

A Consideration of SMEs' Reactions and Public Support after Toyota Shock

Through Analysis of Members of Toyota Cooperative Association of Iron Work

By Yuki USAMI, Nobutaka ODAKE, and Tetsumi HORIKOSHI

***Abstract:** Conventionally, at the time of economic slump, economic policies for local districts have been mainly decided by the government and uniform countermeasures have been taken locally. This is generally because local governments' budgets heavily have been supplied by the central government. However, it is important to implement the kind of economic measures that fit the circumstances of each local economy by taking advantage of the local government's characteristic to be able to know the local economy directly.*

1. Introduction

This paper analyzes the characteristics of regional economic activities through interviews with enterprises and also suggests industrial policies required for a local economy to avoid a regional economic slump. This paper's cover area is Western Mikawa District where Toyota Motor Corporation (TMC) and its many affiliated companies are located. Interviews of companies and local government policies were taken by the City of Toyota.

In November 2008, the so-called "Toyota Shock" occurred. TMC's slow business had a gigantic impact on the Japanese economy. The impact spread into not only the automotive industry but also into other industries.

In Toyota city where many of TMC's affiliated companies are located, enterprises have been reducing non-regular workers such as temporary and term workers because of smaller volume of works. While production adjustment of automobiles was advancing, SMEs that enjoyed economic boom had to face a review of management strategy.

As the economy is quickly receding, the national and local governments are required to set up prompt and effective economic stimulus measures. Toyota city's emergency economic measures for FY 2008 were the expansion of credit guarantee subsidy (budget: 100 million yen) for SMEs and the emergency job creation project (budget 40 million yen). The credit guarantee subsidy project started in October 2008 or in the middle of FY 2008, but into only two months from the start of the project, the expenditure already exceeded the annual budget of 100 million yen and the application total neared 300 million yen which is as three times the amount of the original budget.

As for the emergency economic measure, Toyota city implements its own independent measure

without waiting for the government countermeasures. The detail of the measure is that the city of the city-affiliated organizations would hire 100 people for the people who lost jobs on and after October 1, 2008, as temporary staffs. Toyota city started job recruitment in January, 2009. However, the applications were not many as the city had expected. Just about half of 100 job vacancy is filled.

The evaluation of Toyota city's emergent economic package under the economic depression is as follows;

1. As for support of SMEs, the budget is a big financial burden for a local government.
2. As for employment support, job offers and job seekers do not fit very well.

From the stated above, it is difficult to say Toyota city's emergent economic measures are appropriate. Local economic measures are necessary which are more appropriate for the actual situation of the local district especially for the manufacturing industry what contribute to the local district very much in terms of tax income.

Hence, this paper discusses the enterprise support measures local governments especially Toyota city should take based on the actual situation of SME through interviews with members of Toyota Cooperative Association of Iron Works, a representative SME group in Toyota city. This paper picked up SMEs from Toyota Cooperative Association of Iron Works because they hold monthly management study meetings, thus it enables time-series analysis.

2. National Level Countermeasures

In December, 2008, the Japanese government announced the second supplementary budget of the FY 2008 and the direction of the FY 2009 budget [1]. The details are the government projected economic recovery within three years from the FY 2008 focusing mainly on "employment measures", "tax system revision", and "financial market and financing measures". Affected by the acute deteriorating employment conditions especially at the end of the year, the measures that were planned and implemented focused mainly on the "Employment Measures" to support the livelihood of workers (budgeted 1.1 trillion yen). In addition, projects to create jobs are underway at local communities. The government allocated subsidy (budget 1 trillion yen) to local governments.

On the other hand, compared to the support for workers, the financial support to SMEs that hire workers is as small as 240 billion yen with national and local taxes combined and the actual expenditure was postponed until the 2009 FY. The detail of the SME support measure is a time-limited tax rate reduction and tax refund of loss carry back. Financially, in total 33 trillion yen are allocated. Thirty out of the 33 trillion yen are used to expand the compensation and loan limit. The remaining budget will be spent to prepare the appropriate climate so that the necessary funds will be supplied to needy SMEs by stabilizing financial institutions.

2.1 Employment Measures

Among the “Employment Measures”, the “Employment Adjustment Subsidy Program” which aims at “securing jobs” is available to SMEs. In this subsidy program, the government aid funds when SMEs face production volume decline and business suspension and plan to education and training of the employees. The subsidy rate and the eligibility were expanded to cope with the situation and in December, 2008, the program was revised as the “Immediate Employment Security Subsidy for SMEs”.

According to Aichi Labour Bureau, as of the end of December, 2008, the number of applicants in Aichi Prefecture was 9,424, which was the highest in Japan. After one month, that is, in the end of January, 2009, the number increased six-fold reaching as many as 60,000. [2]

2.2 Financial Measures

The detail of the tax rate reduction stated above is to lower the reduced tax rate from 22 to 18 percent for two years for the enterprises with annual income lower than eight million yen. As for the tax refund of loss carry back for SMEs, only when an enterprise with a surplus in the previous year falls into deficit the following FY, the corporate tax of previous FY is refund. Besides this measure, the government also plans to introduce the Investment Facilitation Tax System for SMEs that purchased energy saving tools. This enables SME to start immediate deprecation and the corporate tax is cut from the very first FY.

As for financial measure, from October, 2008, government started the immediate compensation of soaring oil and raw material prices and the safety net compensation system. The government announced to do countermeasures to support SMEs’ financing by expanding compensation limit. In addition, the Financial Serviced Agency and the Ministry of Economy, Trade and Industry work together to improve the credit crunch against SMEs.

These measures are thought to be the extension of the policy of “smooth adjustment to the rapidly change of the environment” stipulated in the Revised SME Basic Law (1999). However, this law changed its focus from the social policy style that relieves the socially vulnerable to competition facilitating policy style that support help support [3]. The government measures for this time are just a temporary bankruptcy evading pact. The government yet to introducing drastic policies that would speed up “reinforcement of managing base”.

3. Current Situation of Local Industries

The economic climate showed a hint of downward change in Toyota district in 2007 when the gradual increase of crude oil prices since around 2000 showed a sudden rise triggered by the US subprime loan crisis and unstable conditions in the Middle East in 2007. That is, as prices of crude oils and raw materials rose, SMEs’ profitability became worse and the SMEs’ business

climate also became worse. [4]

Under this severe economic climate, in July, 2008, TMC announced that it would shutdown three factories in the US for three months from August, 2008. After this announcement, SMEs in Toyota city showed the influence of the decreased production and export.

Moreover, in November 6, 2008, TMC announced the financial results for the second quarter. It reduced the consolidated operating profits projection of FY ending March, 2009 by one trillion yen from the initial prediction to 600 billion yen (73.6 percent down) [5]. Here, the so-called “Toyota Shock” occurred. This incident affected strongly the stock exchange. On the following day, the Nikkei Index plummeted. After that, the automotive industry including TMC announced decreased production volume plans one after another. The automotive industry started reducing non-regular workers.

Table 1. Progress of forecasts for FY 2009 by TMC

Date	Operating profits (billion)	Consolidated sales (Thousand of vehicles)	Automotive production (Toyota Lexus)
Initial prediction	1,600	9,060	8,873
FY2009 1Q August, 2008	1,600	8,740	8,443
FY2009 2Q November, 2008	600	8,240	7,920
Special notice	▲150	7,540	7,540
FY2009 3Q February, 2009	▲450	7,320	7,320

3.1 What “Toyota Shock” Means to the City of Toyota

Auto-parts manufacturers and production equipment manufacturers in Toyota city have been experiencing a sharp drop of production and sales due to the TMC’s decreased unit of sales.

In Toyota city there are nine TMC factories out of 12 TMC domestic factories. Because this area is an important production center of TMC, many auto-parts manufacturers are situated around these TMC factories. And due to the concentration of factories, there are numerous production equipment manufacturers in the City of Toyota. These factories supply manufacturing lines when TMC deploy factories at home and abroad. That is, if TMC suspends a large-scale investment, production equipment manufacturers in Toyota city are greatly affected. However, orders do not become zero because production facilities have replacement.

TMC's domestic output units per day in April, 2009, were around 8,000 units which is 60 percent down from the same month of the last year. According to estimation, due to inventory adjustment, daily output is thought to increase to more than 10,000 units in May. But the daily units will not recover to TMC's loss-and-profit line of 12,000 units until October. Even after this coming fall, the production will not be full-fledged. The number is estimated to be around 13,000 units per day. SMEs estimates that "to have profits, the daily production units have to recover to 80 percent of its peak that will be after 2010. [6]

3.2 SMEs Reactions to Toyota Shock

This section analyzes the impact of the Toyota Shock of SMEs' and its reactions to it through interviews with members of Toyota Cooperative Association of Iron Works. The details of interviews are the volume of work after the Toyota Shock, funding condition, human resource issues and each SME's countermeasure. Targets are varied; 5 industries and 4 manufacturers. These enterprises are "independent SMEs" stipulated in the above-mentioned Small and Medium Enterprise Basic Law. [7]

Case of Enterprise A (production facility business)

[Profile]

Founded: in 1946

Contents of business: transfer facility manufacturing

Capital: 24 million yen

Number of employees: 70

Sales: 7 billion yen

Business customers: TMC and the Toyota Group

[Summary of Interview]

Before November, 2008, enterprise A had an advance notification from TMC. The number of orders in 2008 and 2009 would be around the same number as FY 2004 on sales base. As there has been no change in the number of staffs since 2004, it is not difficult to cope with funding. It already knew that TMC did not plan a large-scale investment for 2009 from TMC's plan. So, it will be able to cope with funding for two years. For SMEs, it is not easy to recruit personnel, so it cannot layoff regular workers even though in the midst of stagnation. If possible, enterprise A hopes to recruit skillful workers. Assuming the future increase in production, it will continue to place orders with subcontractors.

Enterprise B (environmental business)

[Profile]

Founded: in 1960

Contents of business: metal and nonferrous metal resources working

Capital: 1.58 billion yen

Number of employees: 550

Sales: 38 billion yen

(Capital, the number of employees and sales are the total of its group companies)

Business customers: TMC and the Toyota Group

Others: Enterprise A has one group company in the City of Toyota and another in southern part of Japan, Kyusyu. Business contents of these group companies are transportation, rental of forklifts and others.

[Summary of Interview]

After the Toyota Shock, the volume of work nosedived. As of December, 2008, the work decreased to 50 percent and after February, 2009, the volume decreased to as little as 40 percent. The employees are all regular workers. Since Enterprise B has offered multi-skill trainings, B was able to shift smoothly to gather low operation facilities to make operation ratio of the remaining facilities high. Because B estimated the economic peak would be at the Beijing Olympic Games, B finished all of the additional investment during the economic boom. However, it introduced highly efficient facility to lessen overtime and this facility did not operate at all now.

During the economic boom, B tried to increase reserves. As of September, 2008, the amount is as high as 20 percent of the sales of the previous FY. Thus, if the company has a deficit of around 100 million yen per month, it can survive for two years. As of April of 2009, it survived without doing business suspension and it did not apply to Immediate Employment Security Subsidy for SMEs.

But operators in the distribution section have not received multi-skill trainings, so they have difficulties to gather low operation facilities to be more efficient. In the future, it will perform multi-skill trainings for those who wish in the distribution section.

Enterprise C (metal working business)

[Profile]

Founded: in 1969

Contents of business: precision mold building, jig making

Capital: 20 million yen

Number of employee: 35

Sales: 500 million yen

Business customers: TMC and Denso, Aisin Group and others

[Summary of Interview]

Before the Toyota Shock the volume of work had been gradually decreasing because TMC forayed into overseas, so Enterprise C already had a sense of crisis. After the Toyota Shock the

volume of work rapidly decreased. Enterprise C did not renew contracts with non-regular workers when they expired in the fall of 2008. But under this crisis time, an enterprise can recruit excellent employees. The company energetically visits high schools and professional training schools to try to recruit new graduates. As for funding, it enjoyed no-debt operation during the economic boom. Its work was approved as Management Innovative Business [8], and it was to receive loans to introduce new facility. But it extended the project. Instead it applied to loans for working funds in January, 2009. It also applied to Immediate Employment Security Subsidy for SMEs. In the future, they will apply to Career Making Facilitation Subsidy [9] to develop human resources in January, 2010. It also schedules to conduct human resource trainings to introduce new facilities that will happen after the economic recovery. In addition, it switches to in-house manufacturing to save outsourcing expenses.

Enterprise D (Prototype and auto parts making business)

[Profile]

Founded: in 1967

Contents of business: aluminum prototype parts, prototype mold, production of mass-production parts, quality inspection

Capital: 45.25 million yen

Number of employees: 200

Sales: 5.3 billion yen

Business customers: Taiho Kogyo, Toyota Group

[Summary of Interview]

Before the Toyota shock orders of prototypes showed the sign of decline. After the Toyota Shock the volume of work has been declining further. Capital investment is important to keep prototyping of critical parts to be competitive. During the economic boom, D aggressively invested into facilities. It did not renew contracts with auto-parts manufacturing non-regular workers in the fall, 2008. In January 2009, it applied for the Immediate Employment Security Subsidy for SMEs. Plus it has days offs on the same day of TMC's day offs. Although it started cost cutting with the easier ones like energy saving activities, it will make use of operating fund loan in May, 2009.

According to the stated above, SMEs' reaction to the Toyota Shocks is as follows;

- At the beginning, they coped with the Toyota Shock with slashing variable costs such as overtime expenses, management compensation, cutting non-regular employees, shifting from outside order to in-house manufacturing.
- However, the low production volume tendency did not cease. Early in 2009, they received Immediate Employment Security Subsidy for SMEs and suspended operation to secure jobs.
- Assuming future output increase after economic recovery, SMEs plan to perform human resource trainings that they could not do during the economic boom. Some SMEs tries to

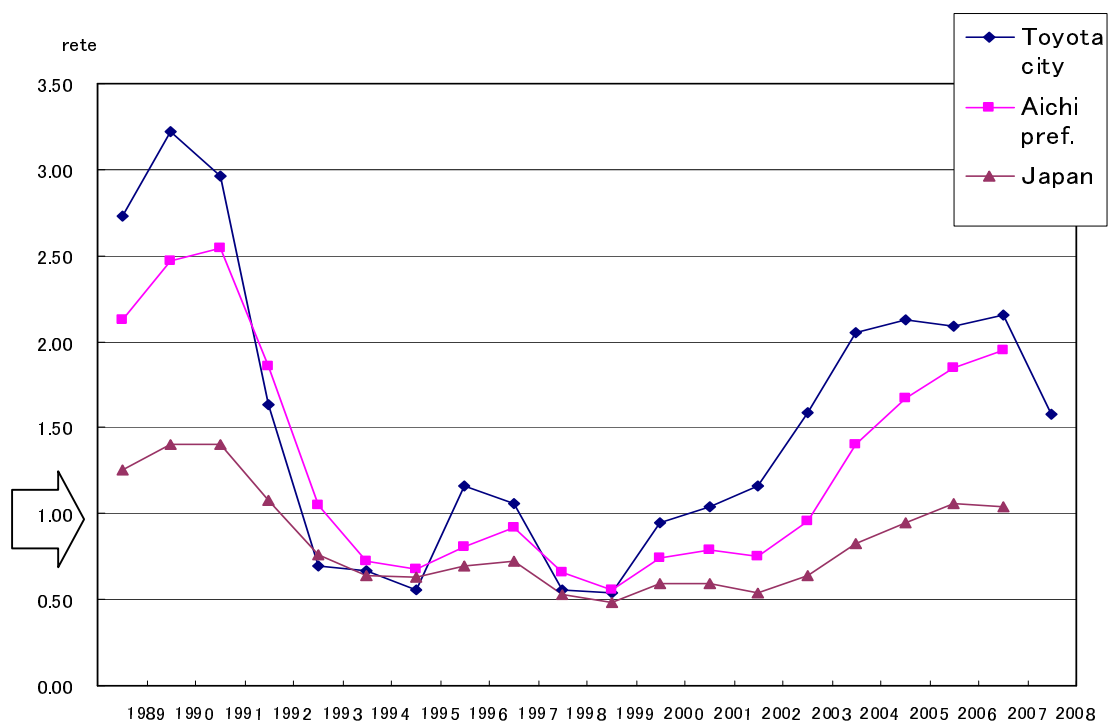
make use of a government subsidy of human resource development.

- Although they have ample amount of reserves, they keep investing to a minimum and they are interested in securing operating fund and various subsidies of R&D.

The reason why they try so hard to secure regular employment is that conventionally SMEs in the Toyota city have difficulties in recruiting workers and once they employed a worker, they will not fire the person easily. This explains the why the number of Immediate Employment Security Subsidy for SMEs are highest in Aichi Prefecture.

The job-offers-to-seekers ratio in the Toyota precinct (Figure 1) [10] has been as high as over two percent since 2004, so this explains that in Toyota city SMEs have been constantly suffering from human resource shortages.

Figure 1. Transition of the Job-Offers-to-Seekers Ratio in the Toyota Precinct



As is shown in the Change of the Number of Employers and Employees according to Small Industrial Classification (Figure 2), temporary staff service agencies supported to fill the shortage of manpower. [11]

Figure 2. Change of the Number of Employers and Employees

		2001	2006
Temporary staff service agencies	The number of Companies	14	74
	The number of Employees	1,564	7,289

The kind of SMEs that the government assumes to support is the ones on the verge of bankruptcy. This image is far from the image of SMEs in the City of Toyota which have abundant reserves.

During the “lost decade”, SMEs in the Toyota city accumulated reserves and enjoyed no-debt operation on the basis of thriving TMC. Until the early part of 2008, the job-offers-to-seekers ratio had been as high as over two percent. Under this situation, the issue of SMEs is how to garner excellent workers. On the other hand, they had been so busy to catch with the increasing amount of work, thus, they could not catch up with the need of human resource training.

Ironically, slow business due to the Toyota Shock gave them the time to solve the shortage of manpower and to nurture human resources. The industrial countermeasures in this district should not be the one to prevent bankruptcy but to be the one that looks at the future economic recovery. Therefore, the necessary policies should induce enterprises to train personal resources. It also should enable enterprises to shift from automotive-industry-dependent management to the new industry. In addition, the policies should help enterprises that are holding back investment to spend on capital investment actively.

4. Policy Implications

The investment to step up productivity is supposed to improve both human resources and production facilities. It can be expected that increasing the capital equipment causes labor productivity rise. As a result, potential rate of growth becomes better. It prevents local economy from being stagnant. From these ideas, we suggest the policies for the human resource development and capital investment.

4.1 Supporting policy for human resource development

Human resource development done by SMEs in Toyota city is mainly skill acquiring training. Most of them are on-the-job trainings. Additionally, few SMEs have classified training programs. Also some SMEs have lopsided employee structure without 40’ s generation. This situation shows that alternation of generations would become difficult. [12]

Even if SMEs start human resource development in this condition, it is difficult to get the results what they expected. It is even more difficult to get the good results in this tough economic situation.

SMEs do not have enough human resources, so they expect employees to be conscious of own duty in each position for efficient business. Also SMEs in Toyota city should fulfill the expectations as suppliers of automobile components and manufacturing equipments by their technology and proposition.

In order to increase the rate of productivity, it is necessary to maintain the systems to make SMEs train their employees positively. For example, we suggest that a regional government package classified training programs that fit the situation of the regional district and show SMEs usability of programs.

We suggest the guided policies for SMEs. Then regional government should certify the some educational courses as the classified educational program and grant SMEs. Other local governments designate research institutions that offer training program for grant, but we confine the contents of programs. In this case, the number of applicants of educational courses is limited as well as the burden for the local governments is also controlled. So they are easy to estimate their budget. Also it is possible to design the system within local government budget.

At present, Toyota city has “promoting grant for SMEs’ human resource development” to support educational programs run by the Chamber of Commerce, the cooperative association and group of SMEs. In this system, Toyota city entrusts programs to administrative subject. Henceforth, Toyota city should cooperate with local companies and universities to develop the programs corresponding the situation of manufacturing SMEs and certify the program as the classified educational program.

In Toyota city area where SMEs accumulate toward the giant company, the technical relationship is vertical strongly symbolized by “Keiretu” which means the business hierarchy to guarantee long-term affiliate relationship. On the other hand, SMEs hardly make the horizontal network among them. Hence it becomes the most important problem to develop industrial cluster. However, new policies make the new network among the companies and universities by human resource development and also are expected to incubate new businesses.

4.2 Assistance to human investment

According to Miyagawa and Niigata (2006), when the replacement of facilities are delayed, the labor productivity drops. And they say that to facilitate replacement investment, although tax reduction is effective temporarily, in the long run, it is desirable to shorten the statutory useful lives of assets.

The capital investment-related support in Toyota City is “Toyota City Industrial Location Encouragement Ordinance” [13]. However, in this support system, an incentive applies only when an enterprise builds a new or an additional business establishment.

Although this support is an incentive to encourage new business entities in Toyota City or to prevent them from moving out of Toyota City, it does not serve as a direct incentive to facilitate capital investment. To promote capital investment, this paper suggests a system to grant incentives that is equivalent to 5-year fixed-asset tax.

5 Consideration

TMC had increased production until September 2008. Therefore some of SMEs had continued to invest into productive facilities just before “Toyota Shock”. SMEs that increased the number of

employees and productive facilities after the ‘lost decade’ and those that hit by the “Toyota Shock” just after capital investment, were supposed to meet the exacting conditions of management. However, SMEs in Toyota city seem to have retained earnings steadily even in the economic prosperity. “Toyota Shock” gave the great impact on SMEs in this area however does not bring them to serious financial problem. In this situation, if Toyota city only corresponds to prevent SMEs from going bankrupt as the Japanese government does, it would not fit for SMEs’ demand. SMEs in Toyota city should realize this economic slump as a good chance to get;

1. decline of the material price
2. negotiable to discount the price of equipment
3. better employees
4. time to train their employee

SMEs in Toyota city were too busy to train the employees and to review their management drastically in good economic condition. They should recognize this recession as the period to take measures for the next economic prosperity.

However, SMEs’ internal reserves will not last eternally. So that Toyota city should take actions on the early stage of this recession. Toyota city should execute policies to support SMEs for training their employees corresponding to SMEs’ demand. The critical consciousness makes SMEs orient toward human resources development and investment productive facilities. So that, it is important that Toyota city executes them promptly, while SMEs have a sense of crisis and their success experience bring SMEs to good circulation.

These industrial policies reflect local characteristic, therefore the local government has to execute by itself and also has to choose the measures because of financial limitation.

6 Conclusion

This paper proves that unified economic policies decided by the government are not always effective in local economic condition. By contrast, it proved that the local governments have the possibility to execute economic measures corresponding to local economic situation because they can grasp the local economic situation directly.

Also it suggests industrial promoting policies of professional training and investment capital corresponding to local economic characteristic. These policies are supposed to make regional network among companies and universities to contribute to make the cluster and play the important roles in next convalescence of economy.

Appendix

1. The cabinet meeting for economic measures (19 December, 2008) *Urgent Measures for Life Security*
2. Yomiuri newspaper, (3 February, 2009)
3. Economy and Industry committee in House of Councilors (October 2008) *Evolution and Recent Trend of Policy for SME's after Amendment of Small and Medium Enterprise Basic Law.*
4. Tokai Local Finance Bureau, (February, 2008) *The Effect on SME's after Sudden Rise in Crude Oil and Material Cost.*
5. Toyota Motor Corporation, *FY2009 Third Quarter Financial Results*
http://www.toyota.co.jp/jp/ir/financial_results/2009/index.html
6. Hearing survey to Toyota Cooperative Association of Iron Works
7. The third article of Small and Medium Enterprise Basic Law and its philosophy to define SMEs.
8. SME's can obtain low-interest rate loan, special credit guarantee and low tax rate, when they submit to local governor the business plan including business contents and goals.
9. This grant is designed to promote laborers to gain proper skills effectively and subsidizes employers who train employees gradually and systematically. Employment and Human Resource Development Organization of Japan implements this program.
10. The graph is made from the statistics by Toyota Hello Work (employment bureau). The number of Toyota City is consisted of Toyota City and Miyoshi town.
11. The table is made from *Companies in Toyota city 2006* and *Companies in Toyota city 2001*, The Department of the General Affair, Toyota city.
12. The Department of the Industrial Affair, *Report of Application Private Sector for the Promotion of Industrial Development*
13. Toyota City Industrial Location Encouragement Ordinance has the incentives amount equivalent to fixed tax, city planning tax and business office tax related to the business for 5 years.

References

- Nonaka and Nagata (1995) *Japanese Innovation System — the locus of development and challenge to revolution —*
- Miyagawa and Niigata (2006) *Cycle of Vintage Capital and Renewal Capital*
- Peter M. Senge (2006) *The Fifth Discipline: The Art & Practice of The Learning Organization*
-

Yuki Usami is a doctoral student of Department of Civil and Environmental Engineering Nagoya Institute of Technology, Aichi, Japan. She received a Master's Degree from the Graduate School of Techno-Business Administration at Nagoya Institute of Technology in 2005. She had been an officer

in the Department of Industrial Affairs of Toyota municipal government until last March.

Address correspondence to: Yuki Usami, Transportation Policy Division, Urban Maintenance Department, Toyota municipal government, 3-60 Nishimachi, Toyota-city Aichi 471-8501 Japan.
E-mail:yuki-usami@city.toyota.aichi.jp.

Nobutaka Odake is an Associate Professor in Department of Techno-business Administration, Faculty of Engineering, Nagoya Institute of Technology, Japan. He received a Doctoral Degree from the Graduate School of Engineering at Nagoya Institute of Technology, Japan in 2002. His teaching and research interests include regional economic development, cluster and environmental approach for industrial development.

Tetsumi Horikoshi is a Professor both in Department of Techno-business Administration and Civil and Environmental Engineering, Faculty of Engineering, Nagoya Institute of Technology, Japan. He is a member of The Association of Japanese Geographers (AJG), The City Planning Institute of Japan (CPIJ), Japanese Society of Biometeorology and so on.