Introduction

0-1. Research Objectives

This research is part of our 2004 research project entitled "Conditions for the Formation of Innovation Systems in Machine Industry in Japan." The primary objectives are 1) to acquire a thorough understanding of current conditions related to regional industrial innovation, and 2) to determine, based on this understanding, what themes and issues exist.

Numerous programs are being developed and implemented to promote the revitalization of regional industries and creation of new industries. Still, it is difficult to determine whether or not these various types of programs are effectively linked to the resources (human resources, facilities, infrastructure, assets, information, technological prowess, regional history/climate/culture) that each respective region possesses. Conse-

quently, this research offers analyses that focus on the external resources (efforts led by academic and governmental organizations) of regional corporations, which are responsible in part for the health of their respective regional economies.

In order to implement effective regional industrial policies and revitalize regional industries, consideration has been given to theories concerning industrial agglomeration and effective SME (Small and Medium-sized Enterprise) policy planning. Most recently, the concept of "clusters" has gained attention as a viable strategy, and national and regional agencies have begun efforts to develop industrial clusters (promoted by METI) and intellectual clusters (promoted by MEXT). Consequently, this report will also address the topics of clusters and industrial agglomeration.

0-2. Methodologies

Four methodologies were utilized in conducting this research project. First, a survey sent to 1,834 academic and governmental organizations nationwide was used to conduct our statistical analysis. Second, we conducted case studies in which we observed actual conditions related to industrial innovation in eight regions nationwide. Third, we poured over data available in existing

publications and via the Internet that was related to industrial innovation in Japanese industries. Fourth, we studied publications that discuss trends related to overseas industrial agglomeration, innovation, and clusters. Our analysis of the status of regional industrial innovation in Japan is based on the qualitative and quantitative data that we acquired using these four methodologies.

0-3. Basic Research Framework

In order to conduct this project, the Economic Research Institute (ERI) established a committee under the name "Committee for Research Concerning the Analysis of Current Conditions & Success Factors Related to Innovation in Regional Industries." This committee was led by Sapporo University professor Masahiro Ogawa. Together with ERI researchers, the committee

members decided on research methodologies, what types of organizations to study, and how to process the data that was acquired; they also investigated the theories that had been proposed to promote regional industrial innovation.

The basic framework of this research is shown in Diagram 0-1.

Issues Raised Concerning Regional Industrial Innovation in Japan

- What is the current status of regional industrial innovation?
- Are the various types of clusters linked effectively with the resources that each respective region has accumulated?



Analysis of Current Status of Regional Industrial Innovation

- Analysis of current status of regional industries
- Analysis of current status of industrial clusters
- Analysis of current status of industry-academia-government cooperation



Acquiring an Understanding of the Current Status of Regional Industrial Innovation

 Interviews with promotional organizations, corporations, etc.

Targets: Eight regions nationwide in which industrial and intellectual clusters are being developed

Analysis of Current Status of Regional Industrial Innovation

Survey questionnaire used to determine success factors

Targets: 1,834 universities, national colleges of technology, and prefectural and municipal organizations

Study of Published Data Concerning Regional Industrial Innovation

Web sites and existing publications

Overseas research papers



Discussion of Current Status of Regional Industrial Innovation & Success Factors

- Examination of theories concerning industrial agglomeration, clusters, etc.
- Analysis of data acquired through study of current conditions
- Examination of regional industrial innovation success factors
- Examination of what roles regional machine industries play in bolstering regional economies

Diagram 0-1 Basic Research Framework