

New Ecosystem Business Designs for Regional Revitalization

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As populations and economic activities end to be concentrated in Tokyo and other metropolitan areas in Japan, regional areas are in decline. Even though public subsidies and incentives have been provided in these areas, they have not always had the desired effects as efforts to improve added value through redesigning local economies have been limited to local businesses. This paper examined service-business ecosystem designs and compared regional economic activities with metropolitan areas to clarify what was needed to activate regional economic activities and link them with the global economy and metropolitan areas.

Keywords: Regional activation; Business Ecosystem Design; Global and Local Economy

1 Introduction

In many developed countries, rural population is declining and aging, rural economies are shrinking, meaning there are now significant differences between rural and metropolitan areas. In metropolitan areas, the economic level tends to be high, while the quality of life is not always good and as rural areas tend to be more conservative, the environment tends to be poor for new business developments to improve regional value, these have tended to be individual successes that have not had any significant impact on rural ecosystems. Generally, the rural business ecosystem has been focused on local production for local consumption, and there has been little research on ways to connect local and global markets.

This study compared the local and global economies in Japan in the Kyusyu and Tokyo areas using a document survey and interviews to extract the current regional activation problems and determine solutions based on service logic and design.

2 Current Reality in Rural Areas

2.1 Lifestyle

Rural life has rich nature, nutritious food, inexpensive housing, and a comfortable lifestyle; however, there are less employment and business opportunities. Rural life in Japan was examined using an ethnographic survey of web blogs and a document survey of web portals and associated statistics. Agricultural community and mountain areas were removed from the survey because the population was low in these areas, and the community differences were so large that it was difficult to generalize the results.

The drawbacks of rural life

- fewer job options,
- fewer entertainment options,
- inconvenient transportation development,
- bothersome social activities, and
- many insects.

The drawbacks of urban life arewere identified as follows .:

- expensive rents,
- crowded trains,
- poor environment for raising children,
- little nature,
- poor-quality meals, and
- cold society.

Open information in blogs by people who had moved to rural areas and urban and rural area web portals was examined. It was found that the job options in rural areas were poor, especially for knowledge-intensive workers because there were few rural companies ; however, there were more than double the number of hospitals , i.e., 13 per 100,000 people in Kagoshima, compared to only 4.4 per 100,000 people in Tokyo; this indicated that there were possible job openings in the medical and welfare areas.

There were fewer options in the rural areas, and the job listings were different from those in the urban areas.

The following comments were made about the rural entertainment options "There are no third -wave spots for consumption, and there is less cultural diversity than in Tokyo" and "There were less drinking sessions after I moved to Kagoshima "The live sports ratio was also low with only 17.6% being involved in Kagoshima , which was ranked 36, compared to 23.8% in Tokyo , which was ranked 6, and there were also fewer industrial entertainment options. However, comments such as "There are rich mountains, oceans and rivers if I drive 30 minutes" indicated that there were greater outdoor opportunities in rural areas compared to urban areas.

Public transportation in rural areas is not well developed because of the low population density, with rural people noting that a train or bus every hour was a norm in local cities. Therefore, most rural people need to rely on their own means of transportation. Public transport, however, is very crowded in metropolitan areas compared to rural areas.

However, cooperative human relations are strong in rural areas because of the sparse population, with some people commenting that "cooperating with each other at events helps us get to know each other".

Data on the volunteer action ratio found a greater local event involvement in rural areas, with 32.6% being involved in Kagoshima, which was ranked 5th, but only 21.6% being involved in Tokyo, which was ranked 46th. Local people in Kagoshima commented that "work ends at 18:00, and I can go back home at 18:30 every day, which means that I have much free time until go to sleep", and "there is 20 minutes more free time in Kagoshima than in Tokyo," which means that there are stronger relationships developed in recreational activities.

People think that rent is expensive in the metropolitan areas however, the statistics indicated that rent in Tokyo was quite expensive, but that there was no difference between the rent in the Kyusyu area and commutable Tokyo areas such as Ibaraki, Tochigi, and Gunma. Therefore, rent in Tokyo was seen as extraordinarily expensive, whereas rent in rural areas was seen as affordable.

There were many comments that the living environment for raising children was better in the rural areas because it has many natural areas and good facilities. For example, the cost of maternity is only 439,818 yen in Kagoshima compared to 609,189 yen in Tokyo, and Kagoshima has 146 athletic parks per million people compared to only 9.5 in Tokyo.

Although eating preferences are typically based on personal judgment some comments suggested that local food was more affordable and delicious in rural areas; for example, one commenter said that "rice and vegetables are much more delicious. If you look for local foods, there are plenty of fine cafes and restaurants. I feel sorry that people in urban area have to be satisfied with only chain restaurants." However, communication with others in rural areas can sometimes be difficult; for example, one commenter said that "the people are cold to outsiders; the dialects are difficult; and the local rules are not easy to understand. Sometimes, rural people have local customs specific values, and mannerisms that are different from global standards.

Therefore, the differences between rural and urban lifestyles can be summarized as follows. Although there are wider job options, better entertainment, and more convenient transport in urban areas, the living costs are high in core capital regions, and the number of community facilities and hospitals is low. Food is more affordable and nutritious; there is a wider range of various community facilities; and there is more free time to volunteer and spend with family members in rural areas, but there are limited job options, and the local rules are difficult to understand for outside people. Thus, although daily life is easy, there is little change in rural areas, and people cannot easily deal with change.

Therefore, although there is a greater than expected fullness of life in rural areas, the areas are economically and socially flat, and there is a lack of willingness by people to change the conservative lifestyles.

2.2 Local Business Activities

Toyama explained that there were two main economic regions: global and local (Table 1.). He pointed out that face-to-face labor-intensive services were the main business activities in rural economic regions, as opposed to the knowledge-intensive service industries in urban city regions. To understand the structure of the rural economy and to determine business areas that could be suitable for new service- business ecosystems, materials from both Tokyo and Kagoshima were consulted.

Table 1 Global Economy and Local Economy

	Global World(Global economic zone)	Local World(Local economic zone)
Products	Goods and portable information portable	Experience and service (basically face-to-face) consumed on the spot at the same time as production
Industrial Structure	Manufacturing industries, mainly large companies Complete competition in the global economic zone labor productivity is in the world's top class	Service industries: mainly middle and small businesses Incomplete competition in the local economic zone Very low labor productivity
Employment	Knowledge intensive (Highly skilled human resources centered on high wages)	Labor intensive (Mainly average human resources, with low wages)

The economic growth ratio in Tokyo has been measured at a 2.0% nominal rate and a 1.8% real rate. At the point of production, both the nominal and real wholesale and retail industry rates increased. At the point of distribution, increases were mainly experienced in property income and business income, with the income of Tokyo residents increasing by 2.8%. In outgoings, both nominal and real rate gross capital formation ratios increased in Tokyo. From an analysis of the company-based added value in Tokyo by industry, because global company head offices are concentrated in Tokyo, the ratio of manufacturers, wholesale distributors, retailers and service companies such as financial, insurance, and information-communication companies is large. In terms of the circulation in the local economy, the ratio of income flowing outside was high, indicating that there were many workers in Tokyo coming from outlying cities. However, the ratio of income flowing in was also very high, indicating the large investment flow from other areas.

The economic growth ratio in Kagoshima was a 3.2% nominal rate and a 1.3% real rate, with the nominal rate having consecutive positive growth for 3 years and the real rate having positive growth for 2 years. At the point of production, manufacturing, utilities, waste treatment, and the wholesale and retail industries increased, but the construction industry decreased. At the point of distribution, business income increased. In terms of outgoings, private final consumption expenditure and government final consumption expenditure increased. Compared with other areas, agriculture, forestry, and fisheries contributed 3.7%, and the rural area had the largest number of veterinary business offices in Japan. From an analysis of the company-based added value in Kagoshima by industry, the ratio for medical welfare was the highest, the ratio for wholesale distributors was second at about the same as that in Tokyo, and the ratio of construction, lodging, and restaurant businesses was high. Compared to Tokyo, in terms of circulation in the local economy, the distribution of income from outside was relatively high because of subsidization; however, more than half the private investment flowed to the outside. The income distribution from the outside flowed out, and there was low investment in the local area. Compared to the economic activities in Kagoshima, Tokyo had significant economic alliances with surrounding prefectures and had many global economic enterprise head offices. There were also many knowledge-intensive service companies such as information and telecommunications companies and performance production activities, and there was significant financial investment coming in

from outside Tokyo. In Kagoshima, by contrast, the main economic activities were laborintensive ones such as medical welfare, lodging, and restaurant businesses. The business ecosystem in the private sector appeared to be closed in the local community as subvention and dividends were not used in the local community. As Toyama pointed out, the rural economy was based mainly on labor-intensive service businesses connected geographically and tightly to the local economy. The local ecosystem was optimized to local business sizes and economic expansion, and change ecosystem investments tended to go outside.

Therefore, overall, no new resources or ecosystems had been developed to enhance local economic activities.

2.3 Actions for Expanding Local Activities Listings

Many local governments have been planning to increase the earning power of the local community. However, Hada and Watanabe claimed that these actions were insufficient from a marketing viewpoint and commented that the process needed consecutive marketing actions to excavate regional resources, develop local brands, and restructure the local community. Based on an idea associated with the consumption of things in the modern age, issues from two action materials in Kagoshima were extracted for service marketing.

2.3.1 Kagoshima's Vision for Future Creation

Kagoshima Vision for Future Creation was adopted as a local government plan, as follows:

"As the basis for the whole prefectural administration, from a mid- to long -term perspective over the next 10 years, the Kagoshima Vision for Future Creation was announced on March 2019, with a focus on clarifying the goals and basic policies in Kagoshima, sharing these with the local residents, and developing the next Kagoshima under an 'All Kagoshima' spirit to carry it on to the next generation."

This plan was focused on the development of local resources for sightseeing and promoting the rich agricultural, forestry, and fishery products, with the future plans targeting local residents. However, this plan was a vision only, and it did not include any concrete action plans or details about how to increase the region's earning power.

2.3.2 Satsuma Village Future Tourism Design

The sightseeing future laboratory workshop identified seven issues: lack of connection between the sightseeing business operators, lack of purpose in the events, inability to create events in which young people could participate, unacceptable feeling that foreign nationals were the target, lack of crisis awareness in Satsuma village, aging existing facilities, and lack of connection to local history or nature. Then, the sightseeing resources at Satsuma village and the ideal future for Satsuma village were considered with five teams developing activities for test marketing. Although the plans were in the starting phase and had a concrete direction there was no Segmentation, Targeting and Positioning (STP) for marketing 2.0. Members who had participated in the planning were interviewed and claimed that concrete action plans such as marketing and resource value analyses were the next actions.

Therefore, the research found that even though the local government had assigned participants to the local action policies in the planning phase there were no clear promoters or a system in action phase. Furthermore, although there were adequate staff, budget, and

concrete plans such as an STP for the conduct of local branding and marketing, there was no framework for the PDCA cycle. Therefore, the business model was developed based on the general GDL, and the main resources based on physical operations but not on any operations for service value creation.

3 Design for Local Service- Business Ecosystem Creation

3.1 For Regional Activation

The current community activation and action plans from the local government initiatives were extracted from the abovementioned research as follows:

- The rural ecosystem is currently running well and does not need to change until it fails.
- The rural ecosystem is optimized toward labor-intensive service businesses, and there is no investment needed to adopt a new business model and expand the economy.
- The community activation plan included resource detection for GDL, but there have not yet been any concrete action plans developed as to what values need to be created.
- Although the need for community activation is necessary at the macro level, it is believed that there are no problems at the local micro level. Therefore, maintenance of the local economy, and development of a hybrid model to connect with the global model are considered most suitable for activating the local community.

3.2 Connection between the Global Economy and the Local Economy

In modern society, mobilizing basic resources such as people, goods, and money and information has become easier.

Location limitations can also be overcome because of the mobile work and office sharing opportunities. Logistics has also changed because of the increase in door-to-door and unmanned drone delivery services; payment systems are much easier because of online banking, virtual currency and FinTech developments; and it is easier to gain real information using new recent computing interface technologies and AI. With this situation in mind, a frame of connection between the monetary knowledge-intensive global economy and labor-intensive local economy has developed, as illustrated in Fig.1.

The economic goal is associated with the need for population growth residential populations moving in, interactive temporary stay populations, and relational economically or informationally connected populations. The clear service operations were mapped on the frame to establish possible service businesses.

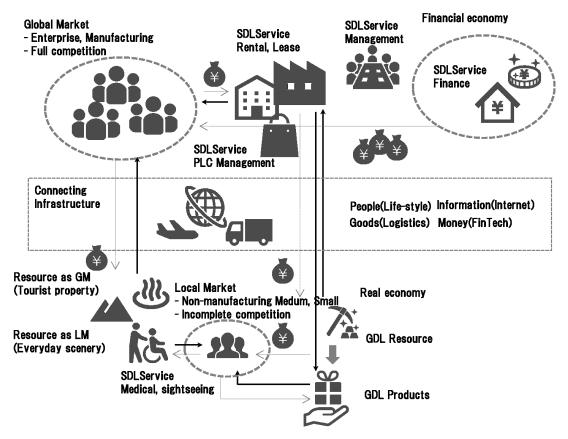


Figure 1. Connection Model between the Global Economy and the Local Economy

4 Future Research

In this paper, we considered an overall service design framework for regional activation rather than only for individual local business development. To connect the global and local economies and to establish new service businesses concrete resource finding, and marketing activities are needed. In our following research we plan to develop a concrete case study that encompasses actual action learning practices in Kagoshima, in the southern part of Japan.

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