

JAPAN INTERNATIONAL COOPERATION AGENCY
STATE ECONOMIC AND TRADE COMMISSION, PEOPLE'S REPUBLIC OF CHINA
SHENYANG ECONOMIC AND TRADE COMMISSION

**THE STUDY
ON
THE SMALL AND MEDIUM ENTERPRISE
PROMOTION PLAN
FOR
MODEL CITY (SHENYANG)
IN
THE PEOPLE'S REPUBLIC OF CHINA**

**FINAL REPORT
(SUMMARY)**

DECEMBER 2001

**THE MATERIALS PROCESS TECHNOLOGY CENTER
UNICO INTERNATIONAL CORPORATION
FUJI TECHNO SURVEY CO., LTD.**

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ABBREVIATION

5W1H	what, why, who, when, where, how
AMT	advance manufacturing technology
AOTS	The Association For Overseas Technical Scholarship
APEC	Asia-Pacific Economic Cooperation Conference
BOF	buyout fund
C/P	counterpart
CAD	computer-aided design
CAE	computer aided engineering
CAM	computer-aided manufacturing
CCEC	China National Commodity Exchange Center
CGF	Credit Guarantee Fund
CICC	Center of the International Cooperation for Computerization
CIS	Commonwealth of Independent States
COMFAR	Computer Model for Feasibility Analysis and Reporting
DAC	Development Assistance Committee
DB	database
DFID	Department for International Development
EDI	electronic data interchange
FMS	flexible manufacturing system
ETC	Economic and Trade Commission
FAQ	frequently asked question
FASID	Foundation for Advanced Studies on International Development
FDI	foreign direct investment
FS	feasibility study
GDP	gross domestic product
GP	general partner
HP	home page
HRD	human resources development
IFC	The International Finance Corporation
IPO	initial public offering
ISO	International Organization for Standardization.
IT	information technology
JAPIA	Japan Auto Parts Industries Association
JETRO	Japan External Trade Organization
JICA	Japan International Cooperation Agency
JTM	The Japan Technomart Foundation
KTF	The Kanagawa High-Technology Foundation
LC	local consultant
LP	limited partnership
M&A	merger & acquisition

MBA	master of business administration
MBO	management buyout
N.A.	not available
NC	numerical control
NIES	newly industrializing economies
NW	network
OECD	Organization for Economic Cooperation and Development
OEM	original equipment manufacturing
OFF · J · T	off the job training
OJT	on the job training
OS	operation System
PCM	project cycle management
PDM	project design matrix
PE	private equity
R&D	research and development
SME	small and medium enterprises
SMEBAC	Shenyang SME Business Advisory Center
SMETC	Syenyang Municipal Economic and Trade Commission
SOE	state-owned enterprise
SOE-RBOF	SOE restructuring buyout fund
SWOT	strengths, weaknesses, opportunities, threats
TLO	technology licensing organization
TPM	total productivity maintenance
TQM	total productivity management
TTPP	Trade Tie-up Promotion Program
UHV	ultra high vacuum
UNIDO	United Nations Industrial Development Organization
URL	universal resource locater
VB	venture business
VC	venture capital
WTO	World Trade Organization

INTRODUCTION

1. Background and History of the Study

- (1) In 1998, the Government of China established the State Department of Small and Medium Enterprises at the National Economic and Trade Commission to promote small and medium-size enterprise promotion policies following the business liberalization policy for small and medium-size enterprises (SMEs) because of its recognition of the important role played by SMEs in economic development together with the reform of state enterprises which was prompted by their poor business performance.
- (2) During the Japan-China Summit in November 1998, the Japanese side expressed its willingness to provide cooperation for the promotion of SMEs in China and actual cooperation (Five Year Plan to Assist SMEs in China) commenced by several Japanese aid organizations (JICA, JETRO, AOTS, Japan-China Association for Economy and Trade, Small Business National Corporation and others).
- (3) Under these circumstances, the State Department of SME of the National Economic and Trade Commission made a request to the Government of Japan to conduct a development study which would select several model cities in China for a study on SMEs and to recommend SME promotion policies for each model city. In response, the basic survey for project formulation was conducted in 1999 to discuss the basic framework for the Study for the Small Enterprises Promotion Plan for Model Cities (the Study) with the Chinese side. As a result, it was agreed that the Study would be conducted in two cities in each of the two years of cooperation, totaling four cities. The model cities selected for the Study in fiscal 2000 were Shenyang in Liaoning Province and Hangzhou in Zhejiang Province. Following this agreement, a preliminary study team was dispatched to each city in June 2000 to discuss matters relating to the implementation of the Study with the Chinese side. It was finally decided to implement the Study in line with the contents of the Scope of Work (S/W) and the Minutes of the Meeting (M/M) agreed by both sides on 11th July 2000.

2. Purpose of the Study

The purpose of the Study is to formulate a SME promotion plan for the selected model cities, i.e. Shenyang in Liaoning Province and Hangzhou in Zhejiang Province, as a model plan for the promotion of SMEs throughout China, which has begun efforts to promote SMEs.

In addition to making recommendations for SME promotion policies for each model city, the Study intends the implementation of more concrete cooperation activities to assist the realization of the recommendations; namely the diagnosis of and guidance for model enterprises and pilot implementation of key policies.

Moreover, knowledge and technologies (skills) will be transferred through the Study to policy-makers, local organizations supporting SMEs and SME owners to assist the improvement of the abilities of those involved in the development of SMEs.

3. Scope of the Study

(1) Target SMEs

The target SMEs are those operating in manufacturing sectors that meet the definition of a SME¹ in China. All types of ownership, i.e. state ownership, collective ownership and private ownership, are featured in the Study.

Target industrial sectors requested by Chinese side are as follows:

- General machinery
- Automotive parts
- Electronics and Information
- Environmental protection equipments

(2) Target Areas of the Study

Shenyang in Liaoning Province and Beijing (Shanghai and Shenzhen are also included to obtain information on the available investment funds).

4. Main Items of the Study

The scope of the Study is determined by the S/W and M/M signed by the JICA and the Chinese side on 11th July 2000.

¹ No official definition has yet been decided. The following descriptions are for reference purposes only.

- Classification Categories in 1998 (Industries): The categories of “Special Large”, “Class 1 Large”, “Class 2 Large”, “Class 1 Medium”, “Class 2 Medium” and “Small” based on the production capacity and amount of fixed assets apply to 150 industries.
- Announcement by National Statistical Bureau in 1999 (unofficial): Large enterprises are those with either an annual turnover or total assets of more than 500 million yuan while those with 50 million yuan are classified as small enterprises. Enterprises falling between these two categories are classified as medium-size enterprises.

(1) Framework of the Study

The overall picture of SME promotion policies consists of three essential layers as shown in Fig. 1.

The first layer shows direct study of SMEs through visiting SMEs.

The second layer a set of study items of investigation of SME supporting organization/systems, SME promotion policies and industrial policies formulated by Shenyang government organizations.

The third layer, i.e. the legal system and social mechanism, belongs to the realm of the macro-economy and, therefore, is not directly within the scope of the Study. However, it must still be taken into careful consideration in the course of the Study.

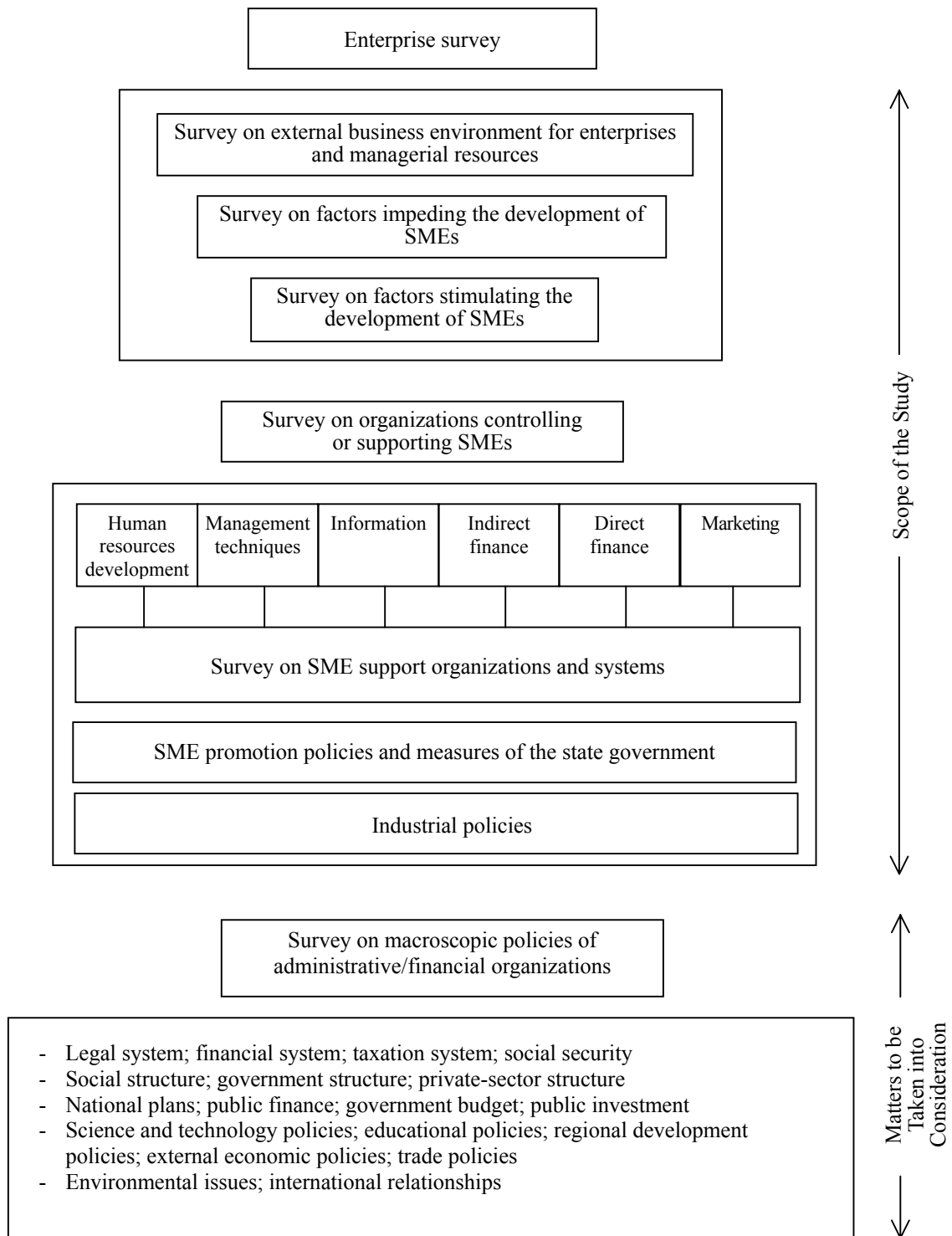


Fig. 1 Framework of the Study

(2) Major items of the Study

(1) Compiling SME measures in Japan

(2) Current status of SMEs

Study of 100 SME utilizing local consultant

(3) Diagnosis and guidance for 10 model enterprises

General survey

Solution

Verification

(4) Study on the current conditions SMEs measures

State level SME measure

SME measures of Shenyang

Information collection and consultation from local contract expert

(5) Conducting Pilot project

(6) Formulation of SME promotion proposed plan

(7) Conducting counterparts training in Japan

(8) Holding of workshops/seminar

5. Points of the Study

(1) Recommendation for Policies and Measures to Suit Actual Situation of China

The restructuring of state enterprises poses a critical issue in Shenyang and there are great expectations that SMEs will play a leading role in such restructuring. To enable SMEs to perform their expected role, however, it is essential for the Study to identify the structure and future vision of aid policies of the government for the subject industries in order to clarify the present status of SMEs in Shenyang.

The Shenyang Municipal Authority hopes to link the promotion of SMEs to the general industrial development of the city. SMEs are considered to comprise key components of supporting industries for such important industries as the automobile and machine processing industries in the city as they are expected to act as subcontractors capable of supplying reliable parts to large enterprises, including public enterprises, in these industries. The industry attracting particularly strong expectations is the environmental protection industry which is expected to not only manufacture environmental protection

equipment but also to lead industrial promotion in the city through the development of new markets and new industries based on the introduction of new products as well as new technologies. Moreover, this industry is expected to upgrade the city's socioeconomic image. In the case of finance, information and high-tech industries, a strong concentration of these activities in the city is planned. However, it is not a sound policy to promote SMEs to create supporting industries as SMEs can play a leading role in the electric/electronics industry and the information industry, etc. Therefore, comprehensive SME promotion policies are required. These will be compiled by each member of the Diagnosis Group with in cooperation with the Policy Group members.

(2) Study Noting Importance of Transfer of Knowledge and Technology to Chinese Side

Particular attention will be paid to the transfer of technology to the Chinese side to ensure the positive results of the Study and the continuity of such results after the Study.

The Study Team transferred technology (skill) to the counterpart organizations of the Shenyang municipal government, local consultants, owners and managers of enterprises who were participated in the diagnosis and pilot project.

Technology transfer was conducted by means of OJT, workshops and the training of counterparts in Japan during the joint study process.

Since Shenyang municipal government has been conducted administrative reform by reducing number of officers, the Team prioritized technology transfer to the SME supporting group of private sectors or semi public sectors.

(3) Partnership Activities²

The Study Team took up “Information network service for SMEs” as a theme of the pilot project in order to provide Shenyang the permanent information network to activate partnership activities for SMEs in Shenyang. Another important objective is to foster Shenyang SME Support Center (SYSMEsSC) as a mediator of the partnership activities.

The partnership is the theme of the highest priority requested from Shenyang ETC in expectation of the following significant objectives:

- Direct output of promoting Shenyang economy
- Indirect enhancement of Japan/China business promotion by improving investment environment

² All activities of economic and trade exchange such as export/import, business alliance of sales and production, joint venture and FDI, and technology transfer etc.,

(4) Viewpoints of Industrial Structure and Industrial Policy

The restructuring of state enterprises poses a critical issue in Shenyang and there are great expectations that SMEs will play a leading role in such restructuring. To enable SMEs to perform their expected role, however, it is essential for the Study to identify the structure and future vision of aid policies of the government for the subject industries in order to clarify the present status of SMEs in Shenyang.

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(5) Placing Emphasis on High-technology

In February 2001, Shenyang ETC established "Shenyang enterprise technology innovation center" in order to optimize science and technology resources allocation, technology reform service, integration of technology and economy. Shenyang ETC assembled 100 excellent SMEs to explain this decree.

The study team also proposed some measures of industrialization of high-technology research out put and supporting method for new business founders.

In order to confirm proposals, the study team visited incubation centers in research institute, universities, and industry development zones.

6. Method of the Study

Fig. 2 depicts the process of the study.

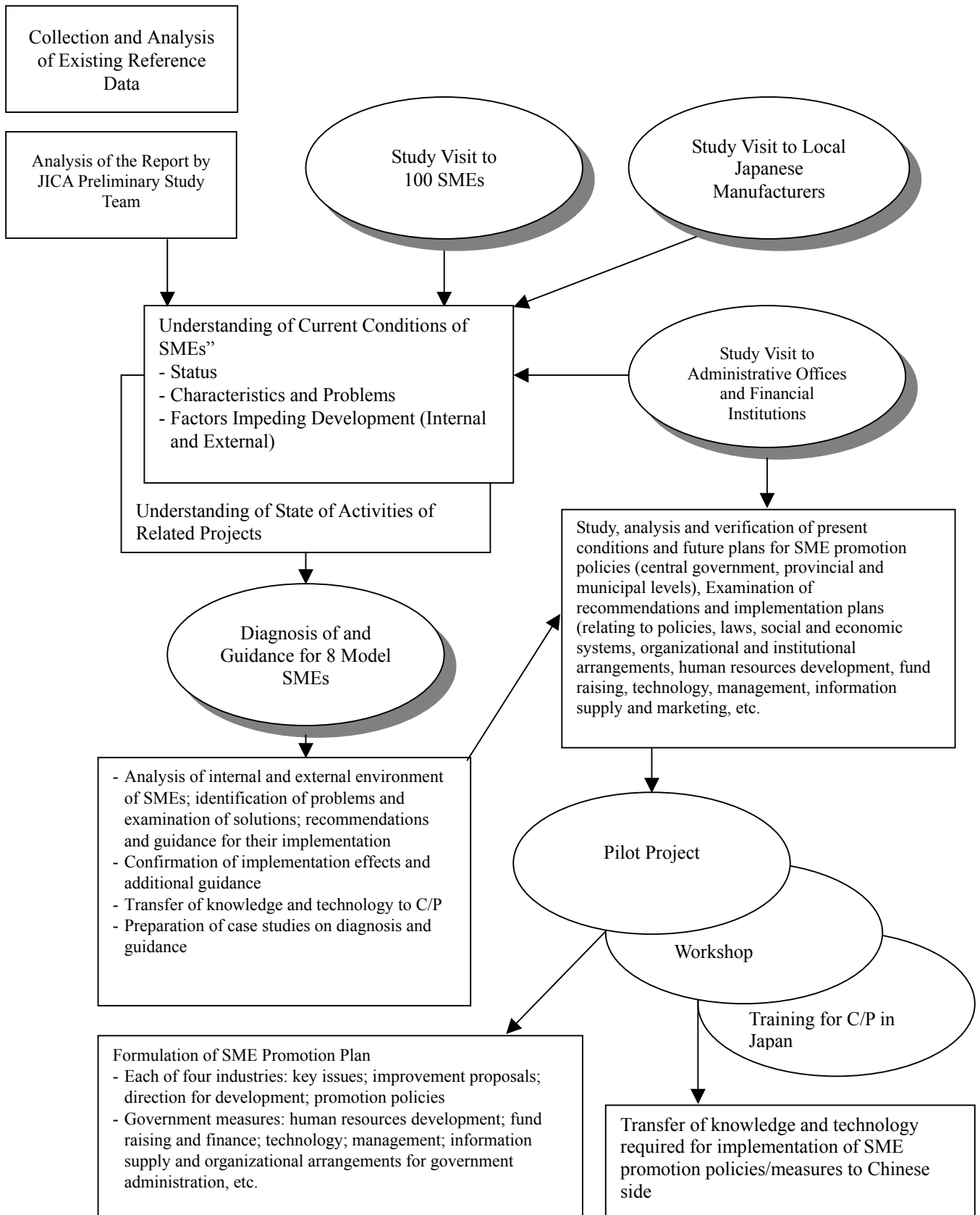


Fig. 2 Schematic Diagram of the Study

(1) Matrix for Diagnosis of and Guidance for Model Enterprises

In order to put forward recommendations for policies and measures, the Study Team must identify factors impeding the promotion of SMEs and problems in regard to existing measures by means of diagnosis and guidance activities. For this purpose, the Study Team members will be divided into the Policy Study Group (Policy Group) and the Diagnosis Study Group (Diagnosis Group) to form an organized matrix.

- **Diagnosis Group:** While conducting a separate diagnosis for the general machine industry, electronics and information industry, automobile parts industry and environmental protection industry, the diagnosis of and guidance for SMEs will be conducted by the Study Team member in charge of marketing study across industries. The Study Team member in charge of the marketing study must ensure that the diagnosis and guidance closely relate to the realities of each industrial sector.
- **Policy Group:** This group consists of experts in six different fields. All of these experts will participate in diagnosis to conduct a study on the current conditions of SMEs and factors impeding the promotion of SMEs from the viewpoint of their own specialist fields.

Fig. 3 shows the concept of the division of work among the Study Team members. The subjects and processes of the studies by the two groups will be determined in advance to ensure the effective functioning of the study matrix. The members responsible for SME diagnosis and analysis will act as an interface for the two groups.

Based on the principle of emphasizing field work, the activities of the JICA Study Team will be characterized by the priority of product development, an area in which Japan excels, while also taking institutional development and human resources development into consideration. The study subjects of the Policy Group are diverse, ranging from official bodies providing support for SMEs to financial institutions and agencies providing assistance for the development of SMEs.

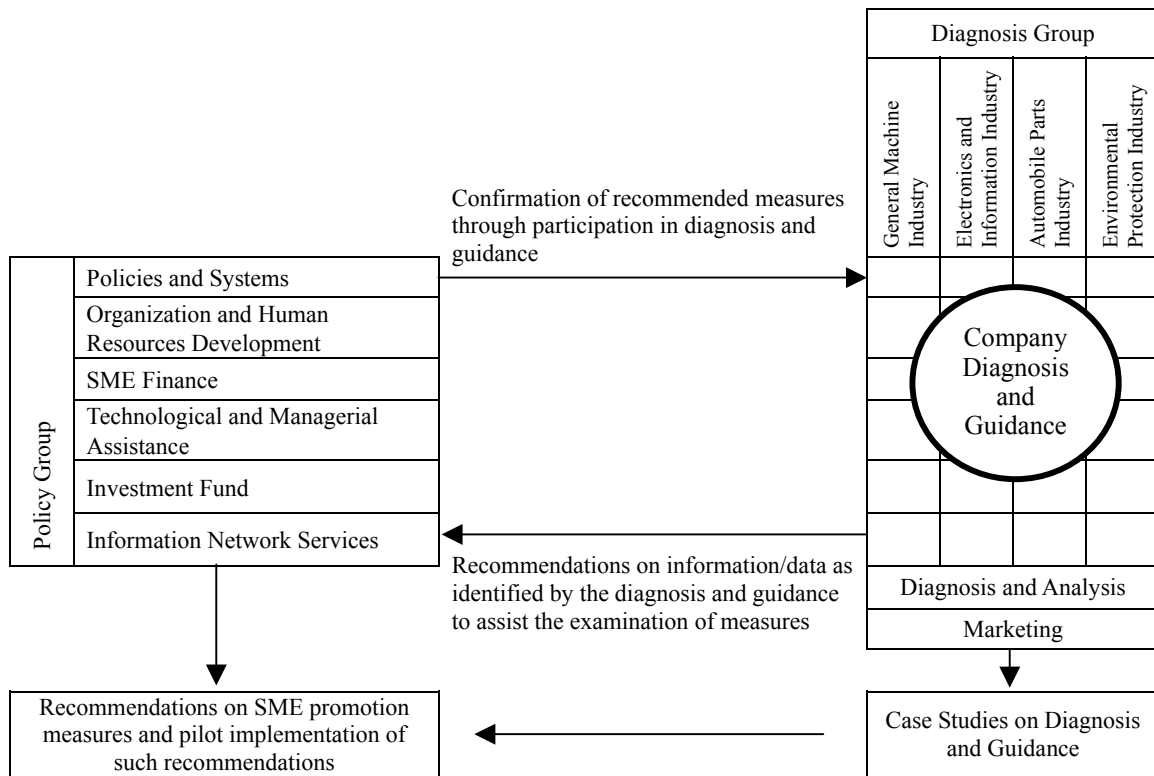


Fig. 3 Conceptual Diagram for Company Diagnosis Study and Matrix of Planned Work

(2) Collaboration of the Study Team and Counterparts

A major counterpart of the study is the Shenyang ETC, and the Department of SMEs, the subordinate of SY ETC. The World Bank Loan Industry Project Management Office, and the SME

Development Project Office is in charge of coordination and general support of the Study Team.

Other counterparts assigned from each industrial sector; general machine, automotive parts, electronics/ Information, and Environment Protection. The Steering Committee for the project which was chaired by a deputy director of SY ETC was organized with above mentioned counterparts and other representatives from administration department other than ETC, and the Federation of Industry and Commerce.

The counterparts of the Pilot Project were SYSME Service Center, SY Information Center, and SY Credit Guarantee Center and they were coordinated by the department of SME.

7. Outline of the Study Results

(1) Visited Organizations and Enterprises

Table 1 shows the area covered for the Study and visited organization visited. The total number of enterprises is 140 in which three model enterprises participated in the pilot as potential business alliance with Japanese enterprises. This fact indicates effectiveness and integrity of the Study. The Study Team's visits to Beijing, Shanghai, Shenzhen, Tiansin, and Dalian makes the study on Shenang's economy and industry with an objective standpoint.

(2) Results of Visiting Survey

The Study Team organized enterprise diagnosis teams consisting C/P, local consultants headed by the study team member and carried out visiting survey additional diagnosis during the first field survey period.

The local consultants conducted visiting survey for additional enterprises selected in the second field survey due to limited time.

Table 1 List of Organizations Visited

Policy & Measure study

State level organizations (Beijing)

State ETC
 Ministry of Science and Technology of China
 Economy development research center, States affair academy
 Beijing city socio economic development center
 Bank of People's republic of China
 China Construction Bank
 China Minsheng Bank
 DFID, World Bank, UNIDO
 Tsinghua University, 3 E Project Group
 Tsinghua University, Automotive Institute

Other districts

Shanghai Property Transaction Center
 Shanghai ETC
 Shenzhen Economic Development Bureau, Productivity Promotion Center
 Shenzhen SME Service Center
 Shenzhen International High-Tech industry Transaction Center
 Shenzhen Security Exchange Center
 Tiansin Enterprise Management Training Center
 Dalian ETC

Organization of Liaoning province

DFID
 ETC

Shinning city level

ETC
 Industrial sector offices
 SME support centers
 Industrial Technology Exchange Center
 Productivity Promotion Center, SYSTC
 Industrial Technology Exchange Center
 Bureau of township enterprise
 Private economy development promotion commission
 Federation of Industry and Commerce
 SY Branch of Commercial Banks
 China construction bank, Huaxia bank Guangdong development bank
 Shenyang city commercial Bank
 Commodity transaction center of China

Industrial zones inn Shenyang

Economic and technological development Zone
 Shenyang High-tech Industry Development Zone
 Tiexu Industrial Zone
 Datong Science and Technology Zone
 Universities and Colleges
 Liaoning University
 Northeastern University
 Shenyang University
 Shenyang Vocational Training Center
 Human Resources Market
 Private Consulting Companies: Three companies
 Research Institute:
 Metal Research Institute
 Automation Research Institute
 Shenyang Research Institute of Foundry
 SY Institute UHV Technology & Applications

Shinning ward level

Datong ward government
 Tiexu ward government
 Heping ward government
 Huanggy ward government

Enterprises for diagnosis and survey

No. of enterprises for questionnaire survey	100
No. of visiting survey by Study Team	65
Model enterprises included	10
No. of enterprises visited by LC	35
Japanese venture enterprises	7
Other enterprises	11
Total number	118

Organizations visited during pilot project

Enterprises consulted for business match-making	7
Other enterprises of business match-making	3
No. of enterprises in the automotive parts industry for foreign business cooperation	13
Total number	23

Table 2 List of Enterprises Visited

Major Sectors Handled	Team Members (Note 1)	Number of Enterprises Visited	Enterprise's Holding Type				Visit Period
			State-owned	Collective	Private	Foreign	
General machinery	Study Team members (1 member each) C/P (1 member each) Interpreter (1 member each) L/C (1 member each) Other (Note 2)	11	6	5			10/23 - 11/08/2000
Automobile parts		11	2	1	8		10/23 - 11/08/2000
Electronics/ Information		10	4	2	4		10/23 - 11/08/2000
Environmental protection		11	4	2	2	3	10/23 - 11/08/2000
Other 1		10	2	1	9		10/23 - 11/08/2000
Other 2	Study Team member (1 member each) L/C interpreter (1 member each)	6	1		3		11/03 - 11/08/2000
Other 3		11	1	2	3		11/03 - 11/08/2000
Other 4	L/C (2 members each)	30					11/21 - 11/30/2000
—	—	100					10/23 - 11/30/2000

Note 1) Team members show composition as a rule. C/P (counterpart), L/C (local consultant)

2) The Study Team member in charge of policy and staff of the Science and Technology Committee took part as necessary

(3) Diagnosis and Guidance for Model Enterprises

The study team and Shenyang ETC selected Model enterprises considering such items as enterprise performance, future possibility of growth, cooperative attitude for the study, and expected output of the guidance. Screening result was approved by JICA head office.

The study team visited enterprises seven times in average before completion of the total program.

When the study team visited enterprises in February, all enterprises faithfully implemented improvement items that the study team proposed at the First Field Survey. With additional improvement, model enterprises achieved the initial target. The study team advised enterprises to tackle minor problems, which they can implement by themselves. Accumulating these experiences, the manual of diagnosis and guidance was edited.

In order to broaden view of finding opportunity for SME in Shenyang, the study team visited other enterprises beyond SME category such as large-scale machinery manufacturers, high-technology enterprises, large-scale Japanese invested enterprises and in industrial development zones.

Table 3 Model Companies

No.	Sector	Company Holding Type	Main Products	Diagnosis and Guidance Themes
1	General machinery	State-owned	Vacuum pumps	Reduction of NG rates, improvement of productivity
2	General machinery	State-owned	Stop valves	Examination of subcontracting, improvement of productivity
3	Automobile parts	Private	Resin floorboards	Quality and technology levels, improvement of resin quality
4	Automobile parts	Private	H/A heaters	Competitive quality production
5	Electronics and information	State-owned	DC heaters	Cost control, sales control, control setup
6	Electronics and information	Private	Cardiac monitor systems	New product development, improvement of productivity
7	Environmental protection	Private	Starch-based biodegradation containers	Preparations for commissioning of new plant
8	Environmental protection	Private	Sludge dewatering and drying machines	New product development, fabrication plant improvement
9	Other	Private	Cement plants	1) Specific methods for business plan deployment 2) Organizational reform for integration of production planning 3) Adoption of cant charts in schedule planning
10	Other	State-owned	Alumina and ceramic parts	1) Utilization of NG reduction measures and quality control methods

(4) Pilot Project

Project theme :Information network for SMEs

The pilot project has carried out in according to the procedure shown in Table 4.

From the inception of selecting project theme, the study team employed the PCM (Project Cycle Management) method to meet Chinese needs and to place the collaborative relation with Chinese side the first priority.

The expected objective of the pilot project that is deeply related to the formulation of SME promotion measures has been achieved.

The next issue is maintaining and improving the information network for SMEs by Chinese side and supporting of Japan/China partnership activity by Japanese side.

Table 4 Study Process of the Pilot Project

	Job item	March	April	May	June	July	August
Information Network	Hardware	Preparation ————	Purchasing =====				
	Basic software	Preparation ————	Purchasing =====				
	Package software	Preparation	Purchasing =====				
	Compiling home page for SMEs	Preparation ————	Preparation	Explanation to SMEs =====	Implementation	Test	
	Development of Application software	Preparation ————	Contract =====	Technical explanation	Design/Implementation	Test
	Operation (Technology transfer)	Study		System arrangement =====	Preparation of material =====	Technology Transfer =====
Business Matching	Business Matching				————		————
	Fostering SY SME Service Center				————		————
	Cash-flow Management Software Development				————		
	PDM Formulation		★ PDM-2		★ PCM Problem Analysis		★ PDM-3

8. General Work Plan

Fig. 4 shows the general work plan of the Study.

		2000			2001	
		9/23 ~ 10/7	10/08 ~ 12/02	12/06 ~ 12/20	2/11 ~ 3/19	
Schedule		Step 1 Preparatory Work in Japan (15 days)	Step 2 First Field Survey (56 days)	Step 3 First Work in Japan (15 days)	Step 4 Second Field Survey (1) (37 days)	
Activity		Preparation of Inception Report 9/21★	Simplified Diagnosis (100 SMEs) Workshop 1 Diagnosis and Guidance for Model SMEs	Training of C/P in Japan 12/11★	Pilot Project Diagnosis of and Guidance for Model SMEs	Workshop 2 Workshop 1
Result			Progress Report (1)	Interim Report	Progress Report (2)	Case Studies on Diagnosis and Guidance
		2001				
		5/16 ~ 7/3	7/4 ~ 7/12	9/16 ~ 9/30	9/27 ~ 10/6	
Schedule		Step 5 Second Field Survey (2) (45 days)	Step 6 Second Work in Japan (20 days)	Step 7 Third Field Survey (16 days)	Step 8 Third Work in Japan (7 days)	
Activity		Pilot Project	 8/6★ 9/7★	Explanation of and Discussions on Draft Final Report Workshop 3		
Result			-Draft Final Report -Draft Case Studies on Diagnosis and Guidance		-Final Report -Case Studies on Diagnosis and Guidance -Information NW Manual	

Fig. 4 General Work Plan

★ advisory committee

9. Composition of the Report

The Final Summary Report focused on the SME promotion proposals described in the Final Report. The report consists of following contents: the study results of current conditions of SMEs, the master the plan and action plans, results of pilot project which was carried out to verify the major proposals, and relevant information and data of the study.

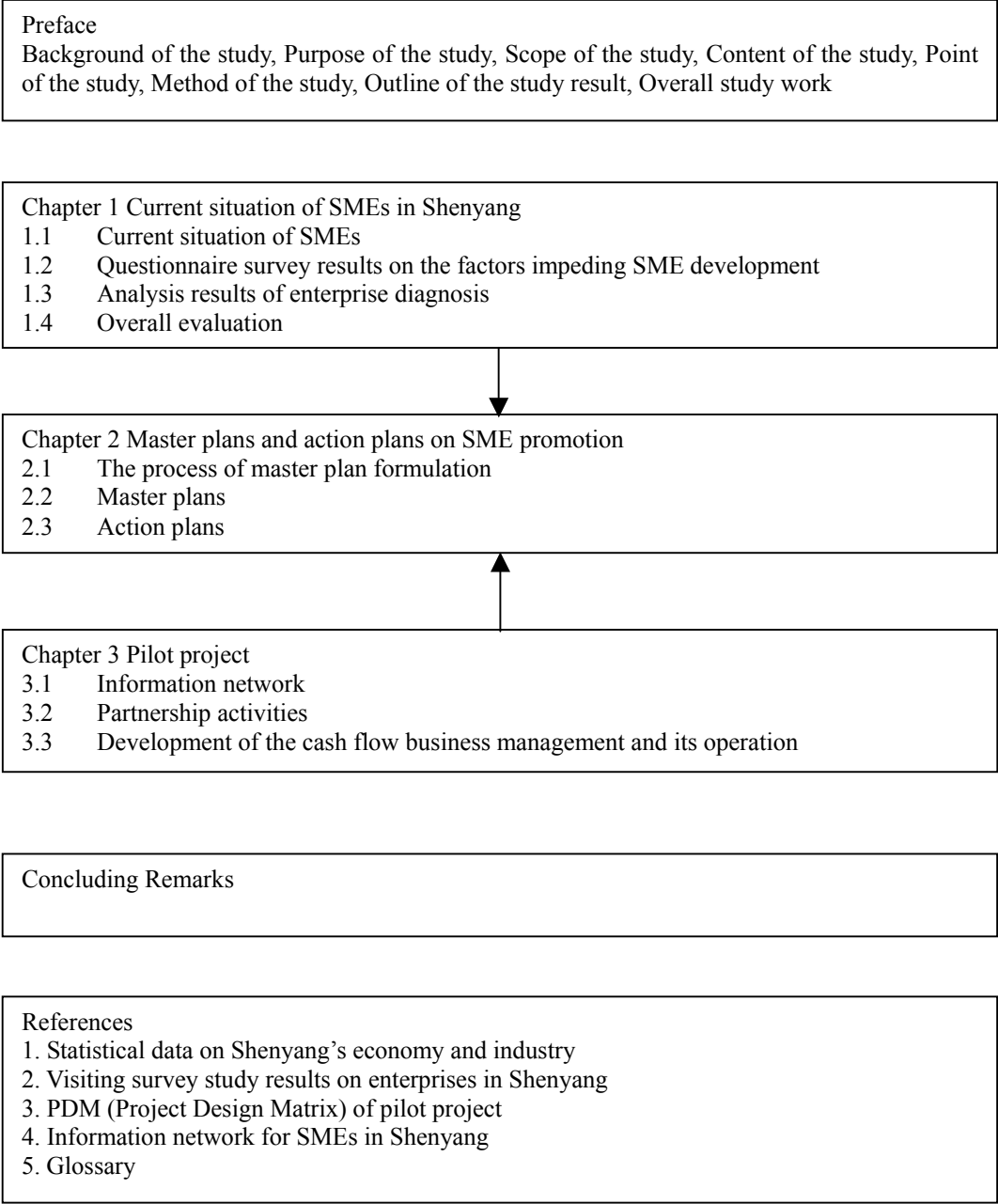


Fig. 5 Composition of the Summary

CHAPTER 1

CURRENT CONDITIONS OF SMEs IN SHENYANG

CHAPTER 1

CURRENT CONDITIONS OF SMEs IN SHENYANG

1.1 Current Conditions of SMEs

In 1978 when economic reform and the liberalization process commenced, primary industries, secondary industries and tertiary industries in Shenyang accounted for 9.1%, 65.9% and 25.0% of the Shenyang's GDP. These figures show the overwhelming importance of the manufacturing sector, which was the dominant force among secondary industries, in the city's economic activities. The top position of secondary industries was replaced by tertiary industries in 1991 when the latter's share of the GDP increased to 45.4% against 44.6% of the former. The respective figures in 1999 were 49.3% for tertiary industries and 43.8% for secondary industries. These figures little changed throughout the 1990's. Even though the gross product of secondary industries shows two-digit growth, it is probably wrong to assume that there has been a renewed upsurge of secondary industries.

The statistics show that there were 57,679 manufacturing enterprises in 1999, of which only 1,150 had an annual turnover of RMB 5 million or more. Those with an annual turnover of less than RMB 5 million accounted for 98% of the total number of manufacturing enterprises and 62% of the total production value, illustrating the overwhelming presence of SMEs and micro-enterprises. As there is currently no official definition of a SME in China, all enterprises, excepting 99 large to medium enterprises designated by the State and Liaoning Provincial Governments are classified as SMEs by the Shenyang Municipal Government.

1.2 Findings of Questionnaire Survey on Factors Obstructing SMEs

The Shenyang Municipal Economic and Trade Commission (SMETC) selected 100 excellent, fair and problematic SMEs in four sectors, i.e. general machinery, automobile parts, electronics/information and environmental protection. A questionnaire survey as well as actual visits to and the diagnosis of these SMEs were conducted in order to study and analyze the factors obstructing their development. Some SMEs in different sectors were added for this purpose. Fig. 4 shows the degree of interest in the problems of SMEs shown by these SMEs.

The current problems are fund raising, human resources, quality guarantee, obtaining of market information, cost control, low prices demanded by customers and the development of capability.

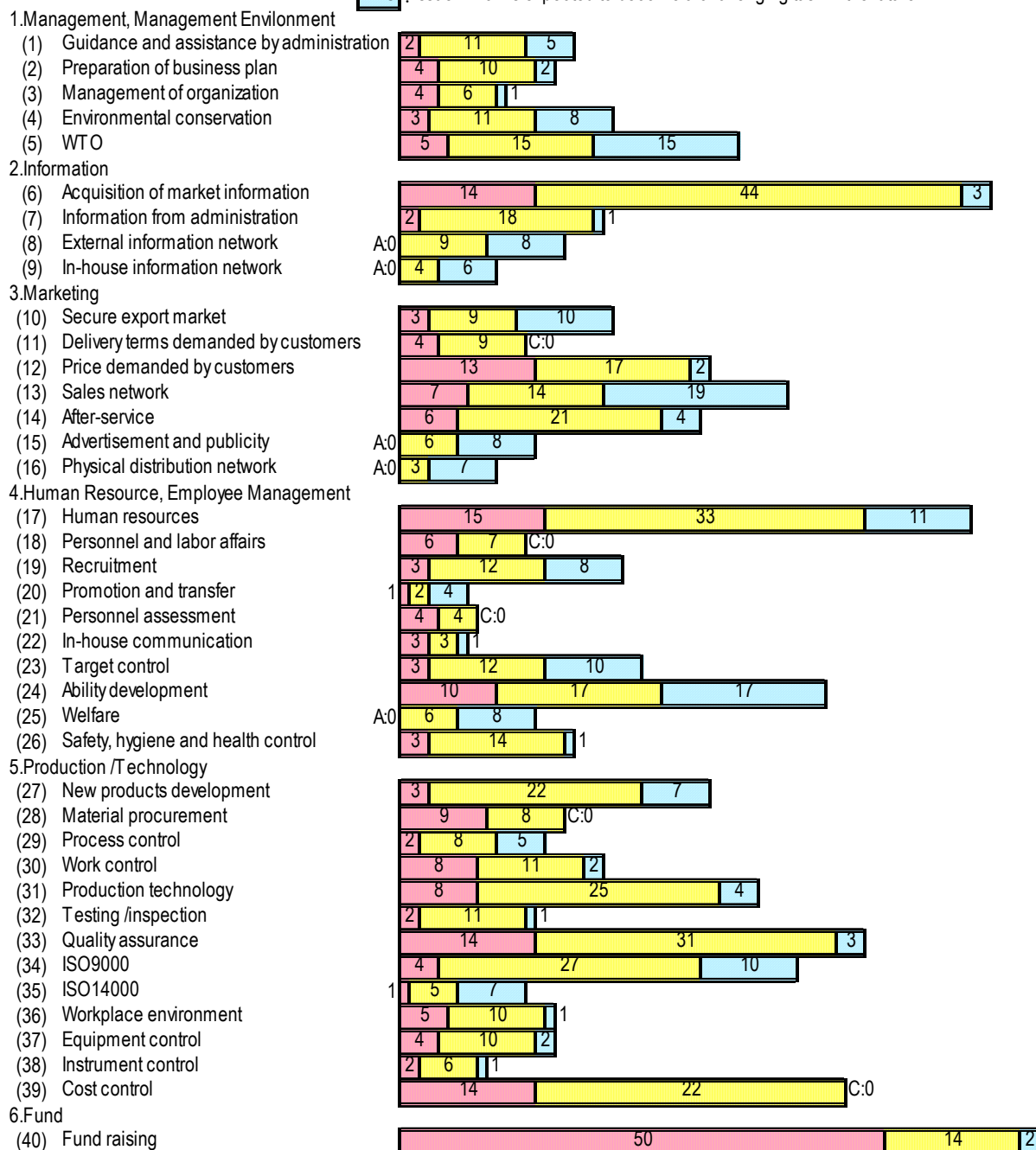
Fig. 6 shows the responses to individual questions on SME promotion policies. There is much useful information here and the following replies have particularly affected the formulation of the recommendations.

- (1) It is important to secure capable human resources together with the gathering and analysis of information to improve the product development capability.
- (2) The main complaints by customers relate to product quality.
- (3) In terms of human resources development, business management strategy is an important area of which top management should have a better understanding.
- (4) It is difficult to make banks understand the business situation of SMEs. It is hoped that own capital will be consolidated to switch to cash flow-based management.
- (5) The use of an information network is hoped for.
- (6) As there is severe price competition because of many competitors, emphasis is placed on marketing activities.

When management-related issues are classified into the following three categories, what are the most important issues in each category?
(Please select eight issues in each category.)

(Note) Figure in the graph shows the number of company answered. Total : 91 companies

A : Issue currently faced and difficult to deal with
B : Issue currently interested in
C : Issue which is expected to become a challenging task in the future



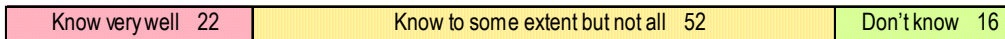
☆Classification of 91 companies answered

Type of Ownership	State 22	Collective 24	Private 36	Personal 0	Foreign 9
Type of Business	General Machinery 19	Electronics/ Information 10	Automobile Parts 14	Environmental Protection 7	Others 41

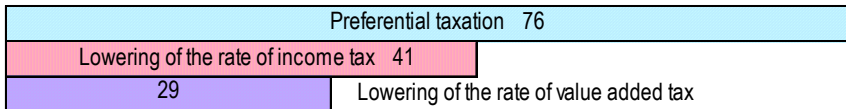
Fig. 6 Result of Questionnaire to SMEs (General)

1. SME Promotion Policies

- 1) Laws and systems designed to promote SMEs are currently being developed, including the establishment of a Department of SME. Do you know anything about such development?



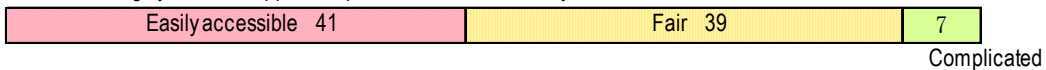
- 2) Which of the following measures do you think should be given priority for urgent implementation?



- 3) Is deregulation necessary?

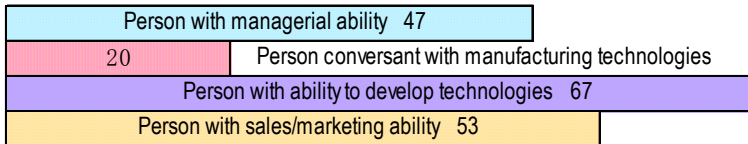


- 4) Are the existing systems to support the promotion of SMEs easily accessible?

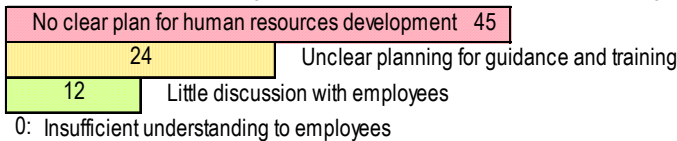


2. Organization and Personnel (Human Resources)

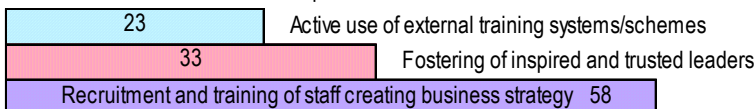
- 1) Please select two types of persons from the following list which your enterprise hopes to recruit.



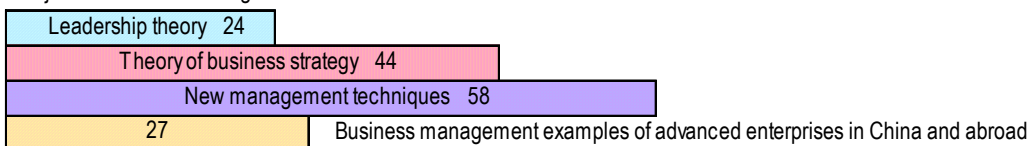
- 2) What are the problems in regard to human resources development and organization?



- 3) Vision for human resources development



- 4) Subjects for further learning as a SME owner



- 5) Requests for public systems and policies

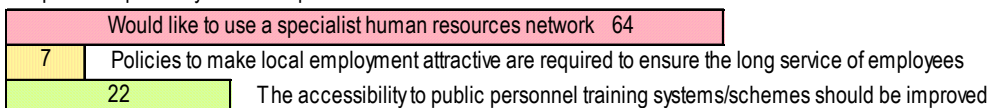
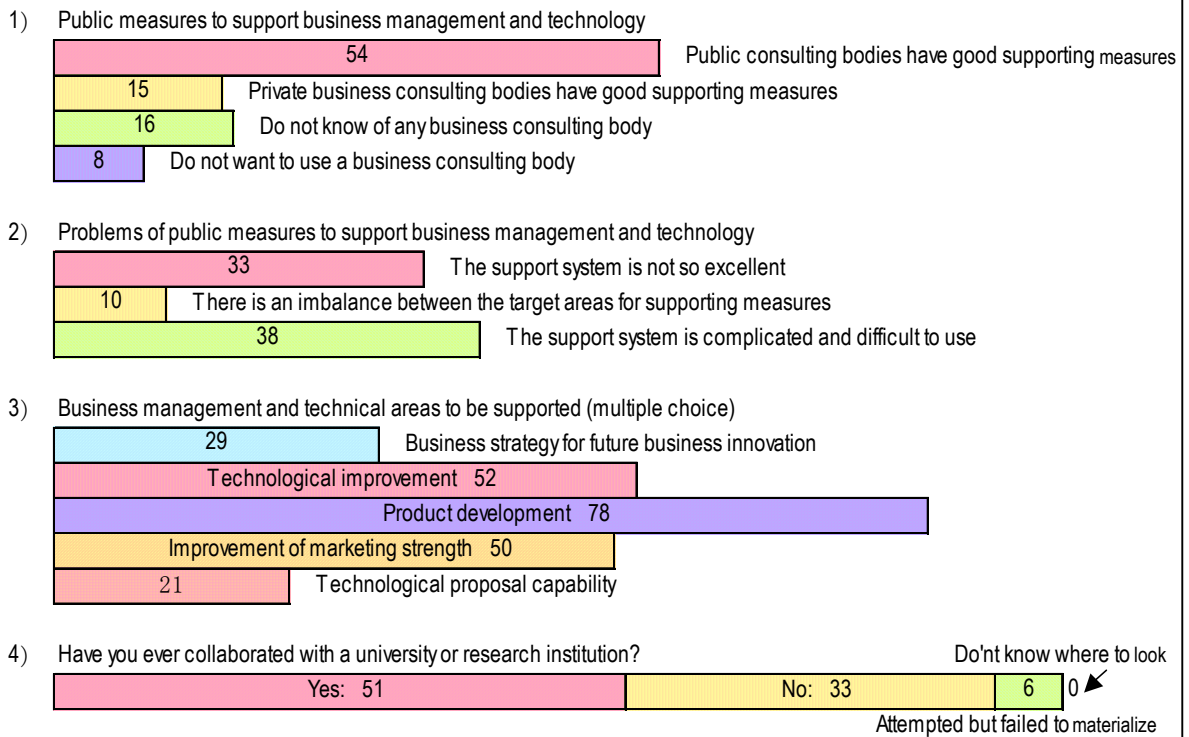


Fig. 7 (1)

3. Technology and Business Management



4. Environmental Issues

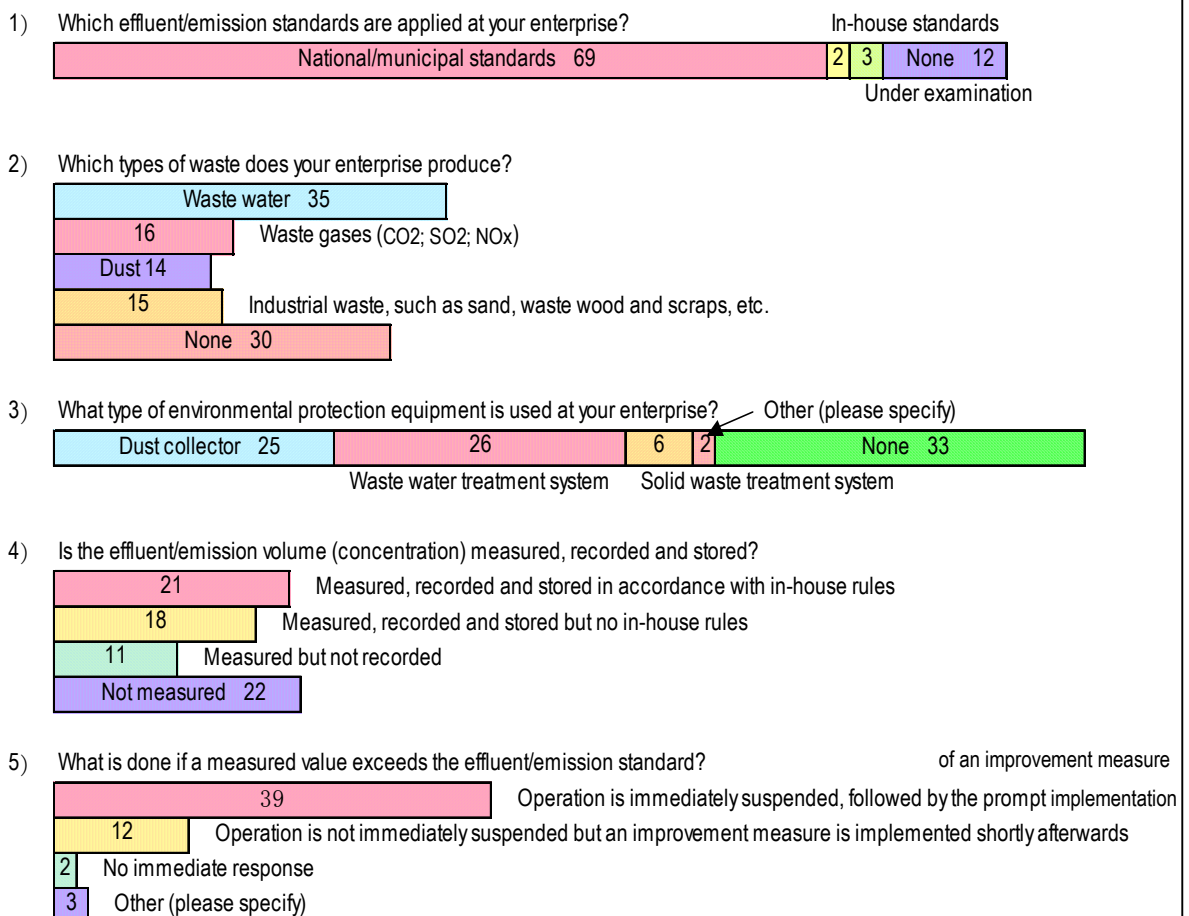
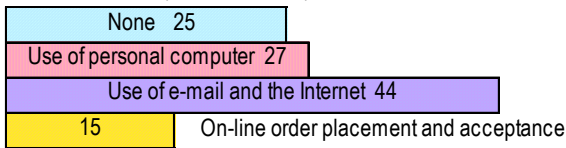


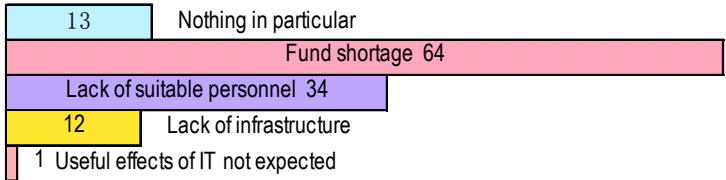
Fig. 7 (2)

5. Information Network

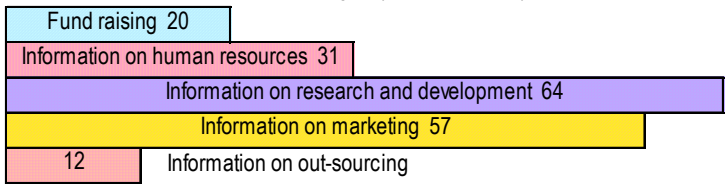
1) Current use of IT (multiple choice)



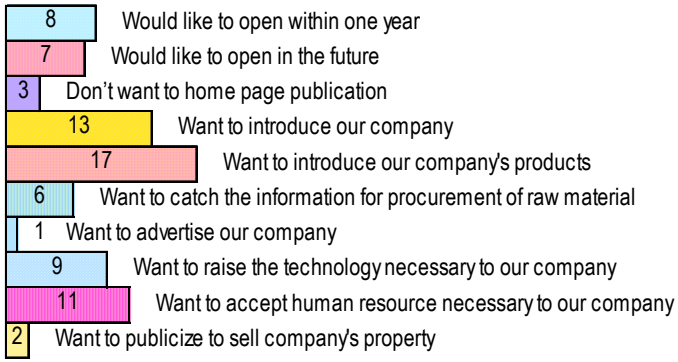
2) Factors impeding the use of IT (multiple choice)



3) What is the most useful aspect of using IT (multiple choice)

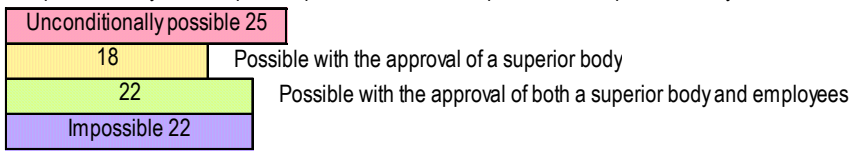


4) Questions on your home page publication (multiple choice) (Note) Only this answer contains total 30 companies



6. Investment Funds

1) Is it possible for your enterprise to purchase other enterprises or to be purchased by others?



2) Have investment funds ever been provided?

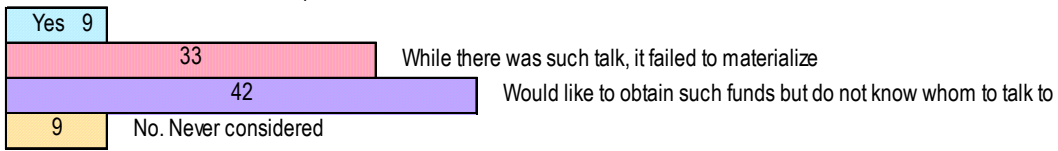
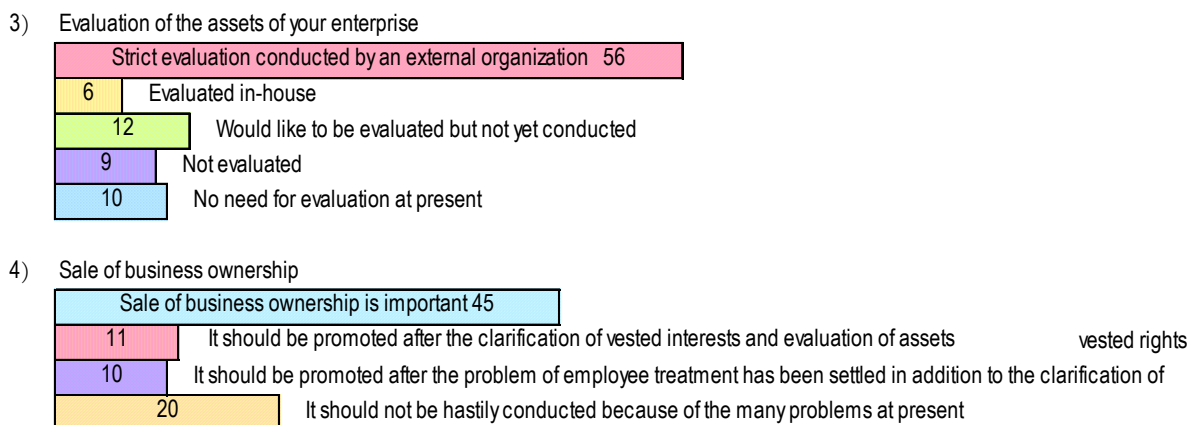


Fig. 7 (3)



7. SME Finance

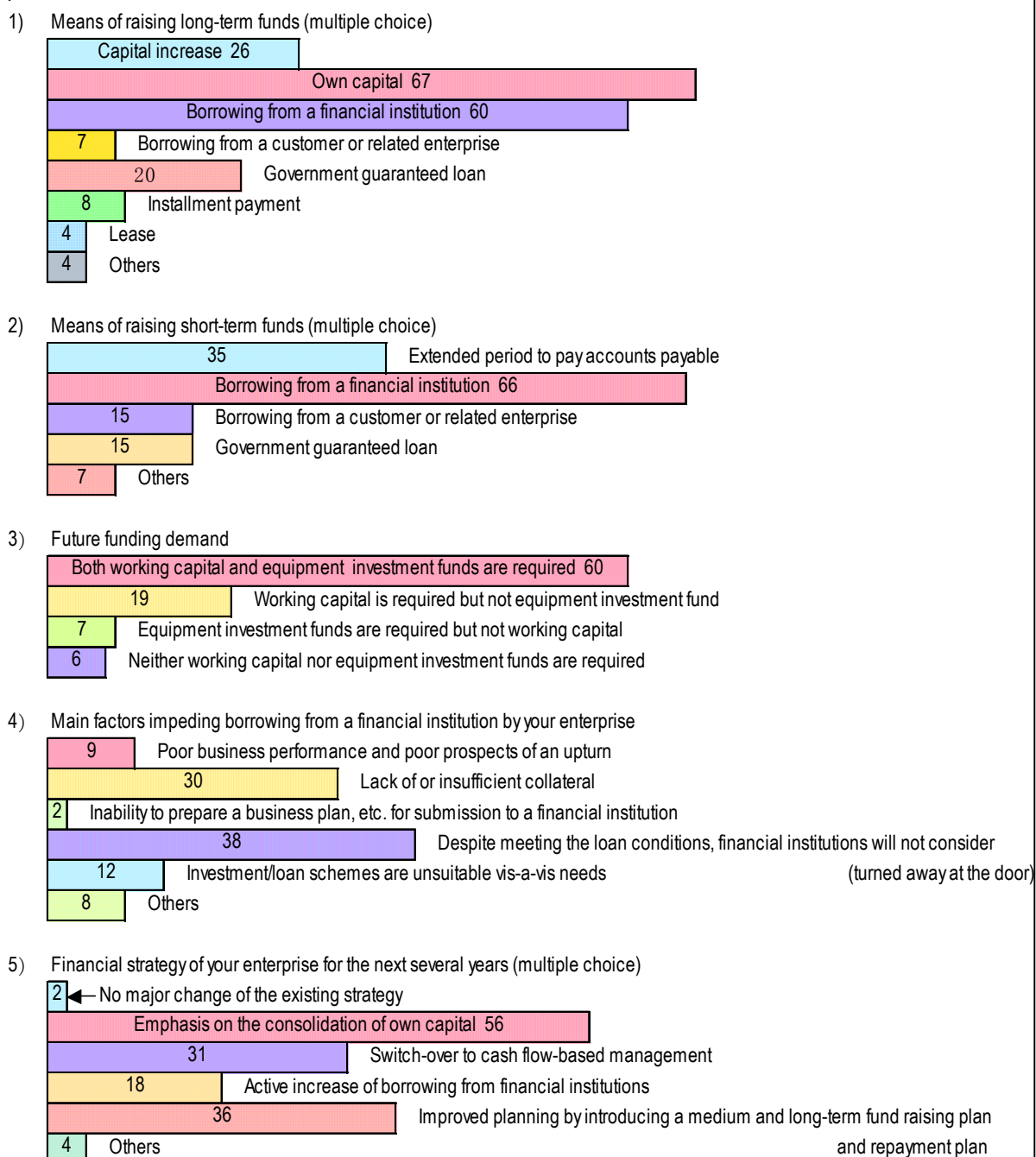
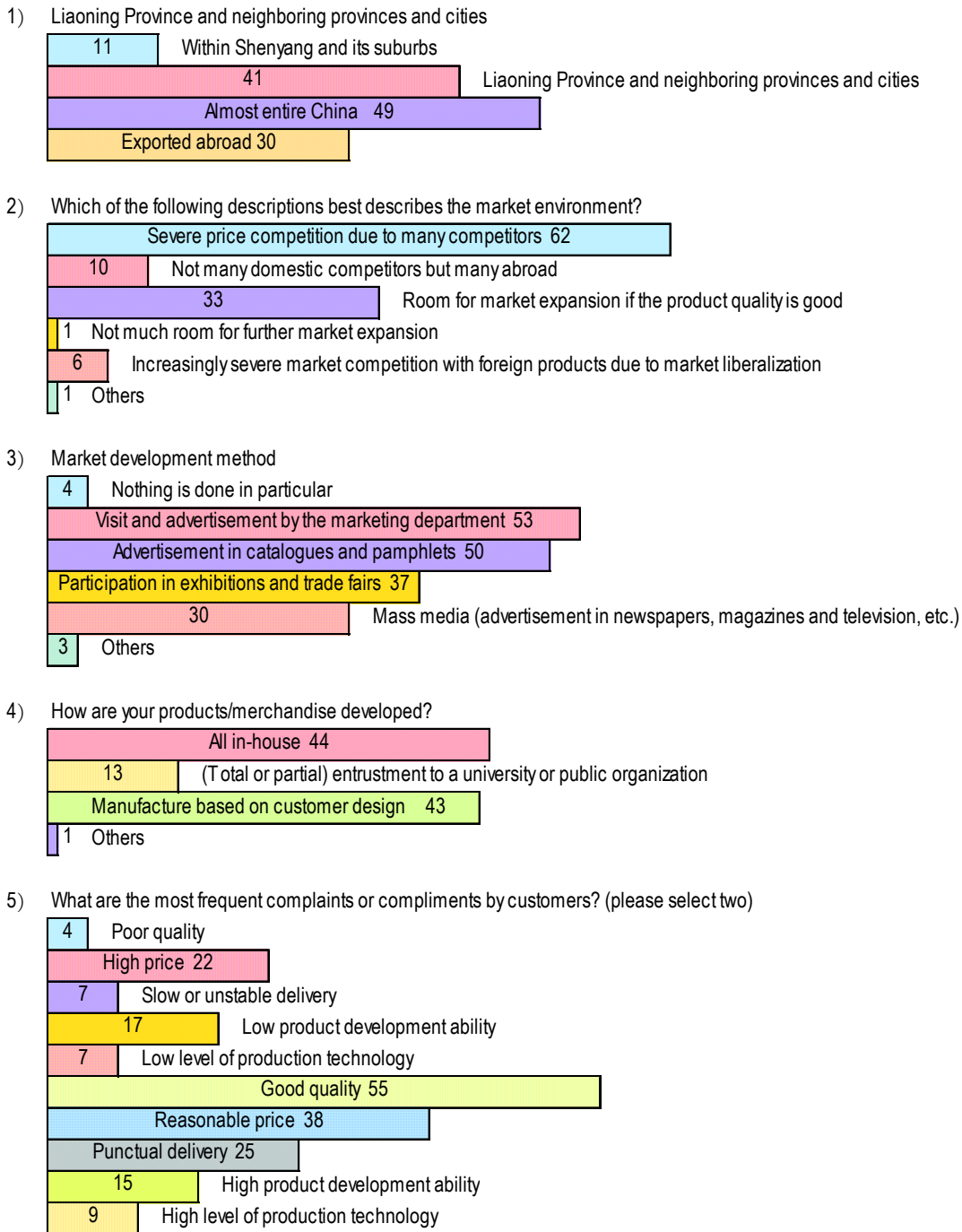


Fig. 7 (4)

8. Marketing



☆Classification of 91 companies answered

Type of Ownership	State 22	Collective 24	Private 36	Personal 0	Foreign 9
Type of Business	General Machinery 19	Electronics/ Information 10	Automobile Parts 14	Environmental Protection 7	Others 41

Fig. 7 (5)

Fig. 7 Result of Questionnaire to SMEs (Each Subject)

1.3 Analysis Using Diagnosis Results

The Study Team visited and diagnosed 65 out of the 100 SMEs and evaluated these SMEs in terms of five grades (points). The important evaluation items are shown below.

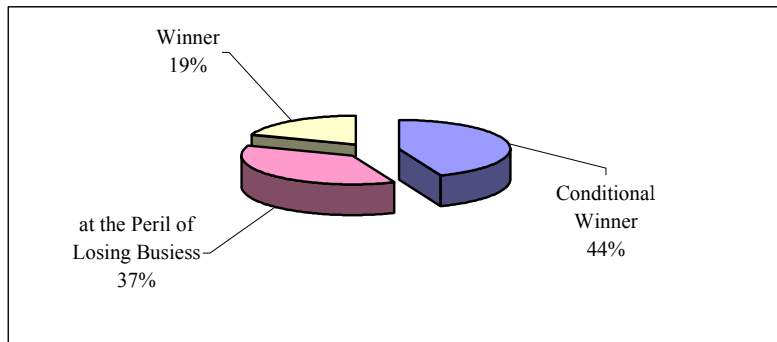


Fig. 8 Probability of Business Survival

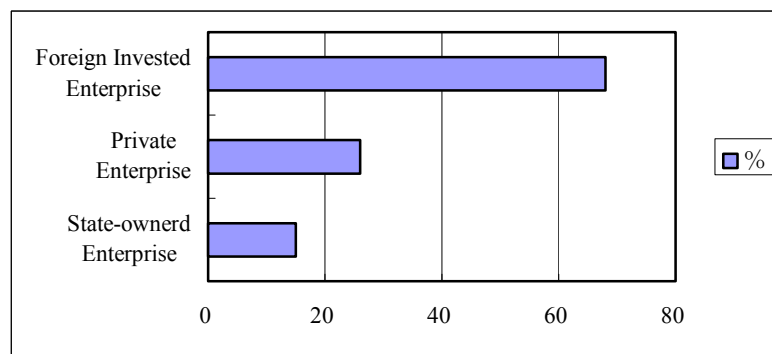


Fig. 9 Ownership Type of Enterprises to be Survived

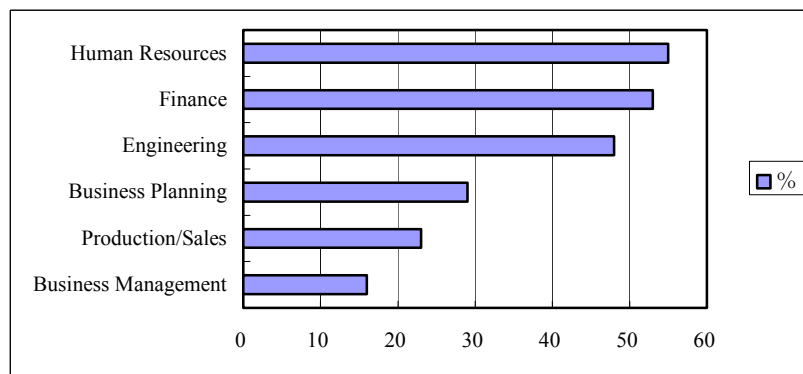


Fig. 10 Major Issues for Enterprises at the Peril of Losing Business

1.4 General Evaluation

The general evaluation of the industries and SMEs of Shenyang is compiled based on the visiting survey of SMEs and study results on industries obtained during the policy study and the pilot project.

The Study Team asked the municipal government, Economy and Technology Development Zone, and Science and Technology Commission Productivity Promotion Center to cite items concerning strengths and opportunities in Shenyang. Valuable information was obtained in exchange of opinions with these organizations. The major problems and issues in enterprises as obtained in the company diagnoses (first half of the Study) and pilot project (second half) are as follows:

(1) Strengths

- 1) Shenyang, is one of the top zones in China for possessing basic industries. Thinking and activities in the area of making things are strong. For example, many of the research departments of Shenyang University were found to manufacture and sell the products of their research (special pumps, welders).
- 2) There are 22 colleges and universities throughout the city and more than 132 research organs at the municipal level or above. There are 580,000 researchers, which means that the city is blessed with human resources, and there are also 18 councilors. Already, groups of university researchers have set up high-tech enterprises such as Huguang, Dongyu and Northeastern Alpine, etc. and these have become the largest enterprises in Shenyang. Northeastern Alpine has grown into the top software company in China, and this indicates that the high-tech industry in Shenyang has high potential for development.
- 3) 19 out of the top 500 companies in the world have invested in Shenyang. Taking the automobile sector as an example, a multinational automobile maker has invested here and plans on developing a car base in Liaoning Province.
- 4) Diffusion of the Internet is advancing and there are numerous information networks.
- 5) Even though Shenyang could not succeed in modernization, its has one of the largest heavy industry zone in China. Shenyang has China's largest jet engine and aircraft manufacturing plants and leading the machine industry in China. Moreover, basic technology supporting the mechanical/electrical industries, IT, and computer software industries are well developed and the city is equipped with wide range industrial development zones covering the traditional technologies and high technologies.

6) Within 150 km range, there are China's largest scale basic material production zones such as iron and steel, coal, petroleum-chemicals.

(2) Weaknesses

- 1) Even privatized enterprises still retain former management setups inherited from the age of state ownership.
- 2) Business management weaknesses lie in marketing and product development capacity. Comparison with other companies is not carried out and enterprises are unaware of their low levels.
- 3) Shop floor improvements are not carried out.
- 4) Enterprises do not educate their own human resources (because mobility of human resources is so high).
- 5) Most enterprises have no channel linking them with overseas companies.

Note: Of the above weaknesses, 1), 2) and 3) arise from the fact that enterprise ownership is in a period of flux, and the others are problems common to SMEs in general.

The above findings are compiled into the SWOT³ analysis sheet shown in Table 5.

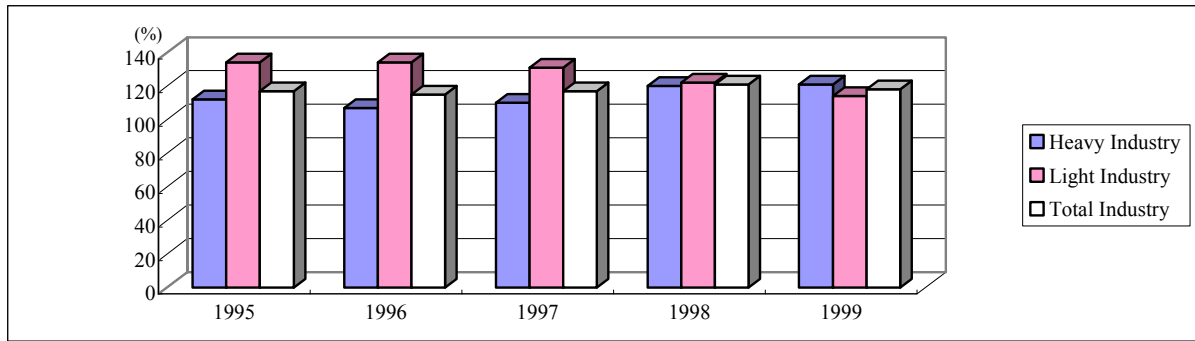
³ SWOT is the abbreviation for Strengths, Weaknesses, Opportunities and Threats and is a technique for assessing competitiveness. Applicable elements from market surveys are entered onto a diagram consisting of four parts.

Table 5 SWOT Analysis of SMEs in Shenyang

<p>Strength</p> <ul style="list-style-type: none"> - Manufacturing supporting industries - Integrated Advanced Science and Technology (4th rank in China) Excellent Human resources, High education and abundant research output - Land transportation hub - Success in some restructuring of excellent state-owned large scale enterprises - Basic technology of Mechatronics - Plant and equipment industries - Well developed IT industries - Well developed internet utilization - Some success stories in Venture Businesses - Well developed industrial developing zones 	<p>Weakness</p> <ul style="list-style-type: none"> - Underdevelopment in restructuring of large scale and/or states-owned enterprises - Underdeveloped technology reform in traditional industries - Corporate cultured inherited from states-owned enterprise - Corporate finance - Fiscal deficit - Insufficient education of enterprise executives - Obsolete product design (one generation in behind) - Product quality and productivity - International business environment - PR and advertisement of local industries
<p>Opportunity</p> <ul style="list-style-type: none"> - Industrial restoration through FDI - Development of excellent SMEs – Growth of automotive production base - Involvement in Great West development - Development of three North East China market - Growth of Industrial Development Zones - Success in technical reform of Tiexu industrial zone - Industrial implementation of incubation 	<p>Threat</p> <ul style="list-style-type: none"> - Competitiveness of some SMEs after China’s join in WTO - High burden of atomization of intensive investment

During the 1980s, Shenyang prospered as one of the top two industrial cities in China alongside Shanghai, and it made a major contribution to Chinese industry. Following this period, however, Shenyang was slow to catch up with the transition to the market economy and it currently lags behind other advanced districts in China.

However, since last year Shenyang has been striving for industrial revival through promotion of SMEs, and the results of these efforts can be seen in Fig.11. In spite of the fact that the world economy is in recession and economic growth was also slow in China in 1999, Shenyang witnessed double-digit growth in its industrial production GDP.



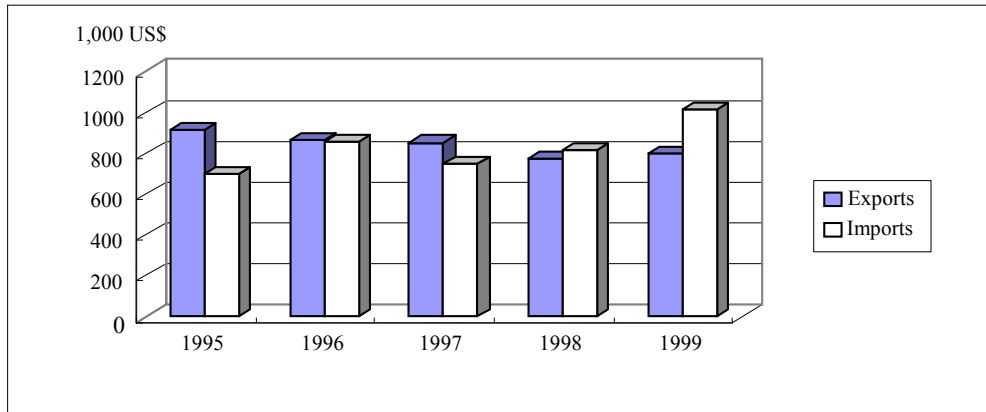
Source: Shenyang Statistical Yearbook, 1999

Fig. 11 Industrial GDP Growth

According to the statistical data of 2000, the annual industrial growth was +17.2%. The value added growth was 11.2% over the previous year. The three-year target of overcoming the deficit of the state-owned enterprises was attained.

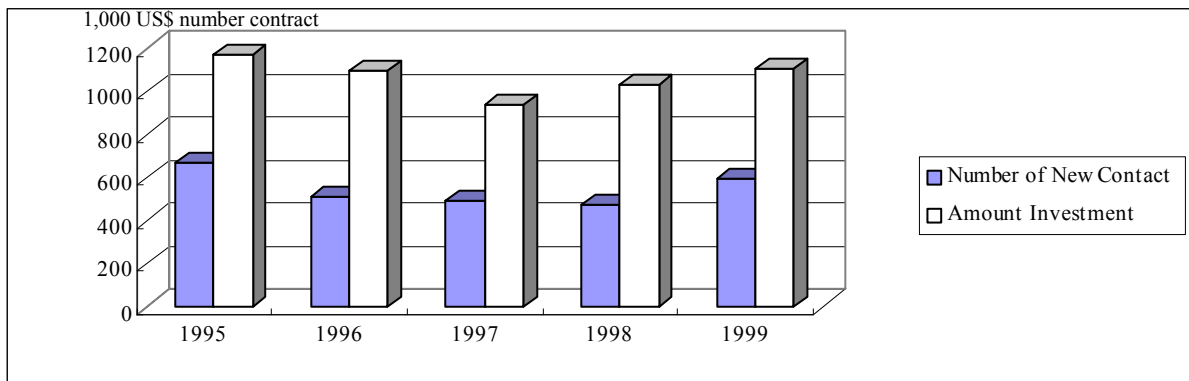
As the amount of exports and the amount of foreign investment are quite influential factors to response to the new situation when China joins the WTO, urgent improvement measures are required and strengthening of the partnership activities by SMEs in Shenyang is one such measure. The most effective and quickest way is to promote direct investment and the transfer of technology from abroad. This is the reason why partnerships were selected for a pilot project.

As these figures show, while the amount of exports and the amount of foreign investment increased in 1999, their level is not yet satisfactory. When the amount of agreed foreign investment in Shenyang is given as 100, other cities are performing much better (total from 1990 to 1997): 308 for Beijing, 289 for Tianjin, 828 for Shanghai, 492 for Guangzhou, 275 for Shenzhen and 200 for Dalian. In short, foreign investment in Shenyang is one-third of that in advanced cities or half compared to Dalian and is very low for the fifth largest city in China.



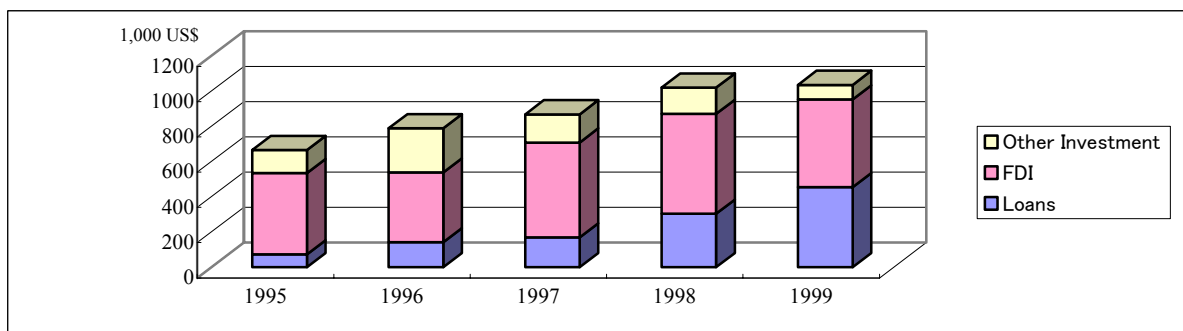
Source: Shenyang Statistical Yearbook, 1999

Fig. 12 Shenyang's Foreign Trade Amount



Source: Shenyang Statistical Yearbook, 1999

Fig. 13 Amount of Newly Agreed Foreign Investment



Source: Shenyang Statistical Yearbook, 1999

Fig. 14 Amount of New Foreign Investment (amount actually spent)

CHAPTER 2

THE MASTER PLAN AND ACTION PLANS FOR SMEs

CHAPTER 2

THE MASTER PLAN AND ACTION PLANS FOR SMEs

2.1 Formulation of Master Plan

The master plan discussed in this chapter is the basic plan for SME promotion policies consisting of a number of strategic recommendations while action plans mean individual projects to implement the master plan. For the recommendations to become concrete projects, they must satisfy 5W1H.

As it is hoped that the Chinese side will continue to implement the master plan as well as action plans after the completion of the present Project, the Study Team consulted with the Chinese counterparts so that these plans fully reflect the opinions of the Chinese side.

The master plan was formulated in accordance with the processes shown in Fig. 15.

(1) Recommendation for Basic Policies

As these policies constitute the basic concept for the formulation of the master plan, the promotion of privatization and rebuilding measures for state SMEs were considered.

(2) Obstruction and Growth Factors for Development of SMEs

The master plan was formulated based on the obstruction factors for the development of SMEs as identified by the questionnaire survey on 100 enterprises and the visit survey. The growth factors were identified by broad surveys on pilot projects.

(3) Concrete Targets for Industrial Development

The master plan was formulated by analyzing the gap between the present situation and the desirable state of industrial development. The formulated master plan is designed to respond to the request by the SMETC to specify the direction for future development made at the beginning of the Study.

(4) Master Plan

In formulating the master plan, proposals and priority measures by the Chinese side were duly considered and agreement on the contents of the master plan was sought through a series of meetings of the Steering Committee and others. The themes for the pilot projects were those of the highest priority among the policy recommendations as the

participatory planning approach was adopted from the initial selection stage of themes using the PCM. The pilot projects were subsequently implemented to confirm the validity of the policy recommendations and the objectives of the pilot projects were achieved.

(5) Action Plans

Among the recommendations to implement the master plan, those which could be formed into a program were made into action plans. The action plans are classified into three grades (A, B and C) depending on the urgency and importance of each plan. Those Grade A action plans require urgent implementation. Most of the Grade A action plans relate to the continuous development of or are derived from the pilot projects implemented under the Study.

Fig. 15 shows the formulation processes of the master plan. Table 6 shows the composition of the master plan and also explains the relationship between the basic policies, obstruction factors for the development of SMEs as well as the master plan to the action plans which form the basis of the recommendations.

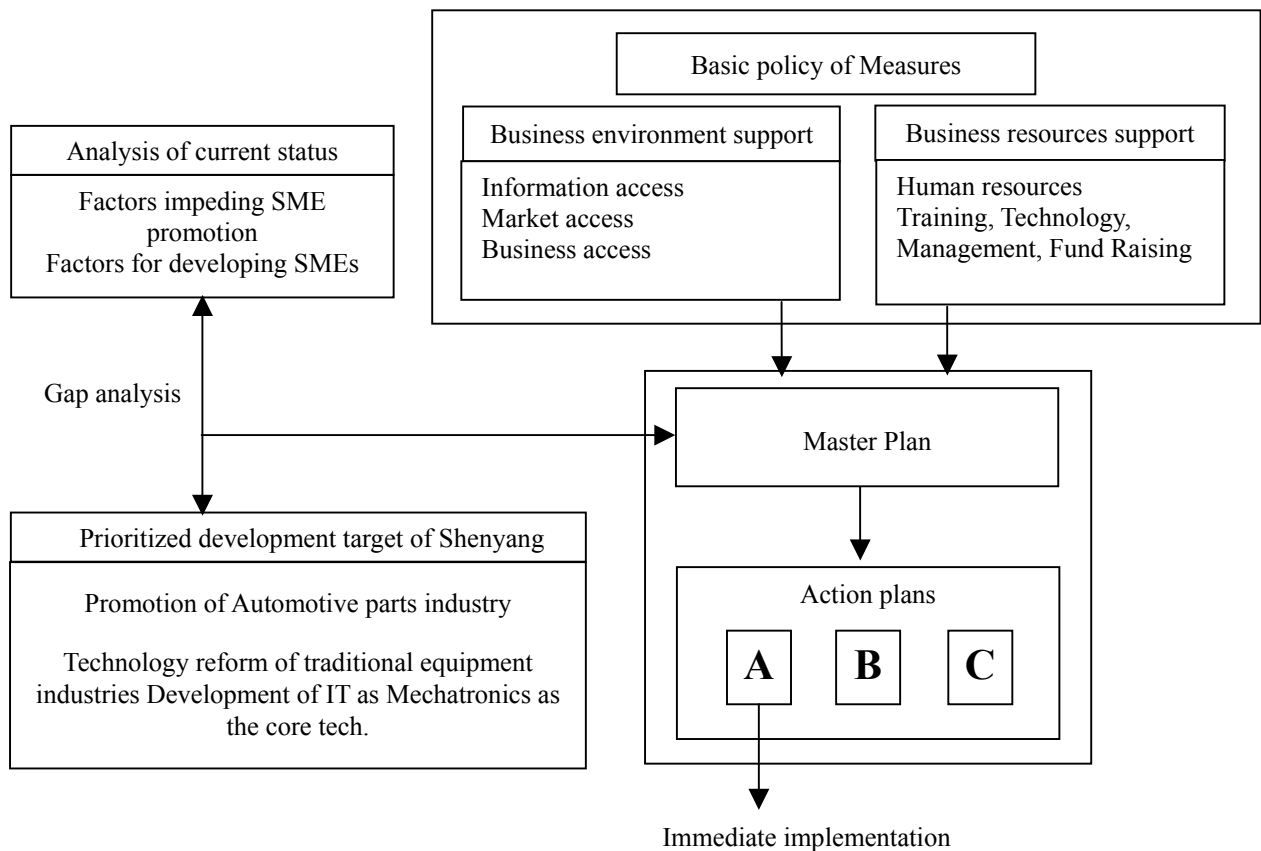


Fig. 15 Process of Master Plan Formulation

Table 6 List of Master Plan Composition

Theme	Basic Policies	Factors Obstructing or Promoting (in italics) Development of SMEs	Contents of Policy/Measure	Action Plan (A, B or C) (Priority Ranking: A is the highest)
Establishment of a SME support system	<ul style="list-style-type: none"> - Shift to support led by the private sector - Simplification of the administration - Shift from a vertically divided administration to a cross-sectional administration - Information service 	<ul style="list-style-type: none"> - Absence of supporting bodies - Weak cross-sectional support structure - Low use of private sector bodies - Poor fiscal situation of the municipal government 	<ul style="list-style-type: none"> - Fostering of semi-public support bodies - Fostering of SME service centers - Promotion of SMEs in industrial parks - Use of private sector bodies - SME support at the ward level - Cooperation with financial institutions 	<ul style="list-style-type: none"> - Strengthening and expansion of the information network for SMEs (A) - Fostering of SME service centers (A)
Market expansion for SMEs through partnership activities	<ul style="list-style-type: none"> - Support for market access - Support for business access - Response to new situation due to participation in the WTO 	<ul style="list-style-type: none"> - Insufficient market information - Low level of international trade - Small inward foreign investment - Lack of the conditions required of an international city - <i>Well-developed information network using the Internet</i> - <i>Availability of promising markets</i> 	<ul style="list-style-type: none"> - Creation of an information network for SMEs - Creation and fostering of a business introduction function 	<ul style="list-style-type: none"> - Permanent partnership activities between Japanese and Shenyang enterprises (A) - Invitation to Japanese enterprises to move into industrial parks (C)
Reform of the industrial structure	<ul style="list-style-type: none"> - Proper implementation of the “control large, free small” policy - Implementation of a prioritized industrial policy for a limited period 	<ul style="list-style-type: none"> - Lack of a well-developed subcontracting system - Delay of specialization - Low degree of industrial concentration - Slow technological reform of traditional industries - <i>Presence of basic technologies for “manufacturing”</i> - <i>Progress of development of industrial development zones</i> 	<ul style="list-style-type: none"> - Shift from the full-set production method to the specialized production method - Establishment of a healthy subcontractor agreement system - Networking of businesses 	<ul style="list-style-type: none"> - Formulation of a supporting industry development strategy (B)
Promotion of high technologies	<ul style="list-style-type: none"> - Technological and financial support - Support for business start-up - Prioritized industrial policy 	<ul style="list-style-type: none"> - Low skill level to promote the industrial application of technologies - Lack of the industrial application of high technologies - Weak R & D capability of enterprises - <i>Rich human resources, research facilities and research results</i> - <i>Availability of technological base for mechatronics</i> - <i>Well-developed IT industry</i> 	<ul style="list-style-type: none"> - Strengthening of TLO - Establishment of a technology center to promote the industrial application of technologies 	<ul style="list-style-type: none"> - Strengthening of incubation bodies (system) and TLO (A) - Establishment of an industrial technology research institute (C)

Theme	Basic Policies	Factors Obstructing or Promoting (in italics) Development of SMEs	Contents of Policy/Measure	Action Plan (A, B or C) (Priority Ranking: A is the highest)
Strengthening of the management base	<ul style="list-style-type: none"> - Technological and financial support - Human resources development 	<ul style="list-style-type: none"> - Survival of some aspects of the management characteristics of state enterprises - Low quality level of products - Low productivity - Old production technologies by one generation - Shortage of human resources - Inadequate education for top executives - Poor financial state of enterprises 	<ul style="list-style-type: none"> - Diagnosis of 100 excellent SMEs - Education for SMEs - Training of SME advisors (consultants) 	<ul style="list-style-type: none"> - Diagnosis of excellent SMEs in Shenyang (A) - SME support measures based on marketing (C) - Establishment and operation of a model training center for top executives of SMEs (C) - Training of business managers using the SME evaluator system (C) - Creation of a human resources introduction database in response to a change of values
Support for SME finance	<ul style="list-style-type: none"> - Financial support - Restoration of creditability through business improvement 	<ul style="list-style-type: none"> - Inability to secure loans - Lack of creditability - Poor state of corporate finance - Absence of proper accounting practices - Poor fiscal situation of the municipal government 	<ul style="list-style-type: none"> - Encouragement for the establishment of branches by various banks and support for the creation of local joint equity commercial banks - Expansion of the fund size of the SME Credit Guarantee Center, network and service contents - Planning and implementation of an excellent SMEs fostering program - Fostering of 300 SMEs showing excellent management and finance - Cash flow-based management 	<ul style="list-style-type: none"> - Training program to foster excellent SMEs in terms of management and finance (A) - Optimization of the credit guarantee system (B) - Increase of the fund supply channels and provision of long-term funds (B) - Recommendations for a reduction of the fund shortage to facilitate the development of SMEs in Shenyang
China's policy to attract inward investment by foreign enterprises	<ul style="list-style-type: none"> - Support for business access 	<ul style="list-style-type: none"> - Low level of investment from abroad - Lack of a legal system to promote inward foreign investment 	<ul style="list-style-type: none"> - Opening of the way for foreign subsidiaries to issue debentures - Improvement of the stock market - Strengthening of the credit guarantee system - Improvement of the inter-bank trade market 	
Support for investment in SMEs	<ul style="list-style-type: none"> - Proper implementation of the "control large, free small" policy - Financial support 	<ul style="list-style-type: none"> - Inability to restructure small and medium state enterprises which are experiencing financial difficulties - Lack of a bankruptcy option 	<ul style="list-style-type: none"> - Restructuring scheme 	

2.2 Master Plan

2.2.1 Recommendations for Basic SME Promotion Policies

The expected roles of the municipal government in the promotion of SMEs are described below.

(1) Simplification of Administration

At present, a major reduction of administrative staff and the abolition of the direct control of SMEs by the municipal government are in progress. Taking this opportunity, a cross-sectoral SME support body should be established by overcoming all conceivable difficulties.

(2) Proper Implementation of “Control Large, Free Small” Policy

In connection with the free small enterprises policy, the municipal government should provide more support for the privatization of small state enterprises.

The municipal government should not directly control private enterprises but should leave them to carry out self-reliant efforts.

Although the control of large enterprises is important from the viewpoint of prioritized industrial promotion, this should not create factors which obstruct the promotion of SMEs.

(3) Macroscopic Studies and Support

The priority themes regarding support for SMEs are compiled below:

1) Prioritized Industrial Policy

This policy should be implemented with a limited time-scale in view of the severe business conditions of enterprises in Shenyang and the forthcoming participation of China in the WTO.

2) International Comparison by Industrial Sector

Priority themes relating to products and production technologies should be selected for study purposes so that the study findings can be reflected on the industrial policy.

3) Study on Marketing Strategy

A marketing strategy study should be conducted, featuring the economic and industrial complementary relationship with Dalian, the three northeastern provinces, the great development in the western region and the northeast/Korea/Japan economic zone.

4) Measurement of Productivity

As a productivity movement led by the municipal government is necessary to promote the improvement of the market competitiveness of SMEs, the first step should be the measurement of the productivity of SMEs.

5) Human Resources Education for SMEs and Movement to Reform Business Awareness of Top Management

The virtual absence of education/training for SMEs at present demands urgent actions to improve the situation.

6) Supply of Useful Information for SMEs

The information service should be improved to include a consultation service function to meet the needs of SMEs.

(4) Private Sector-Led Activities

The privatization of enterprises is not sufficient by itself. The municipal government must reform administrative practices and the attitude of administrative staff in view of the adoption of a way of thinking which is appropriate vis-à-vis a market economy. Maximum efforts must be made to support the activities of private organizations to facilitate the transition from government-led SME promotion activities to private sector-led activities.

2.2.2 Recommendations for Prioritized Industrial Policies to Promote SMEs

The following three points are recommended to constitute prioritized industrial policies to reform and strengthen the basic technologies for “manufacturing”, which represents the strength of Shenyang, to establish the strongest comparative advantage in China.

(1) Establishment of Industrial Base for Parts Production Supported by Assembly Industry

Shenyang has base industries led by the machining industry and enjoys a comparative advantage over the coastal zone where the assembly industry has recorded strong growth. In acknowledgement of such an advantage, 19 of the world's top 500 enterprises have so far invested in Shenyang. The automobile industry is particularly strong with the world's leading assembly makers operating side by side in Shenyang. Despite the existence of more than 80 enterprises which are capable of manufacturing various automobile parts, however, the local procurement rate of parts by automobile makers operating in Shenyang is only 20%. The promotion of the parts industry by means of increasing the procurement rate of these multi-national corporations through improvement of the product quality and price competitiveness is essential in the coming years. In this context, the municipal government has correctly judged that the development of the automobile parts industry will be a breakthrough for the promotion of local SMEs. In the future, the municipal government should try to develop Shenyang as a parts supply base for not only Liaoning Province and other areas in China but also for the international market.

(2) Technological Innovation of Traditional Equipment Industries

More than half of the manufacturers in Shenyang are equipment manufacturers and such a high concentration of equipment manufacturers is unparalleled in China. The great development of the western region in the near future will provide huge business opportunities for the development of equipment manufacturers in Shenyang as a huge quantity of work equipment and accessories will be required for the infrastructure construction projects of this anticipated great development, involving roads and electricity, water and gas supply. The types of equipment required will range from plant-type equipment to power equipment and power generation units and innovation is urgently required for products as well as production technologies. In addition, there is a strong prospect of the growth of the environmental protection industry.

(3) Development of IT Industry Centering on Mechatronics Technologies

Shenyang has seen the growth of the largest computer software enterprises in China and IT-related industries. What particularly characterizes Shenyang is mechatronics as there are eight state levels advanced manufacturing technology research and process centers, including the National Robotics Process Center, the National Automated Process Center, the National Advanced NC Center, the National Software Process Center and the National Sensor Element Center. In general, China shows a tendency to be strong in regard to software and weak in regard to hardware. Should Shenyang develop a strong

hardware capability, it will certainly enjoy a strong advantage vis-à-vis the international competition after China's participation in the WTO.

Shenyang should use its above-mentioned advantage in three areas, which are absent in other areas, as crucial elements for its industrial promotion strategy.

The machine and electric industries are the prime movers of industrial development, particularly export industries, in advanced countries. Shenyang should foster these industries as leading industries.

Manufacturing industries of machinery and electrical goods consist of three layers, i.e. processing (machining), parts manufacturing and assembly. So far, Japanese enterprises have been creating overseas production bases for export in China's coastal zone which meets their requirements for cheap and abundant labor. Both the Japanese and Chinese sides now realize that the offshore export-oriented production system aiming at utilizing cheap labor does not have much prospect for future development and that the local procurement of parts is crucial, making the development of such local base industries as parts manufacturing and machining essential. The presence of such base industries is, therefore, truly important together with efforts to move base industries from Japan. From this viewpoint, Shenyang is one of the most promising areas for the development of base industries, enjoying a great comparative advantage over Dalian in Guangdong Province where the assembly industry has far prospered.

Supporting industries, including the machine industry, in Shenyang are inferior in terms of products, production technologies and management as well as control techniques by today's global standards. However, machining technologies in Shenyang are generally evaluated as being superior to those in Shanghai. It will, therefore, be possible to revive the strong base industries through the introduction of foreign capital and the transfer of modern technologies.

2.2.3 Financial Support for Implementation of Master Plan and Action Plans

In Japan, the central government, local public bodies and the Chamber of Commerce and Industry, etc. provide financial support for the development of SMEs. However, this type of arrangement cannot be applied in full to Shenyang. Apart from financial constraints, the municipal government appears to be trying to reduce financial assistance for SMEs by accelerating their privatization and relying on the market principle thereafter while providing priority loans for strategic large-scale state enterprises based on the "control large, free small" policy. While the investment budget for the innovation of industrial technologies is accounted

for in its 10th five-year plan, hardly any funding is currently in place for direct support for SMEs.

The provision of public financial support for the implementation of the master plan and action plans recommended in this Report is proposed here. Each action plan is accompanied by a description of its prospective funding by the public and private sectors and the possibility of such funding must be carefully examined.

In formulating the action plans, conscious efforts were made to select those urgent projects which do not require large equipment investment and, therefore, the required budget of which is relatively small. However, the implementation of the selected projects will still require spending to cover the personnel cost and the operating cost. If these costs cannot be met by the self-reliant efforts of the organizations in question or by the private sector at large, the financial support of local public bodies will be required. It is hoped that the development zones and district governments which are close to enterprises and which have their own funding sources will provide active financial support. This financial support should be provided as much as possible within the tolerable financial limits, especially for industrial park development, assistance for business start-up, domestication of foreign technologies, market surveys, expansion of the credit guarantee center, human resources development and the spread of IT, etc.

In regard to support for business start-up, it will be a great loss to the city if business opportunities are lost due to the lack of minor funding. Another important task is to secure funds to deal with the bankruptcy of poorly performing enterprises as recommended by the Study Team although the municipal government has already begun the relevant consultation process.

For financial assistance for private enterprises, it is important to foster a semi-public body with the aim of achieving its financial independence and/or private consultants. An intermediation fee for partnerships, which are expected to increase in the coming years, will provide a major source of income.

Master plan 1
Establishment of SME Support System

< Current Situation and Problems >

The Shenyang Municipal Government established the SME Office in early 1999 and is trying to upgrade it to bureau status. However, the members of the SME Office have been halved to three as of August 2001 as a result of administrative reform.

Meanwhile, although the Shenyang SME Service Center was established in December 2000, it has not yet reached the stage where organized and specialist support activities are conducted. The Productivity Promotion Center of the Science and Technology Committee provides SME diagnosis and support services for the promotion of high-tech industries.

< Purpose of Recommendation >

As the establishment of a policy implementation body and a SME support system is the highest priority for the promotion of SMEs in Shenyang, the creation of such a system around the existing SME Office of the SMETC is recommended.

< Contents of Recommendation >

(1) Basic Principles for Operation of SME Service System

1) Fostering of Semi-Public Bodies

The three organizations mentioned earlier are mutually independent, public benefit corporations that adopt a self-supporting accounting system assisted by a different government grant. (At present, two of them receive a grant from the DFID but will move to complete self-financing status three years after the date of their establishment.) It is a precondition for any body providing a SME service to operate on the basis of market economy principles.

The semi-governmental status of a SME support body is expected to reform the vertically divided functions of any predecessor. At present, the complete privatization of such a body is unrealistic and limited public support is necessary.

Based on these necessities, the Shenyang SME Service Center enjoys the most ideal conditions as it has been virtually privatized.

The Study Team has set the self-reliant development of these bodies after the Study as the main task and the achievement of this target will be the biggest result of the Project. In order for each body to achieve self-financing status, it must have its own means of income and each body is fully aware of such requirement.

The Study Team hopes that the SME Service Center will learn concrete techniques for intermediation through OJT as the transfer of FS techniques, which are essential for intermediation work, will greatly contribute to the development of this center. This intermediation work will provide a source of income to make the center financially independent.

2) Strengthened Links with Financial Institutions

The Study Team points out the weak linkage between the municipal government and financial institutions as a problem. It is hoped that links with cooperating banks and other financial institutions will be improved through the activities of the SME Credit Guarantee Fund to promote cash flow base management among SMEs.

3) Promotion of Industrial Banks

Industrial parks enjoy the highest level of economic independence and are capable of carrying out industrial reform without external assistance. The promotion of industrial parks and development zones has been contributing to the industrial development of Shenyang, particularly to the promotion of joint ventures and partnerships with foreign capitals. The Economic and Technology Development Zone, the High-Tech Development Zone and the Dadong Industrial Park are hoping to attract investment by SMEs. These moves will hopefully lead to the accumulation of technologies, networking and product experts to the international market by SMEs.

Industrial parks in particular already have a one stop service function and also have the advantage of an active partnership function involving joint ventures and partnerships without direct government assistance.

4) Utilization of Private Bodies

With the progress of privatization, privatized enterprises leave government control. This issue is currently being dealt with by the Private Sector Economy Development Promotion Commission. It is hoped that the work of this Commission will be gradually taken up by such private bodies as the Federation of Industry and Commerce (FIC), manufacturing cooperatives and industrial associations.

(2) Recommendations for SME Support Bodies

1) Specialist SME Support System

Here, the Study Team recommends the desirable SME support system for Shenyang to be provided by four bodies selected by the SMETC. The validity of this recommendation has already been confirmed by the pilot projects which were implemented between May and August 2001.

Fig. 16 classifies the various SME support bodies and places them in appropriate positions in three groups based on the desirable SME support system in the future.

a) SMETC-Related Enterprise Control Group

The core function of the support system shown in Fig. 9-4-1 is played by those directly linked to the SMETC.

At present, the SMETC has the SME Office and intends to upgrade this office to a bureau with a cross-sectoral control function. The SMETC also has sector-specific offices to control the respective industrial sectors. Below the SMETC, district economic and trade commissions control those SMEs for which the control function is delegated by the SMETC.

b) Cross-Sectoral Support Bodies

Cross-sectoral support bodies are shown on the left-hand side of Fig. 9-4-1 and the following three bodies (shaded in Fig. 9-4-1) are considered to be SME service bodies in Shenyang.

i. Shenyang SME Service Centre

In the first field survey, the Study Team entrusted the private consultancy firm which is the main body of this center to provide assistance for the visit survey to 100 SMEs. This center currently receives financial assistance from the DFID and is capable of accepting many orders using its accumulated ability to provide direct support for SMEs. The Study Team provided training for this center under the pilot project to make the center capable of providing an intermediary service.

ii. Information Center

Through cooperation with the Study Team, the Information Center has created an information network for SMEs and is now responsible for the maintenance of this information network. At the same time, the center is responsible for the promotion of the Shenyang Municipal Technology Innovation Service Center announced by the municipal government in March 2001 with a view to materializing this new center.

iii. Shenyang Municipal SME Credit Guarantee Center

This center was established with DFID assistance. Under the pilot project, the Study team developed a system to support the introduction of cash flow management for SMEs on the Internet. This center will use this tool to support SMEs for the purpose of creating 300 excellent SMEs.

c) Cooperating Administrative Bodies

The Private Sector Economy Development Promotion Committee was established in 1998 and has been contribution to the promotion of privatization, playing an important role in assisting the rapidly increasing number of private SMEs. The Village and Town Enterprises Control Bureau is involved in regional development as it controls most micro-enterprises and newly created SMEs.

The Productivity Promotion Center is a public benefit body which provides cross-sectoral support for high-tech SMEs. Its contribution to support for SMEs includes the following activities.

- Loans for high-tech SMEs
- Company diagnosis and guidance in association with loans
- Information service through the PP-NET
- Intermediary service for the industrial application of high and advanced technologies

This center plays a significant role in supporting SMEs and the Study Team has recommended collaboration between this center and the Shenyang Municipal SME Service Center. It is hoped that closer collaboration will materialize between the three groups of SME support bodies shown in Fig. 9-4-1.

2) Situation of SME Control at State, Provincial, Municipal and Ward Levels

The response of the municipal government to the notifications and written opinions issued by the State Economic and Trade Commission has far been mainly in line with them. In regard to the relationship between the municipal government and ward authorities, the authority to control SMEs is delegated by the former to the latter. Accordingly, ward authorities are now at the front-line of contact with SMEs. Preparations are in progress to establish SME service centers and SME credit guarantee centers at the ward level.

In the case of development zones and industrial parks, the High-Tech Development Zone is controlled by the state, the Economic and Technology Development Zone is controlled by the municipal government and the Dadong Ward Industrial Park is controlled by the Dadong Ward Authority.

The Study Team surveyed four of the 13 wards in Shenyang. On 20th September, the first ward level SME credit guarantee center started operation in Heping Ward. The initial capital is RMB 3 million, of which RMB 1 million was funded by the municipal government and the rest by the ward authority. Four more similar centers will soon be established to bring the total to five. Meanwhile, a ward level SME service center will be established in six wards in the near future. A one-stop service is already provided in Heping Ward. Dadong Ward is discussed below as an example of ward level SME support.

Dadong Ward is currently planning to establish “a one stop service center” as a consultation office close to SMEs. This center will provide consultation and procedural services relating to business approval and permission and business registration in addition to a consulting support service to provide business information. Preparations are in progress to establish a ward level credit guarantee center as a separate organization in the same building in an attempt to provide support for the financial matters of SMEs by establishing a ward level credit guarantee system.

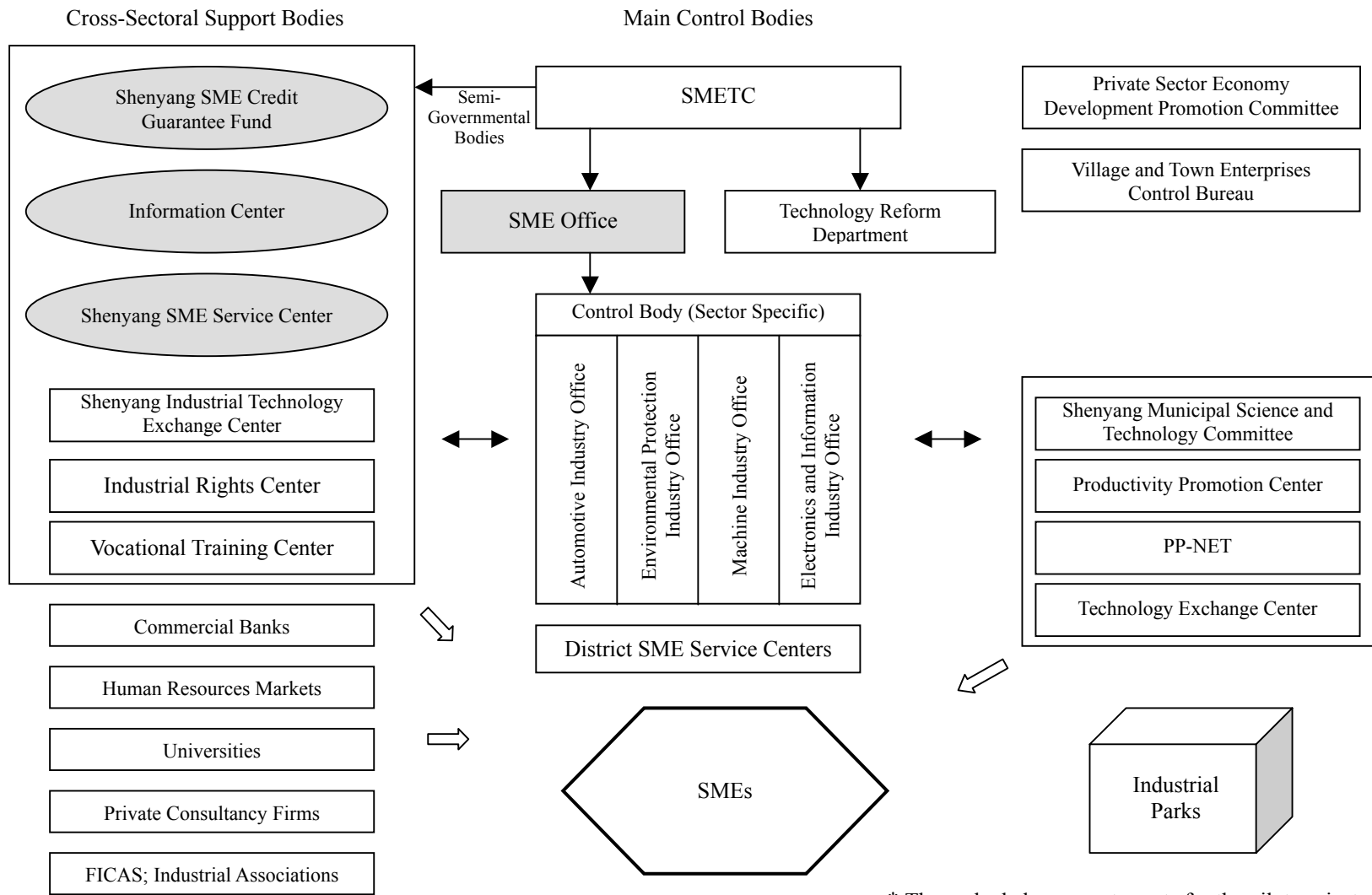


Fig. 16 SME Support System in Shenyang

In response to this move by Dadong Ward, the municipal government has shown its willingness to subsidize the credit guarantee funds of Dadong Ward. A cooperative relationship between the municipal government and the ward/district authorities will be important for the effective development of SMEs. It may be a good idea to use the policy of local authorities to promote self-reliant efforts, such as that introduced by Dadong Ward, as a model case for development with the spread of the application of such a model throughout the city.

However, as the conditions regarding the economic reality and human resources, etc. differ from one ward/district to another, the development model of Dadong Ward is not necessarily fully applicable to other wards/districts. It is, therefore, recommended that the municipal government play a coordinating role in the formulation of a standard model. As part of JICA's pilot project, the Study Team consulted on the operation and management of the Dadong Ward SME Service Center based on Japan's experience, etc. and the subjects of the recommendations made by the Study Team are listed below.

- Operating method of the one stop service system
- Introduction of the business consultation service function
- Utilization of the SME information network
- Regional industrial promotion system with business intermediation and support bodies to attract business investment playing a central role
- Establishment and operation of the credit guarantee center

3) Recommendations for SME Support Model for Shenyang

Fig. 17 shows a draft SME support model for Shenyang featuring all of the above subjects. The system in question consists of the following elements:

- International aid organizations (JICA, DFID and the World Bank)
- Public support bodies: municipal and ward level bodies
- Semi-public and corporate support bodies: those related to the SMETC and those related to the Science and Technology Committee
- Local support bodies
- Manufacturers' cooperatives and business owners' associations

Under the Study, efforts to foster and strengthen SME service centers mainly focus on semi-public (semi-governmental) and corporate support bodies. The municipal government has delegated the authority to control SMEs to the ward authorities, the

position of which is close to SMEs, and some ward authorities have established a SME service center and credit guarantee fund. The Study Team recommends that industrial parks, business owners' associations and manufacturing cooperatives also provide support for SMEs together with these centers.

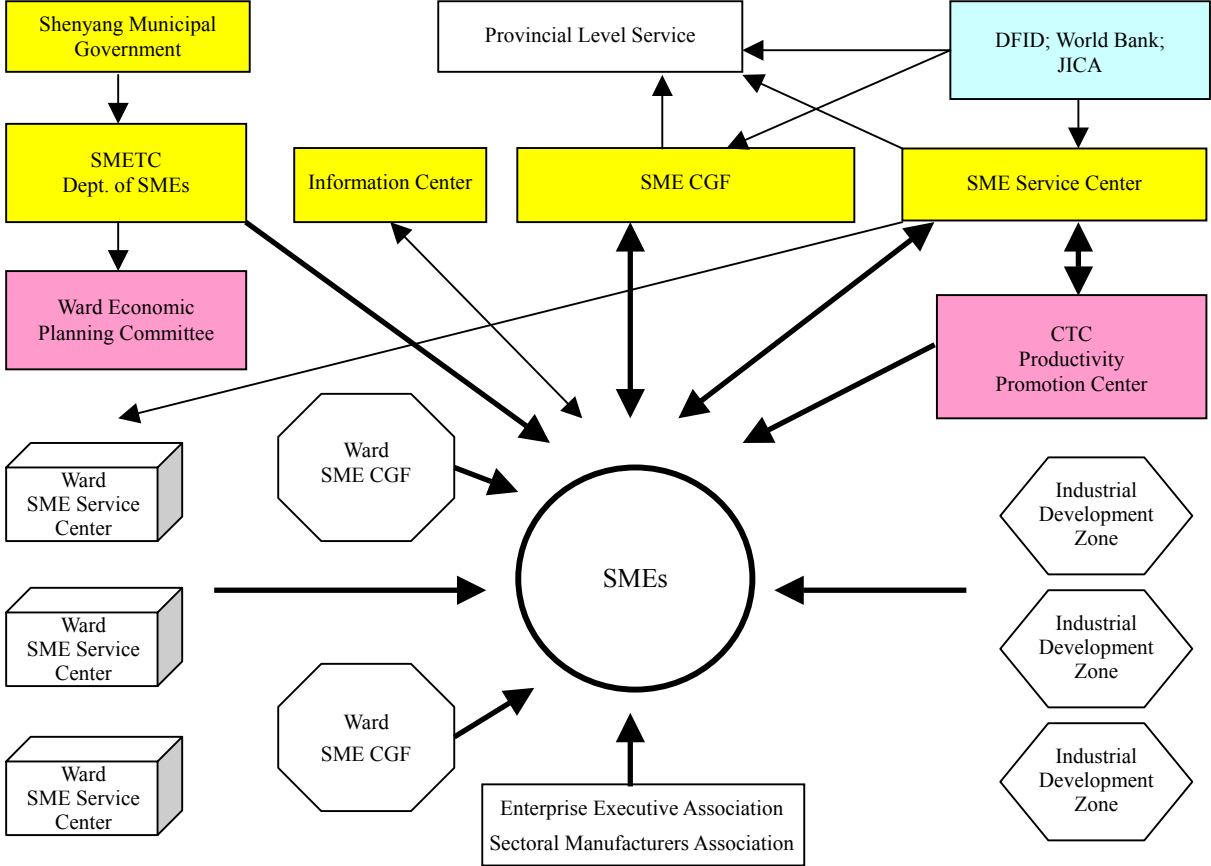


Fig. 17 Recommendation for SME Support Model for Shenyang

(3) Contents of SME Support Service

Fig. 18 shows the SME support system diagram. The target improvements are largely classified into improvement of the management environment and improvement of the managerial resources. The public sector should mainly concentrate on improvement of the management environment while the improvement of managerial resources should be left to the self-help efforts of enterprises and efforts of private consultants and private bodies. In regard to the managerial resources of enterprises, public support for the general business conditions through strengthening of the economic and industrial bases, reform of the industrial structure and infrastructure development is more important than public support for individual enterprises.

Three business environment improvement elements, i.e. information access, market access and business access, were taken up as subjects of the pilot projects.

Market access means liberalization of the access by SMEs to both domestic and overseas markets and is important as it assists the marketing activities of SMEs. Business access means support for partnership activities. Although business access can be said to be part of market access, the former should be considered as the business matching of individual enterprises while the latter should be considered as macroscopic activities.

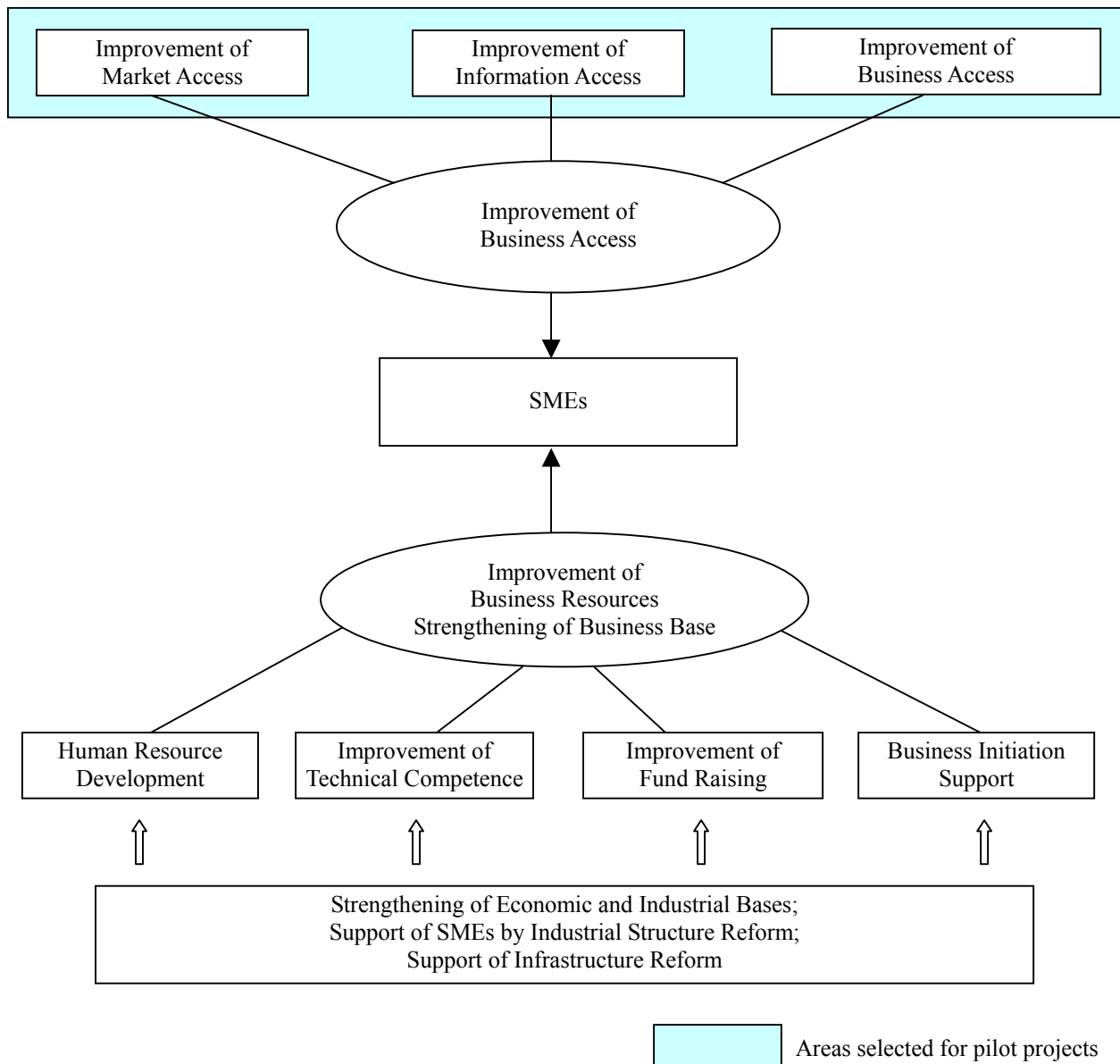


Fig. 18 SME Support System

Master plan 2

Vitalization of SMEs by Partnership Activities

< Current Situation and Problems >

The word “partnership” is broadly used here to include collaboration in terms of trade, production and marketing, transfer of technology and joint ventures/business partnerships between Chinese enterprises and those in China or abroad.

In general, southern China, i.e. from Shanghai southwards, has developed through economic exchanges with abroad with the resulting development of SMEs.

Although the Northeastern Region has lagged behind the south in terms of overall economic development, there are variations within the region. For example, the international trade amount and the amount of foreign direct investment, etc. in Shenyang are much lower than in Dalian which is located in the same Liaoning Province. One crucial factor for this is believed to be their geographical locations: Dalian is located on the coast while Shenyang is located inland. In short, SMEs in Shenyang face the following problems.

- Lack of access routes to international markets and lack of technical information at home and abroad
- Much lower standard of products and production technologies of traditional industries in Shenyang than the relevant international standards due to few exchanges with foreign countries over a long period of time
- Extremely small number of SMEs which are attractive enough for investment by foreign enterprises
- Lower foreign trade amount and amount of foreign investment than other advanced areas in China because of the above problems

As the amount of exports and the amount of foreign investment are quite influential factors to response to the new situation when China joins the WTO, urgent improvement measures are required and strengthening of the partnership activities by SMEs in Shenyang is one such measure. The most effective and quickest way is to promote direct investment and the transfer of technology from abroad. This is the reason why partnerships were selected for a pilot project.

< Purpose of Recommendation >

With China’s participation in the WTO having been decided, SMEs in Shenyang are facing a crisis posed by international competition. The urgent task is to open the local market to abroad in order to stimulate foreign trade and investment. To be more precise, the SME information network taken up as a pilot project by the Study Team should be continued and developed to support partnership activities.

< Contents of Recommendations >

(1) Vitalization of Partnership Activities of SMEs (see Fig. 18)

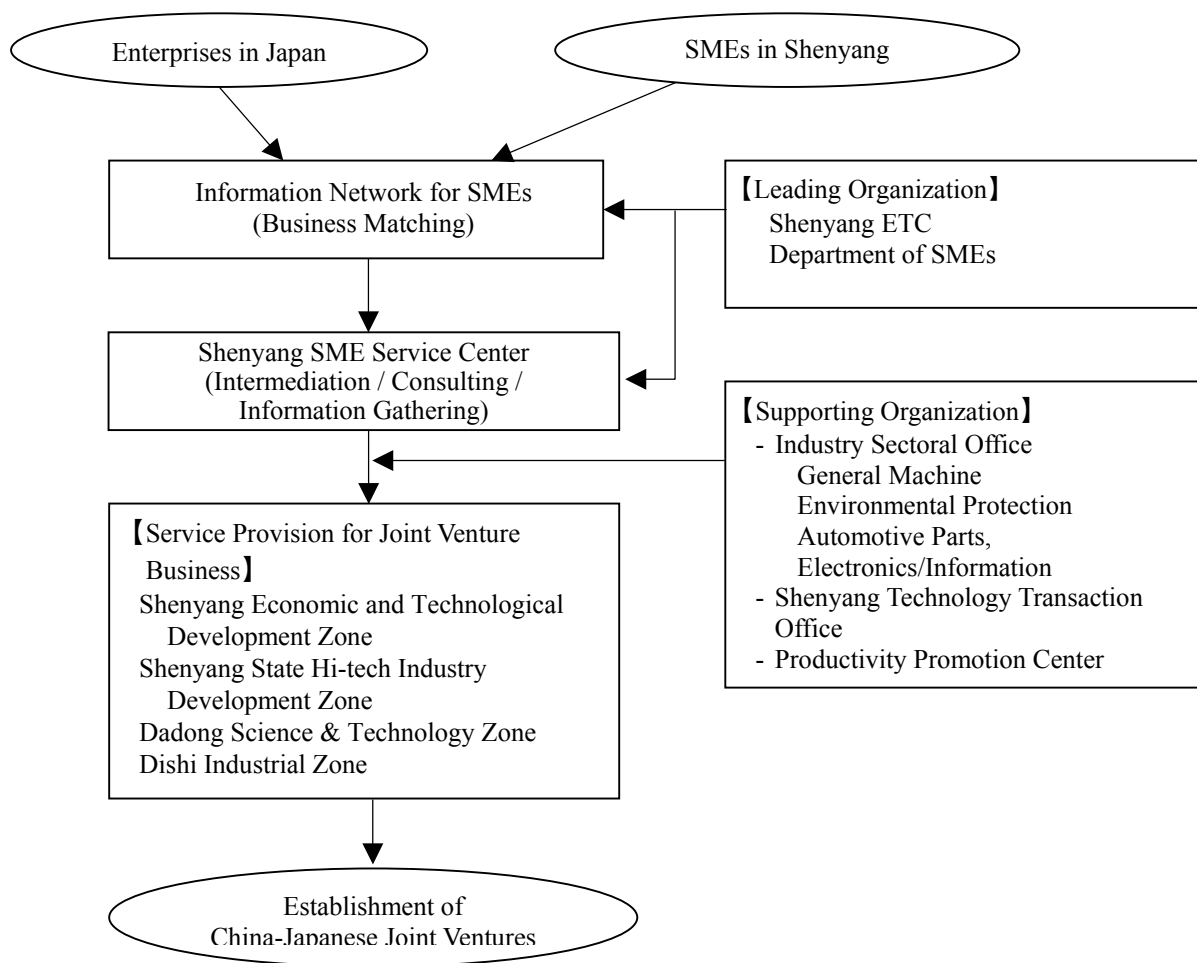


Fig. 19 Outline of Japan/Shenyang Partnership Activity

- 1) Fostering of the SME Service Center should be attempted as an intermediation body for SMEs with self-reliant development ability in the future by making this center participate in the Project.

- 2) Emphasis should be placed on Sino-Japan joint ventures and partnerships. The Shenyang Municipal Government believes that the creation of these enterprises is an important measure for the development of SMEs which are highly adaptable to a market economy based on the prospective achievements of the relevant pilot project formulated by the Study Team.
- 3) The SME partnership function of industrial parks should be strengthened.
- 4) The participation of the SME Credit Guarantee Center should be encouraged. Partnership activities should be assisted from the side by activities to improve the financial management of SMEs as efforts will be made to spread the cash flow management guidance system prepared by the Study Team using the Internet.

(2) Establishment of Information Network

As a tool for partnership activities, the “SME information network system” has been jointly created by the Study Team and the SMETC Information Center. This system will be the core of the pilot project. The problems and points for improvement regarding the SME promotion strategy, promotion system and services will be identified through the operation of this system to deal with real cases for partnership and to clarify the problems and needs of both sides.

Supporting bodies can assist human resources development and partnership activities by SMEs by providing the opportunity for SMEs to transmit and receive information through the network function as SMEs are provided with the tools to create their own home page. In addition, encouragement should be provided for SMEs which have not yet used the Internet to establish a link to the Internet.

The Internet is capable of overcoming the hurdle created by the conventional, vertically divided administration for SME support through linkage involving various networks. The information network service is also important from the viewpoint of a strategy to use IT as described next. This service has strategic significance in addition to responding to the needs of enterprises.

Utilization of Comparative Advantages of IT in China

The SMETC, the FIC and the Science and Technology Committee already have their own home page. These home pages provide wide-ranging information on government policies, laws, various procedures, enterprises, exhibitions and trade fairs, new technologies and examples of successful businesses, etc. They do not specifically target

SMEs and can be widely used. There is a portal site for business matching covering 300 enterprises.

Establishment of SME Support System Through Creation of Interactive Website

The existing websites simply provide users with information. Although such a function is valuable by itself, the Study Team recommends the introduction of an interactive service system as a pilot project using the excellent IT environment in Shenyang with a view to the firm establishment of such a system in the future. This interactive function will require maintenance and data gathering, input, renewal and processing work. It should also have consultation and partnership functions.

Revival of SMEs Using the Internet

IT is a tool which is capable of overcoming the many disadvantageous conditions faced by SMEs to access new business opportunities based on self-help efforts together with large enterprises. The questionnaire survey conducted by the Study Team found that more than half of SMEs want to import technologies from and/or business partnerships with Japanese enterprises. 50% of SMEs are already using e-mail on the Internet and 25% accept on-line order placement.

Master plan 3 Reform of Industrial Structure (Specialization and Integration)

< Current Situation and Problems >

The Shenyang Municipal Government has so far formulated industrial policies and technology and structural reform plans based on the “control large, free small” policy. Despite its original intention, this policy has resulted in the neglect of SMEs. Examination of the need to control large enterprises and the freedom of SMEs in combination is essential from the viewpoint that the reform of large enterprises is required for the development of SMEs.

It is recommended that the municipal government provide support for the reform of the industrial structure as described below for SMEs to overcome their problems.

< Purpose of Recommendations >

Shenyang has traditional base industries for manufacturing. The potential of SMEs should be developed through reform of the industrial structure rather than the provision of support for individual SMEs.

< Contents of Recommendations >

(1) Shift from Full-Set Production Structure to Specialization

Many of the state enterprises visited by the Study team employ the full-set production system incorporating casting, forging, pressing, sheet metal processing and machining, producing almost all parts in-house regardless of their business size. The adoption of the full-set production system by SMEs leads to a high production cost because of their inability to exploit the scale merit of production. The existence of many SMEs employing the full-set production system means the duplication of manufacturing processes from the social point of view, resulting in a poor equipment operation rate at individual SMEs.

Knowing this situation, large assembly makers do not select SMEs employing the full-set production system as subcontractors for parts/components for assembly.

The municipal government must properly understand the reality and should try to create a situation of specialization through the provision of administrative guidance to avoid the duplication of manufacturing processes in society in view of the establishment of a parts supply system based on specialization.

While the municipal government has assisted the introduction of NC machine tools at some SMEs using the World Bank funds, the machining conditions at most SMEs have not yet been modernized. Some large full-set type manufacturers have separated the machining department through the rationalization of their operation. However, the SMEs newly created by such separation do not necessarily form a supporting industry for the supply of parts to large assembly makers as specialist subcontractors. Here, the problem lies with the lack of specialization and advanced technologies on the part of these SMEs.

(2) Establishment of Healthy Subcontracting System

Except for venture enterprises, many SMEs are engaged in the manufacture or processing (machining) of parts and their clients are set makers rather than end users. These SMEs tend to operate as subcontractors. However, there are no mature subcontractors in Shenyang because of the following reasons.

- Subcontractors relying on their clients tend to fail to make efforts to improve and rationalize their parts production.
- The technology and product levels of these enterprises are low.

- The idea of parent enterprises providing assistance to foster subcontractors is virtually non-existent except at a few enterprises.

The development path of the subcontracting system varies from one sector to another. In the case of automobile manufacturing, for example, there has been progressive globalization for not only assembly makers but also for parts manufacturers as they seek scale merit in the face of severe international competition. The procurement of automobile parts involves complicated problems, including the viability of overseas procurement and the need to abide by the local content requirement. These problems must be dealt with taking the international price competition and trade balance between different countries into consideration. Therefore, the question of the affiliation of automobile parts manufacturers must also be answered in Shenyang. Enterprises affiliated to the largest automobile group in Shenyang are listed below (see Fig. 9-4-8). The development of parts manufacturers is facilitated by such affiliation. The Study Team visited four of the listed enterprises and the following findings should prove useful reference materials for the development of SMEs.

- The holding company conducts company diagnosis and evaluation using the 5 grade method.
- Improvement guidance on mainly quality and cost control is planned.
- The holding company operates a training center and a research institute
- The guidance provided by the holding company is limited to factory management techniques. As the holding company is unable to provide guidance on products and technologies to modernize products, it relies on the transfer of technology from or joint venture(s)/partnership(s) with a foreign enterprise(s).

Recommendations for Parts Industry in Shenyang

Many industries, including the assembly, parts manufacturing and machine industries, are related to the manufacture of parts. While each industrial sector has its own specific problems, common problems are dealt with by the following recommendations.

Assembly Industry

- Non-employment of extreme reliance on offshore production
- Targeting of niche markets through large variety, small quantity production
- Encouragement of investment by multi-nationals
- Fostering of new set industries, such as the environmental protection industry, as trunk industries

Parts Industry

- Pursuit of knowledge intensive type, highly value-added products while avoiding mass production parts
- Pursuit of competitive advantage in the form of small lot, short delivery time production
- Establishment of a subcontracting system as the primary target to beat the competition posed by outsiders in its own geographical area

Machine Industry

- Pursuit of higher added value
- Pursuit of the accumulation of technologies through networking
- Active marketing to set makers at home and abroad

The automobile parts industry in the Shanghai area boasts the highest growth in China and the reason for this is said to be investment of some of the profits of large automobile manufacturers in the development of the local parts industry. Although the automobile manufacturing sector in Shenyang is practically dominated by one manufacturer, the precedent set by Shanghai should constitute a useful reference for future growth.

(3) Local Integration of Technologies

Although SMEs cannot expect direct support by the municipal government, they can expect support by large enterprises through vertical integration. This is, in fact, the pattern shown by the development of the parts industry in Japan. In recent years, however, the business structure has undergone a great transformation. Vertical integration has been replaced by international horizontal specialization and the affiliation within a group has weakened. Under such circumstances, SMEs in Japan, which are facing a difficult business situation due to recession, are trying to find a way out in the IT revolution. For late-starting SMEs in Shenyang, the Internet is a very easy tool to use and the active use of this tool will result in excellent opportunities for business growth. The creation of a suitable mechanism is, therefore, necessary.

Fig. 19 shows a model for the accumulation of technologies in Shenyang based on the example of strategic regional development in Japan.

- 1) While the concentrated existence of SMEs in the machine and electrical industries is necessary, their operation in the same industrial park is unnecessary.

- 2) Manufacturers' cooperatives are established with the joint funding by member enterprises together with the financial assistance of a local government organization with a view to conducting the following work.
 - Joint purchase
 - Joint procurement and use of highly useful machinery
- 3) SME support bodies or the FIC will cooperate with an academic institution(s) to provide technological guidance.
 - Technological guidance on IT and FMS, etc.
 - Guidance to solve technological problems

Although Shenyang has a traditional machine industry and base industries to support the machine industry, it has lost its international competitiveness due to the out-dated production equipment and technologies and the outflow of technologies to other areas, both of which originate from the historical emphasis on large state enterprises. At the same time, however, the existing industries still constitute valuable resources.

For the implementation of the recommendations described above, the participation of manufacturers' cooperatives and the FIC is essential. These recommendations pose major tasks to be achieved by overcoming various difficult problems for the promotion of SMEs together with the future privatization of enterprises in Shenyang.

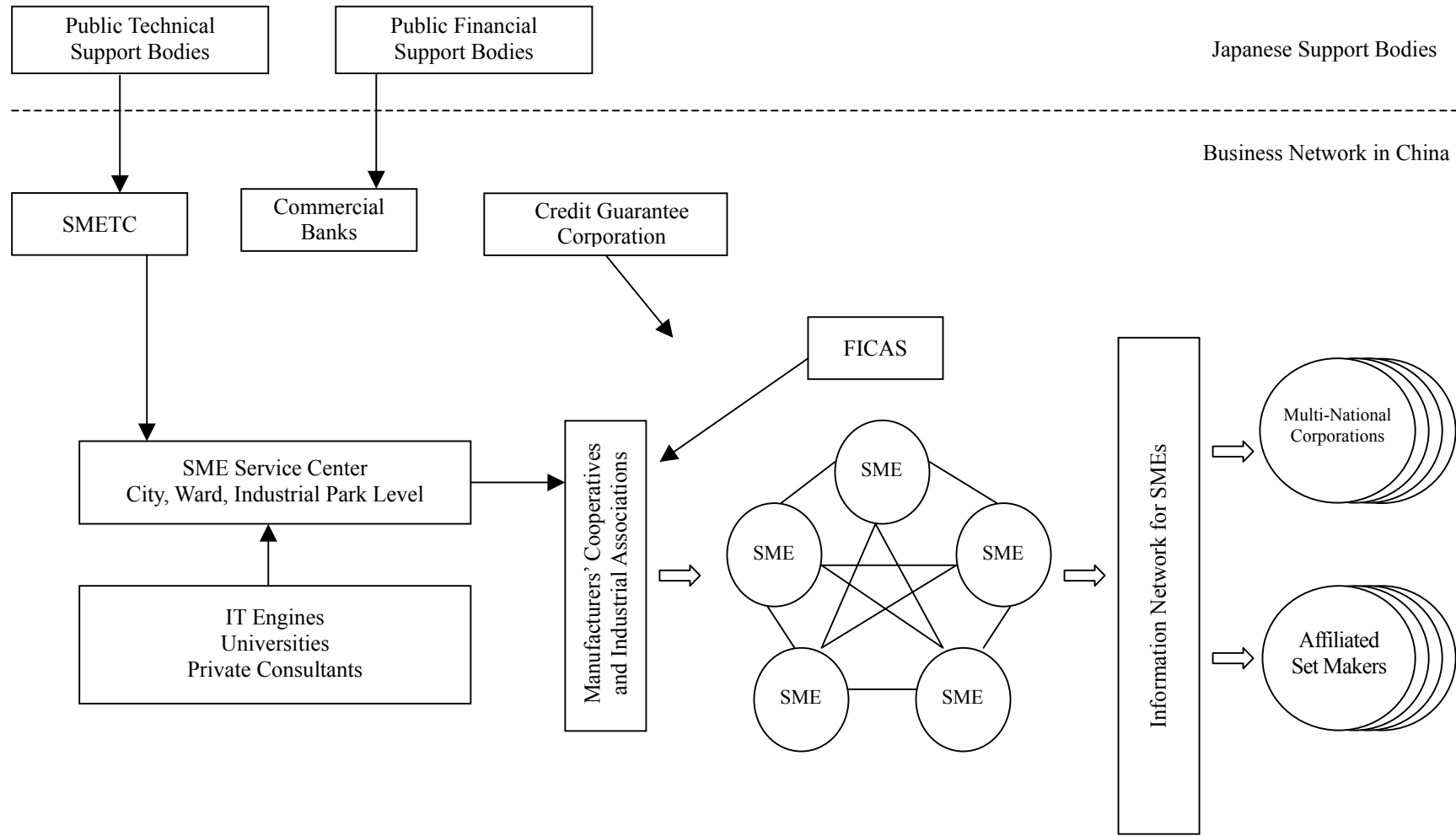


Fig. 20 Accumulation of Technologies

Master plan 4

Promotion of High Technologies

< Current Situation and Problems >

The Shenyang Science and Technology Committee have been promoting high technologies for some time. At the instruction of the State Economic and Trade Commission, the SMETC invited local SMEs to the announcement of the policy to emphasize the creation of innovative technologies in February and March 2001. The key point of this policy is the creation of a technological innovation service system for SMEs as soon as possible for the purpose of linking such a system to the optimum deployment of scientific and technological resources. Meanwhile, the Industrial Technology Exchange Center of the SMETC is earnestly making efforts for the industrial application of the joint research results of industrial and academic circles using the Shenyang Innovation Information Network which is part of the nationwide Innovation Information Network of the State Economic and Trade Commission.

On 30th June 2001, the Liaoning Provincial Government sponsored exchange meetings in Shenyang and Dalian to which 1,000 foreign researchers on China with concrete ideas for industrial development were invited. These meetings were organized by the Provincial Science and Technology Committee which paid the travel, accommodation and other expenses of these 1,000 guests.

The Shenyang Municipal Government considers the industrial application of innovative technologies and partnership activities to develop the automobile parts industry the highest priority for the promotion of SMEs.

The current situation of the promotion of high technologies is described next.

(1) Strengthening of TLO (Technology Licensing Organization) Function

Industrial incubation activities in Shenyang take the form of the industrial application of the research results of universities and research institutes, business start-up by universities and research institutes using their research bodies and business introduction activities by the Shenyang Industrial Technology Exchange Center. The Study Team visited some state level research institutes related to metal materials, casting, automation and vacuum technologies and found that these institutes commenced business by separating their lower stratum and that their laboratories are actually involved in such business activities as manufacturing and marketing. This practice is common throughout China.

For example, the Equipment Engineering Department of the Shenyang Municipal Industrial College plans to develop 10 priority businesses relating to industrial measurement and control, mechanical plants, specialist NC machining, metal surface treatment, alternative energies, die manufacture and permanent magnetic motors, etc. with a view to establishing a technology innovation base characterized by the development of modern manufacturing technologies, an incubator base for service and technology-oriented enterprises, a funding base, a human resources development base, an information gathering and dissemination base and a product trading base over a period of 3 – 5 years.

University laboratories are making products using their own R & D results and earn a profit through production and marketing.

The State High Technology Development Zone has the following two incubation centers.

1) Shenyang High Technology Development Center (21st Century Building)

This is a non-profit organization established in 1997 and is assisted by the Shenyang Municipal Government and the Development Zone. It has a site of 60,000 m².

2) Liaoning Shenyang Overseas Scholars Business Park

This incubator facility established in 1999 invites renowned Chinese researchers working abroad and provides assistance for business start-up by these researchers based on the transfer of high technologies.

(2) Strengthening of High-Tech Industrial Parks

In Shenyang, the National High Technology Development Zone was created as one of the first such zones in China. This zone now has a concentration of incubators, computer software companies and manufacturers of high-tech products. Shenyang also has the Economic and Technology Development Zone into which several foreign enterprises have moved, the Tiexu Industrial Park with traditional industries and the Dadong High-Tech Park with a concentration of excellent SMEs. In other words, Shenyang has wide-ranging industries, from high-tech industries to supporting industries. The current situation of high-tech parks and the planning of future parks in Shenyang are described next, featuring four industrial parks and five centers.

Four Industrial Parks

1) AMT (Advanced Manufacturing Technology) Industrial Park

This park will be jointly created by enterprises and R & D organizations in China and abroad with the Shenyang Automation Research Institute of the Academy of Science of China, Shenyang Xinsong Robot Automation Co., Ltd. and the Shenyang High Technology Development Zone acting as the promoters. This park is planned to be developed as a first rate AMT industrial park by international standards with integrated research, design and production facilities to become an ATM industrialization base for China and Asia.

2) Digital Medical Equipment Industrial Park

Dongda Alpa Digital Medical Care System Co., Ltd. will play a central role at this park in the application of the virtual production method with the assistance of the Dongfang Software Group and the State Digital Medical Equipment Technology Center.

3) Environmental Protection Industrial Park

The Special Environmental Protection Group will play a central role in this park with the technical assistance of Dongbei University and the Ecology Research Institute of the Academy of Science of China, making the best use of Shenyang's advantageous position in terms of the machining and parts supply capacity for large equipment.

4) Transport Equipment Industrial Park

Shenyang Golden Cup Locomotive, Golden Cup GM, Golden Cup Passenger Coaches and the Jiangming Aviation Engine Group will play a central role in the creation of this park in cooperation with well-known enterprises in China and with the provision of technical support by Qinghua University, Xian Jiaotong University and the 606 Research Institute.

Five Centers

1) NC Machine Tool Manufacturing Center

Shenyang Machine Tool Co., Ltd. will form the main body of this center with the provision of technical support by the Shenyang Automation Research Institute and the Shenyang Computer Research Institute, both of which belong to the Academy of Science of China, and the Shenyang Industrial Academy.

2) Advanced Die Manufacturing Center

This center was established by the Golden Cup Corporation, the Shenyang Aviation Corporation and Shenyang Die Factory as the main bodies with the provision of technical support by the Shenyang Computer Research Institute of the Academy of Science of China. The development of the die industry in China in the direction of large, precision, complicated and long life dies, during the period of the 10th Five Year Program is necessary. Meanwhile, specialist die factories should be developed in the direction of small but specialist factories. The die workshops of enterprises should seek to gradually become self-financing, specialist die factories with specific target industries in mind, exploiting their own specialist fields.

The above descriptions are mainly based on the plan of the municipal government. The field survey conducted by the Study Team found that the improvement of many aspects is necessary to break through the present situation in order to achieve the plan targets. The principal measures to achieve these targets are described below.

< Purpose of Recommendations >

The provision of assistance for the already active industrial application of high technologies using the advantageous science and technology environment in Shenyang is believed to be the most effective measure to promote SMEs.

< Contents of Recommendations >

(1) The problem of incubation activities in Shenyang lies with a lack of positive achievements due to a weak approach by the enterprise side. To rectify the situation, a technical service center for industrialization should be established in addition to the current use of trade fairs and the Internet. This center should provide management software for marketing, FS, research management techniques, production technologies and design development techniques, etc., all of which are required to produce new products from seed, and should also provide technical support for the design, trial manufacture and testing of hardware.

(2) Support for Business Start-Up by Venture Capitals

Shenyang has already seen such successful high-tech business development as the Heguang Group, the Dongyu Group and Dongda Alpine, each of which has grown to become the largest enterprise in its respective field in Shenyang after being launched by a group of several university researchers. Dongda Alpine in particular is so successful that it has become the largest software company in China. The success stories of these

enterprises are precedents for the business start-up by those returning to China after studying abroad. As mentioned above, the industrial application mechanism for incubated technologies is gradually taking shape in Shenyang. However, it is now necessary to urgently develop an environment which attracts venture capitals. There are, in fact, three venture capitals currently operating in Shenyang.

(3) International Information Exchange

International specialization and strategic collaboration (partnerships) are essential to beat the competition for rapid technological innovation. Shenyang must aim at becoming an international city and send out hitherto buried technological information to the world to create and capitalize on business opportunities.

(4) Benchmarking

One inevitable problem associated with the development of high technologies is to catch up and to stay in touch with the changing situation as the speed of innovation is faster with a higher level of technology.

While Shenyang has the advantage that technology is always combined with manufacturing, there is a problem that product technologies mostly lag behind the highest international standard by one generation. This technological gap will constitute a major problem when the import of products of an international level commences after China joins the WTO. The first step is the introduction of the benchmarking practice. At present, however, the level of this practice is still inadequate and, even if the current situation is correctly understood, the necessary improvement measures are not implemented.

(5) Implementation of Proper Feasibility Studies (FS)

The development plans for industrial parks, etc. have been analyzed in terms of the required investment amount and prospect of investment recovery, etc. but lack a properly conducted feasibility study. In this context, there is a strong tendency to invest in buildings and equipment in advance as a legacy of the planned economy in the past.

The Study Team has transferred FS techniques to the SME Service Center and recommends the implementation of proper feasibility studies for the industrial park development plans described earlier.

(6) Invitation to SMEs

It will be necessary to invite SMEs to industrial parks in order to strengthen the industrial structure at these parks.

- 1) Inclusion of parts manufacturers instead of sole dependence on offshore assembly makers
- 2) Increase of knowledge-intensive enterprises
- 3) Improvement of the business environment of industrial parks to make them attractive for SMEs

Master plan 5
Strengthening of Business Management Base

< Current Situation and Problems >

The evaluation results of the company diagnosis conducted by the Study Team indicate that the problems of SMEs currently facing a crisis lie with human resources (54.8%), finance (53.2%), technological strength (48.4%), business planning strength (29.0%), production and marketing strength (23.0%) and business management (16.1%).

The above findings are one example illustrating the present situation of SMEs. The municipal government must understand the situation by its own efforts and should urgently introduce measures to improve the general level of competitiveness of SMEs.

The first step is clarification of the business management strength of individual SMEs by analyzing the current situation of the technological level of products, production technologies, control techniques, business management and market so that the situation can be improved on all fronts.

< Purposes of Recommendations >

“Human resources development” and “manufacturing practices” at the production floor represent the weak points of SMEs in China and must be strengthened as basic requirements for business management. Even though strengthening of the management base is a long-term theme, the priority measures discussed below should be strategically implemented to achieve positive results as soon as possible.

< Contents of Recommendations >

(1) Diagnosis of Individual SMEs

It is recommended to conduct simplified diagnosis for 1,000 SMEs in Shenyang. These SMEs were classified into three groups in advance based on existing data.

Group A : excellent SMEs, including foreign subsidiaries, which do not require any external support

Group B : intermediate level SMEs of which the business performance can be expected to improve with external support

Group C : inferior SMEs which cannot be expected to benefit from external support

As of July, 2001 when this diagnosis was conducted, some 400 SMEs were controlled by the municipal government while the control for others had been transferred to the ward authorities. The diagnosis will be conducted for 100 SMEs in Groups A and B based on their voluntary application and the improvement of these SMEs will be expected mainly by means of technological support.

The selected SMEs will be those expected to lead industrial activities in Shenyang and the selection priority will be given to those in the parts, traditional equipment, mechatronics and other industries.

The recommendations for inferior SMEs may be restructuring, a fresh start or merger. Such action, however, should be taken on the own initiative of such enterprises and the municipal government should restrict its role to the provision of advice. It is necessary for the municipal government to allocate the necessary funds in its budget in anticipation of the bankruptcy of some SMEs.

What is crucial is for a government administrator to visit each SME to obtain a proper understanding of the business reality. There is a precedent for raising the industrial base as a national project in some European countries as part of their preparations to join the EU.

(2) Measurement of Productivity

The diagnosis results indicate much variation of the productivity between SMEs and also between different sectors. In the case of those SMEs which provided a financial statement, analysis of the business performance based on actual figures was possible. However, accurate data is not generally available. While sector-based data is published in

Japan every year, its comparison with China is impossible because of the absence of comparable data in China.

The productivity improvement movement should be led by the municipal government. The municipal government should firstly define productivity and should measure it for each SME to set a target for the movement. The added-value productivity is an appropriate subject for the establishment of target values for improvement of the business performance. Macroscopic statistics are published in China at the state and municipal levels. However, statistics by enterprise, sector and/or sub-sector must be produced to strengthen the competitiveness of enterprises. The suitability of establishing a productivity center in Shenyang to promote the productivity improvement movement should be examined in connection with the establishment of a human resources development training center.

(3) Human Resources Development and Organizational Development at SMEs

Among the various measures to promote SMEs, human resources development is considered to be the biggest task. However, hardly any programs for SMEs are currently implemented. Human resources development must always be implemented along with organizational development because of the following reasons.

- 1) People create an organization and vice-versa. An organization (enterprise or society) has its own culture.
- 2) The quality of business management is determined by the ability of the top management.
- 3) In terms of human resources development, China is fortunate in that the general quality of its human resources is fairly good. Excellent human resources are being supplied to society en masse because of the emphasis on education at home and highly competitive university entrance examination. In addition, there are many opportunities for working people to receive further education. This situation was fully verified by the excellent abilities of business owners and government officials met by the Study Team members in the course of the Study.
- 4) Problems
 - While there is strong emphasis in China on management engineering education at universities, resulting in a noticeable increase of MBA holders, education is biased towards theoretical teaching.

- The sense of belonging to an enterprise among employees is relatively weak. There is no strong commitment to strengthening an organization through teamwork based on the participation of all.
- There is a lack of modern management practices in relation to, for example, the relationship between line workers and staff members, the transfer of authority and cross-sectional groups.
- Information sharing is non-existent.
- Even though excellent plans may be formulated, they cannot be implemented. There is a culture of tolerating the non-implementation of plans.

The business climate described above has weakened the awareness of the importance of improving productivity and quality and placing emphasis on customers. Although above problems are specific to SMEs in China, they are affected by the general culture among Chinese enterprises. Accordingly, the organizational development is an important task for human resources development by enterprises.

Among the guidance techniques applied by Japanese enterprises to Chinese enterprises, patrolling of the production floor, guidance for individual workers and repeated dialogue with business owners are said to have been effective. Reform of the business attitude by means of TQM, TPM and small group activities designed to produce better products is required. Some Chinese enterprises have already started the small improvement, small reform movement.

The absence of in-house education/training can be attributed to the lack of (i) standardization of work, (ii) preparation of work manuals and (iii) information sharing. In general, it is said that the business ability of an enterprise can be measured by how quickly new recruits are taught to efficiently perform their work. In China, however, only a small number of enterprises appear to share this sense of values.

(4) Training of Business Advisors

Company diagnosis/guidance experts and private consultants are still rare in Shenyang even though professional consultants capable of evaluating and providing guidance for enterprises have begun to emerge. However, consultants capable of providing on the spot direct guidance for business owners or senior managers are virtually non-existent.

The training of such consultants is regarded as an important task for the promotion of SMEs by the SMETC and the State Economic and Trade Commission. Accordingly, the following requests have been made for Japanese cooperation:

- Study on and the introduction of the Japanese SME evaluation (diagnosis) system
- Training for government officials, business owners and managers
- Continuation of company diagnosis and the transfer of diagnosis techniques to counterparts through OJT by Japanese experts
- Construction of a training center with Japanese aid

(5) Problem-Solving Measures

1) Insufficient Manpower and Ability to Conduct Company Diagnosis and Staff Guidance

The future training emphasis should be placed on private consultants rather than government officials with a view to utilizing those working at enterprises or universities.

2) Establishment of Advisor Training Center

A plan should be formulated to conduct training in steps using the existing facilities.

3) At the stage of establishing an advisor training center, “candidate business advisors” in Shenyang should accompany Japanese experts as assistants for OJT involving the transfer of diagnosis and guidance techniques.

4) Guidance should primarily focus on excellent SMEs to create successful examples for other enterprises. The success stories of these enterprises should be taught through diagnosis and guidance.

5) The municipal government, industrial associations and the FIC, etc. should pay the costs of seminars and group education/training. The trained advisors (consultants) should then impose a charge for their diagnosis service used by enterprises.

6) A consultation desk for SMEs should be opened in each ward or district in Shenyang.

Fig. 20 summarizes the above measures and shows the support procedure for excellent SMEs.

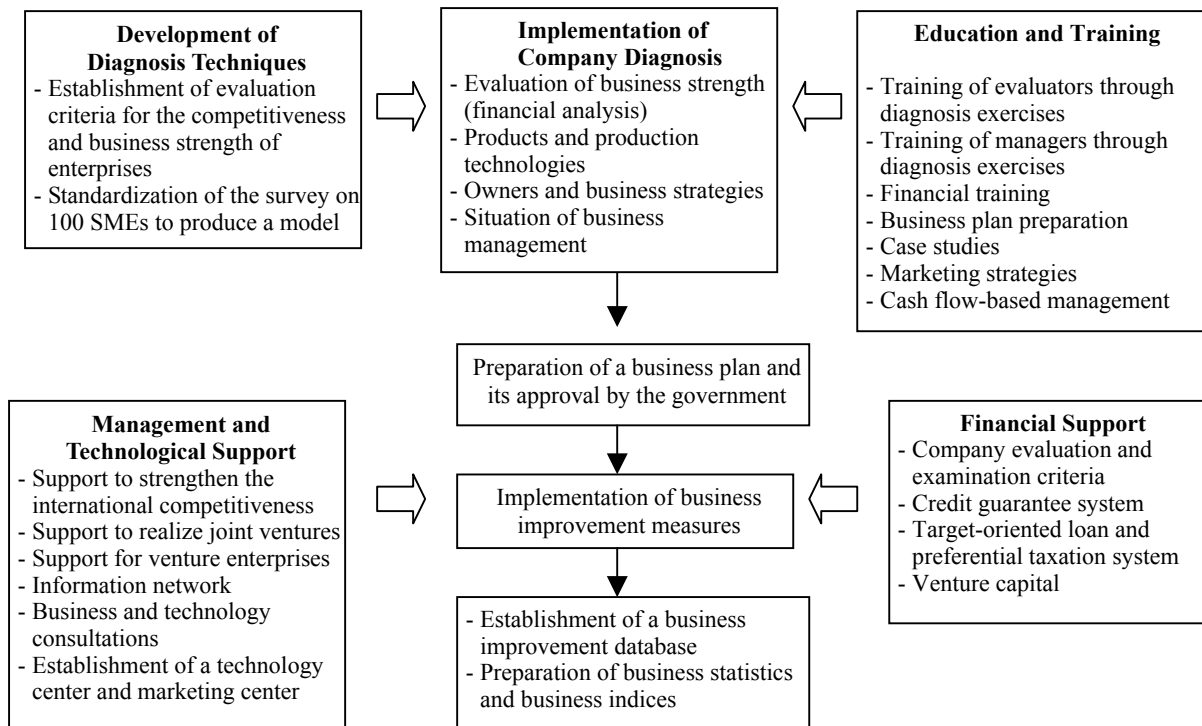


Fig. 21 Support System to Foster Excellent SMEs

Master plan 6 Indirect Finance Support Policy

< Current Situation and Problems >

The Study Team recommends that policies and measures for SMEs' funding by indirect finance vehicle should be carried out by so-called indirect support policy framework.

Specifically, in pursuance of three interrelated SME supporting issues such as expansion of the bank loan channels, strengthening of the credit guarantee systems and improvement of the SMEs' financial structure, the government should carry out continued financial support.

The government should also carry out these policies and measures considering deterioration of confidence of the financial system and moral hazard of SMEs caused by loose lending and credit guarantee.

< Purpose of the Proposal >

According to the various investigations on Shenyang SMEs management problem, the funding difficulty is counted for the most serious obstruction factor of SMEs' development.

Based on the findings of these investigations mentioned above, the Study Team proposes measures hereunder to both the lenders such as banks and credit guarantee funds, and to borrowers such as SMEs in order to solve this problem effectively.

< Contents of the Proposal >

- (1) To attract new establishment of branches of the various commercial banks which have not any branch in the city yet, and to promote a local based Joint-Equity Commercial Bank foundation

As for the SME's lending from the financial institutions, a remarkable progress has been performed recently by the business activities of the commercial banks which newly advanced to the Shenyang City.

It is expected that this tendency could be promoted further if the government could attract another four Joint-Equity Commercial Banks, which have not advanced to the city yet.

The cost necessary for the execution of such policy measure would be extremely small, because the pipe of SMEs' funding could be greatly expanded by the business activities of banks' own will.

This would be the best alternative to be able to improve the corporate funding environment greatly.

In addition to above, there is an advantageous condition peculiar to this city, as a Shenyang based enterprise has submitted the application plan of establishment a Joint-Equity Commercial Bank to the central bank. If this plan will be approved in the near future, the positive impact given to local SMEs' funding would become very large. Because, the effort which the local based bank would pour into the local enterprises will be much greater than that of the branch bank.

Though the banks' decision making on the matter would be influenced basically by the fundamentals of the city's economic development, however, ardent attraction including offering of cooperation by the local government and the local economic organizations will also produce a positive influence on the decision making of them.

The Study Team suggests that the government or the local economic organizations could cooperate with the banks in various fields to provide useful statistical data and information etc. Those are;

- Construction of official statistics database on SMEs in Shenyang
- Execution of periodic sample survey on business performance of SMEs in Shenyang
- Arrangement of the comprehensive information on the institutional SMEs' supporting policies and measures in Shenyang
- Invitation of the banks' people to seminars or events for SMEs being conducted by the government or local economic organizations
- Provision of special site for the banks in the SMEs network web site to be able to serve original information concerned of banks to the local SMEs

(2) Expansion of Fund Scale of the CGF and Building up a Network of the Credit Guarantee Funds

The Shenyang City has already worked on expansion of fund scale of the CGF and networking of the ward level credit guarantee funds in planning phase. The City government and the CGF also have been making effort to increase the numbers of partner banks.

In the Study Team's opinion, the object of the CGF in the future should be set to get large numbers of SMEs clients and to collect the repayment from them surely. And, the CGF should straighten the following two conditions for this accomplishment of the said object. Those are; 1) the CGF should strengthen its credit examination capacity in both of the quality and the quantity, 2) The CGF should increase the numbers of partner banks, and ask each partner bank to increase the numbers of SMEs clients of guaranteed financing.

In addition, the Study Team recommends to the CGF to start a consulting service aiming at the improvement of SMEs' financial management. The reasons of the recommendation are as follows:

- 1) This is necessary to prevent default and the bankruptcy of the SMEs, which are guaranteed by the CGF.
- 2) The management guidance to the CGF's member SMEs in which the funding needs exist would be more effective than the management guidance to SMEs in general.

However, because doing the individual management guidance to a lot of SMEs far exceeds the capacity of the CGF, it is reasonable to instruct a new management technique by a standard method, and to press the introduction to SMEs.

Then, the Study Team is now carrying out the web site guidance on the cash flow-based management as one of the components of the pilot project.

(3) Plan and Execution of Excellent SMEs Promotion Program

The Study Team judges that this program is the most important strategy among various finance support policies and measures.

The strategic concept is to bring up one hundred of the excellent SMEs within five years for the dramatic change of the Shenyang SMEs' image. The program will serve the guidance for financial structure improvement to about three hundreds of SMEs, and one third of them might arrive at the goal, as a result.

And, the government would challenge an ideal scenario in the future, in which "the financing to Shenyang SMEs greatly contributes to the development of the banks" would be proved by the dramatic development of these excellent SMEs.

To achieve this scenario, the Study Team advises to the government as described hereunder:

- 1) The government will only support existing excellent SMEs with high development potential,
- 2) The government will offer highest support measures as possible as it will be able to prepare,
- 3) The government will bring up a lot of excellent SMEs as fast as possible.

If the scenario would be achieved, the government could prove objectively that success of the local SMEs might not be exceptional case. At the same time, this fact might bring the self-confidence, highly motivated will and energies in their management to the entire local SMEs. Then the SMEs would put strong confidence in the financial support policies and measures.

The object SMEs of this program shall be limited to those with high potential capacity to grow up in excellent SMEs as mentioned above.

For example, the beneficiaries shall be identified by the authority concerned based on the criteria such as technology, management, marketing and financial structure etc., and top 300 ranking SMEs shall be qualified as the trainees of this program.

Moreover, the trainees should be distinguished top management officers who have strong management mind, autonomous mind, budgetary provision to carry out the restructuring practice required in their companies.

And it is needles to say that the SMEs should voluntarily participate in this program.

If the execution body of the government does not have the capacity to evaluate SMEs management ability, the convenient method of selecting SMEs ranked to triple A would be adopted expediently.

By the way, the SMEs in the city seem to try hard to correspond with the Chinese market oriented economy, and still not acquire a modern management practices yet. The Study Team does not hesitate to say that it is quite necessary that the local SMEs should introduce a global standard management method to survive at the age of a global competition. And, the Study Team supposes the proposal of introducing a modern management method will be appreciated by the local SMEs.

Then, the Study Team proposes, "Plan and execution of the program which makes excellent SMEs introduce "cash flow-based management"".

“Cash flow-based management” is the effective management method aiming at correct sustainable development of the enterprises through various improvements and restructuring of the corporate management aspects.

Based on the characteristics mentioned above, “cash flow-based management” can improve SMEs’ business performance by working together with other support policies and measures.

As the pilot project, the Study Team constructed the web site in collaboration with the information center, which supports the cash flow-based management for SMEs on the Internet. However, this is a kind of infrastructure that individual SME can use voluntarily, and no further service is available. Therefore, the strategic concept of the excellent SMEs promotion program is different from utilization the “cash flow-base management” on the web site.

Master plan 7

China's Policy to Attract Inward Investment by Foreign Enterprises

< Current Situation and Problems >

Despite the unencouraging prospects for the world economy, foreign direct investment in China in the first five months of 2001 increased by 17.98% on the same period in 2000. According to the State Economic and Trade Commission, the number of approvals for the establishment of enterprises by foreign capitals in the above five months was 9,421, an increase of 21.97% on the same period in 2000, indicating strong interest on the part of foreign investors in the Chinese market despite the stagnant world economy.

The forecast of the said Commission that foreign investment in 2001 will increase by 5% on 2000 has so far proved to be modest. According to professional sources, the increasing investment trend in China reflects the view that China has broken itself free from the negative impacts of the Asian currency crisis in 1997. The total amount of foreign investment from January to May 2001 published by the Commission totaled US\$ 15 billion while the agreed investment amount totaled US\$ 25.9 billion, 42.3 % increase on the previous year. Staff members of the Commission observed earlier in the year that foreign investment in 2001 was accelerating because of the rapid growth of China's economy in the last three years and the excellent economic performance in the first quarter of 2001 even though the slow down of the world economy was making investors cautious.

The views expressed by the Chinese government in relation to China's participation in the WTO have boosted the confidence of foreign investors in China. One reason for the higher level of China's trade figures since 1992 is the ongoing process towards an advanced industrial structure due to improvement of the technological level throughout China, in turn caused by inward direct investment in and technology transfer to China. The fall of the RMB (vis-à-vis the US dollar) from 1992 to 1994 boosted exports to steadily increase China's foreign reserves. The total trade balance of foreign subsidiaries operating in China went into the black for the first time in 1998. There has been a marked increase in direct investment in China by US enterprises since 1998 in anticipation of a further liberalization of the telecommunication and retail sectors following China's participation in the WTO. The investment amount by US enterprises (agreement basis) in 1998 increased by 26% on the previous year while the investment amount by Japanese enterprises recorded a 21% decline. In 2001, not only large US enterprises but also large European enterprises have begun large-scale investment, illustrating the rapid inflow of foreign capitals described earlier. Even though there are political issues to be solved between China and the US, US enterprises are constantly aiming at increasing their profits through an increased market share in China based

on the principle of the separation of political and economic matters or, sometimes, the skilful use of politics.

< Purpose of Recommendations >

The promotion of direct investment by foreign enterprises which is currently a priority task for China will be assisted by finance-related measures.

< Contents of Recommendations >

(1) Foreign subsidiaries should be allowed to issue debentures under certain conditions. Beijing Jeep in 1992 is a precedent for this.

(2) Development of Stock Market

Foreign subsidiaries used to take the form of a joint venture, partnership or independently capitalized enterprise. Since 1995, however, it has been possible to establish a joint-stock foreign subsidiary. Japanese enterprises are now listed on the Shanghai Stock Exchange, raising funds in RMB. As there are currently many regulations on financial and other matters in addition to approval by the competent authority, gradual deregulation should be implemented to change the situation.

(3) Strengthening of Credit Guarantee System

In the Chinese financial market, there is a phenomenon of reluctance among lenders to approve loans. One measure to deal with this situation is the thorough dissemination of know-how on cash flow. Because of the official encouragement of the growth of SMEs, it is expected that the number of cases of the establishment of a joint venture by a foreign capital with a private enterprise in China will increase. However, there is a possibility that Chinese financial institutions will refuse to guarantee RMB loans for Chinese investors when raising funds for such joint ventures. In order to solve this problem, the introduction of a system whereby credit guarantee associations can provide an alternative guarantee is essential.

(4) Development of Interbank Trade Market

Interbank trade of RMB is restricted to settlement within four months. Even though foreign subsidiaries can now receive a RMB loan with a repayment period of up to five years, the deregulation process should be accelerated to allow a longer interbank trade period for the diversification of the fund raising channels of financial institutions. The handling of RMB by foreign banks operating in China to support domestic enterprises should also be deregulated.

Master plan 8

Support for Investment in SMEs: State SMEs Restructuring Scheme

< Current Situation and Problems >

The Civil Restructuring Law enforced in April 2000 in Japan provides a clue to this scheme. The Civil Restructuring Law has replaced the Composition Law (enforced in 1923) which had been the main law governing the bankruptcy of SMEs and introduces a reconstruction type bankruptcy procedure with the following characteristics.

- (1) An application for bankruptcy can be made prior to actual bankruptcy if the continuation of business is severely restricted.
- (2) An application for bankruptcy can be made by not only a creditor but also by a debtor.
- (3) Reconstruction is possible with the same top management in place.
- (4) The repayment of debt is likely to be conducted in a clear manner as the process is monitored by the court.

The enforcement of the new law makes the industrial set-up in Japan approach the US type legal regime for bankruptcy where enterprises find it easier to restart after bankruptcy. The new regime can be expected to stimulate entrepreneurship to start venture businesses despite a risk. The application of this regime in China is worthy of consideration as an alternative to the statutory bankruptcy process.

While the present situation where many state enterprises are kept alive to prevent the bankruptcy of banks is understandable, it is also true that there is no scheme for the restructuring of enterprises to replace the bankruptcy procedure. Efforts to keep almost bankrupt state enterprises alive, however, could further deepen such problems as an increasing amount of interest and the deterioration of assets. SMEs in particular tend to find themselves at a dead end as they cannot hope for business restructuring through the merger, etc. of state enterprises led by the government as in the case of large enterprises or financial restructuring by means of a dead equity swap. In short, they can neither become bankrupt nor survive in a healthy state. The establishment of a restructuring scheme through the abandonment of part of the debt owed to banks as described below is essential to solve this situation.

< Purpose of Recommendations >

The purpose of the recommended scheme is to enable small and medium state enterprises and collective enterprises experiencing a business slump to start as new enterprises by changing their type of business through a combination of the restructuring of debts and business sale. As a change of the business type is mainly conducted in combination with business sale through the Property Rights Transaction Center, it is compatible with the “Control large, Free small” policy of the state government. It will also lead to strengthening of the governance of SMEs.

< Contents of Recommendations >

(1) Application Targets of the Scheme

State enterprises and collective enterprises with excessive liabilities compared to assets or in a poor financial situation due to a large repayment burden caused by borrowing are the application targets of the scheme.

(2) Outline of the Scheme

Through consultations with the creditor bank(s), part of the debt is forgiven to make the difference between the total assets and the remaining debt the net assets of a new enterprise for calculation of the value of the new enterprise on this basis for the purpose of selling it to an investor (investment fund, another enterprise or an individual). During this process, the investment fund (Private Equity) set up as part of the scheme will act as a new shareholder responsible for the supervision of business management. The money invested by this investment fund (Private Equity) will be pooled as a current fund for the new enterprise and will be accounted for as a debt of the investment fund (Private Equity) to the seller. Here, special measures are required to allow the investment fund (Private Equity) to discharge the said debt when the new enterprise becomes bankrupt.

(3) Necessity for Abandonment of Partial Liabilities by Bank

For the implementation of the scheme, it is essential for a creditor bank(s) to abandon part of its credit. To make this happen, a request to the state government to give priority to the scheme and the pursuit of the bank involved are necessary.

Even though such partial abandonment of credit damages the bank in question, it is a positive move in the end because of the eventual recovery of the remaining credit while abandoning such portion of the credit which will be lost in any case. As in the case of ordinary merchandise, the sale of a state-owned SME must be preceded by moves to make it attractive in terms of its price and other aspects for a prospective buyer(s). The

restructuring scheme has the effect of making a SME for sale attractive. For the uniform application of the scheme, however, it will be necessary to set a ceiling for the amount of liabilities to be forgiven, for example, up to 30% of the total liabilities.

(4) Trial Calculation of Total Amount of Disposed Liabilities Regarding Restructuring Scheme

The results of the calculations based on 293 enterprises listed for sale at the Shenyang Property Right Transaction Center in 1998 (Table 7) suggest that some RMB 2.6 billion will be required to reduce the situation of the excess liabilities of these enterprises to a liability ratio of some 90%. This cost increases to RMB 3.58 billion if the target liability ratio is increased to 80%. Such a reduction exercise does not involve actual cash payment as it only disposes of non-performing loans on the book.

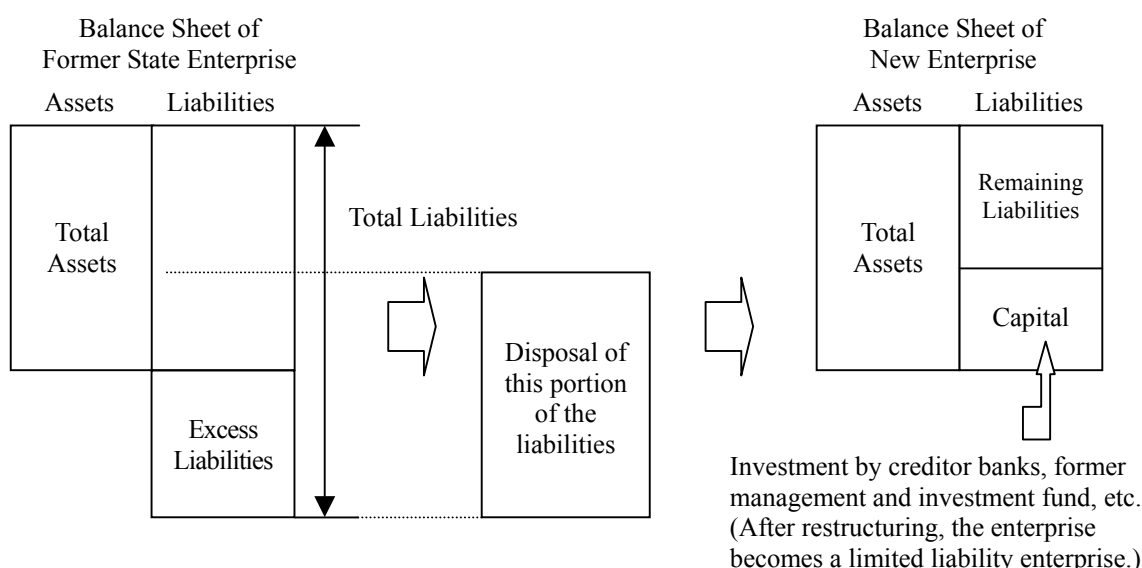


Fig. 22 Conceptual Diagram of State Enterprise Restructuring Scheme

Table 7 Relationship Between Liability Ratio and Amount of Liabilities to be Disposed

(Unit: RMB million)

Total Book Assets of 293 Enterprises	9,529.65
Total Book Liabilities	7,395.40
Nominal Liability for Employees (RMB 15,000/person)	2,328.24
Reduction of Assets after Evaluation (10%)	852.96
Excess Liabilities	-2,046.96
Amount of Liability Disposal to Achieve Liability Ratio of 100%	2,046.96
Amount of Liability Disposal to Achieve Liability Ratio of 90%	-2,614.63
Amount of Liability Disposal to Achieve Liability Ratio of 80%	-3,582.30

Source: Shenyang property transaction center

(5) SOE Restructuring Buy-Out Fund (SOE-RBOF)

The SOE-RBOF is an investment fund (PE) designed to support the state-owned enterprises restructuring scheme. The necessity for this fund is explained below.

- To deal with a possible situation where the buy-out funds for a restructured enterprise under the scheme are insufficient despite strong will to buy out such enterprise
- To strengthen the corporate governance of a new enterprise through the involvement of its management
- To make restructuring easier with the improved liquidity of a new enterprise by temporarily pooling the invested money by an investment fund (Private Equity) as current funds; to make it easier to secure the consent of the seller because of the involvement of a government-led investment fund (Private Equity)

The involvement of the SOE-RBOF in the scheme is shown in Fig. 23. The former management and employees of the state enterprise which is the buy-out target and of which part of the liabilities have been disposed or a third party enterprise/individual willing to buy such enterprise set up a limited liability company, i.e. receiving company, jointly with the SOE-RBOF based on the Company Law. Here, the rights and obligations of investors in the new enterprise are clearly defined. The said receiving company purchases the ownership rights of the former state enterprise in question from the State Assets Management Bureau or another body which either possesses or controls the said ownership rights. The transfer of the ownership rights of the former state enterprise (conversion of the business type and sale of the business) is complete when the purchased state enterprise and receiving company have merged. Financial assistance in the form of a government subsidy and/or loans by city banks during this period of ownership transfer in addition to that of the SOE-RBOF should prove more effective for the intended restructuring.

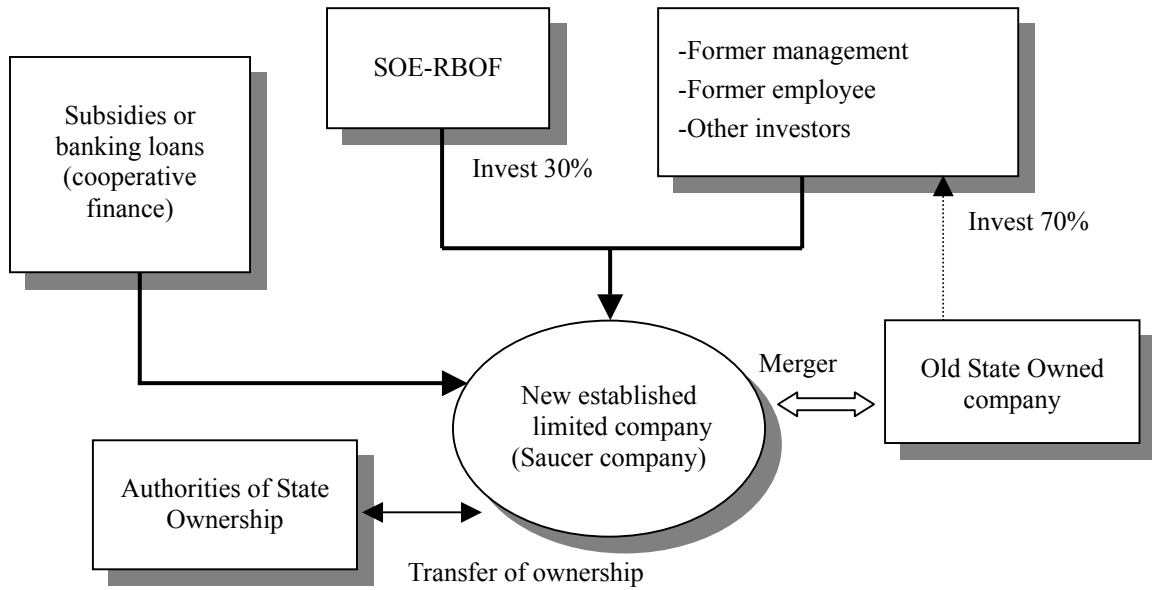


Fig. 23 A Scheme of Support for Investment in SMEs: State SMEs Restructuring Scheme

2.2 Action Plans

The subject items of the master plan and the action plans which are the implementation plans for the master plan items are shown in Table 8 and succeeding tables.

Urgency and importance are rated by A, B and C. Among 17 action plans, rated A in terms of urgency are of the higher priority so that immediate implementation is highly recommended. Contents and basis of recommendation of six prioritized action plans are described into the following:

Table 8 Urgency of and Implementation Schedule for Recommended Action Plans

No.	Action Plans	Urgency	Importance	Implementation Period				
				2001	2002	2003	2004	2005
1	Establishment and Fostering of SME Support System							
1-1	Strengthening and Expansion of Information Network for SMEs	A	A					
1-2	Fostering of SME Service Centers	A	A					
2	Expansion of Market for SMEs through Partnership Activities							
2-1	Permanent Partnership Activities Between Japanese and Shenyang Enterprises	A	A					
2-2	Invitation to Japanese Enterprises to Invest in Industrial Parks	C	B					
3	Reform of Industrial Structure							
3-1	Formulation of Supporting Industry Development Strategy	B	B					
4	Promotion of High Technologies							
4-1	Incubation Bodies and TLO (Transfer of Technology and Business Start-Up Using Technology)	A	B					
4-2	Establishment of Industrial Technology Research Institute	C	A					
5	Strengthening of Management Base							
5-1	Diagnosis of Excellent SMEs in Shenyang	A	B					
5-2	SME Support Measures Based on Marketing	C	B					
5-3	Establishment of Model Training Center for Top Executives of SMEs	C	A					
5-4	Fostering of SME Managers Using Certified SME Evaluator System	C	B					
5-5	Creation of Database of Human Resources in Response to Changing Values	C	B					
6	Financial Support for SMEs							
6-1	Management/Financial Training Program to Foster Excellent SMEs	A	A					
6-2	Optimization of Credit Guarantee System	B	A					
6-3	Reinforcement of Fund Supply Channels and Supply of Long-Term Capital	B	A					
6-4	Recommendations to Reduce Fund Shortage for Development of SMEs in Shenyang	B	B					
7	Development Strategy for Specific Industrial Sectors							
7-1	Technological Development and Creation of Business Start-Up System, etc. for Environmental Protection Industry	B	B					

Action plan 1

Strengthening and Expansion of Information Network for SMEs

< Purpose >					
<ol style="list-style-type: none"> (1) Spread of the information network to SMEs in Shenyang and the relevant education (2) Substantial expansion of the flow of information to and from SMEs in Shenyang (3) Expansion of partnership activities at home and abroad 					
< Contents >					
<ol style="list-style-type: none"> (1) Guidance on investment in information for top executives of SMEs (2) Arrangement of funding and leasing of hardware to assist such development (3) Education and training of experts (4) Support by the information network <ul style="list-style-type: none"> - Grouping of SMEs for friendly exchanges, communication and mutual support, etc. to eventually create groups with specific objectives, such as exchanges between different types of businesses, development of new businesses and e-commerce, etc. - Provision of free software for education and enlightenment (for example, that for CAD and CAM) - Simple business diagnosis on the Internet (5) Creation of a members-only network of SMEs (6) Extension of the support circle for SMEs through efforts to link with the Technology Innovation Network which is being created by the State Economic and Trade Commission (7) Establishment of an integrated network incorporating the networks in the three northeastern provinces, including the Shenyang Technology Innovation Network which is already linked to the state network, to expand the market for SMEs in Shenyang and to develop the regional economy focusing on the markets of these three provinces. 					
Expected Effects	<ol style="list-style-type: none"> (1) Upgrading of the IT level of SMEs (2) Great performance by SMEs through cooperation even though individual SMEs are not strong (3) Expansion/improvement of the businesses of SMEs using IT 				
Anticipated Problems for Implementation	<ul style="list-style-type: none"> - Funding of the operation and maintenance cost of the Information Center - Understanding by both the public and private sectors of the need for collaboration between enterprises 				
Budget	<ul style="list-style-type: none"> - Small public budget as the plan is implemented by the private sector - Some funding, manpower and facilities are required for start-up as the administration will play the role of a coordinator at the beginning. 				
Schedule	Short-Term	Medium-Term	Long-Term	Major Promoter	Information Center; FIC
		○	○		
< Basis for Recommendation >					
<p>In September 2000, the SMETC and the China Telecommunication Shenyang Office opened the “Shenyang Enterprises Information Network” with 300 subscribers, including those linked to the network. This site carries a list of enterprises, introduces export products, provides information, and has enterprise database and partnership information. There is an information network (NC Network) in Japan for small and medium manufacturing enterprises. This Internet portal site was voluntarily created by several owners and successors (in their 30’s and 40’s) of SMEs in 1998 and is the first site providing useful information by and for SMEs. This free network has 8,500 factories with a total of 321,000 employees registered as of July 2001. The participating SMEs have broken away from the conventional subcontractor status and have created new businesses to beat the general recession severely affecting SMEs. Even though a direct comparison between these Japanese SMEs and SMEs in Shenyang is impossible, the development of a network by SMEs for SMEs should be a common target. Failure to use effective tools to do so is a major loss of opportunity.</p>					

Concrete Implementation Measures

(1) Implementation of the work proposed in the pilot project

The free supply of a home page was given to some 30 SMEs during the pilot project period. Further efforts should be made to achieve the original target of 100 SMEs. As many enterprises in Shenyang already have their own HP, the target SMEs should be selected based on a careful survey. The advantages of a one-stop HP provided by the SME Information Network (ease of creating and maintaining a HP and provision of a search function) should be publicized.

(2) IT education for SMEs

1) Utilization of the Net

- Utilization of IT by SMEs in conducted in the following areas.

- (i) Application of existing business
Improved efficiency of marketing, sale, distribution, procurement and purchase (cost reduction and expansion of sales channels)
- (ii) Application to business reform and creation
Active support by the municipal government and development zones for SMEs in terms of the supply of information, one-stop service and consultation; further application to investment, finance and TLO, etc.
- (iii) Application to network business
 - o Members-only network for SMEs; free enrolment and annual subscription
 - o Creation of a forum: creation of a network beginning with the exchange of opinions among members
 - o Exchange of information on business seeds and needs

2) IT education

IT education should be introduced on the understanding that the skilful use of IT is an essential condition for the survival of enterprises in the 21st century and that IT is a powerful tool for SMEs to compete with large enterprises. The Internet should be used as much as possible for this education.

- Education for top management
- Listing of successful cases on the Net
- Education for in-house IT experts
- Supply of free download function for CAD, CAM and EDI software

3) Assistance for procurement of IT equipment

- Technical assistance
- Financial assistance

(3) Extension of links in Shenyang

Efforts should be made to link with as many existing networks and HP of various enterprises.

(4) Extension of links in and outside Shenyang

- 1) The Economic and Trade Commission-related networks at the state, provincial and municipal levels should be efficiently linked to facilitate use.
- 2) Overseas support will be easier to obtain if the network is linked to those in Liaoning Province and the three northeastern provinces in addition to those in Shenyang.

Action plan 2

Fostering of SME Service Center

< Purpose >					
(1) Strengthening of the ability to provide direct support for SMEs (2) Strengthening of the ability to provide indirect support for SMEs, i.e. business introduction ability (3) Creation of the basis for the self-help development of the SME service center					
< Contents >					
Step 1: Pilot Project					
(1) Introduction of business introduction techniques (2) Introduction of FS techniques					
Step 2: Follow-up and further development activities after the end of the Study					
(1) Maintenance and development of the center based on the self-financing system (2) Development of cooperation between ward level SME service center and development zones in the city under the leadership of and coordination by the SME Office					
Expected Effects	(1) Creation of permanent SME service center which are run by the private sector and which are suited to the market economy (2) Positive impacts on other public and private SME service center to be created in the future and on existing consultancy firms in the private sector (3) Vitalization of consultancy activities in Shenyang in such fields as company diagnosis, improvement of business management, marketing and support for business introduction among various SME support measures				
Anticipated Problems for Implementation	- Reliable income for self-financing operation - Development of new customers				
Budget	- Creation of independent income sources for the Shenyang SME Service Center - Recommendation that public benefit bodies rely on self-finance while ward level and development zone SME service center try to implement their own fund raising activities				
Schedule	Short-Term	Medium-Term	Long-Term	Major Promoter	Existing bodies in charge of the management of industrial parks; competent government offices
	○	○	○		
< Basis for Recommendation >					
The State Economic and Trade Commission has instructed each city to establish its own SME service center and the said center was established in Shenyang in December, 2000 as a public benefit corporation based on a private consultancy firm which was in turn established with the support of the DFID in the UK. The Study Team conducted the following technology transfer.					
(1) Company diagnosis techniques were transferred to the said consultancy firm during the survey and diagnosis of the 100 SMEs selected by the SMETC during the First Field Survey.					
(2) During the pilot project period, the further transfer of techniques was conducted. Such techniques were taught using examples of business introduction which used the COMFAR, a software for industrial F/S developed by the UNIDO. The consultancy firm was invited to join partnership activities featuring model and other enterprises to learn business introduction techniques through OJT and to prepare a manual. The firm was requested to list the contents of the "Information Network for SMEs" jointly created with the Shenyang Municipal Information Center and to prepare, collect and analyze a questionnaire designed to clarify the partnership needs of the Chinese side with Japan.					

Concrete Implementation Measures

(1) Measures to foster Shenyang SME Service Center

1) Support by municipal government

It is desirable that the center function as a semi-governmental organization as the Study team has learned that some SMEs reject support by a government body to avoid government control. In the meantime, a private center may be unable to reach some SMEs. At present, it is difficult for a private consultant to earn sufficient income to ensure its survival dealing only with SMEs in China. This necessitates conscious efforts on the part of the municipal government to provide as many jobs as possible for a limited period of, for example, three years.

2) Sources of income

a) As the financial assistance of the DFID will gradually decline, it will be necessary for the center to earn 30% of its operating budget in FY 2000, 70% in FY 2001 and 100% in FY 2002.

- Support for business introduction: efforts should be made to earn a business introduction fee using professional F/S skills, etc. which were transferred during the pilot project.
- Direct support: Production diagnosis is very important for SMEs and further experience and training are required in this field. It is recommended that training in Japan on specific countries or themes and the program of the Tianjin Training Center be used in addition to cooperation with the Productivity Promotion Center. To earn sufficient income, customers should not be restricted to SMEs at the beginning.

b) Interpretation and translation businesses

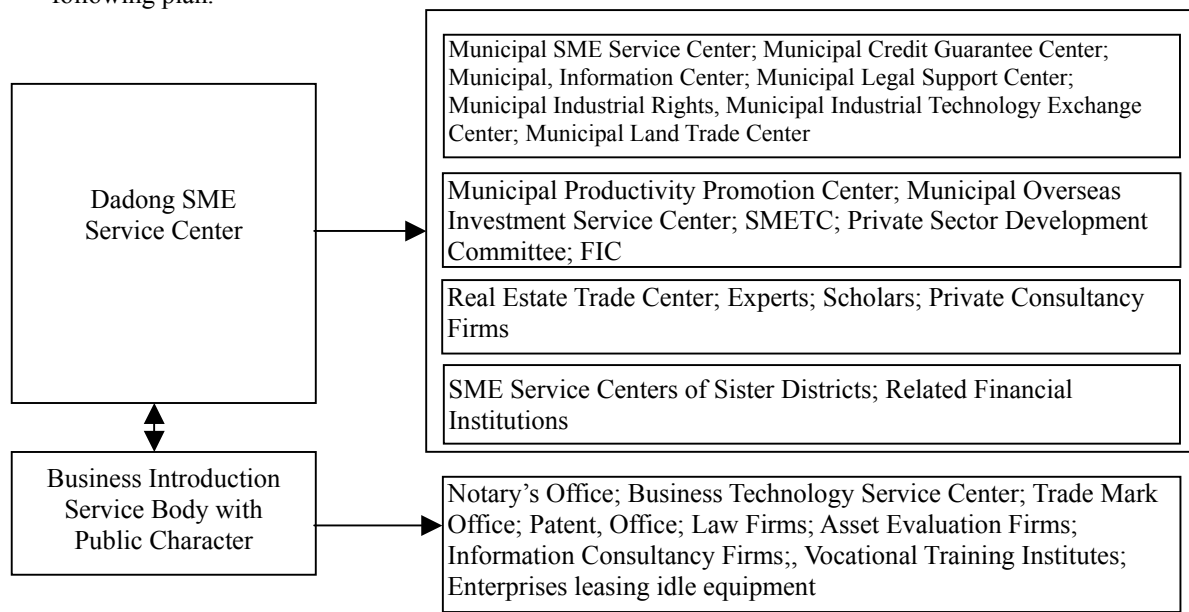
Interpretation and translation are important parts of business introduction work and are a good means of obtaining information. These constitute sources of income for private consultancy firms in Japan. High quality interpretation and translation services in English, German, Korean and Japanese will be required for the increased number of partnership activities following China's participation in the WTO.

(2) SME support by development zones

Dadong Ward already has a high-technology oriented development zone called Shangyuan which has national status. Economic and technology development zones and high-tech development zones have successfully secured inward investment by large foreign enterprises and have one-stop service facilities. Efforts to develop an investment environment which is suitable for SMEs should be made in the coming years and a body specializing in SME support should be created at the development zone head office.

(3) Development of ward level SME service centers

The main wards in the city have already commenced preparatory work. For example, Dadong Ward has the following plan.



Action plan 3

Permanent Partnership Activities Between Japanese and Shenyang Enterprises

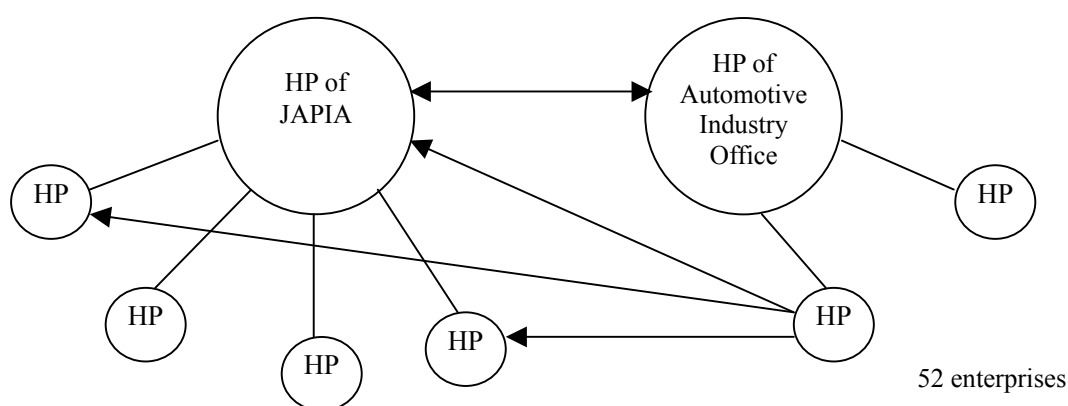
<p>< Purpose > Permanent maintenance and development of (i) the information network system for SMEs created under the Pilot Project and (ii) Sino-Japan partnership activities which have commenced as pilot activities using this system.</p>					
<p>< Contents > (1) Establishment of a responsible office in Japan and China (2) New links with the existing international exchange networks (3) Development of new functions using the system: information exchange for TLO, borderless cooperation and the development of an environment to attract SMEs</p>					
Expected Effects	(1) Creation of permanent SME service centers which are run by the private sector and which are suited to the market economy (2) Positive impacts on other public and private SME service centers to be created in the future and on existing consultancy firms in the private sector (3) Vitalization of consultancy activities in Shenyang in such fields as company diagnosis, improvement of business management, marketing and support for business introduction among various SME support measures (4) Promotion of Sino-Japan economic exchanges (5) Development of the investment environment by Japanese enterprises in China				
Anticipated Problems for Implementation	Study on the related organizations (municipal, ward and district levels and development zones, etc.				
Budget	- Support by the municipal government which is currently promoting Sino-Japan joint ventures and partnerships is hoped for. - Business introduction fees and consultancy fees will be used to cover the necessary expenses of public benefit or privately run SME service centers.				
Schedule	Short-Term	Medium-Term	Long-Term	Major Promoter	Competent bodies at the state, municipal, ward and district levels; public or private business introduction bodies in Japan and China; existing management companies of industrial parks
	○	○	○		
<p>< Basis for Recommendation > The Information Network Service for SMEs will be incorporated in the SMETC's network for enterprises (Shenyang Technology Innovation Network in China: www.sysjm.com). Although the information network in question is operated as part of a wider network, responsible offices must be established in Japan and China. Japan has the TTPP Net of the JETRO with a business introduction function and other nets using English. The NC Net, the largest SME net in Japan, is expected to develop its overseas links in the future.</p>					

Concrete Implementation Measures

In principle, the Sino-Japan business relationship will be maintained through exchanges between private organizations.

- (1) SME organizations will be established under the leadership of the state government to develop partnerships between enterprises using the Internet

The following example which has already been recommended by the Study Team and which is about to be implemented can be applied to other fields. The Automotive Industry Office of the Shenyang Municipal Government has a HP introducing 52 parts manufacturers in Shenyang and most of these manufacturers have their own HP. Meanwhile, the Japan Automobile Parts Industries Association (JAPIA) has a HP introducing its 460 members and has informed its members of the URL of the Shenyang Automotive Industry Office on its HP. Accordingly, enterprises in Shenyang can learn the outline of possible partners from the JAPIA's HP and retrieve further detailed information from the HP of individual JAPIA members. There are, therefore, a number of portal sites in Japan and China and the skilful use of these sites can assist the development of Sino-Japan partnership activities under the leadership of the municipal government, development zones and industrial associations (to be established in the coming years).



- (2) Representatives or agents of Shenyang Municipal Government in Japan
At present, one representative of the Shenyang Municipal Government is stationed in Japan. This number should be increased as the activities of such representatives even in the limited period up to the time when exchanges regularly take place will prove highly productive. Alternatively, the municipal government could conclude an agreement to make a Chinese private consultancy firm its agent. However, it must be remembered that the utilization of IT alone is inadequate.
- (3) Active use of Japanese public bodies by Shenyang Municipal Government
The future activities of the JETRO and Japan Techno Mark, both of which provided assistance for the pilot project, should be actively utilized.
- (4) Human resources development for business introduction
The involvement of trustworthy persons and language fluency are essential requirements for business introduction. The most realistic option is the use of those who have studied in Japan.
 - 1) Use of returnees from or resident Chinese in Japan
Many returnees from Japan have established new businesses in Shanghai and Beijing and publish bulletins in Japanese. They do not receive any public assistance. Some resident Chinese in Japan are active in business introduction. Encouragement by the municipal government for the self-reliant activities of similar persons should be provided in Shenyang.
 - 2) Efforts should be made to train graduates of the Japanese language course of the university in Shenyang as interpreters or translators to assist business introduction between Japan and China. One idea is to establish a translation center which is capable of handling not only Japanese but also English, German and Korea. Such intellectual industries are support industries for the IT industry.

Action plan 4
Incubation Bodies and TLO
(Transfer of Technology and Business Start-Up Using Technology)

< Purpose >					
(1) To create new industries by venture businesses					
(2) To innovate the management of existing enterprises (second business start-up)					
(3) To promote the self-reliant innovation activities of enterprises					
< Contents >					
(1) Implementation of comprehensive measures featuring finance, taxation, information, management and technology, etc. to support venture businesses and management innovation					
(2) To develop and apply a system for the formulation of management innovation plans as a management support measure in addition to a consultancy service					
(3) To formulate self-reliant business management plans by enterprises and their submission to the administration					
(4) To examine and approve plans by the administration and follow-up					
(5) To organize and provide venues for venture seminars and planning seminars					
Expected Effects	(1) Creation of venture businesses				
	(2) Conversion of the business character of existing enterprises to development-oriented enterprises				
	(3) Vitalization of all industries and improvement of the international competitiveness				
	(4) Utilization of related bodies and the priority distribution of resources				
Anticipated Problems for Implementation	(1) Concern regarding the risks of the untried fostering of venture businesses				
	(2) Complaints regarding the perceived preferential treatment of selected enterprises				
	(3) Budget and staffing				
Budget	To be implemented within the scope of the ongoing project as much as possible with an increase of the budget size in accordance with the inclusion of loans and taxation measures				
Schedule	Short-Term	Medium-Term	Long-Term	Major Promoter	Incubation centers of existing institutions, development zones, research institutes and universities
	○	○	○		
< Basis for Recommendation >					
<p>This plan represents the common industrial policy adopted by the US, Japan and many other countries. The purpose is to improve the international competitiveness of SMEs to deal with IT and technological innovation. The key point is the formulation of a business innovation plan. Forward-looking SMEs should be selected and supported by the administration. Unlike the conventional practice of providing wide but shallow support, the support budget should be distributed in accordance with priority.</p> <p>In Japan, a management innovation plan is a key ingredient of the SME policy. Japan can provide concrete techniques and cases together with know-how.</p> <p>At present, venture businesses are supported by the municipal government and there are three venture capitals in Shenyang. This proposal, however, intends the further fostering of the TLO, which is one step before the involvement of venture capitals, and conforms to the idea held by the municipal government.</p>					

Concrete Implementation Measures

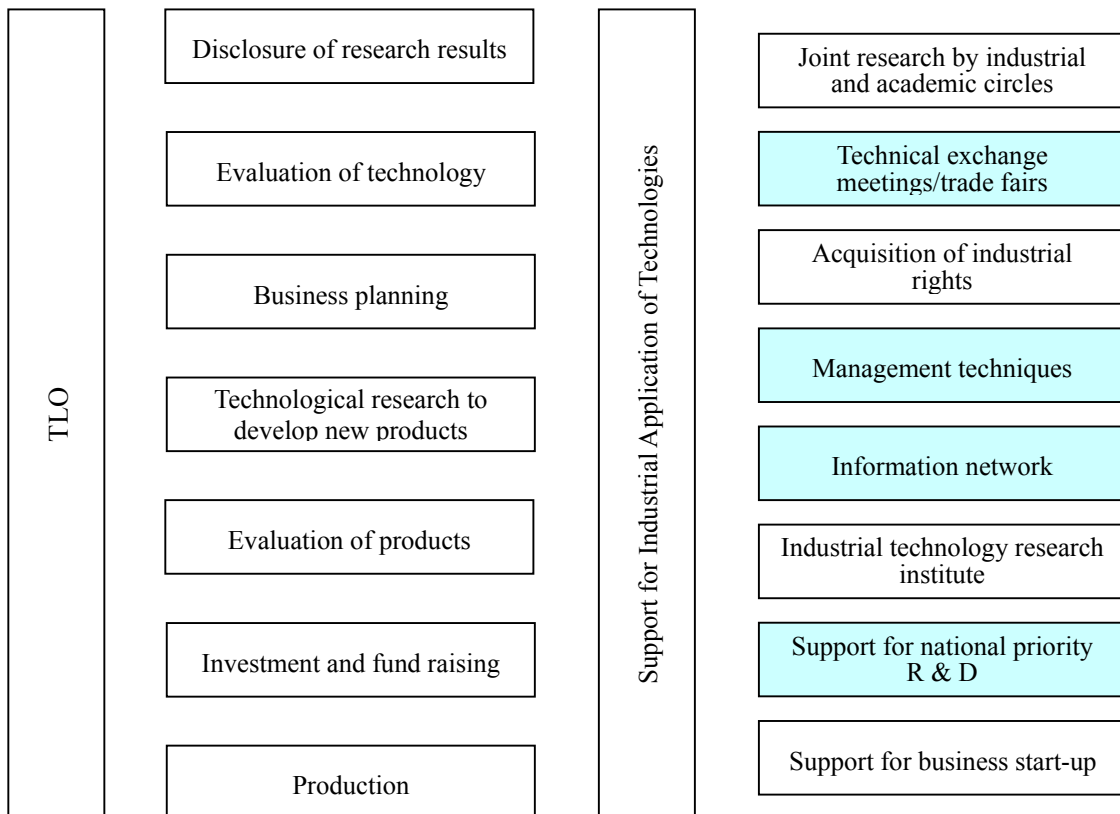
While TLO-related activities are already popular in Shenyang, the recommendation is made for those items which are underlined among the industrial application support measures for TLO activities in order to make further progress.

(1) Introduction of Chinese information overseas via information network
 There have been many exchange meetings/trade fairs to which Chinese academics residing abroad or in Shenyang have been invited in addition to exhibitions organized by leading research institutes. In the coming years, efforts should be made to expand the business opportunities through international exchanges with Japan and other countries. This will necessitate a preparatory stage using the Net prior to the holding of trade fairs. Data on Chinese enterprises equivalent to that of the Japan Techno Mart and the JETRO for uploading to the newly created network for SMEs must be developed to actively send out such data from China. This network should ensure advantages for SMEs in Shenyang over SMEs in other areas which are also interested in developing high technologies and their industrial application.

(2) International technology exchanges and trade
 International exchanges should be organized by the municipal government and/or private bodies, including the use of international academic conventions. One example in Japan is Bit Valley (www.bitvalley.org/) which is a net venture community based in Tokyo and which consists of 1,500 SME members. Such a private sector-based body is highly effective for the stimulation of young entrepreneurs.

Exchange meetings involving different types of businesses can also stimulate information exchange and the creation of business opportunities.

(3) Themes
 Under the present conditions for venture capitals in China, it is too early to contemplate high risk, high return venture businesses. Appropriate themes should be sought in terms of the application of high technologies to traditional industries, original Chinese fields (pharmaceuticals and materials) and computer software. The upgrading of technologies for industrial application is recommended in a separate action plan.

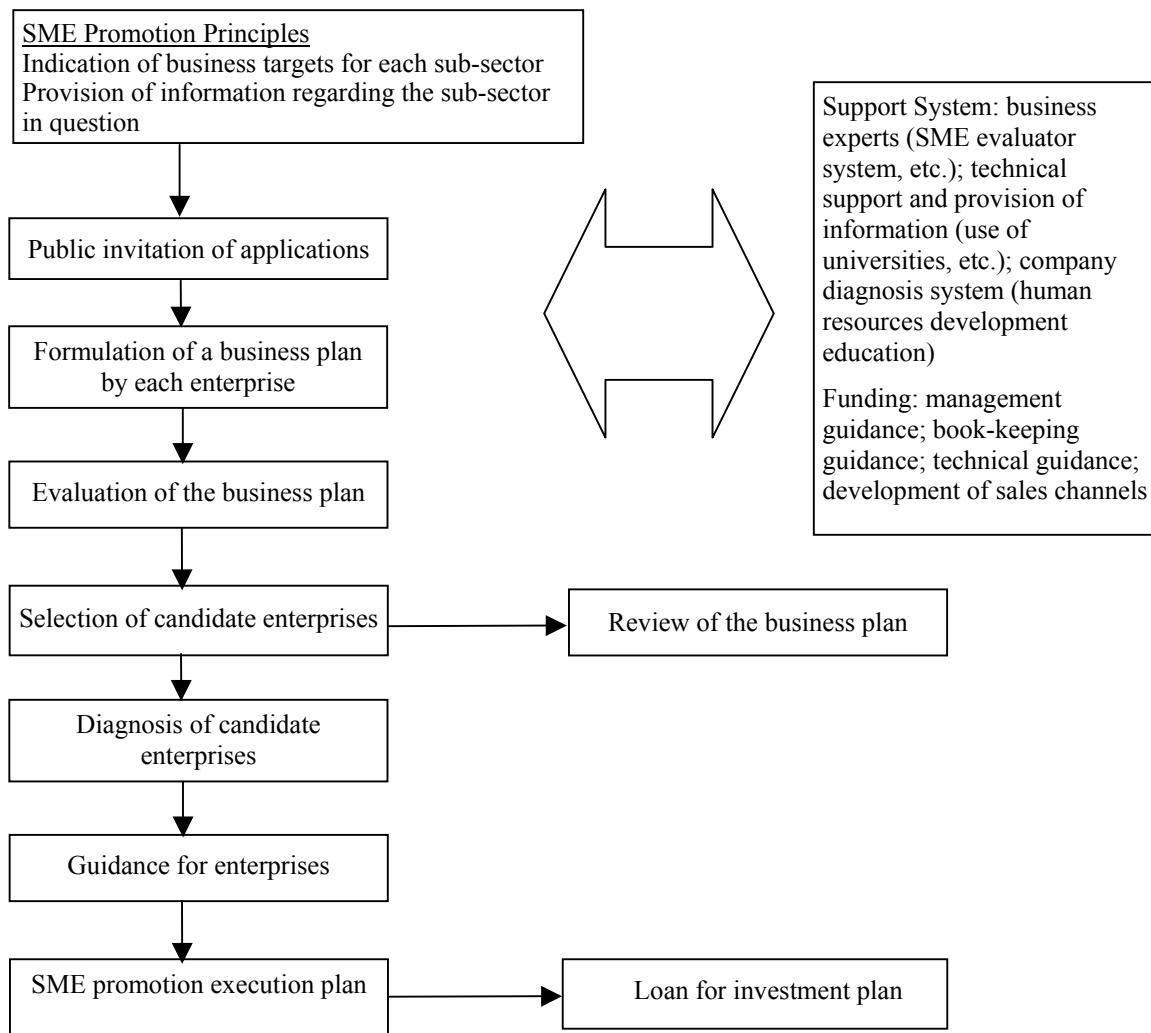


Action plan 5
Diagnosis of Excellent Enterprises in Shenyang

< Purpose >					
(1) To foster enterprises which are capable of independent business operation					
(2) To foster enterprises which are evaluated as attractive by foreign capitals					
< Contents >					
(1) SME promotion policies Indication of business targets by industrial sector; provision of information on each industry					
(2) Diagnosis process 1) Invitation, 2) selection of candidate SMEs, 3) diagnosis and evaluation, 4) support: technology and loan arrangements					
Expected Effects	(1) Further development of excellent enterprises (2) Rescue of those enterprises which can survive with some self-help efforts				
Anticipated Problems for Implementation	Government officials and experts capable of conducting diagnosis and guidance (in terms of both quality and quantity) must be made available.				
Budget	Relatively small; the input of human resources will be required rather than materialistic resources; government budget must be secured.				
Schedule	Short-Term	Medium-Term	Long-Term	Major Promoter	SME Office; SME Service Center (Economic and Trade Commission; Ministry of Science and Technology; Federation of Industrial and Commercial Associations); local consultancy firms; international aid organizations
	○	○	○		
< Basis for Recommendation >					
<p>One of the basic problems of SMEs in Shenyang is their lack of understanding of the reality of world-level enterprises as they are content with their own status. The resulting lack of clear management principles and targets has caused stagnation in all sections of these SMEs. Some of the enterprises studied as well as some of the model enterprises have promising business prospects if guidance continues to be provided. It is possible to find such enterprises outside the scope of the present Study by publicly inviting applications.</p> <p>This plan aims at eliminating poorly performing enterprises which are beyond rescue and at vitalizing SMEs using excellent SMEs to create a traction force. Even excellent SMEs in Shenyang have much room for improvement by international standards.</p> <p>Guidance to improve the business operation of SMEs is extremely important. The introduction of a flexible production method which can withstand rapid changes in the market is essential. Guidance by Japanese experts should prove highly effective. For the formulation of this plan, national projects introduced by such countries around the EU as Portugal and North African countries to upgrade their industrial level as part of their preparations to join the EU have been used for reference purposes. The Study Team makes this recommendation on the basis of its experience of providing assistance for some of these projects.</p>					

Concrete Implementation Measures

Summary of Relevant Project and Implementation Process



- (1) Establishment of the secretariat
This secretariat will be established by the SME Office in line with a limited period of, for example, two years for the project.
- (2) Selection of target SMEs based on the evaluation results of applicants
The selection criterion is an excellent SME or a SME which can become an excellent SME with minor assistance.
- (3) SMEs will pay the cost of diagnosis
- (4) The financial assistance will cover part of the investment and funding by the municipal government will mainly go towards the cost of technical support. One example is given below.
 - Technical support (diagnosis; seminar participation cost): municipal government – 70%; SME – 30%
 - Investment (in modernization equipment): municipal government – 30%; SME – 70%
- (5) A private consultancy firm(s) will be used for diagnosis and guidance. If necessary, a small number of foreign experts (Japan or other countries) will be used. See the above chart for details of the guidance.

Action plan 6
Management/Financial Training Program to Foster Excellent SMEs

<p>< Purpose ></p> <p>(1) To improve rating of SMEs by restructuring of their management and financial structure</p> <p>(2) To upgrade the customer service of the Shenyang SME Credit Guarantee Fund</p> <p>(3) Increase the bank loans for SMEs financing</p> <p>(4) To acquire know-how about effective upbringing of excellent SMEs</p>					
<p>< Contents ></p> <p>(1) To introduce a modern financial management improvement tool, i.e. cash flow-based management, for local SMEs</p> <p>(2) To support the training programs of banks, the SME Credit Guarantee Fund, the administration concerned and private enterprises associations</p> <p>(3) To foster excellent SMEs of 300 companies (Shenyang small dragon 300) by training of 60 SMEs every year for the period of 5 years</p> <p>(4) The enterprises with remarkable restructuring should be recommended by the training entity to banks and /or SME Credit Guarantee Fund to be accommodated with bank loans. Moreover, a subsidy should be separately granted to a super excellent SMEs as a reward</p>					
Expected Effects	<p>(1) Increased number of SMEs of a higher grade</p> <p>(2) Increased number of SMEs eligible for credit guarantee</p> <p>(3) Increased number of bank loans for SMEs</p> <p>(4) Improved image of the creditability of local SMEs in general</p>				
Anticipated Problems for Implementation	<p>(1) Some time will be required to train and coordinate Chinese experts to provide the necessary guidance.</p> <p>(2) Strengthening of the authority of the top management will be necessary for the reform of enterprises (state enterprises).</p> <p>(3) It will be necessary to overcome the sense of values which is resistant to the new corporate culture (state enterprises).</p> <p>(4) Agreement must be reached between the related bodies in regard to cost sharing.</p>				
Budget	Because of the importance of the theme, the municipal government will pay 70% of the total budget.				
Schedule	Short-Term	Medium-Term	Long-Term	Major Promoter	SME Office; SME Credit Guarantee Fund; banks; Federation of Industrial and Commercial Associations; Federation of SMEs (to be established under the Tenth Five Year Plan)
		○			
<p>< Basis for Recommendation ></p> <p>To alleviate the SMEs' financing difficulties, three parties (the financial institutions, the credit guarantee centers, and SMEs) should make effort respectively. Balanced development of the three parties would be required for sustainable growth of them .</p> <p>Serious contradiction is observed on the corporate finance in Shenyang; SMEs have funding difficulty, while financial institutions have financing difficulty to SMEs.</p> <p>The most important measure required at present is to support self-help efforts of SMEs to overcome their financing obstructions such as lack of creditability, low profitability and unhealthy corporate finance, etc.</p> <p>The cooperation between the banks and the SME Credit Guarantee Fund started recently with the establishment of the center. This tendency will be progressed further by foundation both of a Shenyang based Joint-Equity Commercial Bank and new SMEs credit guarantee fund in the near future. In fact, a small number of program implementation organizations have begun to provide a support service with the coordination of the SME Office. As such, the external environment for fund raising is, without doubt, improving.</p> <p>However, these measures could not bring efficient effects to SMEs, if the management and financial structure of SMEs might stay in same as current states. A prompt restructuring should be promoted by drastic means to bring up many excellent SMEs. Otherwise few SMEs will be accommodated with bank loans, so that rapid up brings of a large number of excellent SMEs will be indispensable.</p> <p>The success of this project will bring profit to creditors as well as economic development and employment opportunities of the local.</p> <p>The JICA Study Team proposes to the government to carry out this program as the most important project for SME finance.</p>					

Concrete Implementation Measures

In 2001, a web system to support cash flow-based management was developed under the pilot project and the relevant techniques were transferred to the SME Credit Guarantee Fund. The developed system can be used by all SMEs free of charge. It can also be used by financial institutions and other credit guarantee centers as part of their customer service for SMEs. In fact, it is now used by the credit guarantee center in Dalian and Anshan as well as by cooperating banks. In the coming years, it will certainly be used by Dadong Ward and others.

The next step will be enhancement of the strategic impacts of cash flow-based management. For this purpose, a numerical target of 300 is set to foster excellent SMEs in five years after 2002 through the practical application of cash flow-based management. This target can be achieved by providing management/financial training for top executives of SMEs. As the success rate of training SMEs as excellent SMEs cannot currently be determined, training will be provided for 60 SMEs in the first year.

These 60 SMEs will be selected from those SMEs which are recommended by the ward authority or by themselves using strict criteria. It must be made clear that only top class SMEs in terms of profitability, financial health and accounting transparency are eligible for training while avoiding competition for places between SMEs. In other words, this training will be provided to make practically excellent SMEs to improve to super-excellent SMEs. As an incentive for attendance, a bank or the SME Credit Guarantee Fund will promise to provide a loan for the current funds required by SMEs or credit guarantee. With the precondition that what is learned will be put into practice, the training will mainly consist of classroom teaching on business management and fund raising and study visits will also be included in the program. In consideration of the fact that top executives have a busy schedule, the introduction of a repeat course of 2 – 3 months based on a half-day lesson a week will be examined. Lecturers will consist of those who hold a responsible position in actual business and who enjoy a good reputation. Examples of lecturers and possible themes which will satisfy the needs of the participants are given below.

Lecturers	Themes
Branch manager or employee in charge of SME finance at a bank	<ul style="list-style-type: none"> - Key points for evaluation of SMEs by banks (reasons for emphasis on cash flow-based management) - Regional comparison of SMEs receiving bank loans (characteristics and problems of SMEs in Shenyang)
Top executive or finance manager of a local listed enterprise	<ul style="list-style-type: none"> - Corporate development and financial strategies - Participation in the WTO and business strategies
Top executive or finance manager of an enterprise receiving a World Bank loan	<ul style="list-style-type: none"> - Strategy to strengthen fund raising ability of enterprises - Key points for a loan repayment plan
Top executive or chief examiner of the SME Credit Guarantee Center	<ul style="list-style-type: none"> - Key points of company evaluation by the SME Credit Guarantee Fund - Case studies on successful examples of using credit guarantee
Audit firm in China or abroad	<ul style="list-style-type: none"> - Issues for finance and accounting of SMEs - Case studies on successful examples of cash flow-based management

Study visits to local high-tech industrial park and an advanced area in China, both of which top executives of local SMEs find it difficult to visit because of their busy schedule, will be planned. Moreover, a study trip abroad may also be planned. The SME Credit Guarantee Fund will act as the secretariat and will ensure the success of the program through cooperation with cooperating banks, ward level credit guarantee center and the SMETC (SME Office). The conclusions on the results of the first year will comprise the basis for determination of the size and contents of the program in subsequent years.

CHAPTER 3

PILOT PROJECT

CHAPTER 3

PILOT PROJECT

The pilot project was implemented for experimental purposes and its theme was selected from the recommendations on policies and measures to promote SMEs in Shenyang. Particular attention was paid to the following points so that the Study did not remain simply a plan with recommendations but would produce tangible and effective results.

- (1) At the project selection, planning and evaluation stages, analysis using PDM would mainly be conducted by the Chinese side to identify the needs of the Chinese side to ensure adequate project planning.
- (2) Efforts would be made to verify the effectiveness of the relevant policy recommendations by the Study Team for the promotion of SMEs through the implementation of the pilot project.
- (3) Emphasis would be placed on technology transfer, human resources development and the fostering of various organizations so that the Chinese side could maintain and further develop the information network for SMEs after the completion of the Project.

An “information network service for SMEs” was selected as the theme for the pilot project, consisting of the following three components.

- (1) Construction of an information network
- (2) Partnership activities using the information network and fostering of a business introduction body
- (3) Development of educational software for “cash flow management” for SME executives and its uploading to the information network for its dissemination

3.1 Information Network Service

Shenyang Economic and Trade Commission had a plan of establishing the information network for the small and medium enterprises as shown in Fig.24 beforehand. The investigation team also adopted the same theme of establishing the Information Network for SMEs as the pilot project, so Japanese and Chinese parties started to collaborate in order to accomplish this pilot project. The conceptual structure of this collaborating project is shown in Fig.25.

The pilot project is composed of three part, those are the part built up by Japan, the part constructed by China and the part completed through the collaboration with Japan and China. (Refer to Fig.25).

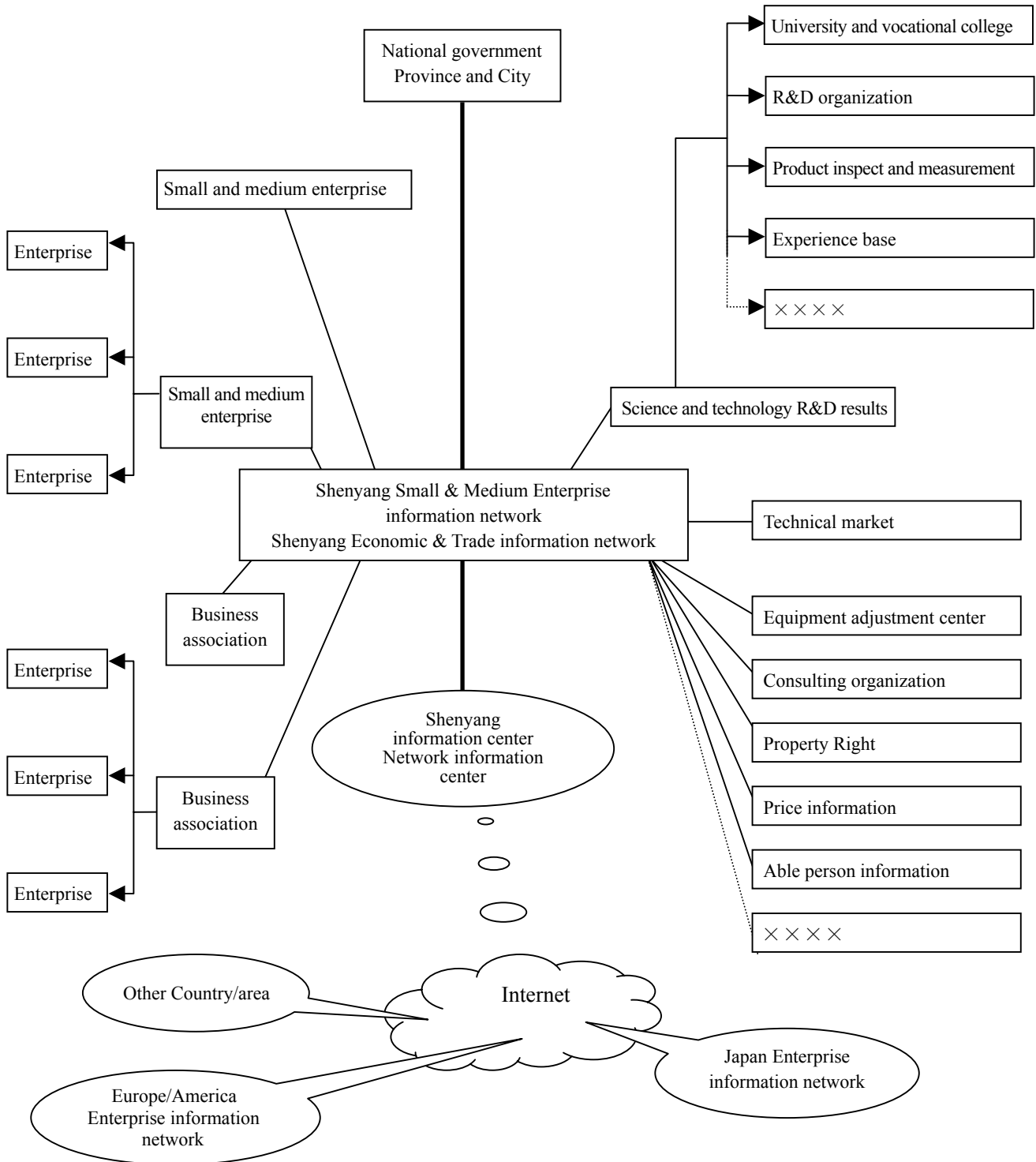


Fig. 24 Information Network Planned by Chinese Side

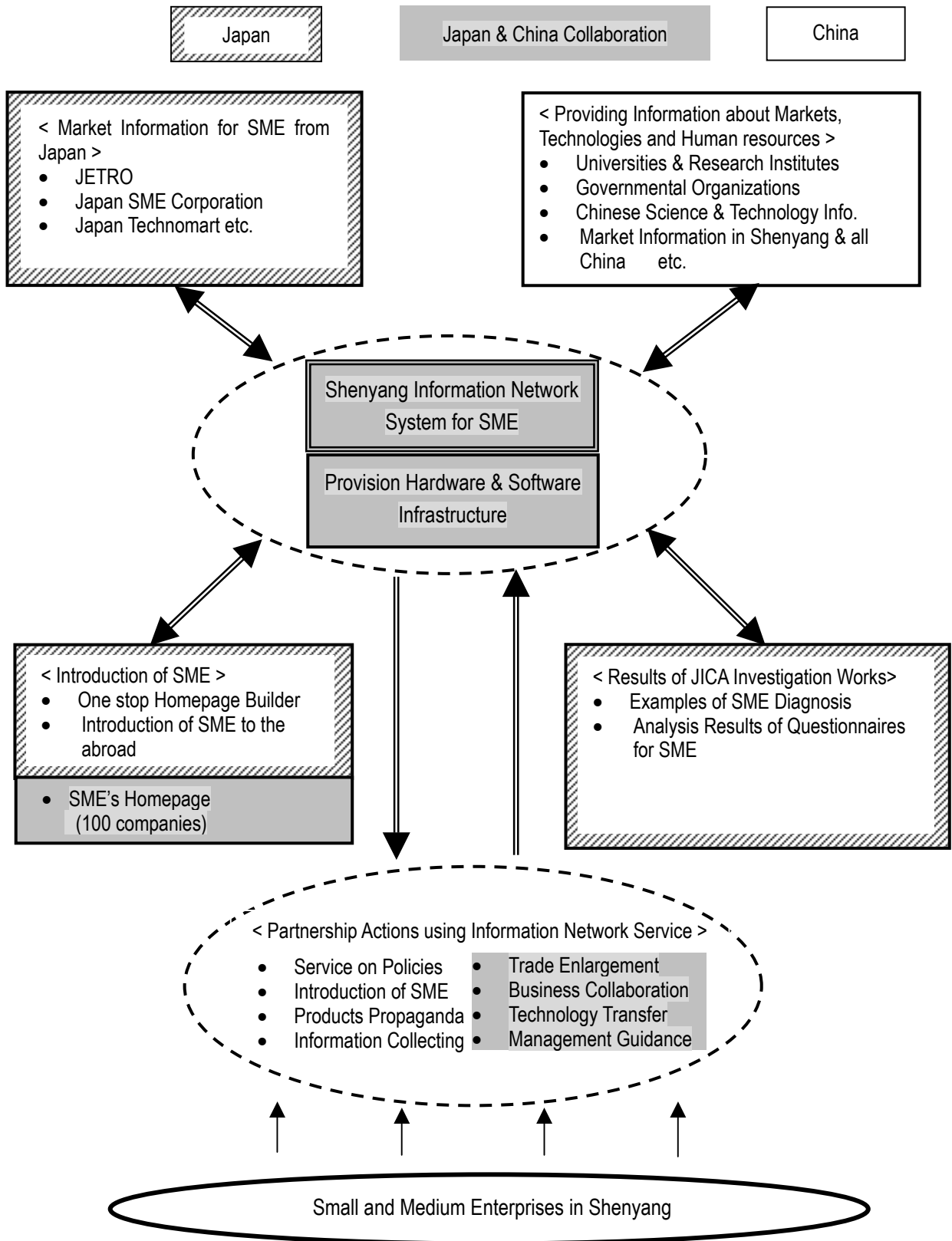


Fig. 25 Conceptual Structure of the Pilot Project

(1) Purchase and Supply of Hardware

JICA supplied following equipments to Chinese side.

- 1) Net Server : SUN E-450×1set
- 2) Workstation : Hewlett Packard LC2000×1set
- 3) Personal Computer : Legend BY2000×5set

(2) Purchase and Supply of Basic Software and Tools

JICA supplied following software for Net Server and Workstation

- a) OS for Workstation : Windows NT 4.0 Server (25users)
- b) Database Software Oracle 8i
 - Oracle 8i Enterprise Edition for SUN Solaris (20users)
 - SQL*Plus
 - Oracle Internet Application Server (20users)
 - Oracle Programmer
- c) Development Tools for Web Software:
 - Dremweaver -Photoshop -Flash 1 set each

(3) Basic Software for Personal Computers x 5set

- OS for Personal Computer: Windows 2000 Professional×5set
- Homepage Development Tool×1set
- Web Page Searching Engine×1set

(4) Open Service Items on Internet (developed as Application Software)

- 1) Support for SME's Homepage Development
- 2) Access Facility for existing Networks including Japanese Web Site
- 3) Supply of Market Enlargement Information
- 4) Collecting and Inputting of SME's Management Information
- 5) Publication of useful Information from JICA investigation works
- 6) Examples of Enterprise Diagnosis and Management Guidance
- 7) Transparency Improvement for Enterprise financial Information and Support for financial Reforming

(5) Supporting Items

Furthermore, Japanese side executed following three items in order to operate above mentioned publicized Services efficiently.

- 1) Building up the organization that can operate the information network continuously.
- 2) Propagating actions for SMEs to use information technology
- 3) Technology transfer and suggestion to promote partnership services

Explanations of servicing items

(1) Support for Self-preparation of Home Pages to Introduce Each Enterprise

So many enterprises hope to build up their home page at low price. JICA purchased and supplied a tool to Shenyang Information Network center for SME to make up the home page in no expense and a little effort. The enterprises are selected to build up their home pages among 100 companies that investigation team visited or surveyed and additional 100 companies that each ward recommended. Moreover, the counter part supported and trained SMEs to build up their home pages. As a result, self-preparation of home pages for each SME had a rapid progress and 35 companies' home pages were publicized.

The home page building tool which JICA purchased and supplied has such ability that each company can build up his home page automatically by inputting his data as shown in Table 6 according to the guidance from the tool. This tool is specified to enterprise home page building-up and is enable to insert photographs or pictures on the page.

Table 9 Input Items to the Home Page Builder

Outline of company	
<input type="checkbox"/> Basic Introduction	History/philosophy/scale/principal business/market/plan/prospect etc.
<input type="checkbox"/> Greeting from President	Policy/assertion/concept etc.
<input type="checkbox"/> Official Commendation	Opening of awarded result
<input type="checkbox"/> Business Report	Introduction of business report and achievement
<input type="checkbox"/> Quality Certification	Introduction of company's quality certification for products
<input type="checkbox"/> Contact Address	How to contact to main department and subsidiary
Products	
<input type="checkbox"/> Outline of Products	Introduction of features/uses/market/category of products
<input type="checkbox"/> List of Products	Explanation of sort/name/standard/price/capacity of products
<input type="checkbox"/> Guarantee of Quality	Introduction of quality control in production process
<input type="checkbox"/> Production Situation	Introduction of actual production and operation
<input type="checkbox"/> Products Information	Introduction of products value and social importance

Services

<input type="checkbox"/> Outline of Service	Introduction of contents/market/features of Services
<input type="checkbox"/> Guarantee of Services	Expression about guarantee of Services
<input type="checkbox"/> Service items	Name/explanation/inquiry/estimation/dealing etc. of Services

Dealing

<input type="checkbox"/> After Services	Introduction of the after service situation
<input type="checkbox"/> Sample Shipment	Simple explanation of kind/shipment of sample product
<input type="checkbox"/> Transport Situation	Simple explanation of transportation capability and traffic conditions
<input type="checkbox"/> Payment Conditions	Explanation on price and payment conditions of products
<input type="checkbox"/> Customers	Introduction of main customers of the company
<input type="checkbox"/> Outline of Dealing	Outline explanation of dealing route and dealing amounts

Business Collaboration

<input type="checkbox"/> Collaboration Matters	Collaboration matters and project with other company
<input type="checkbox"/> Agents	Explanation of agency products and agency conditions
<input type="checkbox"/> Projects	Explanation of object and profit for investment
<input type="checkbox"/> Investment	Explanation of projects or matters to which company intends to invest money

Purchasing

<input type="checkbox"/> Stocking Requirement	Announcement of goods to be purchased, Vender shall response it
---	---

Employment

<input type="checkbox"/> Employment Condition	Number of personnel, conditions and requirements to applicants
<input type="checkbox"/> Employment Contents	List of employment information, application format

Company News

<input type="checkbox"/> (Free Format)	
--	--

(2) Linkage to Existing Networks Including Japanese Site

A plenty of Internet information are supplied to SMEs and usual enterprises. Useful information to China was selected among these existing networks and menu page was provided for Chinese people to access this information. Furthermore, there are a lot of companies or organizations that wish to announce information to China. These home pages of Japanese companies or organizations are listed up and made accessible from China easily.

The adopted Japanese organizations are JETRO (Japan External Trade Organization; head quarter and Dailan), The Chambers of Commerce and Industry (Japan and Tokyo), Japan small and medium enterprise corporation (JASMEC), The Kanagawa High-Technology Foundation and so on. (Refer to Table 7 in the detail)

As for the information sent from Japan, there is problem of translation to Chinese language. This problem was resolved as follows. The translation tool provided from Chinese side, and the translation function from English to Chinese is executed on each

personal computer using open software translation tool in the Internet (www.tjbbc.com.cn).

Table 10 Linkage to Various Japanese Networks

	Name of Web site	Services	Comment
1	Japan small and medium enterprise corporation (JASMEC) http://jasmec.go.jp/english/index.html	Guide to the Corporation, Explanation of Activities of each Section (Support to SME), Topics etc.	English
2	Small and Medium Enterprises Information of Japan http://www.sme.ne.jp/japane.html	Provides information about SMEs' profile, product technology and so on by regional information center	English
3	Business Matching Database (PARTNER) http://partner.sme.ne.jp/	Provides you with the new business opportunities with Japanese Small and Medium Enterprises (SMEs).	English
4	Japan External Trade Organization (JETRO) http://www.jetro.go.jp/top/index.html	Import promotion, Investment/Technology interchange, Economy/Trade Information etc.	English
5	The Tokyo Chambers of Commerce and Industry http://www.tokyo-cci.or.jp/english/index.htm	Incubation, Venture Support, Management Consulting, Trade Enhance, Support for IT, Supply of Environment and Recycling	English
6	The Kanagawa High-Technology Foundation http://www.ktf.or.jp/koho/profiles/efront.html	Technology Transfer, Patent /Technology Information etc.	English
7	SME News from Japan	Import/ Export, Investment, Technology transfer, Business, Exhibition etc.	Japanese

(3) Information Supply for Market Expansion

The following six services are provided for SMEs or people in Shenyang to search market expansion information (business matching, capital introduction, investment, seeds and needs for purchase/sales products, employment information etc.) that supplied by Chinese enterprises including Shenyang city and enterprises all over the world.

- Retrieval for the enterprise seeking business tie-up
- Retrieval for the enterprise searching agent
- Retrieval for the enterprise seeking to invest
- Retrieval for the enterprise having the necessity of capital introducing
- Retrieval for the enterprise searching to purchase goods
- Retrieval for the people searching recruit information

These searching facilities are realized efficiently using data retrieval engine that JICA purchased in this project. The features of the data retrieval engine are as follows:

- The engine makes up the retrieval reference list of word and the web site where the word appears frequently after searching the specified web sites beforehand periodically. Retrieval requirement is treated efficiently and completely using this retrieval reference list.
- The engine is applicable not only to web site but also to database.
- The engine is able to retrieve not only for the combination of several keywords but also for key sentence.

The purpose of this function is that SMEs in Shenyang can obtain necessary information concerning technology transfer, business tie-up, capital introduction, investment, purchase of goods and employment from other district in China and from all over the world in order to market expansion of own company.

The menu of the category for retrieval is shown in Table 11.

Table 11 Menu of the Category for Retrieval

No.	Name of category
0	Not specify retrieval category
1	Spinning and clothing
2	Daily necessities, Light industries products
3	Foods, Drinks
4	Processed goods
5	Medical supplies
6	Mechanical products
7	Electronics, Electric products
8	Automobile and parts
9	Metal goods
10	Building materials
11	Computer, Communication equipments

3.2 Partnership Activity

3.2.1 Contents of Partnership Activity

The total work process of the partnership activity is shown in Fig. 25 and the work to be conducted at each stage is described below.

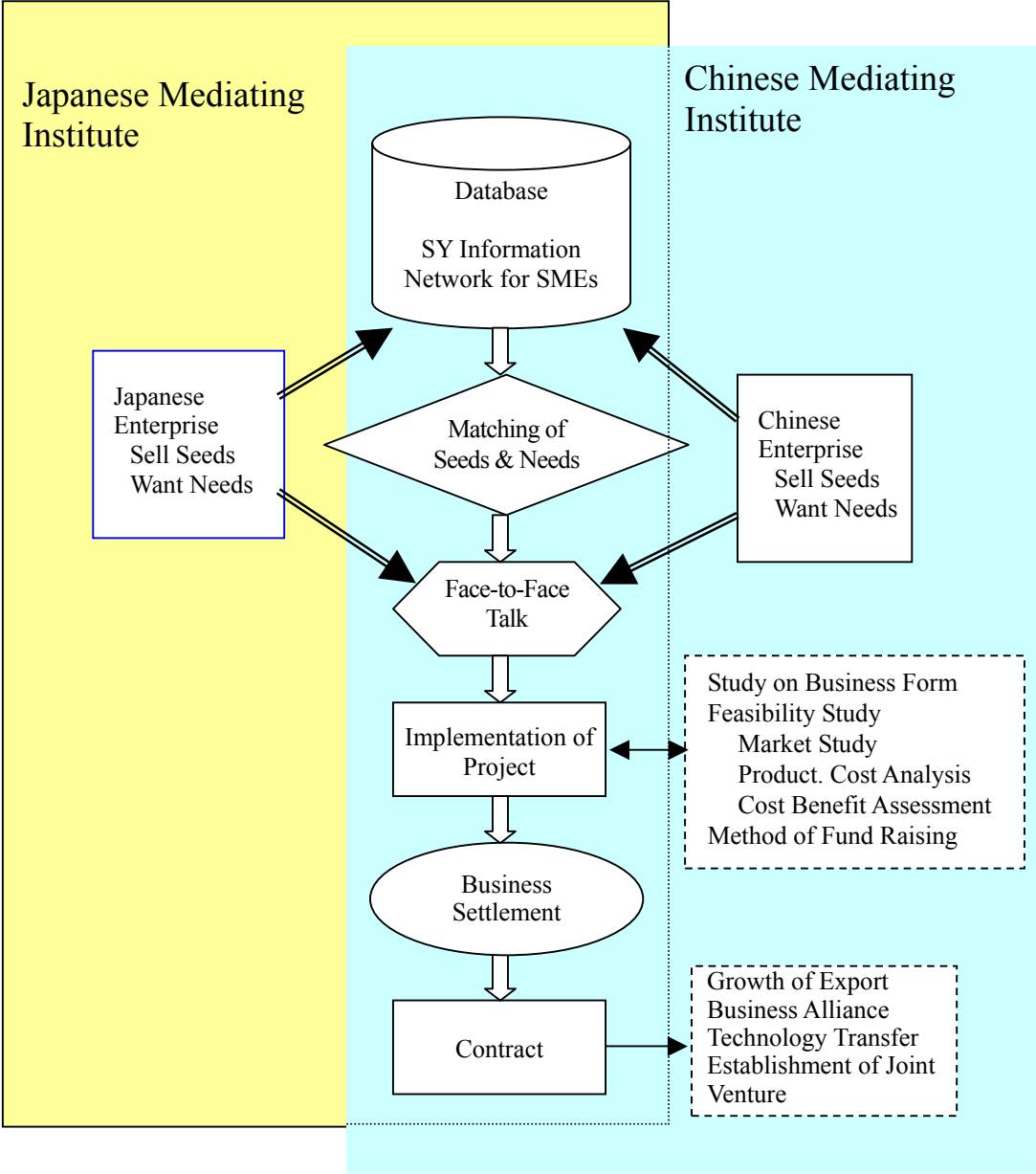


Fig. 26 Process of Partnership Development

(1) Database

The database of Shenyang Municipality SME Information Network, constructed this time, includes many pieces of information in relation to the partnership. Anybody can view the details, free of charge, by accessing the home page of Shenyang Municipality SME Information Network from the terminal personal computers of each enterprise.

(2) Information on the Needs / Seeds of the Enterprises

1) Chinese side

In order to grasp the information on the needs and seeds in the hands of SMEs in Shenyang Municipality, an inquiry was made to the Shenyang Municipality SMEs. Out of 100 enterprises who answered it, 20 - 30 enterprises reported the information on the needs / seeds. The result of the inquiry is published on the database of the Shenyang Municipality SME Information Center, which, in consideration of the convenience of Japanese enterprises, is provided in Japanese language. It is anticipated that these pieces of information will be further increased in number, when the tendency towards registering their own information to the database of Shenyang Municipality SMEs is intensified.

2) Japanese side

The following two pieces of information on the needs and seeds of Japanese side are published on the database.

More than 100 technology proposals of Japan Techno Mart Foundation

Approximately 80 pieces of information exhibited in the Parts and Materials Fair of JETRO Dalian Office

As for the details, please refer to the database of Shenyang Municipality SME Information Center.

(3) Intermediary Organization

1) Chinese side

Shenyang Municipality SME Service Center was established in December 2000 and this Center has started since last spring to work as the intermediary organization handling the partnership matters. The consulting firms belonging to Shenyang Municipality Economic and Trade Commission group serve concurrently the partnership matters and the number of the staff members is less than 10, who are

jointly working with the survey mission. In the future, it is expected to play an important role as the intermediary organization for the overseas partnership matters.

2) Japanese side

a) Japan Techno Mart Foundation (JTM)

JTM is the biggest technology transfer organization in Japan which belongs to Ministry of Economy and Industry group and has longer than 15 years of experience in this field. As for the relation to China, through the negotiation meetings in Japan-China Techno Mart held in Shanghai or Tianjin, they have several years' experiences. The relations with the Japanese enterprises are also close.

b) Japan-China East-North Development Association

This office represents in Japan 3 provinces of Northeast of China and is located in the office of Japan-China Association. As the business plan of the next year, Japan-China East-North Association intends to follow up the activity of this survey mission. For the executive members of this association, such as the directors, the management executives from the leading Japanese companies take seats.

c) Enterprises

Leading venture capital enterprises in Japan make investment in China as well and so from this view, they have keen interest in the enterprises in Shenyang Municipality. In the future, the joint work with Shenyang Municipality SME Service Center could be possible.

The Chinese group consulting enterprises whose major members consist of the alumni of Dalian Science Technology University are also conducting the intermediary business mainly for IT industry between Japan and China. At present, the enterprises of Dalian are their targets but, in the future, the enterprise of Shenyang Municipality will be their targets as well. In such occasion, there will be a high possibility for the joint work with Shenyang Municipality SME Service Center.

d) Japanese enterprises stationed in Beijing (Nomura CITIC)

Japanese venture capital enterprises stationed in Beijing cover entire China for the intermediary business for the joint ventures or M & A between Japanese

and Chinese enterprises. In the future, in case such organizations aim at the enterprises of Shenyang Municipality, there will be a high possibility for the joint work with Shenyang Municipality SME Service Center.

(4) Business Matching

In regard to the matters of the needs and seeds, there is a possibility that the optimum combination could be found out by comparing and examining both matters. Such a trial is called the business matching of the needs and seeds. Although the business matching can be made on the database, it is made in various occasions like the business negotiation meetings, efforts of intermediary organization, etc.

1) Database

As for the needs and seeds matters registered on the database, there is a possibility that the optimum combination could be found out by comparing and examining both matters. In the case of the bigger database, the business matching is made by the computer independently and the results can be informed to the needs side and seeds side respectively. However, the database of Shenyang Municipality SMEs Information Center is not equipped with such function.

2) Exhibition

There are such fairs as Parts and Materials Fair held by JETRO every year in Dalian or Beijing. Usually for 100 - 300 exhibitors, the number of the visitors to the fair reaches 1,000 to several tens of thousands, but there is a big advantage to be able to receive explanations for the commodity or technology on the spot. The information on JETRO Dalian Parts and Materials Fair is published on the database of the Information Center.

3) Intermediary organizations

Through the exchange of information held independently by such organizations as Shenyang Municipality SME Service Center or Japan Techno Mart etc., the business matching could be produced. Such intermediary organizations hold so much information concerning their own technology that the probability for the successful business matching becomes higher to that extent.

It might be the best way for the enterprises to bring their needs and / or seeds to such intermediary organizations in order to lead the transactions to success.

4) Japan-China Techno Mart Business Negotiation Meeting

In the business negotiation meetings held in Shanghai or Tianjin every year, more than 10 Japanese enterprises bring in their technologies which can be transferred and conduct negotiations with local enterprises in Shanghai or Tianjin. As several transfers have so far been successfully agreed upon at every business negotiation meeting, it can be said that this measure is an effective way of the technical transfer.

5) Investment and financing missions visiting Japan

In respect of the investment inducing missions promoted by the governments of Liaoning and Shenyang, there are such examples for the first half of 2001 as listed below :

Mission of the Liaoning Provincial Government Visiting Japan

Mission of Inducing Investment in the Area of Heavy Machinery (Shenyang Municipality)

Mission of Inducing Investment in the Area of IT (Shenyang Municipality)

Mission of Inducing Investment in the Area of Automobile Parts (Shenyang Municipality)

Since the visiting purposes of these investment inducing missions are very clear, the preparation in advance is made thoroughly, the members are the government officials and the executives of the enterprises, and so on, Japanese side makes positive responses in receiving them. For this reason, the significant effects can be expected, such as the conclusion of an agreement for a big project.

6) Human relations

The so-called human relations are also very effective means. If the technical experts exchange opinions closely between Japan and China, the conclusion of the agreements comes very fast, as they can fully understand each other. Moreover, if the management executives talk directly to each other, the agreements could be concluded soonest, as they have the decision power respectively. The recommendations or introductions by the high-ranking people in the political or business circle often provide effective opportunities.

7) Home Page

It is often heard recently that, by publishing the explanation of their own products or technologies on their own home pages, business inquiries came from unexpected clients and the contracts were successfully concluded. While it is now quite common to provide information on their own companies by utilizing the Internet, it might produce an unexpected effect by providing their own information.

(5) Face-to-Face Negotiation

It is called a face-to-face negotiation where both Japanese and Chinese sides sit together at a same table and conduct individual negotiation. In such a negotiation, it is very effective to exchange opinions while seeing each other's face. Such individual negotiations take place any time. When the business negotiation is advanced further, the factory visit or mutual visit to each other's office takes place.

In such an occasion, an intermediary organization arranges a business negotiation and by intermediating between the both sides, can assist the negotiation from a neutral position. The exchange of the information by telephone, facsimile, electronic mail, etc. is conducted frequently as a matter of course.

(6) To Examine the Matter Concretely and Proceed the Talk for Final Agreement

1) The examination of the formula of alliance

After starting the business negotiation and when it reaches a little advanced stage, it is necessary to examine the formula of the alliance. The formulas of alliance can be broadly divided into the followings :

Expansion of the export and import

Business alliance

Technology transfer

Establishment of the joint venture company

Although it will be different which formula is adopted, depending upon the actual situation at that time, the factors to decide it can be considered as follow :

Where is the market ? (China, Japan, Asia, the entire world, etc.) Is market demand large enough ?

Amount of the fund required

How easy is the technical transfer ?

Are there enough personnel adaptable ?

Prospect of the future profit

Are incentives available ?

Objective of the project

2) Feasibility study (FS)

A feasibility study will be made, conducting market research for the commodity, analysis of the production cost, analysis of the benefits / expenses, to finally evaluate whether this project is viable or not.

3) Examination of the fund raising

At the stage where the amount of the money for the equipment and operation is fixed, how to raise the fund required is examined. Combination of the long / short-term fund, such as own fund, bank loan, the issue of the share certificates or bonds, application for the governmental support fund, etc. will also be examined.

(7) Conclusion of the Negotiation / Contract

Both Japanese and Chinese sides exchange the contract and the project will be implemented.

3.2.2 Guidance and Promotion of the Intermediary Organization

At the committee steering in March 2000, the Shenyang Municipal Economic and Trade Commission and the survey mission agreed after discussion that, within the frameworks of the pilot project, 'The SME Service Center established in Shenyang Municipality in December 2000 is to be included in this project and be promoted as an intermediary organization for SMEs that are expected to grow autonomously in the Municipality in the future.'

(1) Business Consignment to the Shenyang Municipal SME Service Center

The survey mission expects the Shenyang Municipality SME Service Center to be engaged in the following businesses consigned for the pilot project.

Intermediary Support

- Continuous collection of information to register at the Information Service Center (including information on Japan)
- Intermediation and consultation on joint ventures between Japan and China, etc.

Direct Support

- Enterprise diagnosis and guidance
- Raising the enterprise diagnosticians and sending them to enterprises
- Hosting various seminars and lecture meetings for SMEs
- Guiding and fostering the SME Centers of the ward level

Among those mentioned above, the intermediary support will be subsidized in this project. Shenyang Municipal SME Service Center will be engaged in the following intermediary businesses between China and Japan in line with the development of the partnership.

- To assist enterprises in China and Japan in relation to the registration of database of information on needs / seeds.
- To assist matching of needs / seeds.
- To arrange bilateral negotiations inviting Chinese and Japanese enterprises.
- To assist the related parties, toward the last stages of their negotiations, by giving consultation on various aspects, with the counterpart's positions in mind, or by arranging feasibility studies.

In order to make the Shenyang Municipal SME Service Center actively participate in the pilot project, the study team consigned the following businesses.

1) Consignment of survey by means of inquiry

Objective : To identify wishes in detail of SMEs in Shenyang Municipality toward Japanese enterprises, the information should have been collected on the information networks. However, since the pilot project was scheduled to be started in May 2001, the method of sending the inquiry in advance was employed.

Targeted enterprises: 100 enterprises that have been visited for survey and 200 enterprises that have participated in the opening ceremony of the SME Service Center.

Contents of survey : In particular, the requirements to strengthen the partner relationship with Japanese enterprises.

Timing of survey : To start in June 2001.

Survey methods : By means of seminars, mailing, visiting enterprises and e-mailing.

Results of survey : The aggregated report in Japanese should be submitted.

2) Request for the support to the intermediary services

During the period of the pilot project, the member of the study team in charge gives support to the intermediary services. After that, the intermediation guidance consultants of the Shenyang Municipal SME Service Center must offer intermediary services by themselves. Therefore, during the period of the pilot project, the guidance on the OJT basis was given with the support of two intermediation guidance consultants.

(2) Making Results of Intermediation Support

For the technology transfer of the intermediary business, the best way is to allow the partners to participate in real intermediary negotiations and to learn on the OJT basis. Since the networks were not in operation around the time when the technology transfer of intermediary business started, the cases prepared by the survey mission were used as examples.

(3) Technology Transfer of the FS (Feasibility Study)

1) Objectives

The reason why the FS methods were adopted as such special skills is because they promote the awareness reform which is most needed in the present day China and, in particular, they reduce the economic loss to be caused by the mistaken investment plans. In China where the planned economy is being adopted, a small number of elites project very well prepared and high-level plans. At the enterprise level, every investment is, without exception, decided after the demand prediction and calculation of the expected investment returns have been completed. However, in reality, diversions from these plans are common. Therefore, judging from its importance, the technology transfer of the FS based on the market capitalism principles was adopted with the first priority.

2) Choice of the COMFAR methods prepared by UNIDO

Since 1995, UNIDO (United Nations Industrial Development Organization) Technology Transfer Promotion Office has practiced many cases of the FS supports as its principal activities and has made remarkable contributions. In China, there have been 6 such cases. One example is the case of introducing new customers to Japanese enterprises with manufacturing sites in Shanghai. 'The Manual for the Preparations for Industrial Feasibility Studies', a UNIDO publication became a best seller.

COMFAR (Computer Model for Feasibility Analysis and Reporting), the computer-soft edition of this manual was later published in more than 10 countries around the world and it became available also in China. The study team adopted this system because, in comparison with the traditional FS methods, it is superior in the number of parameters and sensitivity analysis, and the time needed for processing is much shorter. It was adopted also because it was developed by the UN and was being widely used all over the world and was enjoying reputations from the public organizations and the financial institutions. The technology transfers have been made by supplying this system to the Shenyang Municipal SME Service Center and implementing training by the instructors of the UNIDO in China.

3.2.3 Outputs

(1) Results of Needs / Seeds Survey of Partnership

To the inquiry survey for SMEs in Shenyang Municipality, the answers have been received from more than 100 enterprises by the end of August 2001. The breakdown by industry shows that the majority of the answers is from the industries of machinery with 22 enterprises, followed by the steel products, non-ferrous metals, pharmaceuticals / cosmetics, automobiles and further by foods / agriculture and fishery, constructions / civil works, chemical products, measurements / precisions / optics, etc. On the other hand, what is to be noticed is that answers from the industries of home electric appliances and industrial electric / electronic machinery is very few.

The detailed contents of the answers related to the partnership are as follows :

Table 12 Breakdown of Basic Data

Breakdown Items		Total number		Ratio (%)	Remarks
Joint ventures or joint-businesses needed or not	Yes (Concrete Intention)	62	43	54.00	Based on total 80 enterprises
	No (Concrete Intention)		19	24.00	Based on total 80 enterprises
OEM expected		38		48.00	Based on total 80 enterprises
Technology transfer expected	Introduction of Technology	27	19	24.00	70% of those expecting Technology Transfer
	Export of Technology		8	10.00	30% of those expecting Technology Transfer
Products export wanted		32		40.00	Based on total 80 enterprises
Collaboration not wanted		5		6.25	Based on total 80 enterprises

Table 13 Requirements by Industry

Kind of requirement	Strength of requirement	Fields	No. of enterprises	Ratio	Remarks
OEM	1. Very strong	Others	10	13	Based on total 76 enterprises expecting OEM
	2. Strong	Machinery	9	12	
	3. Normal	Steel products	7	9	
Consignee of foreign business	1. Very strong	Measuring Instruments, Precision Machinery, Optics	17	24	Based on total 71 enterprises
	2. Strong	Steel Products	11	15	
Technology transfer from abroad	1. Very strong	Machinery	9	20	Based on total 45 enterprises
Joint ventures, Collaborations	1. Very strong	Machinery	14	15	Based on total 93 enterprises
	2. Strong	Others	10	11	
Product export	1. Very strong	Machinery	10	22	Based on total 46 enterprises
Purchase of foreign products	1. Very strong	Machinery	5	26	Based on total 29 enterprises
	2. Strong	Measuring Instruments, Precision Machinery, Optics	5	26	

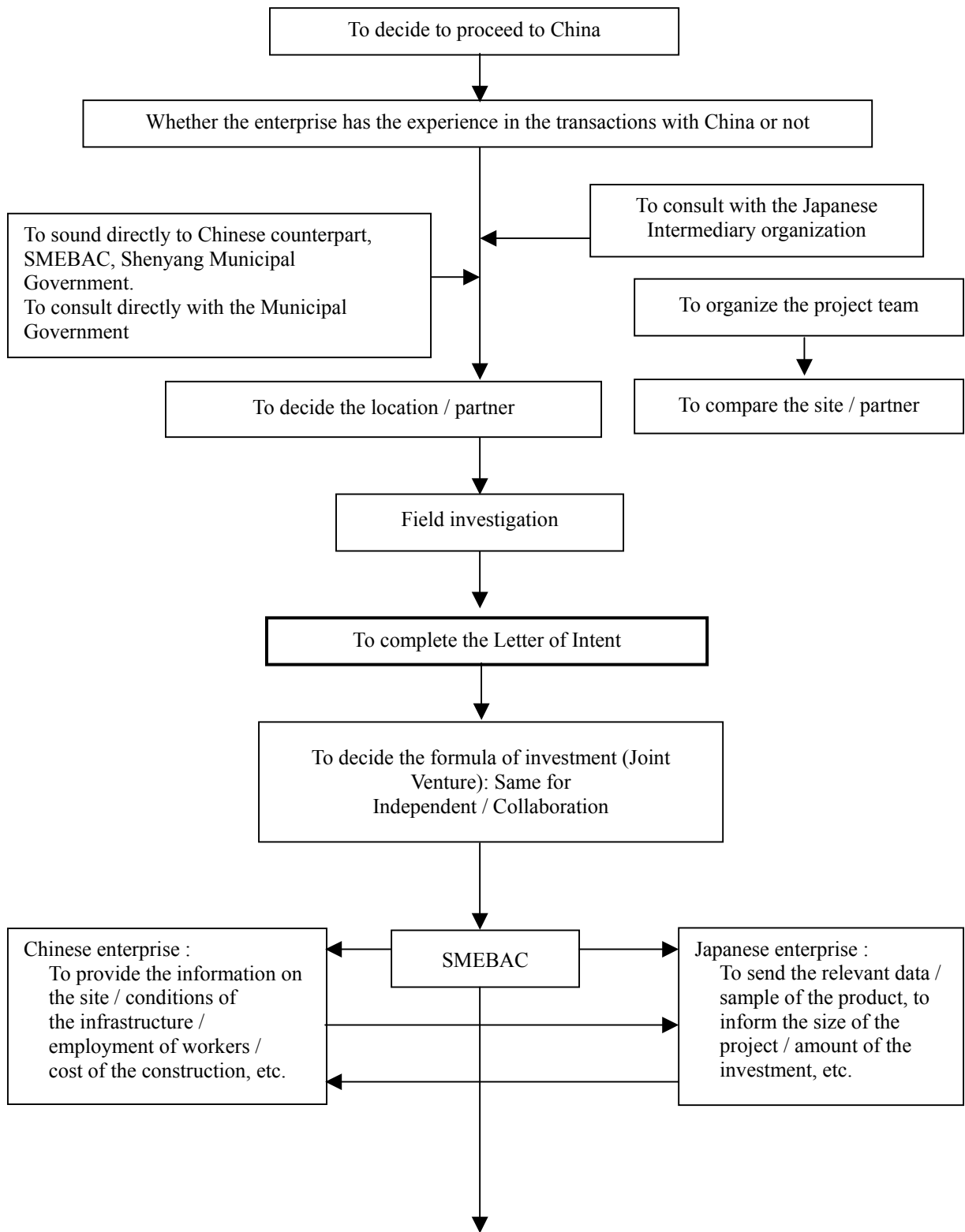
General Machinery Industry	7 enterprises 41%	Total 10 enterprises
Automobile Parts Industry	3 enterprises 27%	Total 8 enterprises
Electronics / Information Industry	1 enterprise 13%	Total 7 enterprises
Environmental Protection Industry	0 enterprise 0%	Total 8 enterprises
Other Industries	9 enterprises 16%	Total 49 enterprises

Answered Among 10 model enterprises, 4 are wishing to have joint ventures or collaborations.
 Not answered

Fig. 27 Needs for Partnership

(2) A Case Study of a Partnership

Fig. 27 shows OJT in intermediated projects of partnership. Status of the progress of proposals of a partnership and intermediated project which have been taken up during the implementing period are as follows.



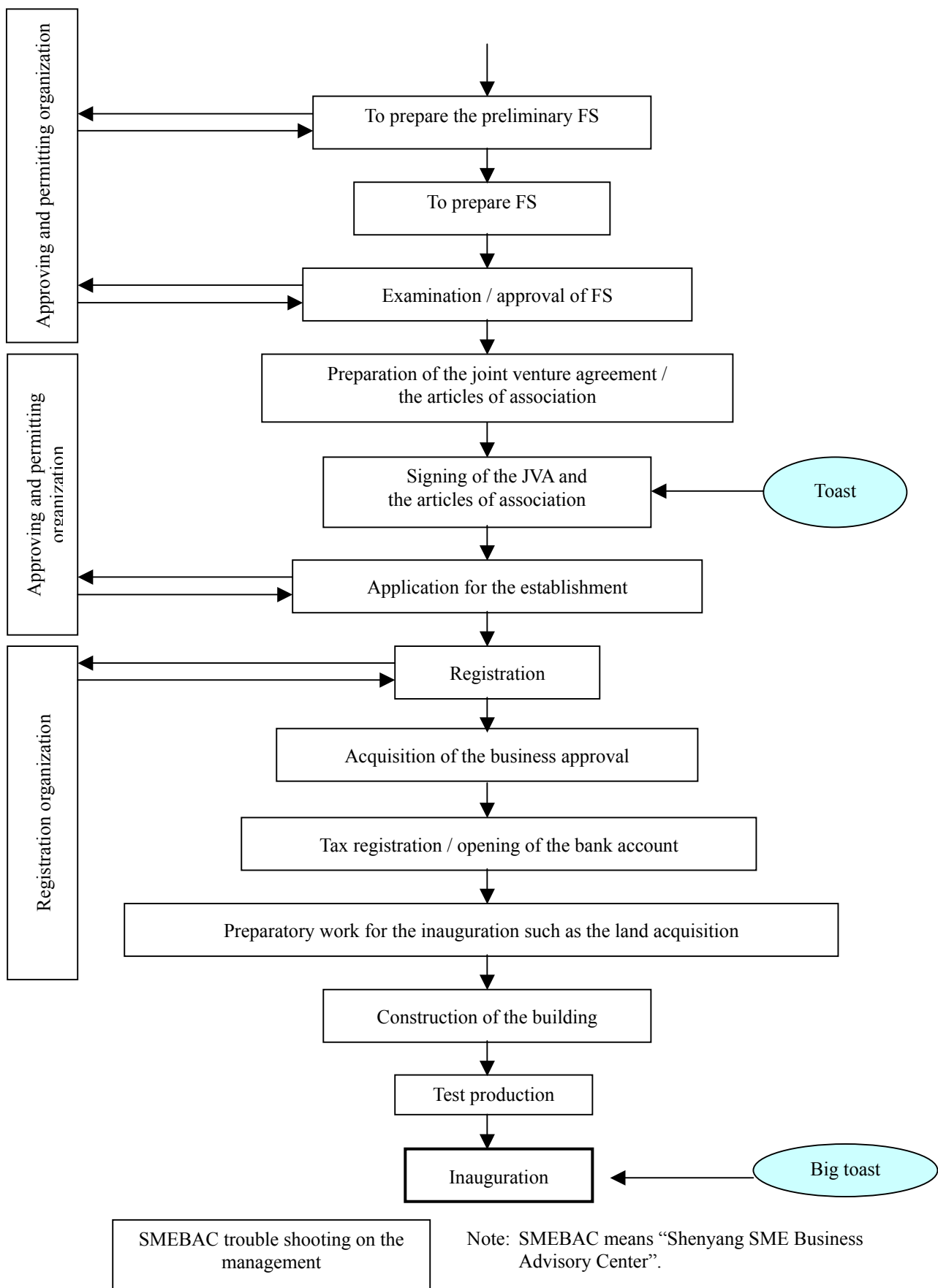


Fig. 28 Process of Establishing a Joint Venture Company of a Japanese Enterprise in China

- 1) Status of the progress of the intermediated projects of partnership
 - a) Socks and stockings knitting machine (Japanese knitting machine maker)

The machine maker in Shenyang Municipality ⇒ Exchange of the letter of intent ⇒ Decision to discontinue the project by the management board (6/5)
 - b) Far infrared drying machine (Japanese drying machine maker)

Shenyang Municipality environmental machinery maker ⇒ Exchange of the letter of Internet (July 2001) ⇒ The maker of environmental machinery came to visit the factory visit and conduct negotiation. (early August 2001) ⇒ The Japanese drying machine maker visited Shenyang Municipality (late August 2001) ⇒ FS started
 - c) Large sized pump (Japanese pump maker)

The pump maker in Shenyang Municipality ⇒ The proposal of Shenyang Municipality pump maker received (March 2001) ⇒ The chairman of the pump maker in Shenyang Municipality visited the Japanese pump maker. ⇒ The management board of the Japanese pump maker decided to examine the possibility of proceeding to China (May 2001) ⇒ The Japanese pump maker moved toward the business alliance with the pump maker in Shenyang Municipality.
 - d) Biodegradable plastics (Biodegradable technology development maker in Shenyang Municipality)

Data / sample received (secrecy agreement) ⇒ Under negotiation with 2 Japanese enterprises (June 2001) ⇒ Letter of intent proposed from the Chinese side (August 2001)
 - e) Cement manufacturing machine (Cement machinery manufacturer in Shenyang Municipality)

The Japanese consultant presented the proposal to the cement machinery manufacturer in Shenyang Municipality ⇒ Q & A ⇒ The draft of the letter of intent for the joint venture received from the cement machinery maker in Shenyang Municipality (July 2001)

2) Program for the future business negotiations with Japanese enterprises

a) Vacuum pump (Pump maker in Shenyang Municipality : SC Company)

The inquiry sent to the Japanese vacuum engineering maker ⇒ Under examination

b) Biodegradable paper container (biodegradable food container maker in Shenyang Municipality : SD Company)

SD Company is a venture enterprise in which the political fund from Shenyang Municipal Government was invested. JV with Japanese enterprise proposed (August 2001)

c) Waste mud drying machine (drying machine maker in Shenyang Municipality: SE Company)

SE Company (one of the 10 model enterprises) asked for an opportunity of the business alliance with a Japanese drying machine maker (August 2001) ⇒ Inquiry sent to Japanese drying machine makers

d) Spiral copper tube (copper tube maker in Shenyang Municipality: SF Company)

SF Company is an influential enterprise that has replied the inquiry for interest in the partnership implemented by the survey mission. This company is a former state owned enterprise, privatized 3 years ago, and is wishing to have a technological alliance with a Japanese enterprise for the high efficiency spiral copper tube for the air conditioner.

e) Copper foil (Copper foil maker in Shenyang Municipality: SG Company)

SG Company wishes to introduce the technology to make the thin copper foil of which the thickness is 0.012 mm. It can respond to a proposal of either the technology transfer or the joint venture.

f) Bolt and nut (Bolt and nut maker in Shenyang Municipality : SH Company)

SH Company is a former state owned enterprise that has state class quality inspection equipment. While this company has a long experience in manufacturing bolts and nuts, it wishes to have an alliance with a Japanese manufacturer, aiming at newly supplying the products to foreign-owned automobile manufacturers.

- g) Traffic control system for big cities (Signal maker in Shenyang Municipality : SI Company)

As the signaling equipment maker, SI Company is a leading former state owned enterprise. In anticipation of the future traffic jam in the big cities, it is developing a traffic control system, and wishes to have an alliance with a Japanese enterprise.

- h) Process control system (Automation instrument maker in Shenyang Municipality: SJ Company)

Having noted that foreign companies have occupied the major share in the field of the control instruments for the plants in China, SJ Company is developing the system in order to replace them by Chinese-make. For this reason, this company wishes to have an alliance with a Japanese automation instrument manufacturing enterprise.

- i) 12 other proposals (From the enterprises located in the Shenyang Economy and Technology Development Zone)

3) Actual state of progress of the major intermediated proposals

- a) Socks and stockings knitting machine (Japanese knitting machine maker: A Company)

[Profile of the Japanese enterprise]

A company, listed on the Second Section of the Tokyo Security Exchange, has 50 years of production experience as the top enterprise in the socks and stockings knitting machine manufacturing. Especially in these days, the competition in the sale of knitting machines has been intensified in Japan where makers are also desperately competing in cutting cost down, although they are still struggling, as the market share has been deprived by cheap Italian-make knitting machines. As A Company reduced the production of the knitting machines due to these circumstances, the after sale service of the knitting machine sold in the past has finally come to be their main business. In order to overcome such situation, they have started the negotiation for the joint venture or collaboration with a machine maker in Shenyang Municipality, envisaging the possible removal of their factories to China.

[Knitting machine market in China]

The major market in China for the knitting machines mainly exists in the vicinity of Shanghai or the district further to the south, while in the Northeastern district there are only very few enterprises. As a result, several former state owned socks and stockings knitting machine manufacturers operate near Shanghai and there further exist only several more in Zhejiang province. Therefore, the industry is small in size, having less than 10 manufacturers in whole China.

[Machine maker in Shenyang Municipality]

The machine manufacturers in Shenyang Municipality are excellent enterprises, belonging to large financial groups, having experiences in collaborating with European and American enterprises and keeping advantageous conditions in the financing as well as marketing areas. However, they have no experience or know-how so far at all in the manufacture of the socks and stockings knitting machines.

[History of the business negotiations]

In the beginning of June, the president of A Company came to Shenyang Municipality to conduct direct negotiation with the machine manufacturer in Shenyang Municipality. In the negotiation between the Japanese and Chinese companies on that day, the agreement to exchange the letter of intent was reached, in which the 3 party joint venture enterprise was to be established to manufacture the socks and stockings knitting machines at the factory of the enterprise in Shanghai and let the enterprise in Shenyang Municipality cooperate in the financing / personnel areas. Chinese side later decided to relinquish this negotiation as the results of the discussion in the management board meeting of the enterprise.

The negotiation was not materialized presumably because the enterprise in Shenyang Municipality had no experience in the manufacture of the knitting machines, the market is located far in the south of China, the procurement of associated parts is not easy in Shenyang Municipality, the prospect for the future growth is not bright, and so forth. It can be said that there were so many difficult conditions.

b) Far infrared drying machine (Japanese drying machine maker: B Company)

[Profile of the Japanese enterprise]

B Company is listed on the Second Section of the Tokyo Security Exchange. Several years ago, it developed the drying machine using far infrared. In comparison with the existing machines, this machine had the drying speed of 10 - 30 times faster, reducing the drying time to the same extent. B Company has been endeavoring to expand the sales in Japan, but, at the same time, is considering to make the technology transfer to a Chinese enterprise or to promote the sales in China by setting up a joint venture company

[Market for the far infrared drying machines in China]

Since the far infrared drying machine has not yet been developed in China, it can be called an entirely new product. The market is expected to be very large, because the applicable field of this far infrared drying machine is so extensive, covering the heat coating of the surface painting of the machines and the automobiles, the drying of the printed circuit board, drying of the screen printing, drying of the foods, sintering / drying of the raw materials for chemical products, sterilization of the seeds / soil, warming therapy / rehabilitation, etc.

[Drying machine manufacturer in Shenyang Municipality]

The drying machine manufacturer in Shenyang Municipality is a venture enterprise, established three years ago by succeeding the factory equipment and the personnel of a former state owned enterprise. The management comprises an ex-official of the municipality government, an ex-professor of the Northeastern University, etc, and adopts the modern and democratic management system. As for the marketing, they succeeded the sales network from the state owned enterprise, which covers the entire China. This company has been paying attention to the growth potentiality of the drying machine using the far infrared ray and has been proceeding with the research of it.

[History of the business negotiation]

In the beginning of June 2001, the far infrared drying machine of B Company was introduced by the survey mission to the drying machine maker in Shenyang Municipality, who showed much interest in it. As a result of the integral examination, they reached the conclusion that the far infrared drying machine of B company is the most advanced drying machine in China. Therefore, they

agreed to sign the letter of intent in order to promote the alliance with B Company immediately. In July 2001, the letter of intent was signed by the two companies and in August 2001, it is scheduled for the drying machine manufacturer of Shenyang Municipality to visit Japan, inspect the factory of B Company and proceed with the concrete talk for the alliance.

The schedule thereafter is that the FS will be started from September and in the beginning of 2002, the formal contract is expected to be signed.

- c) Biodegradable plastics (Biodegradable technology development maker: SA Company)

[Biodegradable technology development maker in Shenyang Municipality: SA Company]

SA company is the biodegradable technology development manufacturer in Shenyang Municipality and a venture enterprise as well. SA Company started the development of the biodegradable starch container by using starch as the main material 5 years ago and finally succeeded in delivering the completed products to the market this year. The president of SA Company is the ex-professor and the high-class engineer. SA Company who has been collaborating with a German biodegradable container manufacturer, holds the most advanced technology of its own in this field. It is one of 10 model companies.

[Biodegradable plastics market in China]

In China, from August 2000, a regulation was instituted and immediately promulgated, which prohibits the use of unbiodegradable plastic foam products, thin film or tableware. From April 2001, the more strict restriction for the use was again enacted. Due to these circumstances, the existing plastics processing makers are forced to change the materials and the biodegradable starch container of SA Company is draws attention.

[Japanese plastics processing manufacturer]

In Japan, the shift to the biodegradable plastics is aimed to be made from 2005. The biodegradable starch container of SA Company was introduced by the survey mission to the Japanese plastics processing manufacturer who paid attention to it and started the examination of it at the same time. In order to

judge if it can clear the Japanese standard for the use, Japanese side requested SA Company to send a sample.

[History of the business negotiation]

As 2 Japanese plastics processing manufacturers found some defects in the initial samples, they requested to provide the improved samples. For the request of the second samples, SA Company required them to sign the letter of intent and presented the price.

- d) Cement manufacturing equipment (Cement manufacturing equipment maker in Shenyang Municipality: SB Company)

[Cement manufacturing equipment maker in Shenyang Municipality]

SB Company, a manufacturer of the small sized cement-manufacturing equipment, was privatized 3 years ago. SB Company, specialized in the cement manufacturing equipment of the class with a capacity of 5 - 20 tons per day, is making efforts to sell improved equipment which aims at increasing the capacity of the existing extremely small equipment.

In 2001, as the performance of the company has turned to be favorable, they planned as the mid term strategy, to newly participate in the manufacture of the bag filter in order to remove smoke soot, for which, they are seeking the introduction of the manufacturing technology from a Japanese enterprise.

[The market of the bag filter in China]

The market of the bag filter in China is in the increasing trend. While the Chinese-make bag filter has such drawbacks as rather short useful life, the imported bag filters are expensive.

[History of the business negotiation]

As the survey mission introduced to SB Company a Japanese technical consultant (an individual), the negotiation between SB Company and the consultant was started. The Japanese technical consultant submitted the proposal to SB Company, and after that the Q & A process has been continuing. Toward the end of July 2001, the proposal for the project of the joint venture was received from SB Company. However, since the Japanese technical consultant would not disclose the technology till the time of contracting, SB Company faces difficulty in the selection of the technology to be introduced.

(3) Transfer of FS Techniques

There are two versions of COMFAR, i.e. Business Planner III and Expert III. Although the former would be sufficient for the purpose of a FS on a SME, the latter was selected in accordance with the request by the Chinese side in preparation for large projects in the future. This includes a simple software called “Opportunity Study” to be used for preliminary study purposes. Training was conducted for two days in June 2001 for seven staff members of the Shenyang SME Service Center by an instructor dispatched by the UNIDO in Beijing. Many of the staff members of the said Center are accounting experts with a MBA degree and some consultants have received education on FS techniques in the past. Accordingly, highly efficient training was conducted.

3.3 Construction and Operation of Cash Flow-based Management Support Web Site

3.3.1 Backgrounds and Purpose of the Web Site

The financial structure of SMEs in Shenyang might be in the worst level in China as suggested by the statistics and questionnaire surveys concerned. The image of the local SMEs’s credibility is bad as a matter of fact, and this may cause the serious funding difficulties of them. This is an obstruction factor of their partnership activities with the foreign firms, too. To improve the situation, the government should carry out strategic and realistic measures, which support mainly SMEs with the development potential. This strategy may bring more benefit such as increase of tax revenue than that of the evenly support measures to all SMEs. For instance, it is expected that the SMEs’s image of Shenyang would change for the better, if the government could promote more or less 300 excellent SMEs by the strategic support.

Recently, the financial accounting system including cash flow statement in accordance with the international accounting standards is already applied by SMEs and the introduction of personal computer into local SME is proceeding to some extent. This means that local SMEs would be able to put into practice of a scientific management such as the cash flow management today. In other word, SMEs in where general manager might secure the management sovereignty, set a correct management target and execute it would be able to improve the financial structure of the enterprise.

It should be noticed that the banks and the CGF take the cash flow of enterprise as the important indicator when they appraise the business performance of SMEs today. That is, the SMEs are requested in potential to steer their management in the direction where the

operating cash flow should be increased in order to raise fund by indirect finance or by self-finance. However, this fact is not informed apparently to whole SMEs but only to SMEs that have the contact with the banks or the CGF at the occasion of their financing negotiation so far. The Study Team suggests to the government that it is necessary to transmit this information to all SMEs widely. Moreover, the local SMEs should correctly recognize that the banks etc. put cash flow statement confidence in as the important and transparent financial statement,

Then, the Study Team developed web site for the cash flow management support, which could enlighten a lot of general managers of SMEs and motivate them to work on the financial structure improvement. This system is operating on the Internet so that every SMEs can use it freely. The Study Team built up the system to be able to operate it in the state of maintenance free because this support service might be offered by free of charge.

The CGF that offers similar services to SMEs was appointed as the local counter part of the project. The CGF is doing business to mediate the credit guaranteed loan for SMEs who have the repayment ability and engage in the priority fields of high technology, employment, export, protection of the environment types. The customers of the CGF and the ones whom the Study Team intends to support by the web system are quite similar type of SMEs, which have the potentiality to become the excellent enterprises.

3.3.2 Outline of Contents

The learning course is a unique one. That is, in spite of a general manager of SME learns about the cash flow-based management of standard study supported by the web system, he could obtain the idea and practice being suitable for his company's improvement as a result. The explanation of the contents is as follows.

Generally speaking, if a general manager of SME has no experience in accounting or financial affair in the carrier development, the person does not have sufficient knowledge to be able to understand even primitive terms or formulas on the matters concerned. Therefore, such person often has an allergy to terminology of financial and accounting affairs, and he/she tends to assume that financial affairs are very complex matters. However, it may be impossible for anyone to replace the terminology into appropriate common words for easy understanding purpose. So, it is very difficult task to give the financial management knowledge later to such top management in order to make him practice it in the actual management restructuring process.

Then, the Study Team provided various devices so that a general manager of SME would be interested in the e-learning course of the web site. Its contents were designed special for the top management's use with user-friendly and benefit oriented devices. The device to secure trade secrets of individual SME is carefully adopted. The features of the web system are described hereunder.

- (1) The contents are made compact by being limited within the essential subjects, which are indispensable to the study purpose.
- (2) The contents are designed to be able to be completed in a short time.
- (3) The exercises are designed to handle only own management problems of each SME. And person in charge of accounting of the company could help the general manager in works required for the exercises, if such help would be necessary.
- (4) The intrafirm analysis and the future plan of its company can be executed at the same time as learning about the cash flow management.
- (5) The automatic calculating program on the downloaded EXCEL Books accelerate the speed of the analysis. This practice would let the general manager know the usefulness of EXCEL as the most convenient management tool, too.
- (6) The device, which secures perfectly the trade secret of each SME, is adopted to make the web system being used at ease.

Even the manager with scarce financial affairs knowledge can starts from the basic chapter, and advance to the analysis chapter and the plan chapter, and complete these three chapters for a short time. On the other hand, the device in which steps can be learned bit by bit is installed to be able to study even at hashed time for the manager who cannot take settled sufficient time consume.

Contents of the web pages are as follows.

Basic Chapter

STEP1 Method of using the web system



STEP2 Why is the cash flow important now?



STEP3 Basic study of the cash flow

Analysis Chapter

STEP1 Recommendation of self-diagnosis of the management



STEP2 Analysis of the profit and loss statement



STEP3 Analysis of the cash flow statement



STEP4 Analysis of profitability of the SME



STEP5 Important management index list

Plan Chapter

STEP1 Method of the short-term plan



STEP2 Cash flow management basic plan (short term plan)



STEP3 Scenario of the business performance improvement



STEP4 Challenge to completion of the cash flow management plan

3.3.3 Introduction of New Approach

After the construction of analysis system executed by examining the documents written by the a lot of experts in the United States and Japan and adjusting it to the accounting standard and accounting practice of China, the Study Team fixed the methodology.

In addition, after passing the co-work by the Japanese certified public accountant and Chinese certified public accountant, two certified public accountants of the CGF checked again the contents.

As a result, this web offers new approach in China as shown hereunder.

(1) Operating Cash Flow by the Indirect Method

A special method of combination of the direct and indirect method is adopted in operating cash flow statement in China accounting standard though the operating cash flow can adopt either direct or indirect method in the international accounting standards.

In this web site, the indirect method is adopted as a result of the discussion among members in charge. The indirect method is general in Europe, United States and Japan. The merits of the indirect method are (1) first of all it is easy to make a cash flow statement and (2) the relation between the cash flow and accounting title is able to be understood clearly and to identify the improvement targets of the corporation. In addition, analysis of cash flow of foreign company could not be done by the direct method. And analysis of past cash flow of Chinese company before 1998 could not be done by the direct method.

There is no problem of the adoption of the indirect method if it is used for a purpose not of the financial accounting but of the management accounting.

(2) Analysis of the Business Performance for the Latest Three Accounting Periods

The Study Team proposes the time frame that analysis of the business performance should be carried out for the latest three accounting periods. This caused an unexpected discussion among the counter part.

One staff of the counter part proposed that as the financial institutions and the credit guarantee centers of China evaluate the enterprises only by the financial statements of the latest one-year, the web system must follow the existing practice. However, the Study Team did not adopt this idea because it is theoretically impossible to analyze or to forecast the business performance of the enterprises accurately. Instead, the Study Team introduces the Japanese practice of the credit guarantee system that carry out the appraisal based on the three years financial statements and Japanese corporation take this as the standards. It is expected that the quality of the appraisal by the financial institutions as well as credit guarantee centers could be improved to large extent by adopting three years frame and financial credibility on the Chinese enterprises trusted by foreign companies could be improved also.

(3) Qualitative Analysis by Manager of SME is Required

In self-diagnosis of this chapter, a manager is requested to elucidate the cause, which might bring the change in the management indexes for the three accounting periods based on the individual situations of each enterprise.

The manager comes to consider the problems of the company's management for the first time through this practical and comprehensive analysis. And, he could make decision on the management improvement by priority based on the clearer proofs.

Moreover, manager is requested to record the findings of the self-diagnosis. This record will be use as the important materials for the management improvement plan. There are a lot of plans with poor contents, in where such process of diagnosis is omitted. And a lot of enterprises seem to repeat such mistake in the corporate development plan. These practices should be removed to improve the quality of the business plan and repayment plan of SMEs.

3.3.4 Speedy Exposure and Downloads of the Web Pages

Because a heavy web page is disliked, the Study Team tried to lighten it as much as possible. The logos, the banners and the buttons are installed for the attractive appearance and good navigation of the web pages, however, those are limited at least numbers.

The size of the file is 608 Kilo Bites as a whole. However, the system can display the screen at pleasant speed by dividing three sub pages of the basic chapter, the analysis chapter and the plan chapter.

The Study Team recommends that the data input works or the analysis should be carried out on the own personal computer of SME after the download and store of the contents. This method has the advantage of saving both of the time and the expense as well as security of the trade secret.

Because the EXCEL Books are not integrated in one system, it is necessary to repeat the same data input works in some cases. Though the design is inconvenient for users a little, this has the advantage of easy maintenance of the system.

3.3.5 Promotion Network of the Web Site

Besides the CGF, some SMEs support organizations and banks including the Shenyang SMEs service center have the intention to use this system. Such phenomenon is desirable for the promotion of this system to SMEs. And a “promotion network” shall be made by voluntary participation of the organizations concerned as drawn as Fig. 29. Details of the current situation of the organizations concerned including existing and confirming ones are described hereunder.

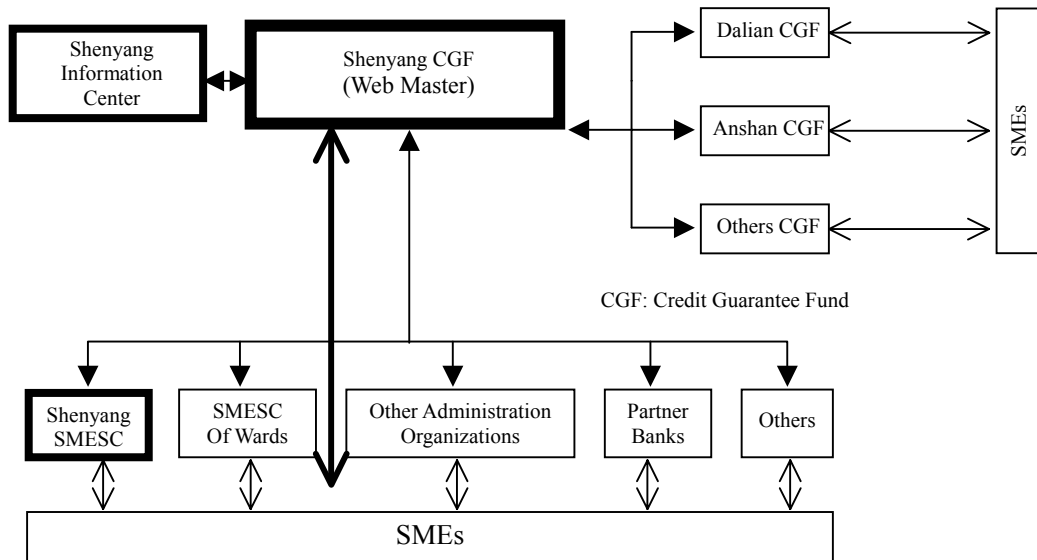


Fig. 29 Promotion Network of the Cash Flow-based Management Support System

(1) The CGF

The Study Team executed the workshop twice by the participation of almost all members of the CGF in June 2001. The first workshop was held for the CGF staffs exclusively and the second workshop was held as the joint workshop for 36 experts from three credit guarantee centers of the Liaoning province.

The CGF assisted the Study Team from the development stage of the web site. The experts of the CGF understand the contents accurately so that they could guide the cash flow management to SMEs or to other organizations concerned.

By the way, this center has own server and operate original web site to promote the credit guarantee business. The center sent news of the experimental operation of the cash flow management support system by this web site at the end of June 2001.

Moreover, the CGF plays role of the window of the cash flow-based management support web.

This center corresponds with questions from SMEs on the cash flow-based management by the FAQ (frequently asked question). The one by one response seems impossible due to the manpower availability so far.

This center has the intention to introduce this system to the SMEs support organizations and the partner banks.

(2) The Information Center

The Information Center offered its server for the pilot project and contributed to check usability of the web system at the development stage of the cash flow-based management support web site.

Now, clicking the banner of the SMEs information network's top page of which the Information Center takes charge can do the access of the cash flow management support web. Moreover, the FAQ made by the CGF staffs are sent by E-mail, and the persons in charge of the Information Center up-load those.

(3) The SMEs Business Advisory Center

The Study Team executed the workshop twice by the participation of almost all members of the SMEs Business Advisory Center in June 2001.

This organization seemed not to have been able to put out a clear conclusion how its business will relate to the cash flow management support web site due to the lack of the expert in accounting at the moment, though the participants could understand the contents of the web site.

It seems that the SMEs Business Advisory Center should consume a large energy for the partnership business now, and full assistance to promote the cash flow-based management support system shall be difficult.

(4) The SMEs Business Advisory Center of Dadong Ward (plan)

The Study Team introduced the cash flow-based management support system to the member of the SMEs Business Advisory Center of Dadong ward, which was in the preparing stage of establishment.

The member was interested in the system so that the SMEs Business Advisory Center seems to use it in the future.

(5) The Dalian SMEs Credit Guarantee Fund and the Anshan SMEs Credit Guarantee Fund

Almost of all staffs of both credit guarantee funds participated in the joint workshop of the Liaoning province credit guarantee funds (Jun 16, 2001-June 19, 2001). Thirty-six persons including staffs of the CGF ardently took training with the guest from Beijing. The Study Team was invited as the lecturer and carried out the introduction and demonstration of the cash flow-based management support web and lectured on the

credit guarantee system of Japan by spending two hours on June 18, 2001 three hours on June 16, 2001 respectively. The Dalian credit guarantee fund was interested in the cash flow management support system in particular. And the fund has been positively using it immediately after that.

3.3.6 Problem to be Solved in the Near Future

The existence of this web site should widely be known to SMEs as precondition of the success of the project. However, there exist limit in the advertising activities, which can be done only by the SMEs support organizations of the municipal administration because those organizations cannot afford temporally advertising expense and man-hours of staffs.

What the organizations concerned should put for an advertising strengthening to SMEs is described as follows.

(1) Cooperation Installation of Mass Media

It is cooperation of the mass media that a big advertising effect is achieved without putting expenditure. For instance, the government shall propose the plan of a regular serial on “Cash flow management” to the local newspapers. Serializing the theme by summarizing the content of the homepage and serve the column separately to several-time is the easy work.

(2) Cooperation Installation of Banks

It is quite necessary to obtain the cooperation of the banks in which a lot of bank clerks visit SMEs every day for the spread of the cash flow-base management support system. In that case, the independent strategy of each bank must be respected. The cash flow management link page for SMEs by linking here with the web site of the Study Team is planned in the HuaXia Bank. This is an example of using one and another banks' ideas of use it should be welcomed.

(3) Cooperation Installation of the Human Resources Development Organizations

It is possible that the organizations which operate the courses of financial affairs and accounting for the manager and the high-level executive training to introduces the cash flow support system to those trainees. Moreover, the contents could be compiling as a teaching material for the short-term training course for them.

3.3.7 Evaluation

(1) Evaluation of Role of Pilot Project for Policy Recommendations

The pilot project was selected to correspond to the highest priority item among the policy recommendations made by the Study Team. In Fig. 30, the recommended master plan for eight themes is shown on the left-hand side and an arrow with a solid line indicates those themes closely related to the pilot project. On the right-hand side, six action plans are listed as programs, which are urgently required to implement the master plan. Those directly related to the pilot project are indicated by an arrow with a solid line while those which are indirectly related are shown by an arrow with a broken line.

As shown in Fig.30, the pilot project covers many components of the master plan and the related action plans were formulated based on the pilot project results. In other words, the continuation and further development of the pilot project has become the most important task, indicating that the pilot project has achieved its objectives.

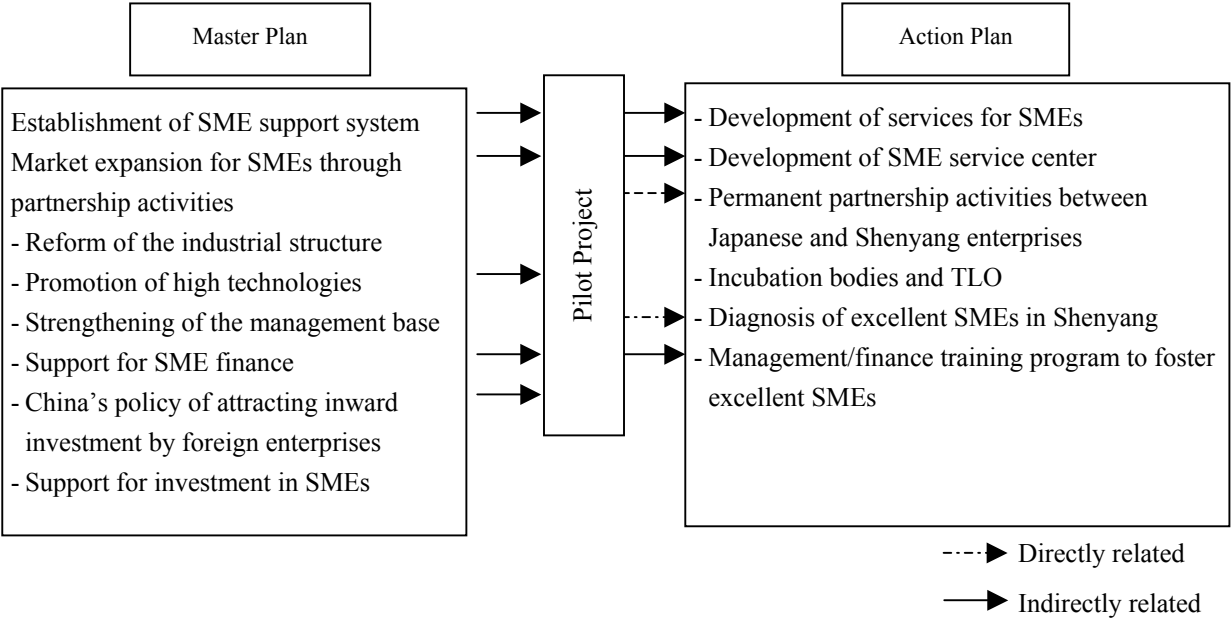


Fig. 30 Relationship Between Policy Recommendations and Pilot Project

(2) Effectiveness of Pilot Project

The private consultancy firm entrusted to conduct the diagnosis of 100 SMEs, which was the starting point of the Study, was designated to become the Shenyang SME Service Center by the municipal government in December 2000.

It was then decided that the Study Team would again entrust the work to the consultancy firm in question with a view to its fostering as a business introduction organization for the pilot project as well as the SME Service Center.

Three of the target SMEs for business introduction were selected from the 10 model SMEs.

As described above, the consistency of the study process from the initial stage to the implementation of the pilot project was maintained while also maintaining the relationship of this process with the entire scope of the Study. As a result, the high efficiency and effectiveness of the Study were achieved. The flow of the Study is shown in Fig. 31.

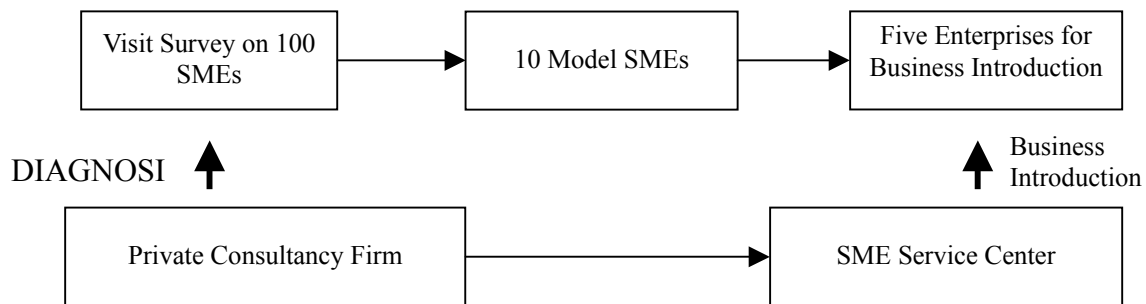


Fig. 31 Study Flow (from Diagnosis to Pilot Project)

3.3.8 Recommendations

(1) Maintenance of Information Network

The information network jointly created by the Japanese and Chinese sides under the pilot project is essentially part of the network of the SMETC and it is believed that its operation will be automatically transferred to the Chinese side. However, efforts to link it to other networks are required to increase the number of accesses. In the first stage, priority should be given to the establishment of links with those local networks in Shenyang operated by the municipal government, wards, development zones, FIC and the Science and Technology Committee.

(2) Partnerships

One important theme for the future is partnership activities with Japan. The municipal government, wards and development zones have already dispatched a number of trade missions. Information exchange on the Internet and other actions will be required to

enhance the effects of such visits, making the effective use of the information network created this time essential. For this purpose, a counterpart organization in Japan is required and it is desirable that the private sector in Japan plays a leading role. It is also desirable that this information network be linked to the Liaoning Provincial Government in order to secure Japanese cooperation even though the form of this link must be examined in a comprehensive manner from the viewpoint of effective marketing. This examination should also include China's forthcoming participation in the WTO in its scope.

As shown in Fig. 34, mutual access between Japanese and Chinese enterprises could take place in five stages.

- 1) Direct access between enterprises: mutual access to home pages, etc.
- 2) Use of portal sites in Japan and China
- 3) Automatic matching: for example, the TTPP run by the JETRO
- 4) Use of portal sites with an introduction function for members (for example, use of these sites by Japanese and Chinese traders handling SMEs)
- 5) Use of publicly run information networks with a business introduction function

The information network created this time is characterized by the presence of a Sino-Japan partnership function and the introduction of measures to maintain and develop this function is necessary. For this purpose, it is essential to create an environment in which partnership negotiations can smoothly progress due to the removal of uncertainties which could occur during such negotiations, including those relating to the details and background of information on needs, company outline, current situation and future prospects of the market and others, prior to negotiations taking place. Should this work to remove uncertainties be called "partnership interface", the establishment of such a partnership interface relating to needs and seeds will be an important requirement at the next step. Moreover, the development and improvement of a business introduction body on the Japanese side must also be examined.

(3) Fostering of SME Service Center

The ultimate objective of the Study is the creation of the SME Service Center in Shenyang. In the pilot project, emphasis was placed on the development of the business introduction function for SMEs of the Shenyang Municipal SME Service Center.

Firstly, the Study Team entrusted a survey on the demand for partnerships among SMEs in Shenyang to the Shenyang Municipal SME Service Center, followed by the preparation of a partnership interface. Secondly, business introduction consultants at the SME Service Center were trained through OJT.

Given the limited capability of the center in question, it is hoped that support for SMEs will be provided by service centers at the ward level, development zones and industrial parks together with support activities by the Productivity Promotion Center of the Science and Technology Committee, the FIC of which the participation in partnership activities is anticipated, business owners' associations and manufacturers' cooperatives. For the promotion of such activities, the creation of a system through cross-sectional collaboration led and coordinated by the SME Office is recommended.

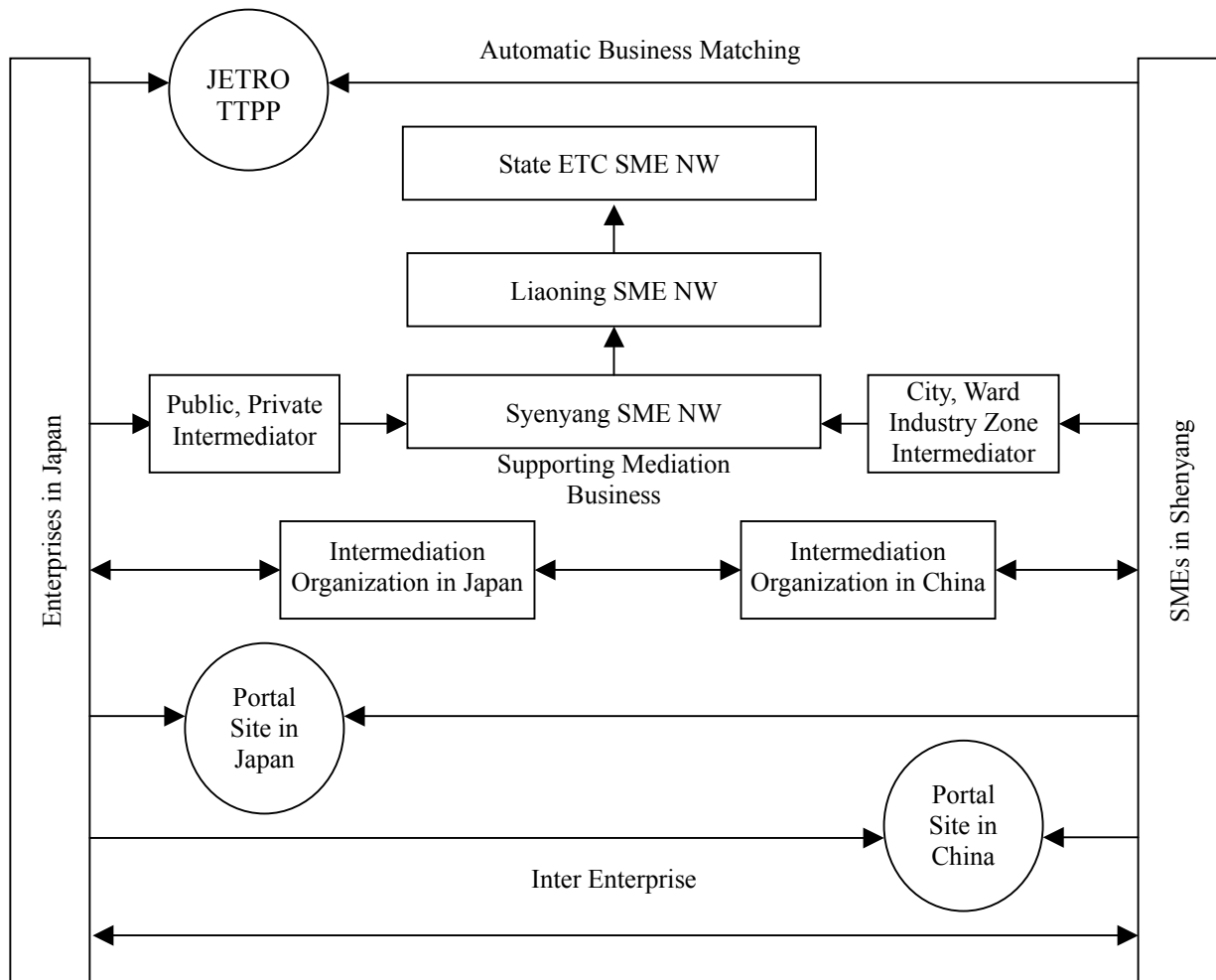


Fig. 32 Access Between Japanese and Chinese SMEs Via the Internet

CONCLUDING REMARKS

CONCLUDING REMARKS

1. Reflections on the Project

(1) Evaluation of the Study

- 1) The scheme of the Study suited the needs of the Chinese side (evaluation by the Chinese side).
- 2) The implementation timing was appropriate. As the Study was conducted when the promotion of SMEs began, some of the recommendations have actually been implemented. Compared to the time when the Study commenced, the staffing strength of the SME Office of the SMETC, have been halved but the Office have been concentrating on the work to facilitate the privatization of state-owned SMEs and to transfer the authority for their control from municipal governments to ward authorities. As shown in this case, the work of the Study Team and the work of the Chinese side have been mutually supplementary.
- 3) The SMETC has adopted and implemented the policy of entrusting support for SMEs to the SME Service Center and private bodies in order to minimize its involvement in the control of SMEs. It hopes to receive further assistance by a JICA study and the continuation of assistance by the DFID and the World Bank to foster and strengthen SME support bodies and to ensure their self-reliant development.
- 4) The Chinese counterparts honestly carried out what was advised or requested by the Study Team. For example, an information network has been created, meeting all of the detailed requirements in terms of the work schedule, completion date and specifications. The SME Service Center has cooperated with the Study Team from the beginning of the Study and has enthusiastically conducted the business introduction work.
- 5) The fact that promotion measures for SMEs in Shenyang are being implemented with the assistance of the JICA has frequently been reported by the Chinese mass media has contributed to the increased awareness as well as preparedness to promote SMEs (evaluation by the Chinese side).

(2) Achievements

- 1) Compared to its state in October 2000 when the Study commenced, the SME support system in Shenyang has made great progress. The major achievements are described below.
 - Establishment of SME Service Center (December 2000)
 - Commencement of JICA support for partnership activities (May 2001)
 - Transfer of the authority to control SMEs from municipal governments to ward authorities (SMEs are privatized as soon as this transfer takes place)
 - Establishment of the first ward level credit guarantee center (September 2001); it is planned that all wards will have a similar center by the end of 2001 with concrete preparations in progress to establish such a center in six wards by the end of 2001; opening of the SMETC Information Network (November 2000)
 - Opening of the network for SMEs created by the JICA (August 2001)
 - Advancement of privatization (target figure of 90% by June 2002)
 - Briefing on the promotion of innovative technologies and available government support for 100 excellent SMEs (February and March 2001)
 - Launching of the second business consultancy firm with the assistance of the DFID (July 2001)
- 2) 80 SMEs seeking partnerships have registered with the new Shenyang SME Information Network to send out their seeds and needs.
- 3) One model enterprise has exchanged a letter of intention through the business introduction service and negotiations are in progress with a view to establishing a partnership. A total of three cases of business introduction have emerged involving model enterprises.

2. Project Evaluation from Viewpoint of Study on Model Cities

Shinnying and Hingham were selected as the first model cities for the Small and Medium Enterprise Promotion Plan in China. China's leading heavy industries are located in Shinnying, such as jet engine and aircraft industries. It is an area where large state-owned enterprises developed over decades and local SME face many problems.

In contrast, Hingham is characterized by light industries and is a growth area for SME in China. It is believed that the findings of the Study for these two cities of completely different characters will be very useful for the purpose of providing reference materials for other cities in China.

The Study Team believes that the concept of SME and SME promotion measures, which have been made into models, among the recommendations based on the study findings can be applied to other areas in China.

(1) Characteristics of SMEs in Shinyang and Application to Other Cities

1) SME Support Model

A SME service center has been established in various cities under the instruction of the State Economic and Trade Commission. In Shenyang, the embryonic semi-governmental joint stock SME Service Center and SME Credit Guarantee Fund had already been established with the assistance of such international aid organizations as the JICA, the DFID and the World Bank even though the timing of their establishment was relatively late. During the study period, the functions of these centers were strengthened. A municipal SME support system is about to be fully developed through collaboration with ward level SME service Centers and Credit Guarantee Fund and with activities to attract and support SMEs by industrial development zones (industrial parks). The creation of a powerful support system can be expected through collaboration with the Productivity Promotion Center of the Science and Technology Commission. The SME Service Center, fostered by the DFID and assisted by the JICA, resembles the picture of the common model envisaged by international aid organizations. The DFID has provided guidance for this center on company diagnosis while the JICA has provided guidance on diagnosis, mainly featuring factory production, business introduction work and FS techniques using COMFAR, a software developed by the UNIDO. The center highly evaluates the Japanese-style diagnosis and guidance method emphasizing “manufacturing” compared to the British techniques taught by the DFID and is eager to learn this method.

The support system described above is believed to provide a useful model for other cities.

2) Information Network Model

Information networks are fairly spread throughout China with diverse information bases, ranging from nationwide to a single enterprise. However, the concrete information lacks universal applicability as it tends to feature a specific geographical area.

The Shenyang SME Network provides not only information but also techniques and education software which are useful for SMEs. These general-purpose tools should prove useful for other cities. The main tools are listed below.

- a) Software to enable SMEs to create their own HP without difficulty
- b) High performance search engine
- c) Education software for cash flow-based management
- d) English-Chinese automatic translation software

The effectiveness of these tools can be much enhanced by educational and dissemination activities by the SME Service Center, the SME Information Center and the SME Credit Guarantee Fund.

3) Improvement of Financial Problems of SMEs Through Wide Use of Cash Flow-Based Management

Fundamental reform of SME finance in China cannot be achieved without a change of the attitude of SMEs of not being bothered about repaying loans. In addition, SMEs must be encouraged to accumulate their own funds. Without such reform, no development of the guaranteed loan system involving credit guarantee centers and joint equity commercial banks can take place. The cash flow-based management software provided by the Shenyang SME Network provides a concrete tool to improve this situation and its wide use in China will increase the number of SMEs eligible for a bank loan.

4) Partnership Activities

Partnership activities currently exist between large enterprises. However, many SMEs do not even have access to overseas information. As a measure to rectify this situation, an information network service for SMEs can contribute to the business growth of SMEs. The Study Team has created a partnership model for Japanese and Shenyang enterprises using the Internet. This model is mostly characterized by its inclusion of information from Japan and its ability to send business information on

SMEs in Shenyang. In order for this network to produce successful results, further strengthening of its business introduction function is required. This work was fully conducted during the pilot project period because of the limited time and other reasons. However, it must be pointed out that there are several pending tasks.

- a) The Chinese side should create manuals to deal with business needs and seeds to facilitate a mutual understanding of Chinese and Japanese SMEs participating in partnership activities. Some type of Japanese assistance is desirable for business introduction bodies to learn and accumulate the relevant know-how.
- b) Partnership activities can be further promoted by establishing private business introduction bodies in both Japan and China.

In regard to the dissemination of this model to other areas in China, the Study Team has been told that a private Chinese enterprises already involved in trade between Chinese and Japanese SMEs is hoping to launch its own network similar to that created by the Study Team.

5) Integrated SME Promotion Measures

The integrated measures to foster excellent SMEs, incorporating all of the master plan items recommended to the Shenyang Municipal Government by the Study Team, are outlined below. The model described can be applied to other areas in China.

Starting with the improvement of SME management using the “cash flow-based management system for SMEs”, it is desirable for various banks and SME service centers to provide the types of customer services which cannot be provided by credit guarantee centers. For example, it is most desirable for excellent SMEs to be fostered and supported by a combination of technical management guidance provided by the Productivity Promotion Center. Such a combined service will prove to be quite productive for an increase of the customers, in addition to being advantageous for customers, of various financial institutions (mainly banks), the SME Service Center and such technical guidance centers as the Productivity Promotion Center as an additional SME service to that provided by Credit Guarantee Fund. Fig. 33 shows the draft mechanism of these services.

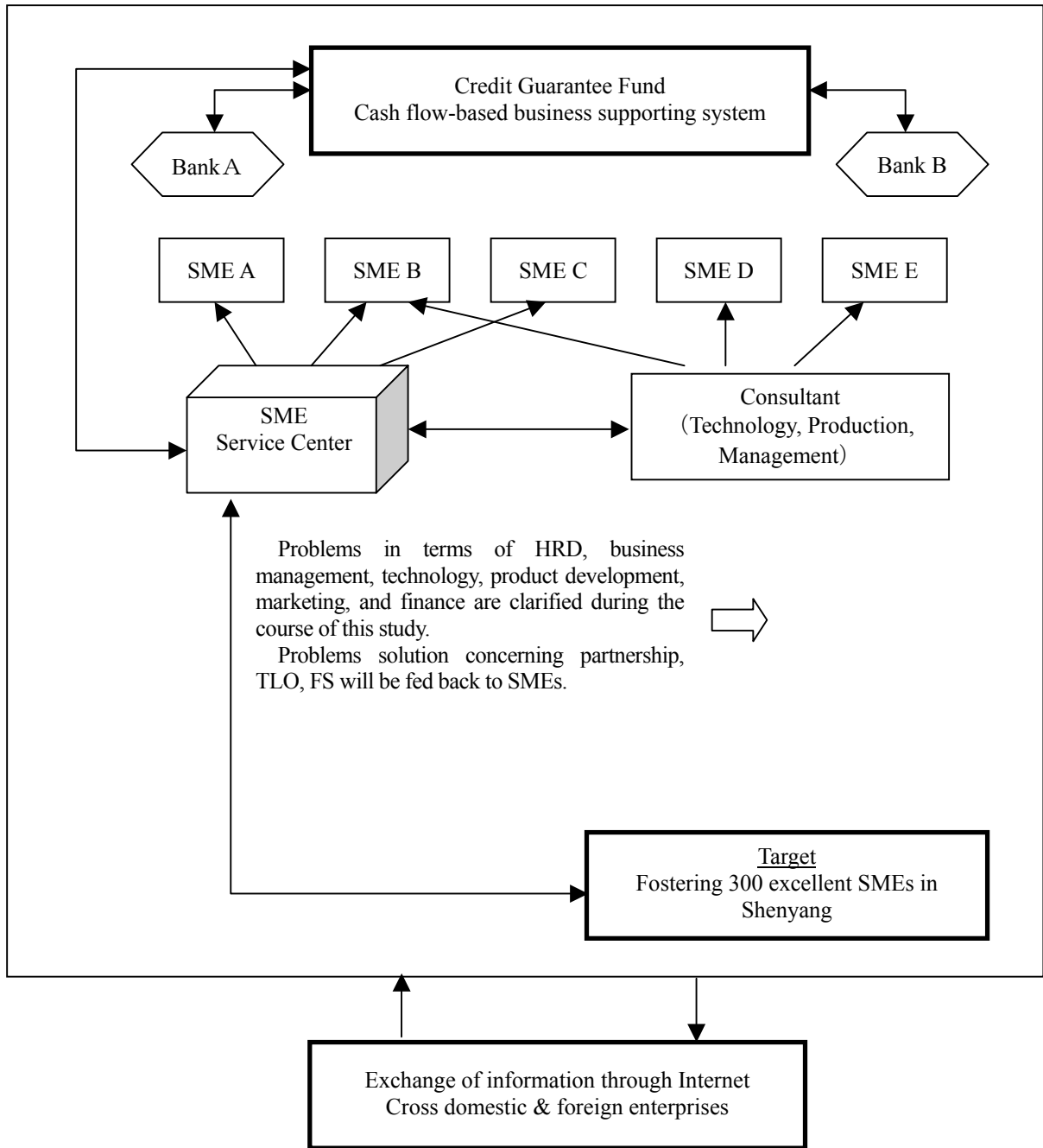


Fig. 33 Fostering Program of Excellent SMEs in Shenyang promoted by Shenyang CGF

(2) Evaluation of Master Plan for Shenyang from Viewpoint of National SME Promotion Policies

Table 14 shows how the master plan recommended to the Shenyang Municipal Government satisfies the national SME promotion policies in China. In particular, the recommendations implemented under the pilot project embody the SME policies indicated by the Government of China. The shaded items correspond to the intended

SME support measures of the SME Promotion Law. It is believed that the continued implementation of these items should achieve significant results.

Table 14 Comparison Between Master Plan Items and SME Policies/Opinions of Government of China

Master Plan Items Recommended to Shenyang Municipal Government	SME Policies of Government of China (SME Promotion Law and Opinions on Desirable Policies)
Establishment and fostering of SME support system	<ul style="list-style-type: none"> • To provide support for (i) the diagnosis of and consulting for SMEs and (ii) information gathering, exchange, market development and human resources development by SMEs
Expansion of market for SMEs through partnership activities	<ul style="list-style-type: none"> • To support self-reliant, import-export activities by SMEs • To support business start-up by 100% investment or shareholding by foreign enterprises through the provision of preferential measures for SMEs exporting high technologies
Establishment and expansion of information networks	<ul style="list-style-type: none"> • To establish publicly accessible SME information service systems, making the best use of advanced technologies, including computer networking
Promotion of high technologies	<ul style="list-style-type: none"> • To lead and spread technological innovation using existing science and technologies and industrial parks • To analyze successful examples of technological innovation service bodies in each area and sector to identify common factors • To accelerate the fostering of technological innovation bases as well as industrial application bases to promote SMEs
	<ul style="list-style-type: none"> • To encourage and support the transformation of various research sections to business introduction bodies mainly serving SMEs in line with the reform of the science and technology R & D system
Reform of industrial structure	<ul style="list-style-type: none"> • To encourage the subcontracting of the manufacture of some products and parts by large enterprises to SMEs under specified conditions set by governments at all levels • To eliminate various regional protection measures to create market conditions where SMEs can compete with large enterprises in a fair manner
	<ul style="list-style-type: none"> • To encourage technological innovation
Strengthening of management base	<ul style="list-style-type: none"> • To encourage and support the strengthening of SMEs • To support the development of SMEs to become high-tech enterprises with improved technological innovation capability and market competitiveness
SME finance - Spread of cash flow-based management - Expansion of credit guarantee centers - Invitation to joint equity commercial banks to establish branches in Shenyang	<ul style="list-style-type: none"> • To encourage and support joint equity commercial banks, city commercial banks and urban-rural joint financial institutions which mainly serve SMEs
	<ul style="list-style-type: none"> • To actively improve the business environment for SMEs
	<ul style="list-style-type: none"> • To urgently strengthen the credit guarantee system

REFERENCES

1. Statistical Data of SMEs in Shenyang

Table 1 Classification Criteria of Enterprises by Scale

	Annual Turn Over and Total Asset
Super large-scale enterprises	More than RMB 5 billion Yuan to each criterion
Large-scale enterprises	More than RMB 500 million Yuan to each criterion
Medium-sized enterprises	More than RMB 50 million Yuan to each criterion
Small-sized enterprises	Less than RMB 500 million Yuan to each criterion

Source: The Japan-China Economic Association by compilation of the "Economic Information Report April 19, 1999"

The existing classification is shown in Table 2, though the criteria to identify the eligibilities are set to either the amount of paid up capital or the number of employees. The division of manufacturing industry of Table 2 is comparable to those of China mentioned above. However, as the Japanese criteria do not apply the criterion of annual turn over, some enterprises of which annual turn over far exceeds RMB 50 million Yuan may be included.

Table 3 Trend of GDP Growth Rate (Current Prices)

Year	GDP (RMB billion)	Growth Rate (%)	Share (%)		
			Primary Industries	Secondary Industries	Tertiary Industries
1990	23.45	8.0	10.1	45.7	44.2
1991	25.43	8.4	10.0	44.6	45.4
1992	32.54	28.0	9.0	46.3	44.7
1993	42.52	30.7	8.2	47.0	44.8
1994	55.63	30.8	8.0	46.2	45.8
1995	68.26	22.7	7.5	44.5	48.0
1996	76.44	12.0	7.2	43.1	49.7
1997	85.11	11.3	6.9	44.0	49.1
1998	93.88	10.3	6.9	43.9	49.2
1999	101.32	7.9	6.9	43.8	49.3

Source: Compiled based on data in Shenyang Yearbook 2000

Table 4 Trend of Gross Industrial Production

Year	Gross Manufacturing Production (RMB billion)	Growth Rate (%)
1990	35.98	-
1993	67.15	23.5
1994	85.09	25.2
1995	87.47	17.2
1996	102.12	15.4
1997	115.01	17.9
1998	133.30	20.8
1999	152.36	18.3

Source: Shenyang Yearbook 2000

Table 5 Number of Industrial Enterprises

	Number of Enterprises			Ratio (%)		
	Total	Above Threshold	Below Threshold	Total	Above Threshold	Below Threshold
Total	57,679	1,150	56,529	100.0	2.0	98.0
By Type of Ownership						
State Enterprise	475	475	0	100.0	100.0	0.0
Collective Enterprise	5,132	178	4,954	100.0	3.5	96.5
Stock Company	540	44	496	100.0	8.1	91.9
Group Enterprise	35	13	22	100.0	37.1	62.9
Limited Responsibility Company	73	73	0	100.0	100.0	0.0
Limited Responsibility Stock Company	37	37	0	100.0	100.0	0.0
Private Enterprise	3,790	125	3,665	100.0	3.3	96.7
One-Man Business	47,017		47,017	100.0	0.0	100.0
JV with Foreign Capital (Hong Kong, etc. included)	428	205	223	100.0	47.9	52.1
Other Enterprises	152		152	100.0	0.0	100.0
By Heavy or Light Industry						
Light Industry	37,876	441	37,435	100.0	1.2	98.8
Heavy Industry	19,803	709	19,094	100.0	3.6	96.4
By Business Size						
Large	84	84	0	100.0	100.0	0.0
Medium	67	67	0	100.0	100.0	0.0
Small	57,528	999	56,529	100.0	1.7	98.3
By Urban or Rural Industry						
Rural Industry	48,425	0	48,425	100.0	0.0	100.0
Urban Industry	9,254	1,150	8,104	100.0	12.4	87.6

Source: Compiled based on data in Shenyang Yearbook 2000

Table 6 Production Value by Industrial Enterprises (1999 Prices)

	Number of Enterprises			Ratio (%)		
	Total	Above Threshold	Below Threshold	Total	Above Threshold	Below Threshold
Total	152,355	58,267	94,088	100.0	38.2	61.8
By Type of Ownership						
State Enterprise	17,906	17,906	0	100.0	100.0	0.0
Collective Enterprise	19,775	4,035	15,741	100.0	20.4	79.6
Stock Company	1,654	851	803	100.0	51.5	48.5
Group Enterprise	242	195	47	100.0	80.6	19.4
Limited Responsibility Company	8,299	8,299	0	100.0	100.0	0.0
Limited Responsibility Stock Company	10,782	10,782	0	100.0	100.0	0.0
Private Enterprise	17,912	4,375	13,537	100.0	24.4	75.6
One-Man Business	62,688	0	62,688	100.0	0.0	100.0
JV with Foreign Capital (Hong Kong, etc. included)	12,318	11,824	494	100.0	96.0	4.0
Other Enterprises	778	0	778	100.0	0.0	100.0
By Heavy or Light Industry						
Light Industry	63,141	15,492	47,649	100.0	17.4	53.4
Heavy Industry	89,214	42,775	46,439	100.0	47.9	52.1
By Business Size						
Large	31,289	31,289	0	100.0	100.0	0.0
Medium	3,498	3,498	0	100.0	100.0	0.0
Small	117,568	23,480	94,088	100.0	20.0	80.0
By Urban or Rural Industry						
Rural Industry	82,023	0	82,023	100.0	0.0	100.0
Urban Industry	70,332	58,267	12,065	100.0	82.8	17.2

Source: Compiled based on data in Shenyang Yearbook 2000

Table 7 Distribution of Industrial Enterprises by Type of Ownership and Business Size (1999)

(Unit: %)

	Number of Enterprises			Production Value		
	Total	Above Threshold	Below Threshold	Total	Above Threshold	Below Threshold
Total	100.0	100.0	100.0	100.0	100.0	100.0
By Type of Ownership						
State Enterprise	0.8	41.3	0.0	11.8	30.7	0.0
Collective Enterprise	8.9	15.5	8.8	13.0	6.9	16.7
Stock Company	0.9	3.8	0.9	1.1	1.5	0.9
Group Enterprise	0.1	1.1	0.0	0.2	0.3	0.0
Limited Responsibility Company	0.1	6.3	0.0	5.4	14.2	0.0
Limited Responsibility Stock Company	0.1	3.2	0.0	7.1	18.5	0.0
Private Enterprise	6.6	10.9	6.5	11.8	7.5	14.4
One-Man Business	81.5	0.0	83.2	41.1	0.0	66.6
JV with Foreign Capital (Hong Kong, etc. included)	0.7	17.8	0.4	8.1	20.3	0.5
Other Enterprises	0.3	0.0	0.3	0.5	0.0	0.8
By Heavy or Light Industry						
Light Industry	65.7	38.3	66.2	58.6	26.6	50.6
Heavy Industry	34.3	61.7	33.8	20.5	73.4	49.4
By Business Size						
Large	0.1	7.3	0.0	20.5	53.7	0.0
Medium	0.1	5.8	0.0	2.3	6.0	0.0
Small	99.7	86.9	100.0	77.2	40.3	100.0
By Urban or Rural Industry						
Rural Industry	84.0	0.0	85.7	53.8	0.0	87.2
Urban Industry	16.0	100.0	14.3	46.2	100.0	12.8

Source: Compiled based on data in Shenyang Yearbook 2000

Table 8 Business Activities of Small Enterprises Above the Threshold (1999)

(Unit: RMB million)

Item	Total	Average
Number of Enterprises	999	1
Number of Loss-Making Enterprises	359	0
< Production Activities >		
Production Value	23,479.33	23.60
Sales Value	22,654.76	22.68
Intermediate Input	17,076.21	17.09
Amount of Increase	7,265.25	7.27
< Balance Sheet >		
Total Assets	51,268.79	51.32
Current Assets	24,980.77	25.01
Trade Receivable	5,669.50	5.68
Inventory	3,692.32	3.70
Long-Term Investment	1,694.62	1.70
Fixed Assets	20,252.49	20.37
Acquisition of Fixed Assets	24,442.19	24.47
Of Which is Production Equipment	18,612.71	18.63
Aggregate Depreciation	6,671.47	6.68
Depreciation for the Year	871.16	0.87
Book Price of Fixed Assets	17,770.72	17.79
Liabilities	33,347.07	33.38
Current Liabilities	26,039.28	26.07
Long-Term Liabilities	6,469.52	6.48
Own Capital (Net Worth)	17,921.72	17.94
Capital	15,575.20	15.59
State Enterprises	6,585.87	6.59
Collective Enterprises	1,136.55	1.14
Incorporated Enterprises	2,214.12	2.22
Private Enterprises	1,071.51	1.07
Hong Kong, Macao and Taiwanese Subsidiaries	1,722.26	1.72
Foreign Subsidiaries	2,844.88	2.85
< Profit and Loss Statement >		
Sales Income	21,202.31	21.22
Product Cost	17,425.23	17.44
Sales Cost	1,100.47	1.10
Sales Tax and Others	186.19	0.19
Sales Profit	2,252.42	2.25
Other Operating Income	168.24	0.17
Management Cost	1,921.89	1.92
Tax	60.67	0.06
Insurance Premium for Assets	20.47	0.02
Unemployment Insurance Premium	199.93	0.20
Accounting Cost	513.87	0.51
Interest Paid	415.58	0.42
Operating Profit	-4.95	0.00
Gross Profit	272.23	0.27
Income Tax	206.44	0.21
Loss for Those Enterprises in the Red	1,011.87	1.00
Gross Tax on Profit	1,320.56	1.32
Welfare Cost	170.55	0.17
Value Added Tax	862.12	0.86
Purchase Tax	2,219.82	2.22
Business Tax	2,703.71	2.71
< Employment >		
Number of Employees	2,626.65	2.63

Table 9 Breakdown of Paid Capital by Type of Ownership

Paid Capital Total (RMB billion)	155,752.0	100.0%
State Enterprises	65,858.7	42.3%
Collective Enterprises	11,365.5	7.3%
Incorporated Enterprises	22,141.2	14.2%
Private Enterprises	10,715.1	6.9%
Hong Kong, Macao and Taiwanese Subsidiaries	17,222.6	11.1%
Foreign Subsidiaries	28,448.8	18.3%

Source: Compiled based on data in Shenyang Yearbook 2000

Table 10 Totalized Profit and Loss Statements

Item	Amount (RMB million)	Ratio (%)
Sales Income	21,202.31	100.0
Product Cost	17,425.23	82.2
Sales Cost	1,100.47	5.2
Sales Tax and Others	186.19	0.9
Sales Profit	2,252.42	10.6
Other Operating Income	168.24	0.8
Management Cost	1,921.89	9.1
Tax	60.67	0.3
Insurance Premium for Assets	20.47	0.1
Unemployment Insurance Premium	199.93	0.9
Accounting Cost	513.87	2.4
Interest Paid	415.58	2.0
Operating Profit	-4.95	0.0
Gross Profit	272.23	1.3
Income Tax	206.44	1.0
Loss for Those Enterprises in the Red	1,001.87	4.7
Gross Tax on Profit	1,320.56	6.2
Welfare Cost	170.55	0.8
Value Added Tax	862.12	4.1
Purchase Tax	2,219.82	10.5
Business Tax	2,703.71	12.8

Source: Compiled based on data in Shenyang Yearbook 2000

Table 11 Main Financial Indices

(Unit: RMB million)

Total Capital	51,268.79
Current Assets	24,980.77
Current Liabilities	26,039.28
Liabilities	51,268.79
Net Worth (Own Capital)	17,921.72
Paid Capital	15,575.20
Ratio of Net Worth to Total Capital (%)	35
Ratio of Liabilities (%)	65

Source: Compiled based on data in Shenyang Yearbook 2000

Table 12 Visit Survey Findings by Sector

Item (1999)	General Machinery	Automobile Parts	Electronics and Information	Environmental Protection	Other
Number of companies visited	11	11	10	11	12
Number of 100% private enterprises/Ratio (%)	0/0%	7/64%	3/30%	2/18%	9/75%
Capital (range of distribution) (million Yuan)	0.5–14	0.4–112	0.1–232	0.4–55	0.5–43
Capital (average) (1000 Yuan)	4,688	16,147	53,165	13,616	11,343
Total assets (range of distribution) (million Yuan)	9–79	3–343	3–602	2–120	7–53
Total assets (average) (1000 Yuan)	32,022	69,132	127,341	29,990	24,446
Number of employees (range of distribution)	83–849	63–2607	30–1,100	20–390	12–397
Number of active employees (range of distribution)	276	334	336	127	120
Total sales turnover (range of distribution) (million Yuan)	2.4–22	2.8–101	0.1–256	0–142	0.2–84
Total sales turnover (average) (1000 Yuan)	8,476	23,774	28,065	20,630	13,875
Sales turnover compared to previous year (%)	73.0	138.0	91.6		95.6
Labor productivity (sales turnover per worker) (average) (Yuan)	30,681	71,180	83,627	162,559	73,157
Turnover of total capital (average) (frequency)	0.27	0.34	0.22	0.69	0.60
Gross profit on sales (range of distribution) (million Yuan)	-0.5–0.2	-2.8–5	-9.6–28	-3.4–24	-3–2
Gross profit on sales (average) (1000 Yuan)	-47	-2,349	2,077	2,437	-338
Gross profit compared to previous year (%)			117.7		
Gross profit margin (average) (%)	-0.6	-9.9	7.4	11.8	-18
Ordinary profit (average) (1000 Yuan)		77	2,183		-530
Ordinary profit per active employee (average) (Yuan)		231	6,505		
Average monthly salary (range of distribution) (Yuan)	228–658	332–1,000	150–1,200	300–1,250	353–950
Average monthly salary (average) (1000 Yuan)	396	607	582	709	624
Paid taxes (average) (1000 Yuan)	414	849	102	1,492	458
Number of companies/Ratio (%) with 0 paid tax	1/9%	0/0%	4/40%	4/36%	1/8%
Fixed costs (average) (1000 Yuan)	2,255	5,761	813	1,811	3,275
Plant investment (average) (1000 Yuan)	66	25,812	1,328	856	2,045
Number of companies/Ratio (%) with 0 capital investment	9/82%	2/18%	7/70%	7/64%	4/33%
Long-term borrowing (average) (million Yuan)	2,061	17,584	232	0.2	249
Short-term borrowing (average) (million Yuan)	6,228	17,897	23	3	892
Number of companies/Ratio (%) with 0 borrowing	1/9%	0/0%	1/10%	5/45%	1/17%
Site area (average) (10000 m ²)	23	29	46	33	17
Building area (average) (1000 m ²)	7	10	49	10	5

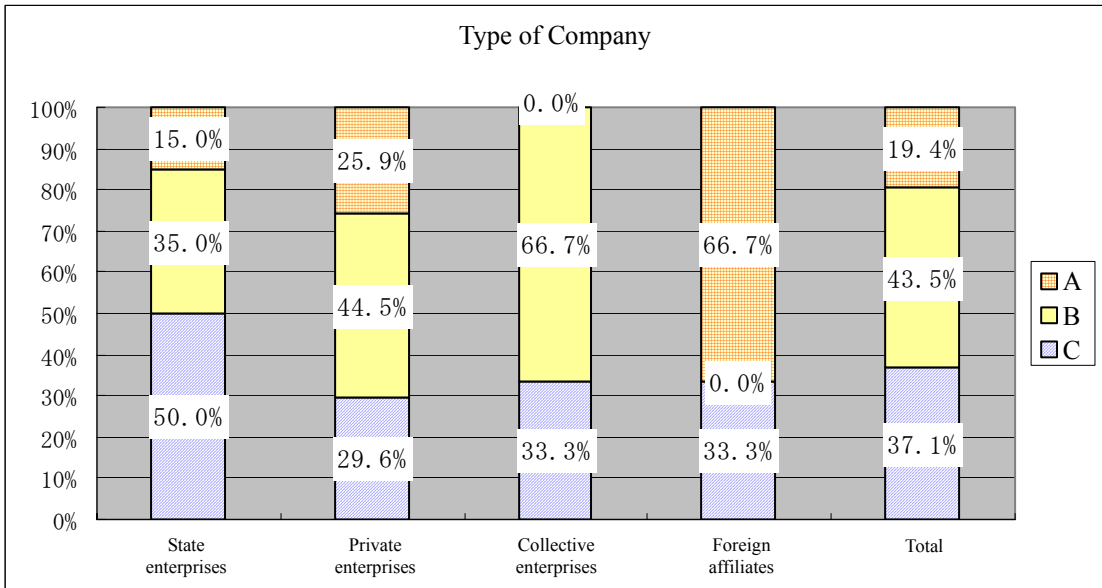


Fig. 1 Comparison of Business Capacity by Type of Company

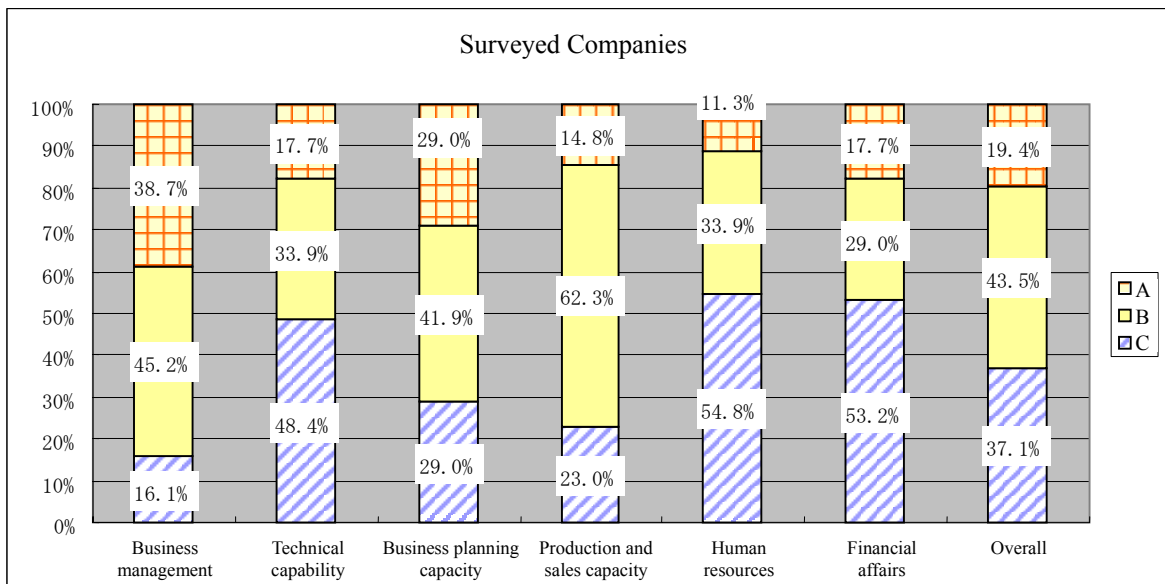


Fig. 2 Assessment by Item of All Surveyed Companies

Table 13 Assessment Items by Sector

	Assessment Score Level	Assessment Item						
		Business management	Technical capability	Business planning capacity	Production and sales capacity	Human resources	Financial affairs	Overall
All surveyed companies	A	20	8	11	7	15	8	8
	B	22	16	23	31	15	13	31
	C	10	28	18	14	32	31	13
General machinery	A	2	0	0	0	0	0	0
	B	2	5	3	5	2	0	4
	C	5	4	6	4	7	9	5
Automobile parts	A	3	2	4	3	2	1	2
	B	5	4	5	8	4	5	5
	C	3	5	2	0	5	5	4
Electronics and information	A	3	1	3	0	0	1	1
	B	7	2	5	8	2	1	2
	C	0	7	2	2	8	8	7
Environmental protection	A	7	5	4	4	3	6	5
	B	3	3	6	7	5	2	5
	C	1	3	1	0	3	3	1
Other	A	3	7	2	2	3	4	6
	B	11	7	7	10	8	10	11
	C	11	7	8	11	8	6	4

A: 3.5 or more B: 2.5-3.4 C: less than 2.5

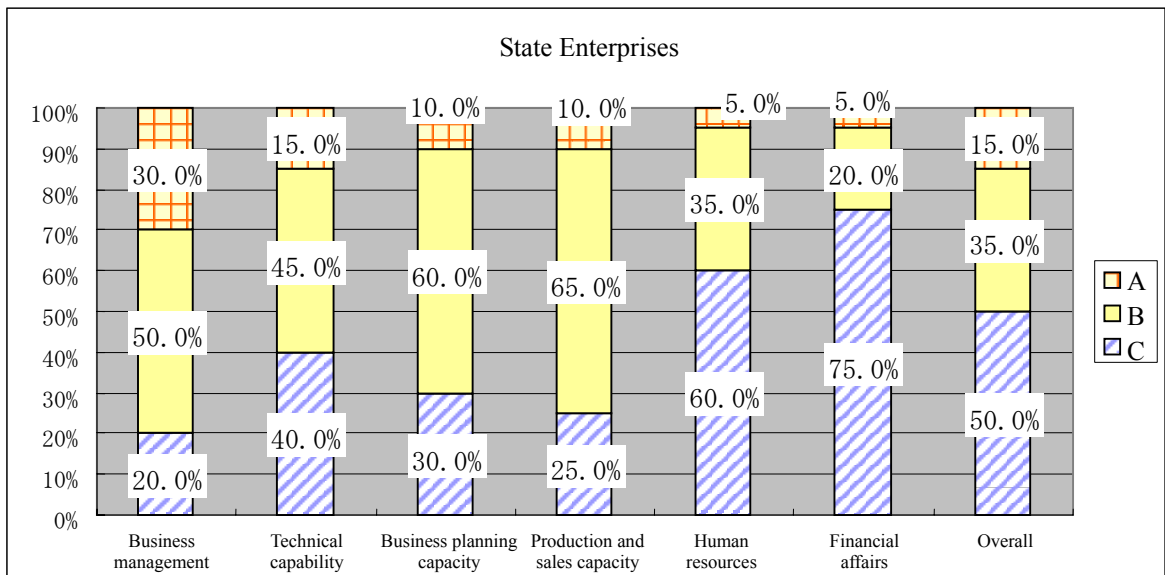


Fig. 3 Assessment of State Enterprises

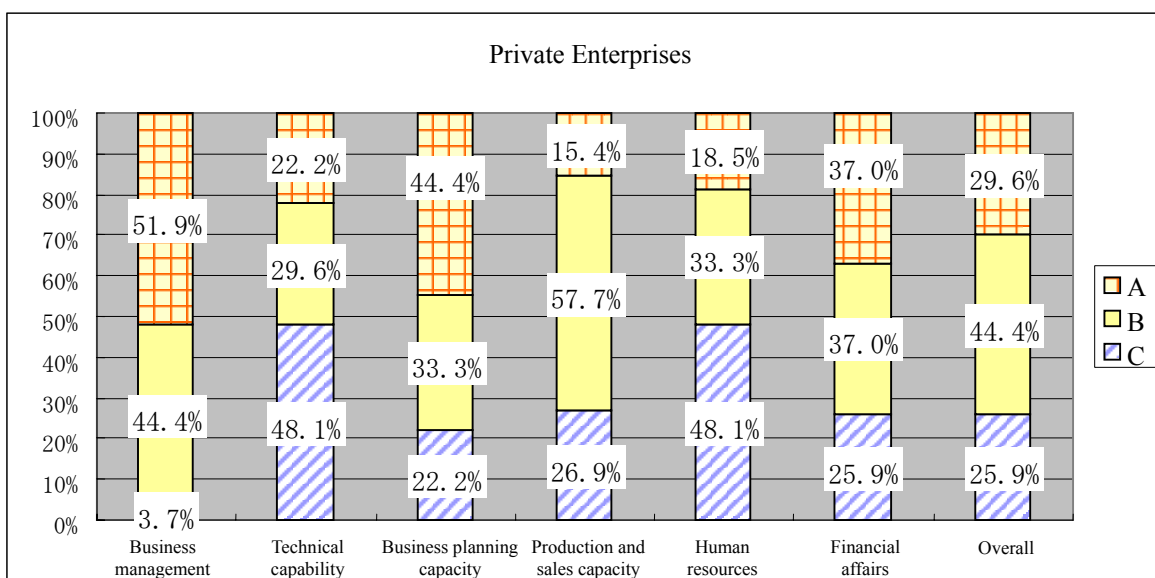


Fig. 4 Assessment of Private Enterprises

Table 14 Assessment Items by Type of Company

	Assessment Score Level	Assessment Item						
		Business management	Technical capability	Business planning capacity	Production and sales capacity	Human resources	Financial affairs	Overall
All surveyed companies	A	6	3	2	2	1	1	3
	B	10	9	12	13	7	4	7
	C	4	8	6	5	12	15	10
General machinery	A	14	6	12	4	5	7	7
	B	12	8	9	15	9	10	12
	C	1	13	6	7	13	10	8
Environmental protection	A	3	0	2	1	0	1	0
	B	6	4	5	9	4	4	8
	C	3	8	5	2	8	7	4
Other	A	2	2	2	1	2	2	1
	B	0	0	0	0	1	0	0
	C	1	1	1	1	1	1	2

A: 3.5 or more B: 2.5-3.4 C: less than 2.5

2. PDMs Formulated for the Pilot Project

Table 15 Different Types of Enterprises in China

Type of Enterprise	Relevant Law	Conditions of Establishment (Outline)	Ownership	Responsibility of Investor	Related Public Offices	Characteristics
State-owned Enterprise	People-Owned Manufacturing Company Law (enforced on 1 st August, 1988)	Approval by the competent government ministry	State	Unknown	National, provincial, municipal, district, town or village government	Some are non-judicial persons
Collective Enterprise			Collectively owned	Unknown	Provincial, municipal, town or village government	Many are town or village enterprises. Easier to establish than state enterprises
Limited Liability Corporation	Corporation Law (enforced on 25 th December, 1999, revised on 29 th December, 1999)	2 – 50 promoters; minimum capital: RMB 0.5 million for a manufacturing enterprises and RMB 0.2 million for a science and technology enterprise or consultancy firm	Shareholders	Limited responsibility		Either newly established or transformed from a state or collective enterprise; the latter is called a “transformed” enterprise; has a close relationship with the previous competent authority; similar to a limited responsibility company in Japan
Limited Liability Stock Corporation	As above	Five or more promoters; may be less than five promoters in the case of transformation from a state enterprise; minimum capital for public subscription: RMB 10 million	Shareholders		Private Enterprise Commission and External Trade Commission, etc; Securities Supervising Commission in the case of a listed enterprise	As above; very similar to a stock enterprise in Japan
Partnership	Partnership Law (enforced on 1 st August, 1997)	Based on a written agreement by at least two partners	Partners	Unlimited responsibility	Private Enterprise Commission and External Trade Commission, etc; Securities Supervising Commission (Collective Stock Enterprises Control Bureau) in the case of a listed partnership	Similar to an unlimited partnership in Japan; many are law or accountancy firms
Town or Village Enterprise	Town or Village Enterprise Law (enforced on 1 st July, 1997)	No specific conditions; a town or village enterprise is defined as an enterprise in which a village collective or the farmers of a village or town mainly invest (minimum investment ratio: 50%)	Investors (collective or individuals)	Unknown	Collective Enterprise Management Bureau	
Private Enterprise	None; Provisional Regulations on Private Enterprises of the State Council (enforced on 1 st July, 1988)	Three types: 1) Self-capitalized enterprise: one or more investors 2) Partnership: integrated to the Partnership Law 3) Limited responsibility corporation: integrated to the Corporation Law	Investor(s)	Unlimited responsibility	Private Enterprises Development Promotion Commission	

- Foreign Subsidiary: the details are omitted here; Joint Venture: Chinese and Foreign Capital Joint Venture Law (4th April, 1990); Joint Management Enterprise: Chinese and Foreign Joint Management Enterprise Law (13th April, 1988); 100% Foreign Subsidiaries: Foreign Subsidiary Law (12th April, 1986) Capital refers to “paid capital” in all cases.
- In addition to those listed above, one-man businesses (self-employed) also exist.

Table 16 Project Design Matrix (PDM1)

Project: Information Network Service for Small and Medium Enterprises

Period: October, 2000 – August, 2001

Place: Shenyang city, China

<Narrative Summary>	<Objectively Verifiable Indicators>	<Means of Verification>	<Important Assumption>
<p><Overall Goal> Promotion of small and medium enterprises (SMEs) in Shenyang City</p>	<p>Decrease in number of SMEs in Shenyang City in deficit operation</p>	<p>Business reports of enterprises registered with database (DB)</p>	<p>Factors of business fluctuations seen from the viewpoint of Country or Province are excluded.. Period taken into account is some years starting from October 2000.</p>
<p><Project Purpose> To support SMEs' acquisition and sending of information by means of constructing information network and to support their operation of the network</p>	<p>Progress of construction of the information network Number of access to the information network</p>	<p>Economic and Trade Commission</p>	<p>Period taken into account is one year starting from October 2000.</p>
<p><Outputs> 1) Introduction of enterprises and PR of products 2) Commencement of technical business negotiation with Japanese enterprise 3) Sending of information on company's own technical needs 4) Increase in amount of information for management 5) Opening of information to the public by enterprises as well as deregulation 6) Spreading of global tool of management</p>	<p>Number of home pages of SMEs Number of access to Japan's technical information Number of technical business negotiations Amount of information on needs of SMEs Amount of information registered with DB</p>	<p>Economic and Trade Commission Japan's supporting organization to this project</p>	<p>Objects are limited to 100 enterprises that are visited and investigate this time. Enterprise management information is that of enterprises investigated this time.</p>
<p><Activities> 1) To support enterprises to make their own HP 2) To support to utilize Japan's technical information 3) To introduce information useful for market expansion of enterprises 4) Gathering and registration of enterprise management information 5) Opening of related information obtained by JICA investigation 6) Opening of examples of diagnosis by JICA 7) Supporting of construction of information network system 8) Supporting of planning of total design concept of HP 9) Consultation for web operation</p>	<p><Inputs> 【Japan side】 Project manager: 3 man-month Specialist 1 (in technology of HP preparation): 3 man-month Specialist 2 (web operation/Japan link): 8 man-month Hardware Net server: 1 set Work station: 1 set PC: 5 sets Development of software for HP (to be consigned): 27 man-month</p>	<p>【China side】 (Up to completion of pilot project) Project manager: 3 man-month Specialist 1 (in technology of HP preparation): 3 man-month Specialist 2 (web operation/Japan link): 3 man-month Hardware Net server: 1 set Work station: 1 set PC: 35 sets Development of software for HP (to be consigned): 27 man-month</p>	<p><Preconditions> Minimum required budget for the project can be secured on both of China and Japan sides.</p>

Table 17 Project Design Matrix (PDM2)

<Narrative Summary>	<Objectively Verifiable Indicators>	<Means of Verification>	<Important Assumption>
<p><Overall Goal> Establishment of independent and sustainable partnership function in Shenyang (Partnership function: : exports and imports of products, business tie-up (production, sales), joint venture and collaboration, technology transfer)</p>	<p>Preparation of the system and organizations.</p>	<p>Monitoring evaluation results based on PCM method</p>	<p>Leadership of Shenyang city government.</p>
<p><Project Purpose> Fix of partnership function of Shenyang city's service organization for small and medium enterprises by the end of the pilot project.</p>	<p>Number of access to the information network Number of corporate guidance Number of intermediary consulting</p>	<p>Same as above</p>	<p>Full understanding and high awareness of this project by enterprises and administrative officials. Past achievements of people concerned.</p>
<p><Outputs> 1) Home pages (websites) of small and medium enterprises for their publicizing will increase, which leads to increase in inquiries from the inside and outside of China. 2) Small and medium enterprises' reception and transmission of information flow will increase dramatically 3) Service center for small and medium enterprises and Information service center will perform partnership functions on their own. 4) Small and medium enterprises credit guarantee center will contribute to smooth joint venture and collaboration of enterprises through business accounting guidance. 5) Small and medium enterprises' network manual will developed and spread among Chinese enterprises.</p>	<p>Number of home pages of SMEs Number of access to Japan's technical information Number of technical negotiations and intermediary business negotiations Amount of information on needs of SMEs from Japanese businesses Amount of information registered with DB Number of access to cash flow management HP Number of enterprises that received shallow management guidance.</p>	<p>Information service center, Small and medium enterprises service center Japan's supporting organization to this project Administrative department of each industrial development area and region</p>	<p>Increase in frequency of personal computer use in small and medium enterprises' employees. Desire to improve management on their own and self-help efforts of small and medium enterprises.</p>
<p><Activities> 1) To support preparation of HPs to introduce enterprises. 2) To support construction of information network system. 3) To register Japanese technical information with the database. 4) To register enterprises' market expansion information with the database. 5) To release related information surveyed by JICA (introduction of corporate improvement examples) 6) Cash flow management OJT 7) Operational guidance for the Service center for small and medium enterprises. 8) Partnership consulting 9) Workshops (3 times in total) At the final report stage, seminars on cash flow, partnership and use of network will be held. 10) To review the small and medium enterprises support system after the completion of the pilot project to make proposals.</p>	<p>【Japan side】 Project manager: 3 man-month Specialist 1 (in technology of HP preparation): 4 man-month Specialist 2 (web operation/Japan link): 6 man-month Hardware Net server: 1 set Work station: 1 set PC: 5 sets Development of software for HP (to be consigned): 27 man-month</p>	<p>【China side】 (Up to completion of pilot project) Project manager: 1 Specialist 1 (in technology of HP preparation): 8-10 Specialist 2 (web operation/Japan link): Hardware Net server: 1 set Work station: 1 set PC: 35 sets Development of software for HP (to be consigned): 27 man-month</p>	<p>Positive and cooperative posture of Chinese people concerned</p> <hr/> <p><Preconditions> Minimum required budget for the project can be secured on both of China and Japan sides.</p>

Table 18 Project Design Matrix (PDM3)

Project: Maintenance of Information Network Service for Small and Medium Enterprises

Period: August, 2001 – September, 2002

Place: Shenyang city, China

<Narrative Summary>	<Objectively Verifiable Indicators>	<Means of Verification>	<Important Assumption>
<Higher rank target> Establishment of long-term partnership function between Shenyang city service organizations for small and medium organizations and Japan (Partnership function: exports and imports of products, business tie-up (production, sales), joint venture and collaboration, technology transfer)	Preparation of the system and organizations.	Monitoring evaluation results based on PCM method	Leadership of Shenyang city government.
<Project Purpose> Both Japan and China sides prepare service organizations and information net for partnership to strengthen the bilateral tie-up.	Clarification of partnership in organizational chart. Contribution of each organization.	Monitoring evaluation results based on PCM method	Long-term assistance by Japanese specialists
<Outputs> 1) Establishment of Japan-China partnership tie-up route and tie-up methods. 2) Increase in collaboration between Japan and China 3) Preparation of corporate information net between Japan and China. 4) Increase in number of small and medium enterprises' HP. 5) Increase in cash flow management enterprises	Number of Japan-China collaboration contracts. Number of access to Japan's technical information, number of access to small and medium enterprises' HP, number of access to cash flow on the information net	Shenyang city service center for small and medium enterprises Information service center	Partnership activities. Government support for information net activities.
<Activities> 1) To step up efforts for independent management of Shenyang city service center for small and medium enterprises and information service center. 2) To strengthen PR of activities by Shenyang city service center for small and medium enterprises and Information service center. 3) Continued cooperation of Japanese specialists. 4) To conduct business negotiations between Japanese enterprises and Chinese enterprises. 5) To establish the intermediary support system after matching through information net. 6) To hold regular meetings between partners of Japan and China in each sector. 7) To prepare Japanese intermediary organization and its expansion.	<Inputs> 【Japan side】 Yet to be decided	【China side】 Information net Management and information 6 Data base maintenance 6 Programming 2 Market Expansion Information collection 8 Intermediary consulting 10 PC 35 sets Development of software for HP (to be consigned): 27 man-month	Positive and cooperative posture of Chinese people concerned <Preconditions> Minimum required budget for the project can be secured on both of China and Japan sides.

3. Information Network in Shenyang

- (1) Shenyang SME Information Network: <http://www.syeic.com>

This network has been jointly created by the Study Team and the Chinese side and carries the JICA log.

- Cash flow-based management: <http://www.syeic.com>

This is a lightweight, easy to download software, allowing easy manipulation by top executives of SMEs. It uses the contents and Excel facility of the above net and carries the JICA logo

- English-Chinese translation software: <http://tjbbc.com.cn>

One of the above-mentioned contents. It enjoys the highest reputation as a translation tool among similar tools available on various nets in China and can be used for practical purposes.

- (2) Shenyang Network for Technological Innovation in China: <http://www.sysjm.com>

In November 2000, the SMETC launched a network to serve enterprises operating in the city. Although this network does not specifically target SMEs, it is useful for SMEs because of the fact that most enterprises in China are SMEs. Its contents are fairly good. The SME Information Network Service provided by the Study Team is in the same category as this network.

- (3) Shenyang Information Network: <http://www.cei.gov.cn>

This website is created by the Shenyang Information Port and covers wide-ranging government, industrial and finance-related subjects.

- (4) Shenyang Private Sector Economy Outlook: <http://www.symyjj.gov.cn>

This is the network of the Private Sector Economy Development Promotion Committee

- (5) Shenyang Automobile Industry Development Office: <http://www.syauto.go.cn>

This website lists information on 50 automobile parts manufacturers in Shenyang.

- (6) Network of Federation of Industry and Commerce: <http://www.syec.net>

This network has 150,000 members and can be reviewed in both Chinese and English using the automatic translation function which provides the precedence for the similar function used by the HP created by the Study Team. Its contents include useful information on business education, such as successful examples of corporate management and explanation of modern management techniques. At present, network operation has been suspended for one month for system reconstruction.

(7) Network of Shenyang e-Commerce Co., Ltd.: <http://www.easybiz.biz.com.cn>

(8) Jitong Network Communications Co., Ltd.: <http://www.shenyang.cngb.com/>

This is a members-only private network with 300 subscribers and has branch offices in six cities in Liaoning Province, including Shenyang, Dalian and Anshan.

(9) State High-Tech Industries Development Zone: <http://www.sy-high-tech-park.com>

(10) Shenyang Economic and Technology Development Zone: <http://www.sydz.gov.cn>

(11) Dadong Science and Technology Park Network: <http://www.sykj.cn>

This is an exclusive network serving SMEs only. Dadong Ward has a population of 650,000 and its Science and Technology Park currently houses 27 high-tech SMEs and private enterprises and is designated a state high-tech development zone.

(12) Shenyang Municipal Production Promotion Center Network: <http://www.ppnet.org.cn>

(13) Liaoning Network for Technology Innovation in China: <http://www.ctiln.com.cn>

(14) State Economic and Trade Commission, Technology Innovation Network of China: <http://www.ctiwt.com>

This network is run by the State Economic and Trade Commission aims at linking 47 areas nationwide and links to some areas have already been opened.

(15) State Economic and Trade Commission Information Network: <http://www.setc.gov.com>

(16) SME Business Information Network of China: <http://www.chinasmb.gov.com>

(17) China Capital Trade Network: <http://www.ccec.com.cn>

(18) Commodity Trade Center of China

This center has branch offices in Beijing, Shenzhen, Liaoning and Anshan, etc.

(Reference: Japanese Network)

(19) Manufacturing Town 21: <http://www.mt21.com/>

This site is an e-market place for equipment and materials procurement in Chinese, Korean or English.

4. Glossary

Place

English	Japanese
Liaoning province	遼寧省
Shenyang	瀋陽
Heping ward	和平区
Shenhe ward	瀋河区
Datong ward	大東区
Huanggu ward	皇姑区
Tiexu ward	鉄西区
Dongling ward	東陵区
Yuhong ward	于洪区
Sujatun ward	蘇家屯区
Xinchenngzi ward	新城子区
Liaozhong province	遼中県
Kangping province	康平県
Fakuxian province	法庫県
Xinminxian province	新民県
Dalian	大連
Beijing	北京
Tiansin	天津
Shanghai	上海
Province	浙江省
Hangzhou	杭州
Shenzhen	深圳
Zhuhai	珠海
Changchun	長春
Harbin	ハルビン
Guangzhou	広州
D.P.R.O (Democratic People's Republic of).Korea	北朝鮮
R.O. (Republic of) Korea	韓国

State Organizations

State Council	国務院
State Economic and Trade Commission (SETC)	国家經濟貿易委員会
State Planning and Development Commission	国家計画委員会
Security Management and Monitoring Commission	国家監察部
Ministry of Science and Technology	科学技術部
State trade and Industrial commission	對外貿易經濟部
Ministry of Finance	財務省
Department SMEs	中小企業司
State Intellectual Property Office	国家知識産業局
State Administration of Industry and Commerce	国家工商行政管理局
State Environmental Protection Administration	国家環境保護局
State Statistics Bureau	国家統計局
Chinese Academy of Science	中国科学院

Chinese Academy of Engineering	中国工程院
Chinese Academy of Social Science	中国社会科学院
State Council Development Research Center	國務院發展研究中心
State Administration of Machine Building Industry	国家機械工業局
State Administration of Light Industry	国家輕工業局
Dept. of Trade and Market	国家国内貿易部
Qinghua University (Tsinghua University)	清華大学

Banks

Bank of Peoples Republic of China	中国人民銀行
Bank of China	中国銀行
Industrial and Commercial Bank of China	中国工商銀行
China Construction Bank	中国建設銀行
Agricultural Bank of China	中国農業銀行
Bank of Communication of China	中国交通銀行
China Merchant Bank	招商銀行
CITIC Industrial bank	CITIC 工業銀行
Guandong Development bank	広東發展銀行
China Minsheng bank	中国民生銀行
China Everlight bank	中国光大銀行
Huaxia bank	華夏銀行
Shenyang City Commercial Bank	瀋陽商業銀行
Beijing Trust and Investment Center	北京信託投資センター

Shenyang municipal government organizations

Shenyang Municipal Government	瀋陽市政府
Shenyang Municipal Economic and Trade Commission	經濟貿易委員会
Small and Medium Enterprise Office	中小企業処
Collective Enterprise Office	集体企業弁公室
Township-Village Enterprise Management Office (Bureau)	郷鎮企業管理局
Foreign Investment Economy Office	外資經濟委員会
Private Enterprise Promotion Commission	民營經濟發展工作委員会
Property Right Transaction Center	産権取引センター
Information Network Center	情報センター
Industrial Technology Exchange Center	工業技術交流センター
Department of Technology Reform	技術改造処
Automotive Industry Office	自動車産業弁公室
Environmental Protection Industry Office	環境保護産業弁公室
Federation of Industry and Commerce	工商連合会
Economic Information Port Office	經濟情報港
Electronic Industry Administration Office	電子産業弁公室
Information Industry Development Office	情報産業弁公室
Commerce and Industry Administration Department	商工行政管理局
SME Credit Guarantee Fund Center	中小企業信用担保センター
State Science and Technology Department	国家科学技術部
Science and Technology Commission	瀋陽科学技術委員会
Productivity Promotion Center	生産力促進センター

Municipal Science & Technology Center	市科学技術交流所
Dongbei University	東北大学
Shenyang Institute of Technology	瀋陽工科大学
Shenyang e-commerce Co., Ltd.	瀋陽電子商務服務公司
municipal vocational training center	市職業訓練所

Type of Enterprise

state- owned enterprise (state enterprise)	国有企業
government enterprise	国营企業
collective-owned enterprise	集体企業
cooperative enterprise	股分合作企業
joint ownership enterprise	聯營企業
limited liability corporation	有限責任公司
share-holding corporation Ltd,	股分有限公司
private enterprise	私營企業
private-funded enterprise	私營独資企業
private partnership enterprise	私營合火企業
private limited liability corporation	私營有限責任公司
private share-holding corporation	私營股分有限公司
township-village enterprise	鄉鎮企業
joint- venture enterprise	合資企業
enterprise with sole (exclusive) foreign investment	独資企業
cooperation enterprise with foreign investment	中外合作經營企業
sole ownership enterprise	個人企業
individual enterprise	个体企業(固体戸)
stock holding company	持株会社

Others

Control Large, Free Small	摺大放小
rural credit bank	農村信用社
value-added tax	增值稅
board of directors	董事会
board of auditors	監査会