

Issues for promoting regional industries to revitalize industrial agglomerations:  
Beyond the COVID-19 Impact

Executive Summary

**1. Objective of This Research**

Since the beginning of 2020, the pandemic triggered by the global-scale spread of the novel coronavirus has also caused the Japanese government to declare a state of emergency, and has thrown our social life into chaos. As a result, industries both in Japan and in overseas countries, particularly service industries, such as the food and beverage industry and the tourism industry, have been seriously damaged. Also in the machine-related industries, various issues have suddenly come to the surface, such as a drastic decrease in demand for aircraft parts due to the rapid stagnation of the aviation industry under restrictions on the movement of people.

Thus, the initial basic framework of super-aged society and regional industrial innovation in this research was reviewed, and the objective to address in the research was hurriedly changed to "domestic industrial agglomerations and the potential for regional industrial innovation in and after the COVID-19 pandemic," and the following three specific research targets were set:

Firstly, we conducted an analysis based on statistical data with emphasis placed on "unipolar concentration in Tokyo," which has been deeply associated with the problem of industrial agglomerations in Japan since before the spread of COVID-19. Secondly, we conducted a web-based interviewing survey of industry promotion experts in each region on how the spread of COVID-19 (hereinafter referred to as the COVID-19 Impact) was beginning to affect regional industries in Japan. Thirdly, we conducted a questionnaire survey of students studying in urban and local areas on how their occupational attitudes was changing due to the COVID-19 Impact. In this research, we contemplated an ideal image of regional industries beyond the COVID-19 Impact, that is, the revitalization of industrial agglomerations in preparation for the post-COVID-19 pandemic era and regional industrial innovation to promote it, based on the abovementioned surveys.

**2. Overview of Each Chapter and Important Findings Obtained from the Research**

**(1) The process of the formation of industrial agglomerations and unipolar concentration in Tokyo**

Chapter 1 shows the statistical analysis conducted in connection with the problems of industrial agglomerations and unipolar concentration in Tokyo based on three sets of data - real added value by industry, the number of workers by industry, and population - compiled by prefecture for the period from 1970 to 2012. The items of the important findings obtained from the analysis are as follows:

- (1) The concentration of the working population in Tokyo formed in concurrence with the concentration thereof in the "Tokyo Metropolitan area" in the 1980s.
- (2) The 1980s were the period when "more things and money than people concentrated in Tokyo."
- (3) The ratio of the real added value and the labor productivity ratio decreased in Tokyo due to the Heisei recession, globalization, etc.

## **(2) Promoting regional industries transformed by the COVID-19 Impact**

Chapter 2 shows information collected through web expert interviews held in four prefectures, namely, Iwate, Yamagata, Fukushima, and Yamaguchi, on the current status and issues of the promotion of regional industries in the COVID-19 pandemic. The items of the important findings obtained from the analysis are as follows:

- (1) Severe situation due to the impact of the COVID-19 pandemic
- (2) Signs of an increase in orders for high-mix low-volume products
- (3) Movement toward the development of new businesses and the use of web-based services as a result of the COVID-19 pandemic
- (4) Changes in the ways business meetings and exhibitions are held due to the COVID-19 pandemic
- (5) Effects of individual business meetings using web-based services
- (6) Exploiting a positive attitude of the management through the backing of supporting organizations
- (7) Roles of supporting organizations in establishing a web environment and improving the information literacy of small- and medium-sized enterprises
- (8) Disadvantages of the web environment and continuing to maintain and improve and utilize the environment
- (9) Changes in value due to the COVID-19 pandemic
- (10) Relationship between the COVID-19 pandemic and the settlement of young people in their home towns
- (11) Compatibility between local culture and a web-based society

## **(3) COVID-19 Impact and changes in occupational attitudes of students**

Chapter 3 shows a statistical analysis of changes in occupational attitudes and local orientedness in the COVID-19 pandemic based on the results of a questionnaire conducted to college/university students by the Economic Research Institute. The items of the important findings obtained from the analysis are as follows:

- (1) Increased items related to working conditions, such as remote work
- (2) Changes in awareness so that they turn their eyes to personal relationships and social contribution
- (3) Differences in occupational attitudes between students in urban areas (three major metropolitan areas) and students in local areas (other prefectures)
- (4) It is difficult to promote entrepreneurship and improve labor productivity in local areas by focusing only on personal relationships.
- (5) Need to grasp changes in awareness required of students from the perspective of labor productivity

## **(4) Ideal industrial agglomerations in and after the COVID-19 pandemic era**

Chapter 4, which is the last chapter, organizes key points about what industrial agglomerations should be in and after the COVID-19 pandemic era from the viewpoint of regional industrial innovation, and presents, as a summary of this research, suggestion for supporting medium- and small-sized enterprises in local areas and issues of future research as shown below:

### **◆ Progress of a web environment and ideal industrial agglomerations**

As revealed by the fact-finding survey described in Chapters 2 and 3, it can be said that response to the development of a web environment has become indispensable in all living and

business aspects under the COVID-19 Impact. In other words, as a result of the global-scale behavioral changes caused by the COVID-19 Impact pandemic, the digitalization of the whole society has been rapidly accelerated as a countermeasure against these change, although there are differences among regions. To be specific, web meetings and remote work have become an integral part of our daily lives, and we can no longer continue our daily lives and businesses without them. As a result, everyone has had no choice but to improve digital literacy. The year 2020 will go down in human history as the year of the outbreak of the novel coronavirus pandemic but, at the same time, as the first year of remote work. As mentioned in Chapter 2, the development and spread of the information communication environment in response to these behavioral changes have begun to gradually affect the way of the existence of industrial agglomerations in various regions, which naturally places emphasis on geographical proximity.

In this research, however, the impact of the COVID-19 pandemic disabled us from investigating the actual state of industrial agglomerations by category, such as corporate castle town type agglomerations, production area type agglomerations, urban type agglomerations, and attraction type composite agglomeration. In this regard, the Research Committee pointed out in the discussion that the COVID-19 Impact on industrial agglomerations should not be considered on the same basis, as mentioned in Chapter 2. Furthermore, although the importance of working conditions was confirmed due to the COVID-19 Impact in the survey on students' occupational attitudes, in which the importance of remote work was pointed out, it was pointed out that it is necessary to continue to consider whether this should be regarded as a transient phenomenon. In other words, it is necessary to continuously observe what kind of phenomenon will become usual structurally and permanently when the whole society shifts to a post-COVID-19 era in the course of the behavioral and value changes that have begun to occur in the ongoing COVID-19 pandemic (coexist with COVID-19).

#### ◆Acquisition and development of innovative human resources

According to the Report on Internal Migration in Japan Derived from Basic Resident Registration, the number of out-migrants from Tokyo exceeded in-migrants from other prefectures for eight consecutive months from July 2020 to February 2021, and signs of the change of the unipolar concentration in Tokyo have begun to appear in the wake of the COVID-19 pandemic. However, as already pointed out in Chapters 1 and 3, it would be premature to consider that the migration of people from Tokyo to local areas can vitalize the latter. To turn the COVID-19 pandemic (evil) into something helpful for resolving the unipolar concentration in Tokyo and revitalizing the agglomerations of local industries, it is necessary to create and nurture highly productive industries by utilizing respective regional resources and thereby attracting people. However, it is impossible to revitalize industrial agglomerations simply by attracting people, companies, and factories. What is more important for medium- and small-sized enterprises in local areas is to consider how they can create products and services that have higher added value than "overseas" products and services and are competitive with them, or how they can build business models that coexist and co-prosper with "overseas" enterprises. In addition, each local area is required to originally contemplate the acquisition and development of human resources necessary to this end, that is, to promote a knowledge spillover that contributes to "acquiring and developing innovative human resources unique to the local area."

#### ◆ Suggestion for supporting local medium- and small-sized enterprises

As already pointed out in the results of the web interviewing survey in Chapter 2, the COVID-19 Impact has exerted various effects also on the activities of organizations and groups engaged in the promotion of medium- and small-sized enterprises, such as the mediation of business

transactions of local medium- and small-sized enterprises, but individual business negotiations using a web environment, which have started to successfully penetrate in these enterprises, have the potential to support new medium- and small-sized enterprises. It is therefore important to actively provide support to medium- and small-sized enterprises using the Internet even after the shift to the post-COVID-19 era. And for this purpose, efforts should be made to help managers of medium- and small-sized enterprises in the regions to be supported become aware of the advantage that improving their digital literacy leads to the winning of new customers without geographical restrictions and to, for example, promote the active use of a web environment and the creation and opening of attractive websites in cooperation with local system venture companies.

Furthermore, as the analysis described in Chapter 3 shows, the establishment of working conditions, such as remote work and side jobs, would be one of the opportunities to attract young people to local areas. Thus, support to medium- and small-sized enterprises should provide the information and training programs necessary to promote the creation of such working environments. In any case, taking into account the current situation in which behavioral, value, and market changes are simultaneously occurring while people are forced to coexist with COVID-19, we expect public support organizations to promptly formulate new support measures necessary for local medium- and small-sized enterprise to vitalize themselves in the post-COVID-19 era in line with the actual state of respective industrial agglomerations.

### **3. Objectives of Future Research**

It was suddenly determined that this research focused on the COVID-19 Impact, but since before we were confronted with the COVID-19 Impact, the shortage of human resources due to the progress of the aging society with the declining birth rate has become a serious problem in industrial agglomerations in Japan. In addition, efforts to realize a decarbonized society, which is part of SDGs, have started to accelerate more than expected as a global tendency with a significant impact on the machinery industry. Thus, based on the trend of coexisting with COVID-19, we plan to conduct research focusing on the possibilities of regional industrial innovation in the future, especially on a decarbonized society that will have a great impact on the machinery industry, manufacture in response to life cycle assessments, the development of new businesses by regional medium- and small-sized enterprises, and approaches to acquiring and developing innovative human resources.