Cultural Diversity and Gender Inequality in Creative Classes : Case Study from Major Cities in Japan

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Summary

Understanding the mechanism and impact of creative classes(CCs) on regional economic growth is important not only for academia but also for the policy makers, practitioners and so on. In recent years, various number of empirical studies based on the theory of creative class has been conducted around the world. However, the research on the mechanism of CCs and its impacts on regional economic growth in Japanese major cities is scarce, especially from the viewpoint of culture diversity and gender inequality.

The purpose of this study is to clarify the culture diversity and gender inequality in CCs and its impacts on the economic growth of the cities by using the official statistical data in Japan. Specifically, it will construct the indicators of amenity, tolerance and job opportunity in addition with gender inequality to clarify the determinants of CCs in major cities and its impacts on regional economic growth and innovation by using structural equation modeling (SEM) analysis. Policy implication for a sustainable development of cities will also be derived from the analytical results.

1. Introduction[1]

Creativity and diversity are fundamental elements in promoting innovation which is the source of economic development. Empirical analyses on creative classes (CCs) which is conceptualized by Richard Florida (e.g. Florida, 2005) and creative capital theories have been mainly conducted in North America and Europe both from intra-national and international comparative perspectives. However, in recent years, the accumulation of empirical analysis on Asian countries has also getting progressed.

According to the results of a representative international comparison (MPI, 2015), the creative index of Japan is the 24th among 139 countries in its overall rank, in which the domain of Technology (2nd) is high, Talent (58th) and Tolerance (39th) are comparatively low.

However, theoretical and empirical studies on the cultural diversity of human beings and gender inequality have clarified that benefits on innovation can be drawn successfully when it overcomes the obstacle of cross-cultural communication and contributes to the reduction in transaction cost. In other words, the region where it can derive the benefits of cultural diversity is the region where people can live with coexisting of heterogeneous and/or different values and is a society with a high degree of tolerance.

Therefore, in order to consider a desirable urban policy for the sustainable development of regional economy, this research attempts to clarify the determinants of the CCs and its impacts on regional economic development in major cities in Japan based on the theories of CC and cultural diversity by using the structural equation modeling.

2. Survey of previous research

2.1 Creative classes and creative cities in Japan

There have been a few empirical analyses on creative classes in Japan (Weslund and Calidoni, 2010; Ishizaka, 2014; Yoshimura, 2009; Yoshimura, 2010; Kiminami et al., 2018). Among them, Westlund and Calidoni (2010) found that human capital and population density had a significant influence on the regional development at the prefecture level in Japan (population growth, corporate growth rate, high-tech employment rate) in the early 2000s. In addition, the reason that the effects of tolerance and trust were not confirmed was considered as the immaturity of Japanese civil society. However, due to the focus of their analysis was on which fitness is high between the types of Florida's CC and Putnam's SC, the analysis about basic factors such as amenity, employment, openness and tolerance were insufficient.

Yoshimura (2009) argued that the direction of urban policy is required as to promote two coexisting characteristic

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[1] An early version of this paper was presented at 12th World Congress of the RSAI, Gao, India.

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functions of the agglomeration of enterprises and research institutes, and the enhancement of housing, medical care and education in order to attract creative classes through the investigation targeted the CCs in Fukuoka city and Kitakyushu city. In addition, Yoshimura (2010) conducted surveys on employment and housing orientation for technology-based employees in seven major cities across the country. The results clarified that the CCs did not have an extremely heterogeneous orientation with respect to employment or residence, but their desire for 'self-esteem' and 'self-actualization' were strong and their evaluation on the functions of cities depends on if such desire can be pursued through work. Furthermore, it clarified that the CC's evaluation on the residential environment from urban functions were put in the aspects of medical, educational and cultural facilities.

2.2 Cultural diversity and tolerance

Concerning tolerance, some interesting results are reported in a project called "World Values Survey" which investigates and compares values of countries around the world. The cultural values of the world are classified into two axes of the (traditional versus) secular-rational value and the (survival versus) self-expression value (called the Ingleheat-Velzel diagram). As for Japan, it is reported that the secular-rational value index is high, but self-expression value index is low (Inglehart and Baker, 2000; WVS homepage[2]). In other words, secularization has progressed in Japan which is neither bound by tradition and religion, nor is based on individual rights[3]. In a comparative survey among each country Inglehart and Baker (2000) found that economic growth did not necessarily accompany a rise both in secular-rational and self-expression value indexes which was thought as the processes of modernization. It did not always converge in one direction deterministically but followed by a nonlinear path with its path dependence.

On the other hand, issues of tolerance and cultural diversity can be represented as the issues of suicides in societies. Chen et al. (2009) clarified that high rate of suicide (generally ratio of suicide is almost 2.0-2.5 times higher in male compared to female) in Japan can be explained by economic factors by comparing with other countries among OECD. Andrés et al. (2011) clarified that female suicides was positively associated with sociological factors (divorce and fertility rates) rather than economic factors (GDP per capita and unemployment). Furthermore, the existing study (Heirigs et al., 2017) clarified that the ratio of suicides is positively correlated with the ratio of CCs by using cross-country

analysis which is interpreted that a low(high) ratio of suicide represents the people can(cannot) choose their life in their own way in the society.

In spite of its importance, researches on the relationship between cultural diversity and regional economic development for Japan has not been done so far (See also Kemeny, 2017; Hagiwara and Nakajima, 2014), although empirical economic analyses of foreign workers in Japan has been conducted in recent years (Nakamura et al., 2009; Machikita, 2015; Hashimoto, 2015)[4]. We would like to make an empirical analysis to add some new consideration on this issue.

2.3 Gender Issues and Creative Class in Japan

The issues on lack of diversity and gender inequality is one of the most serious social problems in Japan (OECD, 2015; WEF 2017). According to WEF (2017), viewing the gender issue of the society from four aspects of economy, education, health and political participation, there is much room for improvement, especially in the fields of economy and political participation: gender differences in income; less proportion of female in professional and technical workers, and a large gender deference in lawmakers and managerial positions.

Japan has the third largest wage disparity in gender among developed countries. The wage gap between men and women in Japan was 32.8% in 2005 and has been improved to 25.7% in 2015, although the average level of OECD is 14.3% (OECD, 2015). The reason behind the wage gap has been generally explained as that married women often quit their jobs due to childbirth or childcare for several years, which makes them difficult to form and continue a career development, or even makes them falling into poverty if they divorce and becoming disadvantageous in terms of social security (eg. Abe, 2010; Kawaguchi, 2015).

Although the Equal Employment Opportunity Law was enacted in 1985, women's participation in labor market was urged the expansion of irregular employment as domestic division of labor such as household chores and child rearing has not been changed overlapped with the economic stagnation since the 1990s (Yamada, 2015).

However, by comparing Japan and Spain which are common in both countries that the share of domestic labor in men is small, Estévez-Abe (2010) pointed out that the factors that Japan is lagging behind Spain include the encouragement of career awareness at educational institutions, and difficulty in outsourcing of housework and child rearing.

On the other hand, Leslie and Catungal (2012) pointed

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[2] See World Value Survey (http://www.worldvaluessurvey.org/wvs.jsp) for more details.

[3] In addition, Florida (2005, Ch.5) also introduced the results of the survey, and pointed out that Japan and Germany are in a similar situation. However, Japan has a higher secular-rational value index and a lower self-expression index than Germany.

[4] As for the empirical economic analysis on the labor market of immigrant in Japan, please see Nakamura et al. (2009). As for the recent trend of labor market situation, please see Machikita (2015) for example.

As for the technology transfer policy and institutional problems in the agriculture and construction sectors, please also see Hashimoto (2015).

out that urban policies based on Florida's creative class theory may reverse social justice, the problem of gender and immigration disparity will become more serious rather than being resolved by the promotion of creative city policy.

Therefore, in this research, we will also focus on gender differences in creative classes to clarify how it affects the development of urban economy.

3. Analytical framework and methodology

3.1 Analytical framework and hypothesis

Based on the literature review in the previous section, we constructed the conceptual framework for this research as shown in Fig. 1. We also set hypotheses of H1-a, H1-b, H2-a and H2-b as working hypotheses for the analysis.

That is, when hypothesis 1 is satisfied, it means that the regional development based on the creative class theory is realized in the region. Furthermore, when hypothesis 2 is satisfied, it means that regional development has been realized in line with diversity theory through the improvement of gender gap of creative classes.

Hypothesis 1-a. Determining factors for the residence of creative classes are amenity, employment, and tolerance.

Hypothesis 1-b. The residence of creative classes positively influence the sustainable development of the region.

Hypothesis 2-a. Determining factors for the residence of creative classes are also related to gender gap of creative class.

Hypothesis 2-b. The gender gap of creative class negatively influence the sustainable development of the region.
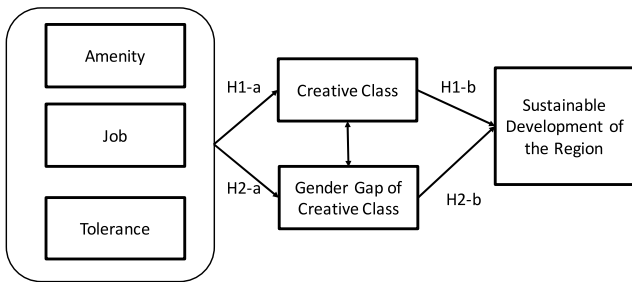
3.2 Data and analytical method

We introduced the method of covariance structure analysis (Structural Equation Modeling: SEM). The framework of path diagram for the SEM analysis is shown in Fig.2. The summary of the variables used for the analysis is shown in Table 1. For the third layer, we will use population growth rate, growth rate of income per capital and growth rate of patent growth as proxy indicators for sustainability, economic performance and innovation respectively.

Next, as for the CCs, we use the ratio of the total of professional, technical and artistic jobs in socio-economic classification divided by total number of employment in the region. As for the gender gap of creative class, we use the male-female ratio.

Finally, as for the 1st layer of amenity, employment and tolerance, the number of urban parks, unemployment rate are used as proxy variables. In addition, three types of tolerance variables are used: subjective indicators of tolerance (see Appendix 1), foreigner ratio, and suicide ratio. We use the ratio of suicide based on the literature review in the above section (low ratio of suicides indicates high level of tolerance in general).

Population density is used as a control variable as the degree of urbanization. The tolerance index is calculated as a subjective indicator (see Appendix 1).

The data of the 1st layer is in the year of 2000 and the 2nd layer is the data in 2005. For the third layer, growth rate of the variables for the period from 2005 to 2010 (for patents 2014 to 2016) is used.

The number of cities to be analyzed is 109 and they are major cities in Japan: core cities, special cities (at the time of enforcement) and prefectural government cities including Tokyo special wards (see Appendix 2 and Table A1).
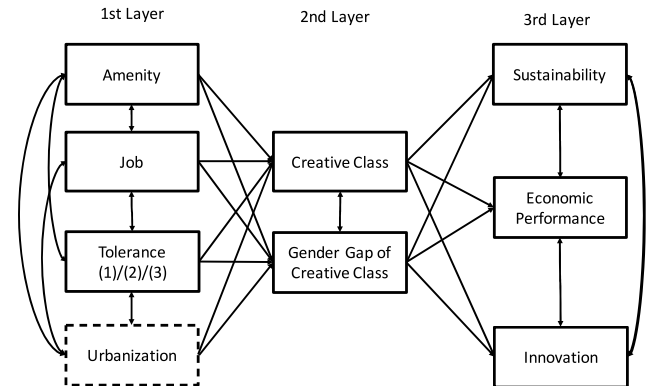

Fig. 1. Conceptual Framework and Hypotheses

Fig. 2. Framework for Path Diagram for SEM

Table 1. Explanation of Variables and Its summary

Variables	Code	Year	Explanation	Source	AVG	S.D.	Min.	Max.
Population Growth	GP	2005-10	Population growth (%)	SP	0.6	2.4	−5.1	7.4
Income Growth	GIPC	2005-10	Increase rate of taxable income per capita per person (%)	SP	−2.7	2.5	−9.0	4.8
Patent Growth	GPatent	2014-16	Increase rate of patent cases (%)	RE	1.3	9.9	−46.4	28.4
CC Ratio	CC2005	2005	CC job (profession, technical work, art job) / working population (%)	SP	10.6	1.8	7.5	19.2
Gender Gap of CC	CC Gender Gap 2005	2005	CC(Male) / CC(Female)	PC	1.4	0.4	0.8	2.3
Urban Park	Park	2000	Number of urban parks per 1,000 inhabitants	CE	0.7	0.3	0.2	1.7
Unemploy-ment	Unemp	2000	Total unemployed / Labor force population (%)	SP	4.9	1.1	3.1	9.8
Tolerance(1)	Tolerance	2000-02	Subjective indicator	JG	2.5	0.2	1.8	3.2
Tolerance(2)	Foreigner	2000	Foreigner population / Total population (%)	SP	1.0	0.8	0.1	3.7
Tolerance(3)	Suicide	1998-2002	Average suicide ratio (Number of suicide/100,000 population) Average of male and female	NP	25.5	3.4	18.8	39.1
Population Density	PD	2000	Total population / residential area (people / ha)	SP	36.4	28.9	5.0	130.9

Source:
  SP: System of Social and Demographic Statistics (e-Stat)
  RE: Regional Economic Analysis System(REAS)
 NP: National Center of Neurology and Psychiatry(NCNP)
  CE: Cabinet Office economic and fiscal data (Cabinet Office)
  JG: JGSS 2000-02 data (see Appendix 1)
  Note: Covariance between variables is assumed in the first layer and covariance of error terms is assumed in layer 2.

4. Results of the analysis

The results of SEM are shown in Fig. 3., Fig. 4., Fig. 5. and Table 2[5]. The results showed that unemployment, suicide (Tolerance (3))[6] and degree of urbanization had influences on the CCs, but subjective tolerance(Tolerance(1)), foreigner(Tolerance (2)) and amenity didn't have. Thus, it was verified that the job factor and tolerance is determinants of CCs (Hypothesis 1-a). On the other hand, there was a positive correlation between unemployment rate and urbanization; tolerance and unemployment; tolerance and urbanization, but the correlation between amenity and other indicators could not be confirmed which indicated that urbanization in Japan had been generally undertaken in the employment-driven way and the supply of amenity was relatively weak. Furthermore, such kind of employment-driven urbanization would further promote population concentration in specific areas (OECD, 2016).
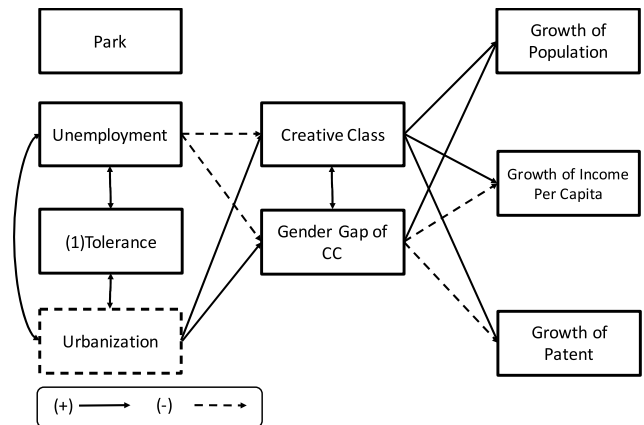
Fig. 3. Path Diagram (1): Tolerance of Subjective Indicator

[5] In order to test whether our results hold or not in the case where largest cities excluded from the sample, we conducted additional SEM analysis. We conducted SEM analysis by using sub sample which the 4 largest cities (Tokyo 23 wards, Yokohama, Osaka, Nagaya city > 2 million of population) are excluded from the sample. The result show the almost same result of the full sample model (109 cities) and signs of the coefficients and level of significant is stable. Thus, our hypotheses verification and conclusion also holds in this case.

[6] Sign of path coefficient between suicide and creative class is negative which means lowering suicides contributes the attracting creative class. This result is different from existing studies (Heirigs et al., 2017).
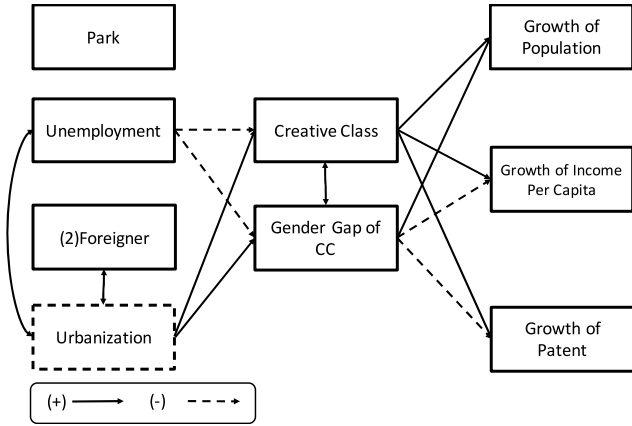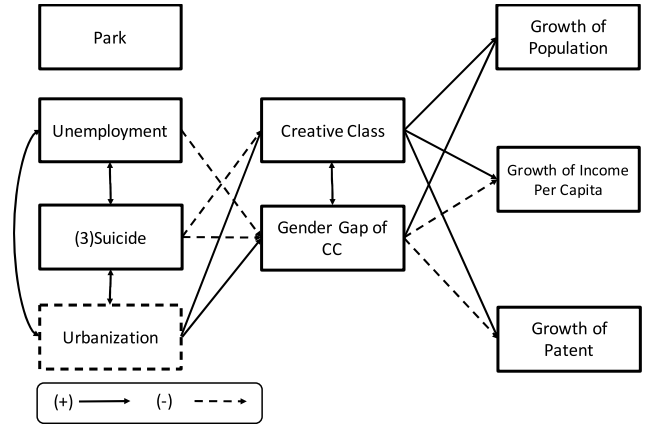
Fig. 4. Path Diagram (2): Foreigner

Fig. 5. Path Diagram (3): Suicide

Table 2. Result of Structural Equation Modeling

		(1) Tolerance			(2) Foreigner			(3) Suicide		
		Coef.	Z-value	P>|Z|	Coef.	Z-value	P>|Z|	Coef.	Z-value	P>|Z|
CC2005	ParkPC2000	0.84	1.74	0.08	0.81	1.70	0.09	0.65	1.43	0.15
	Unemployment	−0.48	−2.79	0.01 **	−0.50	−2.90	0.00 **	−0.14	−0.80	0.43
	(1) Tolerance/(2)Foreigner/(3)Suicide	0.98	1.44	0.15	−0.39	−1.74	0.08	−0.18	−3.71	0.00 **
	PD	0.03	4.15	0.00 **	0.03	4.84	0.00 **	0.02	2.64	0.01 **
Gender Gap CC2005	ParkPC2000	0.00	−0.02	0.98	−0.02	−0.18	0.86	−0.04	−0.40	0.69
	Unemployment	−0.19	−5.57	0.00 **	−0.18	−5.15	0.00 **	−0.12	−3.48	0.00 **
	(1) Tolerance/(2)Foreigner/(3)Suicide	0.14	1.05	0.29	0.05	1.11	0.27	−0.04	−3.92	0.00 **
	PD	0.01	7.11	0.00 **	0.01	6.26	0.00 **	0.01	5.40	0.00 **
GP2	CC2005	0.37	3.52	0.00 **	0.37	3.52	0.00 **	0.37	3.52	0.00 **
	Gender Gap CC 2005	3.28	7.04	0.00 **	3.28	7.04	0.00 **	3.28	7.04	0.00 **
GIPC2	CC2005	0.55	3.76	0.00 **	0.55	3.76	0.00 **	0.55	3.76	0.00 **
	Gender Gap CC 2005	−2.14	−3.35	0.00 **	−2.14	−3.35	0.00 **	−2.14	−3.35	0.00 **
GPatent	CC2005	1.26	2.08	0.04 *	1.26	2.08	0.04 *	1.26	2.08	0.04 *
	Gender Gap CC 2005	−7.67	−2.88	0.00 **	−7.67	−2.88	0.00 **	−7.67	−2.88	0.00 **
Covariance	e.Gender Gap CC 2005,e.CC2005	0.22	4.01	0.00 **	0.23	4.28	0.00 **	0.16	3.42	0.00 **
	e.GP2,e.GIPC2	0.22	0.61	0.54	0.22	0.61	0.54	0.22	0.61	0.54
	e.GP2,e.Gpatent	0.11	0.08	0.94	0.11	0.08	0.94	0.11	0.08	0.94
	e.GIPC2,e.Gpatent	−0.80	−0.38	0.70	−0.80	−0.38	0.70	−0.80	−0.38	0.70
	ParkPC2000, Unemployment	0.01	0.24	0.81	0.01	0.24	0.81	0.01	0.24	0.81
	ParkPC2000, (1) Tolerance/(2)/(3)	−0.01	−1.20	0.23	−0.01	−0.36	0.72	0.03	0.27	0.79
	ParkPC2000, PD	−1.40	−1.53	0.13	−1.40	−1.53	0.13	−1.40	−1.53	0.13
	Unemployment, (1) Tolerance/(2)/(3)	0.08	3.03	0.00 **	0.05	0.62	0.53	0.91	2.41	0.02 *
	Unemployment, PD	17.07	4.99	0.00 **	17.07	4.99	0.00 **	17.07	4.99	0.00 **
	Tolerance, PD	2.33	3.30	0.00 **	8.33	3.77	0.00 **	−22.62	−2.28	0.02 *
	LR test, chi2(12)	17.133			18.99			26.470		
	P-value	0.145			0.089			0.009 **		
	RMSEA	0.063			0.073			0.105		
	CFI	0.972			0.963			0.931		

Note: '**' and '*' indicates statistically significance at 1% and 5% respectively.

Regarding the impacts of the CCs on the sustainable development of regions, it was confirmed that the higher the CCs ratio, the higher rates of population growth, per capita income growth and patent growth would be. This means that the CCs contributes to the economic performance and population growth. Therefore, the Hypothesis 1-b "*The residence of creative classes positively influence the sustainable development of the region*" was verified.

As for the gender gap of creative class, unemployment and suicide (Tolerance (3)) has negative influence and urbanization has positive influence on it. However, amenity of park doesn't have effect. Therefore, Hypothesis 2-a "*Determining factors for the residence of creative classes are also related to gender gap of creative class.*" was only limitedly verified.

Regarding the influence of gender gap of creative class

on the sustainable development of the region, it was confirmed that the gender gap of creative class was negative with growth of the income per capita and patent but positive with the growth rate of population. Therefore, Hypothesis 2-b "*The gender gap of creative class negatively influence the sustainable development of the region.*" was also limitedly verified in Japan.

5. Conclusions

The conclusions derived from the above-mentioned results are as follows. First, the direction of urbanization should be shifted from the employment-driven to a sustainable development linked with a sufficient supply of amenity. For example, the supply of amenity through the multi-functionality of urban agriculture would bring positive utility to residents and enhances the sustainability of cities (Kiminami and Kiminami, 2007; Kiminami et al., 2018).

Secondly, the gender gap of creative class in Japan has become obstacles for the sustainable development. In order to promote the sustainable and inclusive development of regions in the long-term, social innovation[7] (OECD, 2011; Nicholls and Murdock, 2012) through enhancement of tolerance including the acceptance of cultural diversity is called for. Such kind of social innovation can also contribute to solve the problem of suicide in Japan.

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[7] Social Innovation can be defined as the innovation and its process that can contribute to solve the social problems (e.g. addressing social needs and market and government failures) for the sustainable development of the region through the innovation at incremental, institutional and disruptive levels. It becomes effective by using the multi-sector collaboration approach based on the social entrepreneurship. As for the definitional arguments, please see Nicholls and Murdock (2012) for example.

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Appendix 1. How to create a tolerance index

　With respect to the tolerance index, referring to the method used in Westlund and Calidoni (2010), based on the answers of the following nine questions, the latitude (1 = tolerance, 0 = not tolerance) Was calculated.

　Specifically, after calculating the response rate (Tir, $0 \leq$ Tir ≤ 1) for each region (r = 1, … 58), the total value of nine items (i = 1, 2 … 9) is calculated , The tolerance index (Σ Tir, $0 \leq \Sigma$ Tir ≤ 9). In some areas, since there were cases where it was a small number of samples, in order to reduce the sample bias, the average value of data for three years was calculated. Specifically, after calculating the same index for each year of JGSS - 2000, JGSS - 2001 and JGSS - 2002, average values were calculated.

<JGSS-2000 and JGSS 2001> (Note)

<Foreigner1>
　Are you for or against an increase in the number of foreigners in your community?
　Yes=1,　No and Others=0

<Foreigner 2>
　Have you had any contact with foreigners in Japan?
　Yes=1,　No=0

<Marriage and Family View>
　When a marriage is troubled and unhappy is it generally better if the couple gets divorce for wife?
　Yes=1,　No and Others=0

<Gender View 1>
　If a husband has sufficient income, is it better for his wife not to have a job?
　Yes=0,　No and Others=1

<Gender View 2>
　Can a working mother establish just as warm and secure a relationship with her children as a mother who does not work?
　Yes=1,　No and Others=0

<Gender View 3>
　A husband's job is to earn money; a wife's job is to look after the home and family. Do you agree?
　Yes=0,　No and Others=1

<Gender View 4>
　Is having a job the best way for a woman to be an independent person?
　Yes=1,　No and Others=0

<View of Life and Death>
　When a person has a fatal disease, do you think doctors should be allowed by law to end the patient's life by some painless means if the patient and his/her family request it?
　Yes=1,　No and Others=0

<LGBT View>
　Do you think that sexual relations between two adults of the same sex are wrong?
　Wrong and Others=0, Not wrong=1

Note: With regard to JGSS-2002, there is a change in the question items (foreigner 2, marriage / family view, gender view 2 & 4) with JGSS-2001 and JGSS-2002, so do not strictly connect. Also, regarding LGBT view, there is no question item, so it is not taken as the target of summarization of the index calculation.

　In addition, in the same survey, information on city size ("13 large cities", "other cities", "other districts") is investigated in addition to information on prefectures as residential areas. Therefore, for Yokohama City and Kawasaki City, among the 13 major cities, Fukuoka City and Kitakyushu City, the aggregated values of "13 large cities" categories in Kanagawa Prefecture and Fukuoka Prefecture, respectively, are used for other large cities, we use the aggregate value of "13 large cities" category of prefecture (total 11 areas).

　For core city, special case city and prefectural government cities, aggregate values of "other cities" category of each prefecture are used (total 47 areas).

Appendix 2. List of target cities

Table A1. List of target cities

No.	Prefectures	City	No.	Prefectures	City	No.	Prefectures	City
1	Hokkaido	Sapporo-shi	42	Niigata-ken	Niigata-shi	84	Nara-ken	Nara-shi
2		Hakodate-shi	43		Nagaoka-shi	85	Wakayama-ken	Wakayama-shi
3		Asahikawa-shi	44		Joetsu-shi	86	Tottori-ken	Tottori-shi
4	Aomori-ken	Aomori-shi	45	Toyama-ken	Toyama-shi	87	Shimane-ken	Matsue-shi
5		Hachinohe-shi	46	Ishikawa-ken	Kanazawa-shi	88	Okayama-ken	Okayama-shi
6	Iwate-ken	Morioka-shi	47	Fukui-ken	Fukui-shi	89		Kurashiki-shi
7	Miyagi-ken	Sendai-shi	48	Yamanashi-ken	Kofu-shi	90	Hiroshima-ken	Hiroshima-shi
8	Akita-ken	Akita-shi	49	Nagano-ken	Nagano-shi	91		Kure-shi
9	Yamagata-ken	Yamagata-shi	50	Nagano-ken	Matsumoto-shi	92		Fukuyama-shi
10	Fukushima-ken	Fukushima-shi	51	Gifu-ken	Gifu-shi	93	Yamaguchi-ken	Shimonoseki-shi
11		Koriyama-shi	52	Shizuoka-ken	Shizuoka-shi	94		Yamaguchi-shi
12		Iwaki-shi	53		Hamamatsu-shi	95	Tokushima-ken	Tokushima-shi
13	Ibaraki-ken	Mito-shi	54		Numazu-shi	96	Kagawa-ken	Takamatsu-shi
14		Tsukuba-shi	55		Fuji-shi	97	Ehime-ken	Matsuyama-shi
15	Tochigi-ken	Utsunomiya-shi	56	Aichi-ken	Nagoya-shi	98	Kochi-ken	Kochi-shi
16	Gumma-ken	Maebashi-shi	57		Toyohashi-shi	99	Fukuoka-ken	Kitakyushu-shi
17		Takasaki-shi	58		Okazaki-shi	100		Fukuoka-shi
18		Isesaki-shi	59		Ichinomiya-shi	101		Kurume-shi
19		Ota-shi	60		Kasugai-shi	102	Saga-ken	Saga-shi
20	Saitama-ken	Saitama-shi	61		Toyota-shi	103	Nagasaki-ken	Nagasaki-shi
21		Kawagoe-shi	62	Mie-ken	Tsu-shi	104		Sasebo-shi
22		Kumagaya-shi	63		Yokkaichi-shi	105	Kumamoto-ken	Kumamoto-shi
23		Kawaguchi-shi	64	Shiga-ken	Otsu-shi	106	Oita-ken	Oita-shi
24		Tokorozawa-shi	65	Kyoto-fu	Kyoto-shi	107	Miyazaki-ken	Miyazaki-shi
25		Kasukabe-shi	66	Osaka-fu	Osaka-shi	108	Kagoshima-ken	Kagoshima-shi
26		Soka-shi	67		Sakai-shi	109	Okinawa-ken	Naha-shi
27		Koshigaya-shi	68		Kishiwada-shi			
28	Chiba-ken	Chiba-shi	69		Toyonaka-shi			
29		Funabashi-shi	70		Suita-shi			
30		Kashiwa-shi	71		Takatsuki-shi			
31	Tokyo-to	23 wards	72		Hirakata-shi			
32		Hachioji-shi	73		Ibaraki-shi			
33	Kanagawa-ken	Yokohama-shi	74		Yao-shi			
34		Kawasaki-shi	75		Neyagawa-shi			
35		Sagamihara-shi	76		Higashiosaka-shi			
36		Yokosuka-shi	77	Hyogo-ken	Kobe-shi			
37		Hiratsuka-shi	78		Himeji-shi			
38		Odawara-shi	79		Amagasaki-shi			
39		Chigasaki-shi	80		Akashi-shi			
40		Atsugi-shi	81		Nishinomiya-shi			
41		Yamato-shi	82		Kakogawa-shi			
			83		Takarazuka-shi			

Notes: Target cities of municipalities were based on the date of march 31, 2016 (e-Stat)

クリエイティブ・クラスにおける文化的多様性とジェンダー格差：
日本の主要都市を対象とした分析

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（平成30年12月27日受付）

要　約

　経済発展の源泉であるイノベーションを創出する上で、創造性と多様性は不可欠な要素であり、クリエイティブ・クラス（Creative Class: CC）やクリエイティブ資本論にもとづく実証分析の蓄積が進んでいる。一方、人種や文化的な多様性がイノベーションに貢献するメカニズムに関する既存研究によれば、異文化コミュニケーションの障害を克服することができれば、外国人や移民の文化的な多様性から利益を引き出すことが可能であるとの結果が示されている。

　ところで、代表的な国際比較の結果によれば 、日本のクリエイティブ指数については、技術面は高いものの、人材や寛容性が低いことが示されている。しかしながら、日本の都市レベルを対象とした実証分析は少ない。さらに、文化的多様性と寛容性に着目した経済学的研究はほとんどない。

　そこで、本研究は、日本の主要都市を対象に、寛容性の果たす役割に着目しつつ、CC の分布を規定する要因とそれらが地域の持続的発展に及ぼす影響を計量経済学的に明らかにすることを目的とする。具体的には、アメニティ、寛容性及び雇用機会に関する諸変数を構築した上で、共分散構造分析を用いて、CC の分布の規定要因を明らかにするとともに、地域経済に及ぼす影響を明らかにする。最後に、持続的な都市発展を実現するための望ましい都市政策のあり方を考察する。

新大農研報, 71:17-26, 2019

キーワード：クリエイティブ・クラス、文化的多様性、ジェンダー格差、日本

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