Self-Assessed Positive Impacts of Area Management Organizations in Japan[1]

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ABSTRACT

[1] We pay a special thanks to Mr. Arthur Acolin, University of Southern California, regarding the useful comment on our paper during the Global Real Estate Summit conference held in Washington DC, July 2015.

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Japan is currently faced with an acute “aging society” coupled with a low birth rate, which is causing numerous social problems such as weakened local and urban communities and unattractive landscapes and environments. Depressed towns are also hindering disaster prevention. However, little attempt has been made by local governments to address this situation. There is a need to shed light, therefore, on revitalizing both “software activities,” such as holding events and festivals, as well as “hardware activities,” such as building new facilities and the provision of new infrastructure. In this respect, so-called “Area Management Activity” (AMA) plays a significant role in the revitalization process. AMA is defined as a method to revitalize towns and cities mainly by utilizing the private sector’s power in conjunction with government. This paper conducts several empirical tests on factors associated with the (self-assessed) positive impacts of “Area Management Organizations” (AMOs) on the revitalization of towns, relying on data sets from 1,300 areas (in almost 750 municipalities) in which revitalization programs such as the Urban Renaissance Maintenance Program by the Ministry of Land, Infrastructure, Transport and Tourism have been instituted since 1990.

Keywords: “Area Management Activity”, Area improvement, Institutionalization of stakeholders

1. Introduction

There has been a growing focus on Area Management Activity (AMA) with regard to town revitalization in Japan. AMA is defined as a way to manage the growth and security of towns, mainly by the private and voluntary sectors in conjunction with the public sector (Kobayashi, 2015). The Ministry of Land, Infrastructure, Transport and Tourism (MLIT) also defines AMA as "city or area management activity that aims to increase the value of land and community with the participation of citizens, companies, and land owners." In short, AMA enhances the value of towns and societies. In the past decade in particular, the MLIT has been promoting this activity. In 2014, it established a government special committee called "Town Management in the New Era" to promote AMA nationwide. In short, "town management by citizens with the private sector" has gained significance in terms of the growth of cities.

This paper examines Japanese-type AMAs to assess the (self-assessed) positive impacts of Area Management Organizations (AMOs). For this purpose, we conduct an empirical analysis relying on the statistical tool of Ordered Logit Technics. Although our analysis is based on subjective data, there is a need for a "third party" to use this assessment data, simply because AMA is very complex and the quality of its performance should also be established by a third party.

The structure of this paper is as follows. Firstly, we examine AMA with special reference to the business improvement district system (the BID system) instituted in the UK. Secondly, we briefly examine the history of AMA on town center economies from an economic perspective. Thirdly, we examine the impacts of several regeneration schemes on town economies using empirical data gathered from our survey in conjunction with the MLIT. The paper concludes by referring to the findings from our survey result.

2. AMA in the UK

It is well known that AMA has been working effectively in the UK. In particular, town center managers' systems have been well organized and formulated by the Association of Town Centre Managers

(ATCM) since 1990. Thus far, more than 300 town managers have been appointed by the ATCM to local towns, their main task being to make the town center economically vibrant. In addition, in the UK, the BID system was introduced in 2004 and affords local government the legal power to impose an additional property tax on the land occupier in designated areas (BID areas). The revenue raised on such areas is only used for BID revitalization schemes. In England and Wales, BIDs were introduced through legislation (the Local Government Act 2003) and subsequent regulations in 2004.

The BID system has been instituted in many cities in England and Scotland and has helped regenerate cities such as Hull, Nottingham, Swindon, Falkirk, Bathgate, and Elgin. Its benefits are as follows: firstly, it enhances efficiencies through collective procurement resulting in overhead reductions. For instance, the BID system contributes to reducing overhead costs simply because it can make a compulsory collection rather than collect contributions individually. Secondly, it generates greater and stronger partnerships between private, voluntary, and community organizations and delivers additional investment and funding to support town center strategies and action plans.

By late 2014, there were over 180 BIDs in operation in the UK., administrated by town center managers. Thus, in the UK, the town management system has been activated using legal frameworks while in Japan it remains in the initial phase.

3. AMA and historical background in Japan between the 1980s and 2010s

Here, let us examine the brief background of AMA with reference to town center economies since the 1980s and the U.S. Structural Impediments Initiative Talks. During the 1980s, the cheap yen facilitated a Japanese export boom and the nation's trade surplus reached huge levels, thus putting pressure on the U.S. economy. This, in turn, led to trade friction with the U.S. and Structural Impediments Initiative Talks were held between the U.S. and Japan from 1989 to 1992, focusing on how to redress the trade deficit. One idea was to promote a "free trade" policy in Japanese domestic markets by deregulating trade in a number of industries, as well as Japan's town planning systems. Foreign governments, the

U.S. in particular, had accused the Japanese of having a "protective" town planning policy, which was preventing foreign capital from starting businesses in Japan, particularly superstores. American officials called on their Japanese counterparts to de-regulate, for example, the Large-scale Superstore Location Act (introduced in 1973; hereafter, LSLA).[5] This Act made it difficult for U.S. stores to open in Japan, because although in theory they were permitted to open branches anywhere in Japan, this was provisional upon the approval of the local chamber of commerce. As these local organizations essentially reflect the interests of small retail shopkeepers, there was effectively no way for superstores, foreign superstores in particular, to set up shop in Japan. Therefore, there was virtually no opportunity for U.S. big capital to enter the Japanese market.

As mentioned above, the U.S. government required Japan to redress its protective town planning system, including the LSLA, and particularly to abolish those regulations that allowed local chambers of commerce to become involved. In 1992, the Japanese government accepted these demands and began to employ a new town planning regime, for example by deregulating the LSLA. However, this policy was severely criticized by small retail shopkeepers, particularly in town centers, and the government was again faced with a difficult situation. The political support base for the Liberal Democratic Party (hereafter, the LDP), the ruling party, lay with rural farmers and small town center retailers, and thus the LDP was obliged to listen to them. Since freedom of location, as well as free market policy, had been promoted since 1992, there remained the need to discuss with town center shopkeepers how to minimize traffic jams caused by out-of-town superstore development. However, despite a sharp increase in the number of out-of-town superstores from 1992 onwards, the U.S. continued to call for further reform and deregulation.

3.1 The three acts

In 1998, the Japanese government introduced the Town Centre Regeneration Act (TCRA) in an

[5] Large-scale Superstore Location (Type 1) is defined as a superstore with floor space of greater than 3,000 m^2, while Large-scale Superstore Location (Type 2) is a superstore with floor space of greater than 500 m^2.

attempt to revitalize Japan's town centers. The TCRA created new bodies, known as Town Management Organizations (TMOs), to market or "manage" town centers with strong central government financial support. These subsidies could be used, for example, to hold events in town centers as long as they enhanced the local economy. Furthermore, nobody decided on the creation of new TMOs.

In 2000, further deregulation of the LSLA was undertaken to accommodate the U.S. requirements. Along with the reform of the LSLA, the Reformed Town Planning Act (hereafter, RTPA) was also instituted in 2000 to enable large-scale superstores to easily establish branches on roadsides in out-of-town areas without local permission. In short, the government employed a "carrot-and-stick" policy to create conditions conducive to the expansion of superstores.

Thus, with the introduction of the above Acts, the TCRA, LSLA, and RTPA (hereafter, the "Three Acts"), there co-existed a free-market philosophy governing the location of superstores with a subsidy policy that supported town center retail shopping. Undoubtedly, without these subsidies, the economies of scale enjoyed by the superstores would have placed these small retailers in a highly disadvantaged position.

In Japan, most citizens in rural areas use private cars for transportation. Large-scale superstores provide huge numbers of free parking spaces, whereas, in town centers, customers must pay for expensive parking facilities. There has been a sharp increase in the number of large-scale superstores, which has made business even more difficult for small retail shops, particularly independents since 2000.

3.2. Results of free-market system on town planning in Japan

Following the introduction of the Three Acts, the results of the Japanese government's attempts to

revitalize local economies are as follows: The Town Center Retail Survey (2005)[6] demonstrated that there had been a serious and continuous decline in town center populations for 125 of the 155 cities sampled; these cities were selected on a random basis, but all had a population size of more than 100,000 people between 2001 and 2005.[7] In short, there were virtually negative impacts regarding "regeneration" of the town center (Adachi, 2010).[8] This was simply because normally, "regeneration of the town center" is accompanied by a population increase with some degree of economic impact.

4. Growing expectation regarding AMA

Faced with this decline in local town centers, in particular, there is a need to use several strategies to revitalize towns. As before, due to the lack of financial resources, we cannot rely on the public sector as the main stakeholder to revitalize towns. Thus, utilizing the voluntary and private sectors to manage the growth of cities, we focused on AMAs led by these sectors in Japan.

4.1 Example of AMA in Japan (1): Kurokabe "TMO"

As stated previously, AMAs are a way to revitalize a town, mainly by the private sector including the voluntary sector, in conjunction with the public sector. According to a research meeting entitled "Area Management Study Project" (2014)[9], AMAs can be roughly divided into six groups. These are: "improving town's landscape" (type A), "holding events and increasing the crowd in the town" (type B), "advertising the town" (type C), "disaster prevention" (type D), "managing public facilities by private funding and methods" (type E), and "utilizing private facilities for a public purpose" (type F).

One successful example of an AMA in Japan is Kurokabe in Nagahama City in Shiga Prefecture, which belongs to type F of the above categories.

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[6] "The effects of the Town Centre Regeneration Acts on the population and sales of retail shops in town centre areas 2005," Ministry of Land, Infrastructure, Transport and Tourism.
[7] The sample excludes cities such as Tokyo with populations over 1 million.
[8] Adachi, M, "How to revitalize town centres" Minerva Books 2010.
[9] The meeting was organized by research staff from Kyoto University, Wakayama University, and MLIT sponsored by Koua Kosan real estate company to investigate AMA between 2014 and 2015.

With regard to the town center economy in Nagahama City, it has been in serious decline since the 1980s and it was necessary to use a number of strategies to revitalize it. Several citizens who were local members decided to establish an area management company called Kurokabe, which acted as a TMO and has initiated several regeneration schemes, such as refurbishment of old retail shops and offices in the main shopping street, since 1989. Funding is collected by the eight start-up members (i.e., investors), each of which paid 10,000,000 Yen (i.e., 0.8 million U.S. dollars) in 1989 to cover the initial costs. Each of their schemes has been successful due to their employment of a well-planned marketing system. Within 10 years, there was a sharp increase in the number of visitors from 80,000 in 1989 to 2,000,000 in 2000.

4.2 Example of AMA in Japan (2): Centre of Tokyo

The Otemachi, Marunouchi, and Yurakucho areas (the Daimaru lands district) in Tokyo metropolitan district are located in the heart of the financial district. There has been a growing focus on various urban AMAs in these areas. Here, three organizations are introduced:

First, the Beautification Association: This association has been managed by several association-related area managers in this region as well as landowners such as Mitsubishi Jisho Real Estate Company. The headquarters is located within Mitsubishi Jisho Real Estate Company. Funding for this activity is mainly contributed by membership fees and subsidies, reaching a total amount of almost 4 million Yen per annum (US$35,000). The Beautification Association is the first regional management organization run by landowners, who mainly manage tree planting.

Second, the Redevelopment Promotion Committee: This is a body comprising 90 redevelopment associations such as landowners. Its main purpose is to “renew and redevelop” the town center of Tokyo from the perspective of infrastructure provision. This association encompasses Chiyoda-ku, Tokyo, and JR East Japan, and funding comes from the membership fees of 30 million Yen per annum.

Third, the Area Management Association: This is a body whose members include local companies, organizations, workers, academics, lawyers, and citizen groups. It is a nonprofit-based association.

With regard to the current funding situation, the Redevelopment Promotion Committee is performing well but the Beautifying Association is now facing difficulties due to a lack of public subsidies. In the case of the Area Management Association, it also has financial difficulties due to the recent expansion of its activities and tasks.

4.3 Example of AMA in Japan (3): Grand Front Osaka

In January 2011, the government designated areas such as Osaka Station (82 hectares), Yoshiyuki Island, and the Midosuji districts (490 hectares) as specific emergency urban revitalization districts. A vacant site was situated near Osaka Station (24 hectares) and utilization of this idle land as well as redevelopment of brown field sites were prioritized for redevelopment. The development project was conducted by the private sector but "management" of this area is partly conducted by "nonprofit-based area management bodies" such as the Grand Front Osaka (hereafter, the GFO).

In April 2013, the GFO opened and received up to 340,000 visitors. The number of visitors has been on the increase since the opening day and 27.61 million people had visited the GFO by September 2013.

Area management of the GFO (i.e., AMA) has been conducted by the TMO of the GFO, the ultimate purpose of which is to increase the value of the area. For this purpose, the organization is divided into two departments: the Department of Town and Community Planning and the Department of Information and City Promotion.

The detailed tasks of the TMO are provided below:

I. Holding regular events and creating promotions

II. Enhancing urban public space utilization using town and community information
III. Creating a comfortable environment
IV. Strengthening partnerships between private and public space management and administration
V. Utilizing public roads as a marketplace such as for restaurants and cafés
VI. Setting up a new migratory traffic service with cheap transportation costs
VII. Coordination of administrative, economic, and management organizations
VIII. Planning sponsored events (i.e., festivals) produced by the TMO

While this is a successful case of AMA in Japan, no survey has been conducted to examine to what extent such successful cases exist in Japan. In particular, our question is to what extent the average AMA enhances the value of towns and societies. Adachi (2007) has conducted an empirical analysis of the impact of several schemes on town center development in Japan's local towns, but there are almost no previous studies regarding AMAs. Area management is a new phenomenon in Japan; therefore, there is a need to examine the relations between AMO and its policy imapcts. Thus, we have decided to conduct an empirical survey with regard to AMA at the present time.

5. Hypothesis

This section outlines the central hypothesis of this paper. There are many economic theories related to AMOs. According to Tsuruno (2003), more frequent meetings by AMOs with regard to the activity could help positive communication and therefore enhance organizational ties. Hosono (2007) also pointed out that town center regeneration organizations were historically successful at constructing effective teams to acquire subsidies. However, having received the subsidies, they did not have systems in place to organize businesses, plans, or staff simply because they outsourced the job. Kobayashi (2015) suggests that private associations are no longer beneficial for town development on a regional scale. It is necessary for corporate organizations to have main offices with special staff.

Therefore, valuable know-how in private organizations, such as financing arrangements, formation of

networks, and development of human resources, has a high potential for contributing actively to enhancing the self-assessed positive impacts of AMAs. However, there are no studies that test this assumption and so. In order to analyze it, the following hypothesis can be established:

Hypothesis 1
It is very important to have a main office for AMAs in order to increase management efficiency (e.g., main address, main telephone number)

Hypothesis 2
Government subsidies are required for AMA management in order to bridge the gap between cost and income. In this way, there is a positive correlation between AMA assessment and gaining a subsidy.

Hypothesis 3
The older the organization is, the better the assessment of its management that will be made. It is valid to consider that an older organization will be well-known and are relied upon more by local citizens and companies from a general management and funding perspective.

Hypothesis 4
Frequent meetings held in the organization of AMAs will increase their assessment value. It is valid to consider that a high frequency of meetings will contribute to more efficient management of the organization.

6. Data analysis of the impact of AMOs

In the remainder of this section, we clarify the institution and funding of AMAs in Japan. We also examine the relationship between AMA performance and attributes.

Public data sets are available but they are divided and administrated according to the respective local governments. Therefore, it is sometimes very difficult to make efficient use of the data. For this reason, we tried to rely on original data gathered from questionnaires. For example, data sets relating to evaluating the impact of AMA related events have not been fully captured thus far. Therefore, we decided to collect our own original data.

6.1 What types of policy have been regarded as effective in Japan?

The authors, in conjunction with Kyoto University and the MLIT, conducted a questionnaire survey in 2014 as well as conducting empirical surveys, using the Ordered Logit Model (OLM). The OLM was used to examine relations between the policy impacts of AMA and explanatory variables such as an institution's attributes.

6.2 Discrete statistical model: What is the Logit and Probit Model?

Here, we briefly explain the binomial logit model where the dependent variable is of a "discrete" type. Statistical analysis of a model with qualitative dependent variables can be viewed as the problem of predicting the probabilities of various possible values (responses) of the dependent variables. Binomial probit and logit analyses are two well-known techniques for cases in which there are only two possible responses, typically the occurrence and non-occurrence of an event. Theil (1969) developed a multinomial logit model that allows for an arbitrary number of responses and explanatory variables. McFadden (1974) explained the maximum likelihood estimation procedure for this type of model. While it is popular to apply the multinomial logit methodology, the binomial probit estimation is less popular due to difficulties involved in the estimation algorithm.

Zax and Skidmore (1994) examined the relationship between tax increases and the rate of land development using the binomial probit model. In their model, the dependent variable represented by the development activity is a dummy term: zero for the case of no-development and one for the case of development. They conclude that property tax increases at the rate of land conversion. However, the binomial probit specification by Zax and Skidmore (1994) is not appropriate for our analysis because the specification of the model is complex and difficult to estimate.

In our analysis, we use the applied version of the binomial logit model, which is called the "ordered logit model."

6.3 Model specification of the ordered logit model

Here, we assume that the underlying categories are discrete realizations of some underlying continuous distribution of attitude such as "very effective," "effective," "fair," and "not effective." If these categories are the "dependent variables," then we can use the ordered logit model. While ordered logit model is a well known empirical method, here let us briefly refer to the model.

In the ordered logit model, there is an observed ordinal value, Y and Y is a function of another variable, Y*, that is not measured.

The continuous latent variable Y* has various threshold points. The value on the observed variable Y depends on whether or not we have crossed a particular threshold. For example, when the number of the orders are four (i.e., very effective, effective, fair, not effective) the thresholds are:

$Yi = 1$ if Y^*_i is $\leq \mu_1$

$Yi = 2$ if $\mu_1 \leq Y^*_i \leq \mu_2$

$Yi = 3$ if $\mu_2 \leq Y^*_i \leq \mu_3$

$Yi = 4$ if $Y^*_i \geq \mu_3$ …….(1)

The formula of the ordered logit model is

$$Y^* = \sum_{k=1}^{K} \beta_k X_k + \varepsilon = Zi + \varepsilon$$

where

$$Z_i = \sum_{k=1}^{K} \beta_k X_k = E(Y^*_i) \quad \text{……(2)}$$

β＝parameter value for X (i.e., explanatory value)

We can use the estimated the terms to estimate the probability that Y will take on a particular value. The formulae in the case of M = 4 (i.e., very effective, effective, fair, and not effective) are

$$P(Y=1)=\frac{1}{1+\exp(Z-\mu_1)}$$
$$P(Y=2)=\frac{1}{1+\exp(Z-\mu_2)}-\frac{1}{1+\exp(Z-\mu_1)}$$
$$P(Y=3)=\frac{1}{1+\exp(Z-\mu_3)}-\frac{1}{1+\exp(Z-\mu_2)}$$
$$P(Y=4)=1-\frac{1}{1+\exp(Z-\mu_3)}$$

……..(3)

Using the estimated value of Z in equation (2) and assuming logistic distribution of the disturbance term, we can estimate the probability that the unobserved variable Y* falls within the various thresholds limits (see equation (3)). Relying upon the maximum log likelihood method, we can estimate explanatory valuables.

6.4 Dependent variables and explanatory variables

As before, with regard to the dependent variable, the "effects of the schemes" are divided into four categories: "very effective," "effective," "fair," and "not effective." We examine solely to what extent a town has changed as a result of AMA, which can be observed as some kind of non-monetized value of the scheme. The explanatory variables (i.e., independent variables) are attributes of the management body or institution (e.g., income, etc.). This statistical analysis thus examines the assessment of the impact of AMA schemes and their background (i.e., attributes).

6.5 Data

The survey was e-mailed to 826 local authorities who had at some time conducted "town regeneration schemes" through the MLIT. The details of the questionnaire are outlined below.[10]

[10] For empirical analysis, see "Town Centre Regeneration and its Strategies," Adachi, 2010, Minerva Press.

Place: 826 local governments[11]

Date: November 20, 2014–December 12, 2014

Size: The questionnaire was distributed to 826 local governments, which have been designated "regeneration schemes" and 746 local governments replied. Of these, the total number of AMOs that replied to our questionnaire was 574.

Respondents: Local are officials

A summary of the dependent and independent variables is given in Table 1.

[Table 1 near here.]

As before, we directly asked the respondent(s) or officer(s) in charge of the policy effects to respond. It must be noted that the observation of such effects is very subjective and depends on the personal impression of the public servant in question, but while this survey has such limitations and problems, we can still gain useful information. There is a need for a third party to use such assessment data simply because AMA is very complex and the quality of performance depends on the self-assessment of a third party.

6.6 Independent variables

The independent variables are (1) whether or not the organization has a main office (i.e., a headquarters), (2) whether or not funding is generated from donations, (3) whether or not funding has been generated from the AMA, (4) whether or not funding is generated from membership fees, (5) whether or not funding is generated from public sector subsidies, (6) frequency of meeting, (7) total cost of AMA, (8) area size of the area management to which the AMA belongs, (9) the distance of the

[11] The questionnaire surveys were sent to 826 local governments and we received 746 replies. The number of "organizations" that had carried out the AMA was 574.

AMA from Tokyo metropolitan area, (10) when the management body (i.e., organization) was set up.

The dependent variables are given in Table 2 below.

[Table 2 near here.]

7. Results

[Table 3 near here.]

[Table 4 near here.]

7.1 Organization - hypothesis 1 -

From the z-statistics of independent variables such as "The organization has a main office" in Table 4, we found possession of a main office is not an important factor in assessment of the AMA. Most of the "z-values" were not statistically significant. In some cases, the "z-values" were statistically significant but sign was negative. Thus, hypothesis 1 is not supported. This is partly because most of the AMA-related organizations are non-profit and belong to the voluntary sector with a relatively small "business" size.

7.2 Funding - hypothesis 2 -

Regarding the money required to run an AMA, we found almost no relation between government subsidies and management assessment. The signs of the independent variables were not positive and not statistically significant. Rather, there existed a negative relation between AMA subsidies and assessment for "improving town's landscape design." However, we found a positive correlation between a positive assessment and "funding from membership fees." There is a possibility that funding

from membership fees enhances consciousness of participation in the AMA.

7.3 Other factor 1 – hypothesis 3 - age of organization

Regarding the age (or history) of the organization, we found almost all independent variables to be statistically not significant. Thus, a year of establishment of organization is irrelevant in the assessment of AMA.

7.4 Other factor 2 – hypothesis 4 - frequency of meetings

Regarding frequency of meetings, we found that the independent variables "Attracting guests and increasing crowd," "Revitalizing local real-estate market," "enhancing ties of community and social network," and "Advertising town and AMAs" were negative and statistically significant. Organizations with "fewer meeting times per month" had a better assessment than organizations with more meeting times. This is surprising as our intuition was that high frequency meeting would be positive for management. This is probably because meeting frequency is not a good indicator of management quality. A small number of meetings is sometimes efficient for management.

Conclusions

In this paper, the Japanese version of AMA was examined by assessing the AMO's perspective. As before, there has been a sharp increase in the number of AMAs since 2000, coinciding with the decline in the local economy. The local economy in Japan has performed very poorly, particularly since the collapse of the bubble economy in the 1990s, and has bad debt problems. Under these circumstances, the private sector is required to play a key role in AMA. The main findings are as follows:

First, regarding the money required to run AMAs, we found almost no correlation between

government subsidies and management assessment. Rather, there exists a negative correlation between subsidies and AMA with regard to “improving town’s landscape design.” It could be assumed that town center regeneration organizations were historically successful at constructing effective teams to acquire subsidies; however, having received the subsidies, they did not have systems in place to organize businesses, plans, or staff. Thus, as our analysis suggests the subsidy for “improving town’s landscape design” had a negative impact. For the future, AMAs should be undertaken for sustainable management, and then the system should be passed on (to others) in the area.

Second, we found a positive correlation between a positive assessment and “funding from membership fees.” There is a possibility that funding from membership fees will enhance consciousness regarding participation in the AMA.

Third, regarding the age (or history) of the organization, we found almost no correlation between “history of the organization” and assessment of it.

Fourth, regarding the frequency of their meetings, we found that organizations with “fewer meeting times per month” had a better assessment than organizations with more meeting times. This is surprising but tells us that “meeting frequency” is not an important factor.

The above results are not always in line with our intuition and therefore it is very important to consider the above finding in order to ensure the better management of AMAs.

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Appendix

Table 1: Explanation of dependent variables *(Does the scheme have a positive effect on the town?)*

Dependent variable	
4	Very effective
3	Effective
2	Fair
1	Not effective

Table 2: Dependent variables

improving town's landscape design
attracting guests and increasing crowds
revitalizing local real-estate market
enhancing ties of community and social network
advertising town and AMA
increasing population and economic power

Table 3: Results for ordered Logit Model for "improving town's landscape design", "attracting guests and increasing crowd" and "revitalizing local real estate market."

	Y1=Improving Town's land scape design			Y2=Attracting guests and increasing crowd			Y3=Revitalizing local real estate market		
	coefficient	z-statistics		coefficient	z-statistics		coefficient	z-statistics	
The organization has a main office	0.370	1.114		0.375	1.372		0.375	0.505	
Funding generated from donations	0.117	0.369		0.097	0.349		-1.168	-2.498	*
Funding generated from AMA	-0.500	-2.798	*	0.646	4.363	*	0.280	1.309	
Funding generated from membership fees	0.101	0.592		0.309	2.133	*	0.303	1.413	
Funding generated from subsidies	-0.896	-5.036	*	-0.149	-1.024		-0.094	-0.437	
Frequency of meeting for the activity	0.005	0.082		-0.190	-4.024	*	-0.196	-2.963	*
Cost of AMA	0.000	-1.276		0.000	2.889	*	0.000	1.314	
Area size of city	0.001	2.060	*	-0.001	-2.327	*	0.000	0.810	
Distance from Tokyo metropolitan area	-0.001	-0.700		0.000	0.033		-0.003	-2.081	*
Year of establishment of organization	0.000	0.535		0.000	1.585		0.000	0.538	
Pseudo R-squared	0.033			0.042			0.034		

Log likelihood Y1=-607.633

Log likelihood Y2=-813.726

Log likelihood Y3=-433.392

Table 4: Results for ordered logit for “enhancing ties of community and social network”, “Advertising town and AMA” and “Increasing population and economic power”

	Y4=enhancing ties of community and social network			Y5=Advertising town and AMA			Y6=Increasing population and economic power		
	coefficient	z-statistics		coefficient	z-statistics		coefficient	z-statistics	
The organization has a main office	-0.749	-2.383	*	-0.370	-1.119		-1.724	-2.885	*
Funding generated from donations	-0.023	-0.076		-0.102	-0.339		0.896	1.949	
Funding generated from AMA	-0.624	-3.649	*	-0.629	-3.676	*	-0.326	-1.479	
Funding generated from membership fees	0.455	2.755	*	0.233	1.410		-0.180	-0.848	
Funding generated from subsidies	0.102	0.618		-0.133	-0.793		0.211	1.011	
Frequency of meeting for the activity	-0.246	-4.253	*	-0.133	-2.267	*	-0.042	-0.597	
Cost of AMA	0.000	1.966		0.000	3.418	*	0.000	4.193	*
Area size of city	0.001	3.229	*	0.001	2.337	*	0.001	2.622	*
Distance from Tokyo metropolitan area	0.000	-0.019		0.002	1.466		-0.002	-0.996	
Year of establishment of organization	0.000	0.089		0.000	1.627		0.001	2.093	*
Pseudo R-squared	0.055	,		0.037			0.072		

Log likelihood Y4=-629.881

Log likelihood Y5=-650.912

Log likelihood Y6=-395.234