intervened in their own management. On the other hand, the side of VCs does not fully realize the value-up activities due to a moral hazard on a corporate system and the lack of venture capitalists

Thirdly, the business may be lack in expansion, flexibility and efficiency because it is placed under the stronger initiative of the government. Each local government has lift a venture boom by issuing a "local notice", in order to complement an insufficient system of the basic laws concerning to venture investment business. However, there are common problems; ① Due to that provincial or municipal science and technology commissions take the initiative of establishing and operating VCs and place too much stress on high-tech industries, VCs are positioned not as a company in a financial sector but as a support function of promoting the high-tech development., ② Most of VC employees, who are governmental public officials or are sent from the government, lack specialty, while they depend on temporary policies of the government. This restricts future business development and ③ Many VCs became similar in small scales and characteristics due to that they were formed in a short term based on the same policy.

#### (4) Market Problems

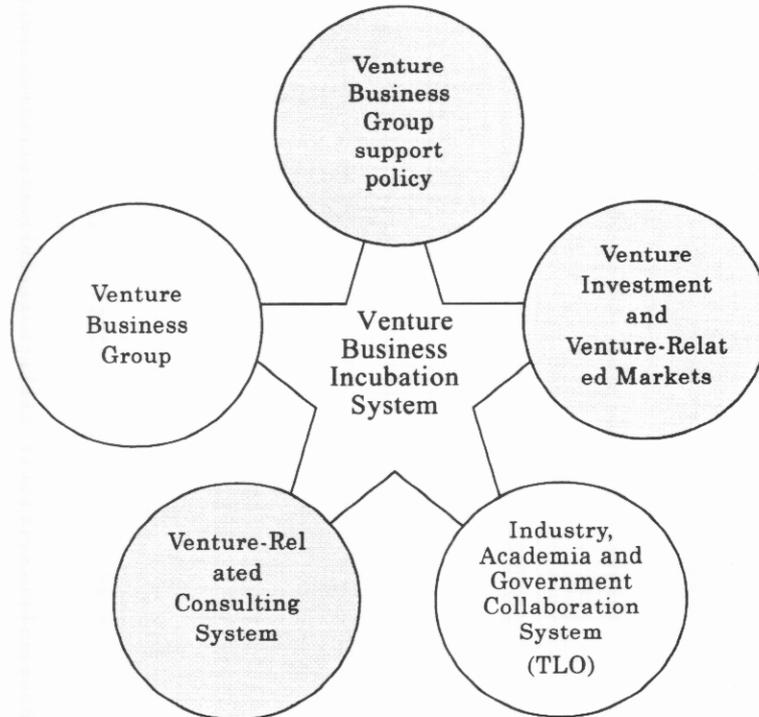
During these decades, with the rapid growth of Chinese stock markets, about 1,200 companies accomplished IPO (initial public offering). However, a stock market for VBs has not operated yet. (although the government announced in 1999 that it would create a venture market in Inchon sooner or later). Though venture investment funds are mainly from a securities market, it can no be said that investment recovery expectations, dependent on a stock market, are now realistic in China. Therefore, it will be necessary to consider multiple recovery methods, such as private equity and M&A.

### 4 2. 6 Analysis of Current State in Hangzhou and Proposals

#### (1) Factors that forms a venture world

A venture world consists of the following elements; a Construction of a policy system for supporting VBs, b. Formation of a VBs group, c. Development of VCs and their related markets, d. Construction of a consulting support system and e. Construction of industry, academia and government collaboration system. The balanced promotion of measures without bias adoption of these elements will be a key to develop VBs

**Figure 4.2.8 Venture Incubation System Image**



In the case of Hangzhou, the elements in the above figure have appeared spontaneously. However, a more sophisticated and strategic scenario formation or the collaboration among the above elements will become necessary.

(2) Venture Supporting Function by the Economical Committee Should Be Intensified

In the formulation of a policy, venture should not be defined as a sole “high-tech type”, but be defined as “business activities with marketability and risk, and an individual and an organization that implement the activities”. Specifically, also in Hangzhou, as in other regions, too much stress is placed on the incubation of high-tech VBs, but the high-tech type is only one of five types of VBs in this city. After conducting on-site investigation in this city, it was found that it was necessary to implement the development of Vbs leading to the advancement of traditional industries. Therefore, not only the Science and Technology Commission but also the Economy Commission should provide more supports to VBs. Naturally, it is important to increase the functions of the “Hangzhou Small Business Service Center” and the “Hangzhou Property Right Transaction Center”, or affiliated organizations of the Economy Commission, through their budget increase, organizational enhancement and deregulation.

### (3) Industry, Academia and Government Collaboration System Should Be Reconstructed

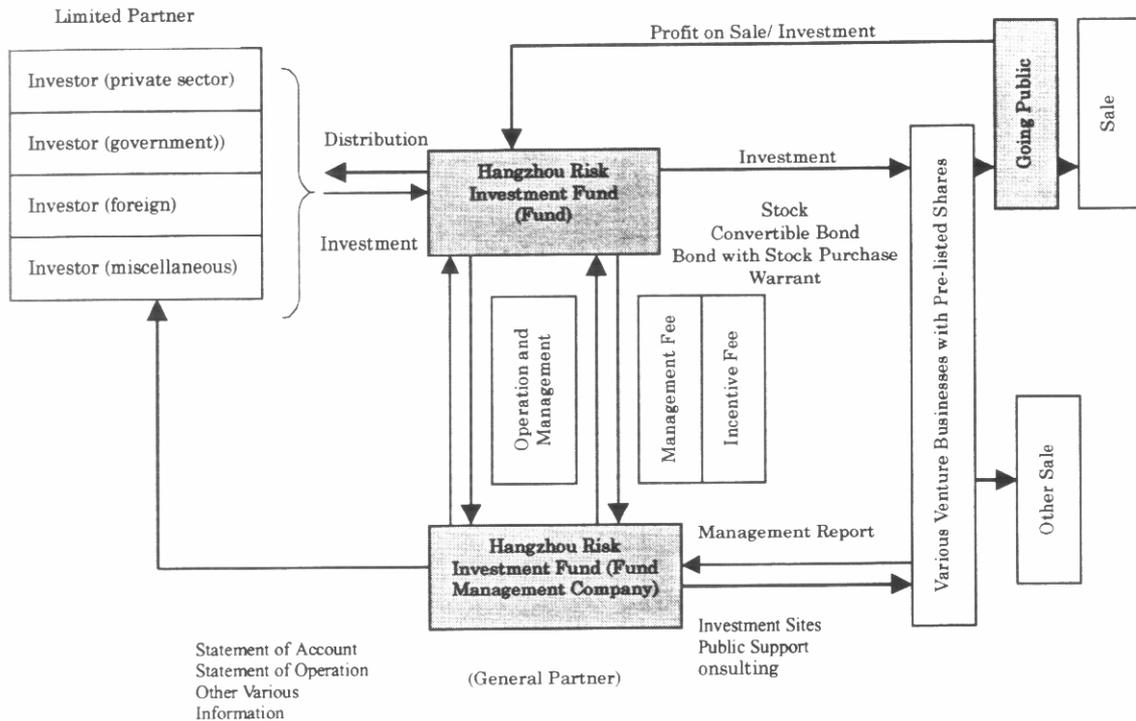
Currently, industry, academia and government coordinators include wide-ranging organizations and individuals, such as “Hangzhou Government Technology Development Office”, “Industry and Academia Office of Hangzhou Economy Commission”, “Zhejiang Hangjiahu Technology Development Co.,Ltd” and “Group and Individual of Each University”, complicatedly structured. After this investigation, we deeply felt that it was necessary to reconstruct mutual collaboration through arrangement and restructuring of each organization, to effectively develop collaboration projects of industry, academia and government in Hangzhou. The arrangement and restructuring of organizations should be addressed jointly by the Economy Commission, the Science and Technology Commission, the Board of Education and Universities. The following options should be considered:

- a. Increase the functions of the Industry and Academia Office of Hangzhou Economy Commission. (TLO office)
- b. Form “Industry-Academia-Government Collective (TLO)”, consisting of Hangzhou Economy Commission, Hangzhou Science and Technology Commission, Hangzhou University, Hangjiahu Technology Development Co.,Ltd, Hangzhou Small Business Service Center and Patent Office of Zhejiang Province .
- c. Provide a standing meeting for Industry-Academia-Government.

### (4) Small Business Service Center Should Intensify the Methods to Support Direct Finance (Adoption of a limited partner system for small business promotion)

Considering industrial characteristics and levels in Hangzhou, it may be effective and realistic to create investment funds within the Small Business Service Center and strengthen direct finance supporting functions. Currently, there are important venture investment companies in this city, which employ a Science and Technology Commission-affiliated or a wholly corporate (corporate capitals should be underlying funds for investment.) management system. All capitals of four companies remain the level of about 600 million yuans (equivalent to about a third of a top-level investment company in Shenzhen) and is relatively very small, while this city with rich private funds is currently second in the total of GDP among provincial capitals. In order to increase the funds for venture business, it may be effective to establish a venture management system by a limited partner (investment cooperative system).

**Figure 4.2.9 Business Management Image**



The government in Zhejiang Province released “some opinions about the promotion of risk investment in Zhejiang Province “(30 November, 2000). As a result, legal guidelines were prepared, and it may be worthwhile introducing a limited partner system (investment cooperative system) into an investment fund, that will be created within the Small Business Service Center, on an exploratory basis. It may be reasonable that this venture investment fund invests in not high-tech VBs supported by the Science and Technology Commission but companies posing the advancement of traditional industries. In addition, it will be necessary to mainly invest in both of open and unquoted markets in order to make profits from investment capitals, considering capital market surroundings in China.

(5) Utilization of Private Equity Investment

It is usually difficult for small-medium firms to get loans from national commercial banks. Their needs for direct financing markets have grown little by little for the purpose of their future development. It is considered that private equity investment is

an effective as a means of VBs ' raising capitals in a direct financing market, except IPO

The Hangzhou Property Right Transaction Center should play a main role in implementing this private equity investment. Concerning to the point, two situations could be identified from this investigation. Firstly, it was indicated that the Hangzhou Center would take a more aggressive posture in the development of pre-listed share transaction, other than the scope of traditional business. Of course, the governmental organizations concerned should greatly support the development of these new markets (refer to action plans). Secondly, the Shanghai Property Right Transaction Center started pre-listed share transaction ahead of other stock exchanges. Therefore, the Hangzhou center can refer to the Shanghai's activities and business performance.

### 4.3 Present State and Problems of Small and Medium Enterprises

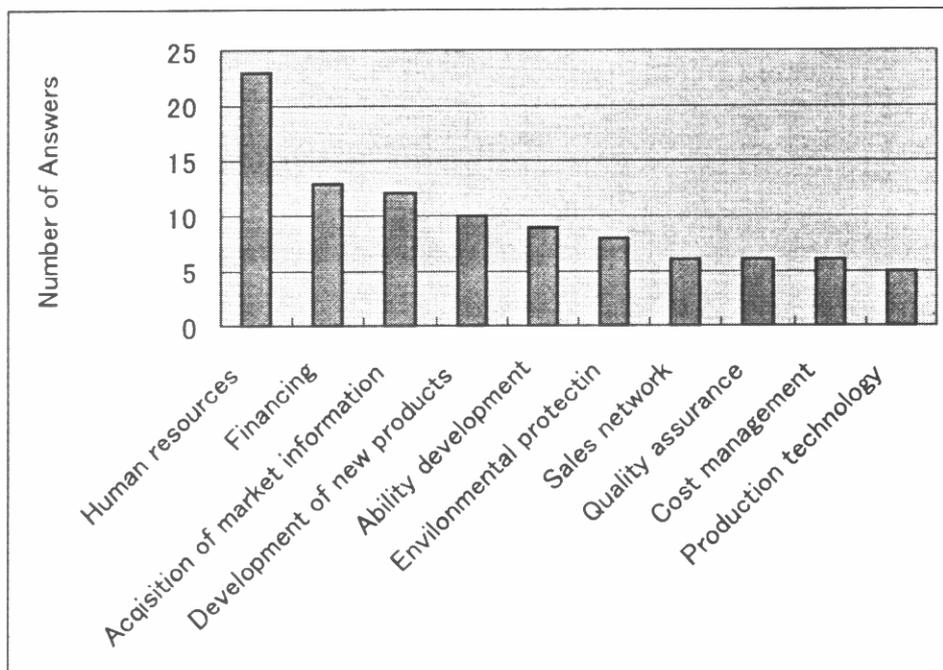
#### 4.3.1 Present State and Problems of Small and Medium Enterprises

- Business Administration

The top management and executives of a company must understand business administration from a comprehensive point of view, and have foresight in addressing problems. Our questionnaire survey revealed that top managers are most concerned about the problems related to human resources, followed by financing and the acquisition of market information. The problems of human resources seem to be centered around two categories of personnel: prospective managers and able engineers. The problems of financing may also include two elements: the funds for expansion of production facilities and the working capital for stabilization of operation. On the other hand, answers to the question about new problems expected in the near future included those related to the entry into the WTO, ability development, and ISO 9000 in decreasing order.

**Figure 4.3.1 Important Managerial Issues (50 Companies Surveyed)**

-- Survey for Promotion of Small and Medium Enterprises in Model Areas in China (Hangzhou City) --



Government-owned enterprises, as well as non-government-owned enterprises (51% or more government share of capital) under managerial control from the government, seem to be managed with extreme strictness in terms of production targets and bookkeeping. However,

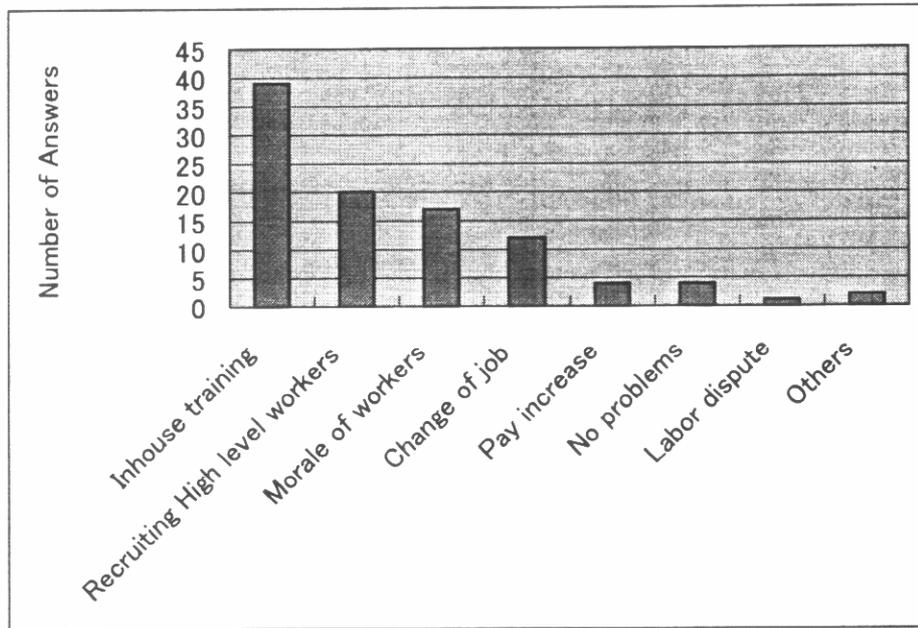
management of other activities appears to lack strictness. Probably, as a result of the past situation that sales and finance of companies were long conducted under government protection, executives are still not sufficiently aware of competition and the fact that the market principle determines the flow of products. Although intermediate- and long-term management plans are indispensable for business administration, even considerably large companies do not have plans that integrate income and expenditure, profit and loss, fund management and investment for a period of 5 or 10 years. (For a company that has introduced a personal computer, it should be easy to prepare tables showing these plans year-by-year using a commercial software package. The fact that this is rarely practiced indicates underutilization of existing personal computers. Our questionnaire survey showed that 82% of companies are using computers.)

Although executives are working actively in the roles of sales promotion, purchase of main raw materials, financing, etc., they do not sufficiently keep track of information concerning labor management, human resources development, production control, inventory management, etc. Executives seem to lack comprehensive understanding of the company's business status and fail to make necessary actions, partly because the company organization lacks a system for concentrating necessary information to executives at necessary times. They also do not seem to be much interested in the need for coordination among divisions of a company.

The level of workers' motivation show some difference between companies under government control and so-called private companies (companies scheduled for privatization). Generally speaking, however, the morale of workers is low in all categories of companies. It is not surprising that there are "able engineers" who are willing to get out of government-operated companies. The wages of the average workers at government-operated companies are as low as 1/3 to 1/10 of that at private companies. Some able engineers have become so-called "Sunday engineers," who work for the company they belong to on weekdays and work for a private company on Sundays. The problem of wages is a serious challenge to government-owned companies. Although both government-owned companies and private companies are equally interested in human resources development, actions for human resources development is required urgently to ensure sound development of the companies in future.

**Figure 4.3.2 Problems of Worker Recruitment and Personnel Management**

-- Survey for Promotion of Small and Medium Enterprises in Model Areas in China (Hangzhou City) --



It is questionable whether the concept of depreciation is understood properly by the executives, who have experienced the shift from government-owned enterprises to government-operated enterprises (less than 50% government share of capital). In many companies, production facilities have superannuated. Some companies even believe mistakenly that large stocks of products are assets. Executives of manufacturing companies must tackle an important issue concerning the balance sheet and the profit-and-loss statement. Although most companies prepare a balance sheet and a profit-and-loss statement, very few prepare statement of cost of manufacturing in spite of being manufacturing companies. In this situation, it will be difficult to analyze corporate constitution and determine management directions through self-diagnosis of manufacturing companies. Executives must re-define the purpose of accounting practice, and give essential meanings to it. There is the concept of “value increase” in China. In a production factory, this concept is closer to the amount of processing, rather than value added. It may be defined as follows: [amount of processing] = [sales] – [materials cost] – [outsourcing cost] – [necessary for production]. Managers should evaluate per-capita amount of value increase, the ratio between sales and value increase (value increase/sales), and the ratio between value increase and wages (wages/value increase), and analyze them in a time series, so that they will be able to evaluate productivity, state of receiving orders, and constitutional changes in productivity. Understanding of the

break-even point is essential to the formulation of management plans. Because most variable costs have been taken in the calculation of value increase, it is easy to calculate the marginal profit ratio. Executives must always have management plans covering several years into the future. For example, they must have concrete plans concerning future scale of business, future business areas and possible new products, although the plans may contain some degree of uncertainty. As a concrete measure, the above-mentioned yearly income/expenditure table and fund management table should be prepared in interrelated forms, so that the company's management plan can be grasped comprehensively in a time series. It has been pointed out that the management keep their eyes on near-term sales and lack intermediate- and long-term plans (particularly in the case of government-owned and government-operated enterprises), partly because of the frequent personal changes among executives after short terms.

Parts of the intermediate- and long-term plans that can be publicized should be communicated to workers. It is important to obtain consensus from workers. This will lead to the development of trusted relationship with workers and enhancement of their awareness that they belong to the company. In the case of the model factory studied here, concerning the purpose and methods of problem solving at the site of work, the personnel in charge of diagnosis asked the workers to deepen understanding of the work using sufficient time and to collect data by themselves. Then, the both worked together in conducting relatively simple analyses. The result indicated that workers actively participated in opinion exchange, based on the facts that are only known to persons directly involved in the business. The worker themselves proposed new problems.

The management is most strongly interested in sales promotion. Led by Hangzhou Municipal Economical Committee, they are conducting industrial fairs and product fairs both in China and in other countries. In Hangzhou City, proactive efforts are being made by the Market Sales Association composed of representatives from 120 organizations, university professors, specialists, and the leaders of the 11 departments of Hangzhou City. While each exhibiting company must pay 500,000 yuan for participation in a fair, the city bears one-third of the cost. In addition, Hangzhou Municipal Economical Committee is performing a questionnaire survey on market development, and is using the findings to guide the city's policy making. However, small and medium enterprises are not participating in this Association. Future involvement of small and medium enterprises will contribute to the economic development of Hangzhou City as a whole.

**Table 4.3.1 Result of Questionnaire Survey on Sales Promotion, Manufacturing Companies in Hangzhou City (66 Companies)**

Item	(%)	Item	(%)
Percentage of sales personnel to all employees	6	Sales material is obtained from sales development personnel	76
Employees with junior college or higher education	43	One brand mark is used	58
Employees with a major in market development	19	Market development is conducted by oneself	62.5
Employees who studied for 4 years or more	19	Products are sold at one's own store	34
Employees who studied 3 years or more	13	Expects to have agents	37
Employees who studied 1 or 2 years	13	Wants to run commercials on local TV	45
Employees with sales experience of 10 years or more	20	Wants to appear in a trade magazine	25
Employees with sales experience of 5-10 years	18	The purpose of advertisement is publicity of the company	63
Employees with sales experience of 3-5 years	25	The purpose of advertisement is publicity of products	34
Employees with sales experience of 1-3 years	25	Has an overseas office conducting sales promotion	31
Employees with sales experience of less than 1 year	10	Production plan is based on needs	77
Percentage of sales development cost to sales	0.98	Expects market development data from the government	38
Percentage of advertisement cost to sales	1.66	Sales personnel training is conducted in-house	39
Information is collected from acquaintances, friends, and persons in the same business	40	Wants to know the secret of sales	45
Information is collected by the government and associations	32	Market developers are trained in-house	41
Information is collected by in-house information organization	37	Market developers are introduced from outside	39
An important sales material is user's opinions	55	What is the most important for market developers is personal qualities	69

This table suggests that, while executives are also active in market development, they depend on employees for the acquisition of sales information in the formulation of production plans. They also recognize the importance of the personal qualities of sales personnel.

#### • Financing

While government-owned companies are relatively advantaged in the supply of funds, financing is a difficult problem for other companies.

Although there are 16 banks, including national and private commercial banks, in Hangzhou City, companies having little collateral value suffer difficulty in obtaining loans. On the other hand, there are no established methods of diagnosis or standards for accreditation to be used by financial institutions. This makes it difficult for financial

institutions to provide loans with confidence. The city government has a plan to establish a government-sponsored credit and security organization, in response to the proposal to establish government-sponsored Credit Guarantee Center promoted by Hangzhou Chamber of Commerce, which is supported by subsidies from the city government and staffed with personnel sent from the city government. At present, there are 14 private credit guarantee companies in the urban district. However, these companies do not always have ample reserves of funds.

There are several programs for the provision of financial support from Hangzhou City government to enterprises and research institutions (including privately-operated enterprises), as follows:

① Science and Technology Development Fund

This fund is targeted to scientific research, trial production of new products, and intermediate technical development. This program has been operated since 1958, and the budget for fiscal 2000 is 20,500,000 yuan. There were 700 applications this year, of which subsidies were granted to 87 organizations. Applications for this fund are received by Municipal Science and Technology Commission. Naturally, applicants must submit the time schedule and sales targets of the project. The approval of the recipients of subsidies is conducted jointly by the city's Financial Bureau, Municipal Science and Technology Commission, and Municipal Economic Committee.

② Technical Transformation Fund

Enterprises and research institutions intending to commercialize the products developed by Science and Technology Development Fund can apply for subsidies from Technical Transformation Fund. The applications are received by Municipal Economic Committee, and examined in terms of the potential for future development, coherence with national policies, balance in the industrial structure of Hangzhou City, clearance of environmental problems, etc. Depending on the scale of investment and the category of business, subsidies are available to cover from 2% to 6% of the total amount of investment. While 3% to 4% subsidies are given in general, 6% is granted if the procured fund is 100% self-financed. If an application for Technical Transformation Fund is approved, it simultaneously means that a bank loan is guaranteed, and the recipient is assured of obtaining a loan from financial institutions. Until 1997, a project was eligible to this fund only if the total investment amount was 10 million yuan or more. Since 1998, subsidies have also been given to smaller projects, provided that the total investment is not much less than 10 million yuan, opening a way for small and medium enterprises to use this fund. Subsidies were not given to projects with smaller amount of investment because these projects were considered to have little

contribution to structural improvement. The uses of funds have been expanded to include facilities, buildings, and land for production. The budget has been increased substantially from 40 million yuan last fiscal year and 80 million yuan this year.

### ③ Seed Fund (Seed Program)

Seed Fund is also known as Angel Fund. The budget for this fiscal year is 5 million yuan, of which 3.76 million yuan has been executed as of October, 2000. The applications for subsidies are received by High-Tech Service Center, and the decision of acceptance is based on the consultation between Hangzhou Municipal Science and Technology Committee and Finance Bureau. The targets of this subsidy are projects that are not regarded as high technology but considered necessary, such as development of common technologies. In this fiscal year, subsidies were given mainly to software-related business, establishment of enterprises by individuals, university graduates, and entrepreneurs returning from academic training abroad. While the amount of subsidies depends on the specifics of each project, it is usually 50,000 yuan and up to 200,000 yuan for each project. As for the business plan, recipients are required to submit a time schedule and a contract stating a target annual sales of 3 million yuan.

### ④ Fund for Small and Medium Enterprise Technology Creation (State's Torch Plan)

This fund is intended for subsidy to high technology-related development projects. The recipients are private companies and research institutions. In this fiscal year, 26 projects received subsidies. The amount of subsidy was about 45,000 yuan for each project.

The criteria for the selection of high technology-related development projects are specified in China High-Tech Products List, as outlined below.

This List covers 11 high-tech fields including electronic information; software; aviation and spaceflight; biology, medicine and medical appliances; new material; new energy and concentrated energy-saving, environmental protection; earth, space and oceanography; nuclear application technology; and agriculture.

In this List, high-tech products are basically defined as follows:

- (1) Products based on the key-point technology belonging to the realm of high technology.
- (2) Product involving relatively new inventions in the key-point technology, high levels of innovation and technology, and independent intellectual property rights.
- (3) Products that are in great demand in the market, products that are in the stage of introduction, growth, or maturation; products that have relatively high economic value,

social value, and environmental friendliness, and are capable of sustainable development.

(4) Products meeting with the basic condition of economic and social development of China and satisfying the need for rapid development of the national economy

(5) Product that can replace imported goods, product that can be exported to earn foreign currencies, and products having international competitiveness.

Source: China High-Tech Products List 2000

According to these principles, 2056 products are listed.

#### ⑤ Interest Supplementation for High-Tech Small and Medium Enterprises

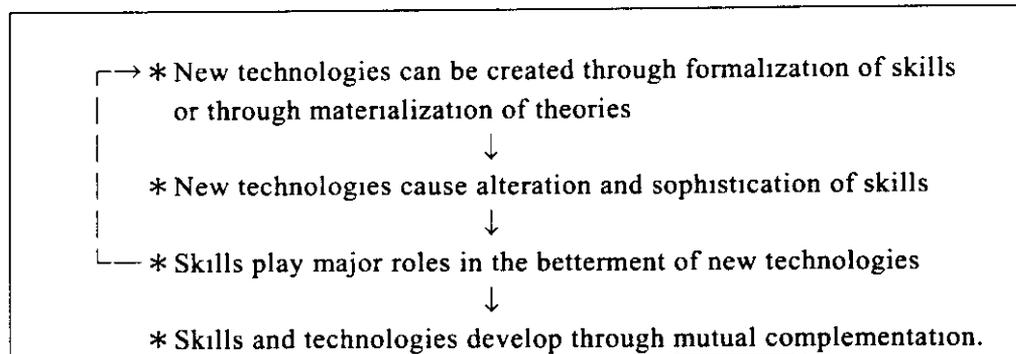
In this program, Zhejiang Science and Technology Agency conducts authorization of eligible business in consultation with the city's Financial Bureau and Municipal Science and Technology Committee

Once authorized, the business is granted tax exemption (in the form of refunding) for 2 years after establishment. Thereafter, 50% of the tax amount is supplemented (refunded) by Hangzhou city for 5 years. When a scientist establishes a high-tech company, investment of funds is available at the time of establishment.

The criteria for authorization of eligible business include a requirement that at least 30% of employees must be college-educated engineers and the number of employees must be 500 or less. Both government-operated enterprises and private enterprises are eligible. In the case of joint enterprises, foreign capital must be 50% or less.

#### • Production Control

Among the fields of traditional industries, fundamental techniques such as sheet metal, pressing, cutting, welding, forging, and casting must be maintained and developed as important foundations for high-tech industries. The development of these fields are considered to provide the basis for the future of industrial development. The step-up in technologies and the step-up in skills are interdependent processes that are stimulated by each other. The top managers in the field of production control should pursue the improvement of technologies and skills with sufficient understanding of this fact.

**Figure 4.3.3 Relationship between Technology and Skill**

Source Technology Division, the Small and Medium Enterprises Agency

The duty of production workers is to provide a specified number of products in specified quality by specified date according to the production plan. For this end, appropriate control must be practiced in each section. It is indispensable to improve the management of work progress, product quality, and safety. This also applies to all fields of traditional industries such as machine and electronics industry, spinning industry, food industry, and light industry.

Superannuating of equipment is a considerable problem in small and medium enterprises. Basically, this is considered to reflect the fact that managers lack the concept of depreciation of equipment. Using a piece of equipment as long as it works is not a recommendable practice. Because each equipment has a service life, renewal of equipment must be planned in advance, paying attention to the productivity of equipment. Otherwise, problems of cost and product quality will develop. Another problem is related to the practice of production workers using the equipment. The maximum performance of equipment is realized only when regular maintenance and servicing are performed. It is necessary to perform daily inspection at the start of work, as well as regular maintenance works such as medium maintenance and major maintenance, so that smooth production will be ensured. For this end, it is necessary to keep the records of maintenance and servicing, ensuring that these works are performed without fail.

A production factory is not a place where the input of materials spontaneously results in the output of products. Expected high-quality products are generated only when there is good coordination among materials, machines, and workers. If the product does not meet the expected standard, they are defectives. If defectives are detected at the end and selected out from the finished products, all the electric power, labor cost, wearing of machinery, and materials consumed before removal of defectives are wasted. Some factories pay little attention to the generation of defectives, considering that some materials can be reused.

However, in many cases, reusing of apparently normal materials causes problems, such as alteration of physical properties and reduction of size, resulting in the inability to produce products conforming to size specifications. If reused materials are mixed with new materials, possible changes in the properties of materials may complicate quality control in intermediate processes. A measure to overcome this problem is to perform several checks in the process of production. In an assembly line system of mass-production, it is advisable to collect and record the data of work at regular intervals, as well to summarize the data graphically in a time series for the purpose of monitoring quality. Even in the case of small-lot production, important measured values should be recorded and utilized for the next process. When a problem is found in the finished products, these data will provide important keys for the solution of problems. At present, small and medium enterprises in the target area are not sufficiently utilizing these data, although some are recording these data. Most companies are just beginning to use cause-and-effect diagrams, Pareto diagrams, and control charts. In general, the percentage of defectives is surprisingly high. Although we did not grasp the accurate value, the defective fraction at a mass-production factory is as high as two digits in percentage. Lowering of the percentage of defectives is the most strongly desired goal at the site of production.

Quality control, which is the technique to control the properties of work, is the problem of how to control the mean value and the dispersion around the mean value. In the case of the shape of products, it is the question of how to increase accuracy at a low cost. As an example, we purchased disposable gas lighters at several stores in Hangzhou City. The price of each gas lighter varied from 5 jiao to 2 yuan. Refillable gas lighters of similar make cost several times as much as disposables. Refillable gas lighters in fact contain parts requiring higher accuracy. The increased accuracy and design of refillable gas lighters are considered to translate into the value added. We also purchased several very small desiccators (about 5 cm in diameter) at a scientific equipment store, where transits and other sophisticated instruments were also sold. These desiccators were not toys, but practical products for scientific experiments. Although the body and the lid of each desiccator fitted together passably, their shapes were much deviated from true circles. Unless very careful attention is paid, these desiccators were considered to undermine the reliability of experimental results.

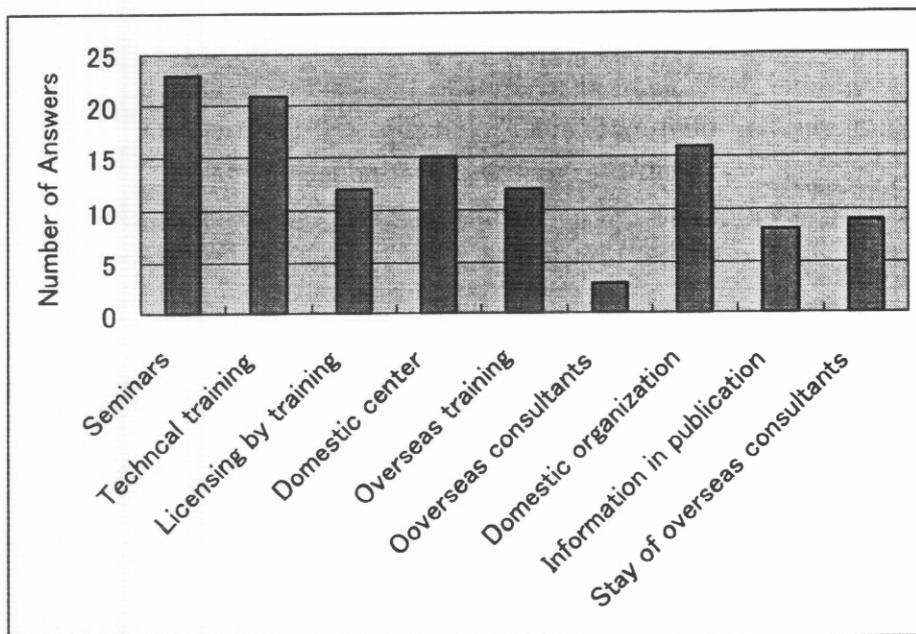
With respect to the problems of inspection at the time of shipping, some companies are shipping measurement instruments without performing function and performance inspections. They correct the problem only after receiving complaints from users. Such practice will destroy the customers' confidence in the products. Some companies even seem to be considering that customers were the inspection department of manufacturers.

In inspection, some data are measured by instruments and others are evaluated by human beings, such as in visual inspection. The reliability of the data from instruments depends on the accuracy of instruments and the skill of measurement. On the other hand, evaluation by human beings (sensory tests) requires a proper testing environment and experienced personnel. Inspection of products such as spun yarn, woven fabric, and food products requires standard samples for evaluation. We need to confirm whether standard samples are used at textile factories and whether the testing environment is appropriate.

On the other hand, some companies supplying parts to foreign-funded firms have introduced QC techniques under the pressure of necessity. Some are making great efforts to use these techniques energetically. This can be described as a form of technology transfer. We expect to see the transfer of these control techniques from the main factory to branch factories, as well as to other local companies in the same business.

**Figure 4.3.4 Expected Means of Technology Transfer**

-- Survey for Promotion of Small and Medium Enterprises in Model Areas in China (Hangzhou City) --



Future renewal of facilities will involve the shift from mechanical control to electronic control of equipment. We want to encourage production workers to acquire necessary skills corresponding to this change. Production using electronically-controlled equipment will require abilities beyond the routine operation of equipment. Just being able to use machinery may be sufficient for a short period after introduction of new equipment, but response to troubles will require a much wider range of skills. The introduction of electronically-controlled equipment may solve several problems of current mechanical equipment, such as the inability to make fine adjustment. At the same time, workers should be prepared for the possibility that new problems may arise, such as maintenance, servicing, and modification of equipment. Anticipating the introduction of production equipment with electronic control, future plans for human resources development should be prepared carefully from intermediate- and long-term points of view.

It is a fact that each company is conducting marketing, a process from market research and product conception to sales, in its own way in planning and developing new products. A number of trial production must be conducted in the course from product planning to the production of commercial products. Trial production, however, causes serious problems at the site of production. Trial production in the actual production line tends to disturb the site of production. To avoid this problem, a company should have a division for trial production

and development works. Even a dedicated line may be required in some cases. A prospective new product is passed through several cycles from design, production, measurement and evaluation, and again to design before the new product is released to the market. A company with a development division must pursue the goal of shortening the time required for development and commercialization. Introduction of rapid prototyping technology is desired as a means for solving this problem.

Design is inseparable from production control. While we appreciate the ambition to produce all parts in the company's own factory, commercially-available standard products, if any, should be utilized from the stage of product planning and design, because they can reduce production costs and the costs of installing production facilities. Furthermore, design should be conducted with comprehensive consideration of the function, safety, cost, styling design, etc. of the product.

The design of equipment and parts have long been conducted using drafting squares, drafters, or other conventional tools. The emergence of CAD, however, has been greatly altering design and production techniques. The data produced by CAD can be used in CAM systems, which operate NC tools to process the work according to design. Some small and medium enterprises in the target area are using CAD and CAM, although they seem to be using software that is somewhat low-grade.

The introduction of CAD has a potential to innovate design and production in the fields of fundamental industries. CAD is effective not only in the design and production of machinery and electronics, but also in design creation and weaving in the field of textile design and production, as well as cloth cutting and apparel design in the fields related to sewing. Industries that can benefit from CAD should proactively consider the introduction of CAD. However, simply installing a CAD system is not sufficient. Introduction of the system should be based on careful consideration of functions and usability. While various CAD and CAM systems are available nowadays, a factor that needs special attention in selection of systems is data compatibility. In view of the globalization of the market economy, we should select a CAD system using a data format that are accepted widely in the world.

Recently, software applications suitable to practical use have been developed not only for EWS but also for personal computers. An important point to note is that software packages above a certain level of sophistication usually require the user to enter a maintenance contract, and this may increase the running cost. However, without a maintenance contract, it is virtually impossible to receive upgrading to future versions and guidance on operation techniques. It is in fact very difficult to use the system effectively without receiving technical support after introduction. In any case, CAD and CAM are extremely effective in

improving productivity and product quality. They are particularly effective when used for trial production of new products.

(CAD: a computer system for design and drawing, in which images can be created and edited on the display screen by the use of a keyboard, light pen, mouse, and other input devices, and the image data can be retrieved in the form of electric signals.)

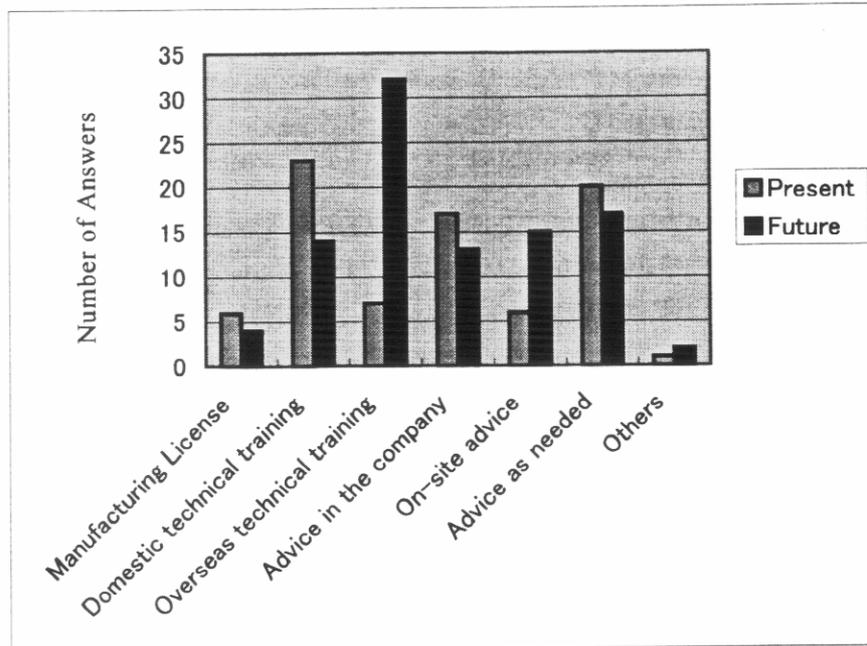
(CAM: a computer software application that converts the data produced by CAD to the electric signal data that can be read by manufacturing and processing machinery. At the same time, it also converts processing conditions to machine-readable data.)

(EWS: a work station equipped with high-speed numerical operation and high-speed graphic processing functions.)

#### · Support by Industry-Academia Cooperation

There are 18 general colleges and universities in Hangzhou City, making it a city of education and culture. The academia is very active in conducting joint research with companies, joint research with private research institutions, contract research programs from companies, and technical guidance to companies. Thus, so-called industry-academia cooperation appears to be active. However, there is a reason for this situation. Universities and colleges in the fields of science and technology are suffering from shortage of funds for operation. The teaching staff are encouraged to conduct research in industry-academia cooperation for this reason. A 13% fraction of the joint research budget is systematically given to the college or university, and this fund is used to cover 70% to 80% of operational cost. Because of this situation, there seems to be disparity in the equipment of research laboratories and student laboratories.

**Figure 4.3.5 Present and Future Expectations for Technical Assistance**



At present, the respondents expect technical/skill training in the country. However, with respect to the expectations in the near future, they expect overseas technical/skill training. Although overseas technical/skill training may be meaningful, it is necessary to analyze the reason why they expect overseas technical/skill training as shown by the present survey.

Let us consider the learning of techniques and skills using the metaphor of travel. Learning based on lectures because of the lack of operational equipment is like traveling on a map on the desk. In contrary, too much emphasis on practical training is like traveling without a map. Top managers seem to be expecting travel (technical/skill training) with a map.

As shown above, companies seem to consider that OJT is the most effective form of training. However, they probably do not think that OJT alone will lead to technical upgrading. It is reasonable to understand that companies expect the technical education authorities to conduct training leading to the acquirement of techniques and skills that will be useful on the shop floor.

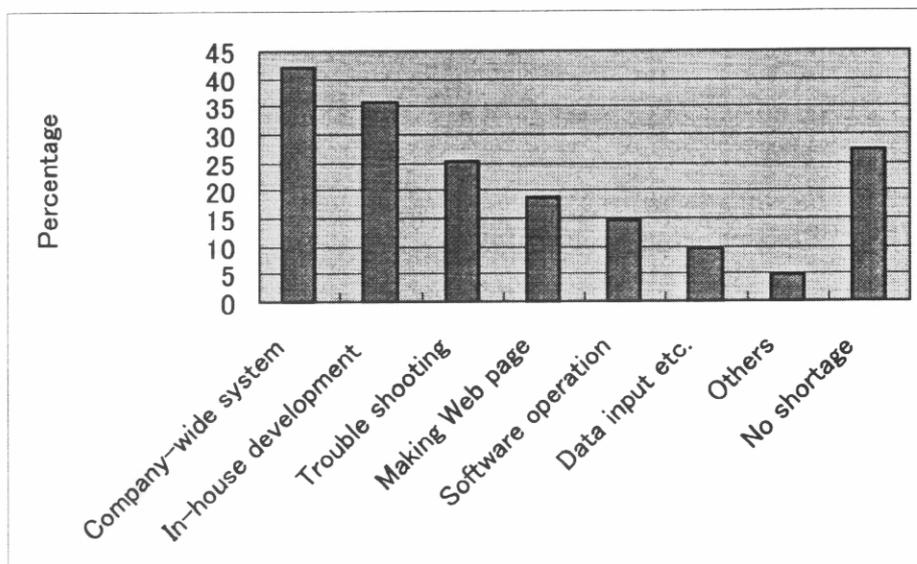
To conduct technical/skill training useful on the shop floor, it must be ensured that training is conducted in accordance with the needs of clients (companies). For example, computer training is given by vocational high schools, by technology schools, and by the Chamber of

Commerce. However, companies are sending out trainees without knowing the exact content of training. This will cause a mismatch between the needs of companies and the content of training, eventually resulting in the disbelief in training.

Although collectively referred to as computer training, there are several levels in it: (1) planning of the company-wide information system; (2) development and operation of in-house system; (3) ability to respond to basic system troubles; (4) ability to write web pages; (5) ability to operate basic software; and (6) ability to perform data entry and other simple tasks.

It is desirable to plan training based on the actual situation in the target area, and to conduct training clearly announcing the content of training and the level of training. Needless to say, the same applies to technical training and skill training.

**Figure 4.3.6 Human Resources Wanted for Computerization  
(Small and Medium Enterprises)**



Source: Small and Medium Enterprises White Paper, ed., Small and Medium Enterprises Agency

### 4.3.2 Present State and Problems of Support System

The government of China presented some policy opinions concerning the encouragement and promotion of the development of small and medium enterprises in October, 1999. In this statement, the government asserted the objective of realizing development with harmony between small and medium enterprises and large enterprises. Furthermore, it emphasized the importance of the development of small and medium enterprises in the development of the national economy. The government of Hangzhou City, taking the lead in the country, established Department of Small and Medium Enterprises under Municipal Economic Committee in May, 1999, and since has been reinforcing the foundation for the development of small and medium enterprises. In May, 2000, a Mayor's letter titled "Strategic Selection for Future Development of Hangzhou City" was issued. This document emphasized the superiority of human asset-intensive industries, and stated that the networked economy will create new industries around the mainstay of high-tech industries, these new industries will swiftly transform the traditional industrial structure, and they will cause ascents, integration, and rejuvenation of traditional industries

At present, there are 3 high-tech industrial parks in Hangzhou City, and active economic activities are observed there. These are. Zhuqutuan of Gaoxin Area, mainly consisting of software firms; Zhijiang Science Technology and Industry Garden of Gaoxin Area, mainly consisting of high-tech companies, and Sha Science and Technology and Industry Garden of Gaoxin Area, centered around bio business. As for high-tech industries, the period and pricing of land use and the costs of electricity and telecommunication are announced publicly for the purpose of inviting companies. Foreign-funded companies, not only high-tech companies but also other companies, are treated preferentially in income tax, depreciation (only high-tech companies), etc. In addition, for the purpose of securing human resources, special engineers are treated preferentially in exemption from personnel increase charges, application for family registry, etc. If a person who studied overseas establishes a business in the high-tech area of Hangzhou, he/she is granted a subsidy of 20,000 to 50,000 yuan (Subsidy for Establishment of Scientific Laboratories) under certain conditions, and also can apply for interest supplementation for loans

If a venture company is to be established, the president of the company is an engineer, and no less than 30% of employees are engineers, the company can occupy an Incubate Room (about 100 m<sup>2</sup>) in Zhuqutuan of Gaoxin Area at no charge for a period of 2 to 2.5 years. Because all Incubate Rooms (30 rooms) are occupied at present, a subsidy of 5 million yuan is offered to each eligible company.

Once a company is qualified as a high-tech enterprise, the rate of income tax is reduced from ordinary 33% to 15%. In addition, the company is exempted from income tax for 2 years after qualification as a high-tech industry, and the tax rate is reduced to one-half for 5 years thereafter. Software development companies in the high-tech industrial parks are also treated preferentially with respect to distribution taxes (value increase tax and business tax).

On the other hand, small and medium enterprises in traditional industries such as machine/electronics, spinning industry, spinning, food, and light industry suffer from considerable superannuating of production facilities. Even if there is a plan for renewal of facilities, few companies and managers are accustomed to the concept of depreciation, and many companies have difficulty in conducting renewal of facilities through their own resources. These companies, therefore, need to obtain loans. Because financial institutions provide loans based on the safety of funds, they naturally demand collaterals. However, the only things they can offer as collaterals are products in stock and accounts receivable, and companies possessing patents and other intellectual property rights are considered very few. On the other hand, there are 14 credit guarantee companies in the urban district, but these companies do not have sufficient loan guarantee capacity.

Manufacturing companies, regarded as a traditional industry, tend to remain in the past production system established when they were government-owned enterprises. In a sense, they have no choice but to do so. Because the division of work has not been established, some companies are producing everything they need by themselves, including mass-producible small parts, which they actually need only in small quantities. Such practice causes a large loss in the form of additional production cost.

As seen from the production-sales relationship, these manufacturing companies can be classified into 3 groups: (1) companies that produce almost all parts needed for production (in the extreme, they produce every screw), and sell their own products made of these parts; (2) companies that produce intermediate products that are made into finished products after additional processing; and (3) companies affiliated with manufacturers of finished products (subcontract factories). Through detailed analysis of these groups, it will be confirmed that companies in each group have their own problems. It is considered necessary to facilitate structural coordination among these groups.

The organizations that are currently controlling and guiding these groups of companies are believed to be supporting the operation of manufacturing enterprises with strong eagerness. However, it is necessary to reconsider the support to companies from a broad structural point of view aiming at economic development. To be more specific, while various incentives are given to high-tech industries in the form of preferential treatment for invitation of companies, subsidies for establishment of business, and measures for fostering, it is also necessary to

make efforts in other fields, such as fostering the production of instruments using the constructed software and fostering the fundamental techniques supporting the production of high-tech machinery. Fundamental techniques at the base of manufacturing, such as cutting, sheet metal, welding, plating, etc., are most appropriately promoted at the level of small and medium enterprises. Small and medium enterprises are indispensable entities supporting the development of advanced technology. We expect to see the construction of an industrial structure based on the ingenious combination of high-tech industries and fundamental techniques.

Hangzhou Small and Medium Enterprises Service Center is an organization for assistance to small and medium enterprises. This Center provides services such as technology guidance to small and medium enterprises, consulting about company merger and acquisition, technical consulting, technical information support, etc. For the execution of these programs, Hangzhou Small and Medium Enterprises Technology Creation Promotion Center was established in August, 2000, and the two Centers are currently promoting programs in close cooperation. The Small and Medium Enterprises Technology Creation Promotion Center is an administrative organization funded by Hangzhou Small and Medium Enterprises Service Center (65% of total investment), scientific research organizations, universities, and companies. As a business unit, the Center is going to play a bridging role between companies and the government. In addition, there is New Technology Promotion Station under the control of Hangzhou Municipal Economic Committee. Working in cooperation with the industry division of Hangzhou City, the Station has been successful in assisting introduction of modern technology, transfer and integration of modern technology into traditional technology, and development of new products. The Station has created a business corporation New Technology Trade Center, which provides services such as assistance to the purchase of new technology, and is operated by the commission from services. It is desirable to enrich service centers directly assisting companies, like this organization.

As a measure for the promotion of industry and commerce, Hangzhou City established Hangzhou Federation of Industry & Commerce. The executives of this organization are incumbent officials of the municipal government, and the operational costs are paid by subsidies from the municipal government, real estate revenue, and contributions from members. No member fees are collected. With strong coloration as an extension of the municipal government, this organization is playing a bridging role between the government and companies, standing on the side of the government. Programs conducted by this organization include manager seminars and exhibitions for sales promotion, as well as technical training commissioned by the municipal government. The members consist of business persons, academic researchers, companies, etc., totaling to 8,722 members.

(including 5,761 corporate members) at present. While the operation of the Federation of Industry and Commerce is entrusted to the municipal government, membership is limited strictly by conditions such as being a company with stability, a company with future potential, and a representative company. Thus, there are very few venture companies and small and medium companies among the members. It should be considered whether it is possible to remove the restrictions on membership and to encourage improvement through mutual assistance among members.

### **4.3.3 Directions of Management Support and Technical Assistance for Promotion of Small and Medium Enterprises**

#### **4.3.3.1 Selection of Priority Companies for Management Assistance and Technical Support**

The policy of substantial preferential treatment and assistance for high-tech industries has proved a success. From now and on, it is necessary to consider administrative measures for constructing an industrial structure, in which a harmony exists between high-tech industries and traditional industries (industries possessing common technologies), ensuring a relationship of mutual complementation and cooperation.

In the market economy, the government is sufficiently aware of the importance of small and medium enterprises, and considers it necessary to encourage the establishment of these enterprises so that they will become a new growing sector of economy. However, the concept of small and medium industries has yet to be established. A classification system used in statistics divides the size of companies at the annual sales of 5 million yuan, 50 million yuan, and 500 million yuan. However, for the manufacturing industry in the market economy, it is considered difficult to classify the size of companies solely based on sales, because sales is not always linearly related to the company's profitability potential, which is affected by various factors such as materials cost, equipment, and technical level. From the administrative point of view focusing on the degree of social contribution of companies, it may be meaningful to classify the size of companies paying attention to the number of employees, i.e., considering how many employees the company can hire while the business is operated smoothly and making profits. In addition, it may be necessary to use precautions to avoid discrepancy among categories of business.

For this purpose, it is first necessary to analyze the correlation between the number of employees and sales, the correlation between the number of employees and net profit (labor productivity), etc. If necessary, it would be informative to analyze the relationship among 3 factors (independent variables) that are considered to be closely related together while lacking mutual interference. The result of such analysis may indicate categories of medium

enterprises and categories of small enterprises requiring prioritized administrative assistance. In addition, the decision whether the targets of assistance measures should be divided into large enterprises and small and medium enterprises or they should be divided into large enterprises, medium enterprises, and small enterprises will depend on the content of the assistance measures in question, as well as this decision should be based on political judgment.

#### **4.3.3.2 Management Assistance at the Side of Enterprises**

It is clearly visible that Hangzhou City is moving from a position of control, supervision, and guidance of small and medium enterprises to a position of fostering and assisting them, as the city has established Hangzhou Small and Medium Enterprises Service Center, Hangzhou Small and Medium Enterprises Technology Creation Center, New Technology Trade Center, and Hangzhou Property Right Transaction Center. These service centers established recently indeed exemplify the city's comprehensive efforts to meet the needs of small and medium industries through provision of information, management consulting, training and seminars, etc. However, the problem is how well the small and medium enterprises are understanding the intention of the municipal government. To derive the effect of assistance to enterprises, it is first necessary to ensure that enterprises know the municipal government's policy measures for small and medium enterprises. Next, it is necessary to secure personnel who are capable of executing these measures. If the personnel cannot respond correctly in consulting with companies, they will promptly lose confidence. Thus, it is necessary to train personnel who are capable of consulting and assistance for small and medium enterprises. Because the persons suitable to this task may not be judged solely based on official qualifications, and selection is not easy, it is best to give training in necessary skills. Because training require time, it is desirable to start early. At the training organization, not only theoretical education but also practical training should be given. An experience of repeated failures under the guidance of instructors will have a large educational effect.

The third is the assistance and guidance given by assisting personnel visiting the company. Although it is of course effective for the client to visit the guidance and assistance organization and receive assistance, "the problem of a business is found at the site of business." It is most appropriate to provide assistance and guidance at a place near the site of business. If it is difficult for government personnel to virtually make regular visits to companies, it may be possible to assign personnel to an organization (the third sector or the like) that actually conducts assistance and guidance.

#### **4.3.3.3 Dissemination of Production Control and Open On-Demand Testing and Technical Consulting**

The largest problem in most company is the measures against defective products. Defective products are related to the problem of the mean value and dispersion with respect to the factory standards. Therefore, it is believed that the practice of basic quality control will achieve considerable reduction of defective products. While quality control has been a task of several organizations, such as the industrial division of the government and organizations related to guidance, there is almost no evidence that promotion of quality control in small and medium enterprises has been conducted. As Hangzhou City has the Society of Quality Control, it is considered necessary to use this Society as the nucleus and attempt dissemination of basic quality control techniques (such as drawing cause-and-effect diagrams and histograms) that can be performed in small enterprises suffering from shortage of workforce. The dissemination should be focused on control and analysis methods that are likely to produce prompt results, easy to understand, and interesting, and these method should be practiced repeatedly. Although not all attempts may be successful, it is important to continue patiently. In fact, in our attempt at a model company, we were surprised by the interest shown by workers, when we draw a histogram and analyzed the data of the causes of defectives jointly with the workers at the site, using the floor of the factory as a make-shift blackboard. Such experience may later lead to small group activities for improvement of processes. In addition, a problem commonly seen in most small and medium enterprises is the superannuating of production equipment, as well as the delay in automatization.

With the sophistication of control techniques, workers will naturally want to perform high precision material tests and function tests. In response to this need, we expect a system for testing and technical consulting, where small and medium enterprises can readily ask for tests. It is difficult for any of small and medium enterprises to have a division or a facility that is capable of comprehensive testing and support to technical development through its own resources. We expect government assistance that will enable small and medium enterprises to establish jointly a cooperative development and testing center.