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15. A COMPARATIVE AND EMPIRICAL STUDY OF ACADEMIC SERVICE ACTIVITIES

A Focus on Japan

INTRODUCTION

Since public service was elevated in modern US universities in the mid-nineteenth century, the mission of the university has been diversified and university academics' responsibilities have been involved with not only teaching and research activities, but also service activities (Veysey 1965). Especially since the 1990s, with rapidly growing demands from society, market, and the community, tremendous changes have occurred in almost all major higher education systems worldwide. Many higher education systems evolved from the elite stage to massification and nearly universal access according to Martin Trow's definition (Trow 1973), and academic institutions have increasingly emphasized undertaking increasing and various types of service activities. Academics' service activities have been regularly evaluated by their peers, administrative staff of their department or institutions, students, or even external reviewers (Webster 1994; Huber 2002) in some countries such as Australia, Japan, the United Kingdom, and the United States. However, compared with enormous research outcomes about academics' teaching and research activities, little is known of academics' service activities. Except for a few discussions about academics' service activities from the historical standpoint or based on several case studies at institutional levels (Boyer 1990; Finsen 2002; O'Meara 2002; Ward 2003; Neumann and Terosky 2007; Scott 2006; Shin 2010), little research has been made about academics' service activities in the comparative and empirical perspectives. The objective of this chapter is mainly concerned with the following three aspects:

- To describe general patterns of academics' service activities based on an international survey on the academy from 18 countries and Hong Kong in 2007-2008.
- To elaborate on major changes in Japanese academics' service activities over 1992-2007, which are supported by comparative findings from two similar surveys on Japan's academics in 1992 and 2007.
- To present a simple argument on the issues concerning academics' services activities in the international dimension and national context and implications for campus leaders and government policy makers.

General patterns of the academics' service in 18 countries and Japan's characteristics in 2007

Varibales

Hours spent on academic activities major service activities engaged the academics views on the relationship of service and teaching



Changes in Japan's academics' service over 1992-2007

Background

Variable

Hours spent on academic activities over time

Types of organizations in which service activities were engaged

Time spent on paid service

Factors affecting service activities

views on service activities



Data analysis and discussion



Conclusions and implications

Figure 15.1 Research Framework of Academics' Service Activities Source: Created by the author in 2013.

In accordance with the objectives, as shown in Figure 15.1, the chapter begins with a discussion about the definition of service activities by university academics and the correlation between the service activities and community engagement of higher education. Then it describes a general portrait of major service activities that university academics are conducting in Hong Kong and the 18 countries that took part in the international survey. Research issues include what specific service activities with which they were involved, the time they spent on these activities in comparison with teaching and research activities, and how they considered the relationship between teaching and research activities and these service activities in individual nations and region. Third, the chapter identifies similarities and differences in these service activities among the 18 countries and Hong Kong

through a couple of variables. In particular, it focuses on the case study of Japan by selecting some key service activities that Japanese academics carried out. The chapter concludes by arguing the prospects for community engagement of higher education through university academics' service activities, the issues of institutional, national and international policy with an emphasis on such questions as what possibilities, barriers, and strategies exist.

Although the term *service activities* can be interpreted in a vast number of ways, in the chapter it is mainly concerned with services to clients and/or patients, unpaid consulting, public or voluntary services. Besides, from the comparative perspective, the 18 countries and Hong Kong are grouped into "mature" and "emerging" countries based on GDP per capital and data reported by subgroup (World Bank 2013). The mature countries include Australia, Canada, China (Hong Kong), Finland, Germany, Italy, Japan, Korea, the Netherlands, Norway, Portugal, the United Kingdom, and the United States while emerging countries refer to Argentina, Brazil, China, Mexico, Malaysia, and South Africa.

METHODOLOGY

Samples and Data of the CAP Survey

With regard to the comparative study of the academics' service activities in the 18 countries and Hong Kong, as mentioned earlier, relevant data from the international survey on the Changing Academic Profession (CAP) is employed. The CAP survey in 2007-2008 is in part a follow-up to an earlier survey of the academic profession in 1991-1992 in 14 countries sponsored by the Carnegie Foundation for the Advancement of Teaching in the United States. Participating country teams agreed on a common sample design and data collection instrument, but implemented in their local languages. The project team has agreed to aim for a minimum effective sample size of 800 faculty members in degree granting institutions. A majority of countries used mail surveys and other countries utilized electronic questionnaire, such as South Korea and USA. It was agreed that response rates were at least 20 percent. The CAP survey basically used a selfadministered survey instrument. In order to minimize measurement bias across countries, country teams maintained a high level of standardization in terms of question order, question wording, response options, reference periods, and layout and formal design. However, because of cultural patterns and language specifics, some country teams designed national extensions to the questionnaire. Over 2007-2008, the CAP survey was exercised in 22 countries. By September 2011, the data bank included major findings from 18 participating countries and Hong Kong. Among which, the following 10 countries and one region took part in the 1992-1993 international survey: Australia, Brazil, China (Hong Kong), Germany, Italy, Japan, Korea, Mexico, the Netherlands, the United Kingdom, and the United States.

Two National Surveys in Japan

Japan research teams participated in both 1991-1992 international survey and 2007-2008 CAP international survey. In addition, in December 2006, the Japanese research team used the same questionnaire as was employed in 1992 to exercise another national survey, with a purpose of identifying what changes had happened to Japan's academics over the period of 1992-2007. In the first national survey of 1992, according to institutional types and scale, 4,853 faculty members of Japan's four-year universities were chosen. The Japanese version of the questionnaire was sent and received answers from 1,889 respondents (38.6 percent feedback rate). In the second national survey of 2006, the similar questionnaire was mailed to 6,200 faculty members working in the same 19 four-year universities and valid responses were received from 1,100 of them (24.5 percent feedback rate) in due time (Huang 2009). Both used mail surveys in the Japanese language.

RESULTS AND DISCUSSION

Findings from the CAP Surveys

As Table 15.1 indicates, among hours spent on teaching, research, service and administration activities, apparently the academics who participated in the survey spent the largest percentage of their time on teaching activities, followed by their time allocation on research. Except for German academics who spent more hours on service activities (5.8 percent) than on administration (3.4 percent), the academics from other 18 countries spent even more their time on administration than on service activities. From the international and comparative perspectives, among 19 countries (including Hong Kong), the amount of hours spent on teaching by the US academics was the largest (20.9 percent.), while the academics from Norway spent the least of their time on teaching (11.4 percent).

With respect to hours spent on service activities, among all the participating countries, the amount of hours spent on service activities by German academics was the largest (5.8 percent). On contrast, hours spent on service activities by Portugal's academics were the least and constituted only 1.3 percent of their total hours per week. Moreover, seemingly, the academics from mature countries spent a higher percentage of their time on service activities, notably, the academics from Canada, US, Germany, Japan and Korea, than those from emerging countries. Compared with the other 17 participating countries, Japanese academics spent the largest share of their time on teaching activities; however, because they spent 5.4 percent of their total time on service activities, being less than that of German academics, they were also actively involved with service activities.

Table 15.2 suggests that among various service activities, the largest percentage of academics served as peer reviewers, followed by those serving as a member of national/international committees. If all the service activities can be practically divided into two broad categories: academic-related activities and political-related activities, a vast majority of academics in the CAP surveys undertook academic-related activities.

Table 15.1 Hours Spent on Academic Activities when Classes are in Session (Arithmetic mean of hours per week)

	Teaching	Research	Service	Admin- istration	Other Academic Activities	Total Hours p/ Week	Count (n)
CA	19.6	16.0	4.3	7.9	2.8	50.7	1,014
US	20.9	11.9	4.5	7.5	2.8	47.7	1,060
FI	16.3	16.6	2.1	4.5	2.3	41.8	1,240
DE	12.7	16.9	5.8	3.4	2.4	41.2	1,045
IT	18.1	17.3	3.7	4.1	2.3	45.5	1,635
NL	19.8	8.9	2.4	4.2	2.9	38.2	919
NO	11.4	14.3	1.4	4.1	2.0	33.2	712
PT	20.1	11.6	1.3	4.1	2.4	39.5	1,142
UK	16.1	13.4	1.4	9.5	3.2	43.7	812
AU	17.3	14.2	2.9	8.7	2.8	45.9	830
JP	19.4	16.4	5.4	6.8	2.9	50.9	1,061
KR	20.4	18.3	4.7	5.9	3.4	52.7	891
HK	20.2	14.2	3.6	7.2	3.2	48.4	528
AR	12.6	13.3	1.7	1.8	2.3	31.7	896
BR	20.1	9.0	2.5	4.6	2.6	38.7	1,066
MX	21.2	9.2	1.7	8.5	4.1	44.8	1,780
ZA	20.6	8.8	2.7	7.0	2.7	41.8	584
CH	19.6	12.4	1.9	4.8	1.5	40.2	2,906
MY	17.4	7.5	2.8	6.7	2.5	36.9	1,087

Note: The abbreviations of participating country teams from top to bottom refer to Canada, the United States, Finland, Germany, Italy, the Netherlands, Norway, Portugal, the United Kingdom, Australia, Japan, South Korea, Hong Kong, Argentina, Brazil, Mexico, South Africa, China, and Malaysia. Source: Data from the Center for International and Comparative Higher Education Research (CICHER), Kassel University in September 2011.

Similarly, more academics from mature countries carried out additional service activities than those from emerging countries did. From the international and comparative perspectives, over 60 percent of Japanese academics responded that they served as peer reviewers and elected officers or leaders in professional/academic associations/organizations. This clearly indicates that they also mainly engaged in the academic-related activities.

Table 15.3 contains respondents' positive views and activities about teaching. Generally, over 60 percent of the academics from all the participating countries reported that their research activities reinforced their teaching. Especially more than 80 percent of the academics from five countries (Canada, Italy, Norway, Korea, Brazil, and Mexico) held positive views on the reinforcement of research activities on their teaching. However, there are only nine countries in which over 50 percent of the academics reported that their service activities reinforced their teaching activities. In addition, compared with mature countries in which there existed more varieties in academics' views on the fact that their service activities reinforce their teaching, among 6 emerging countries, except for Malaysia, nearly half or more than half of the academics from the other four emerging countries, in particular Mexican academics, reported that their service activities reinforced their teaching. In Japan, while the percentage of the academics emphasized that their research activities reinforced their teaching, less than half of them (47 percent) admitted that their service activities reinforced their teaching.

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Table 15.2 Service Activities in Current Academic Year (Percent of respondents undertaking additional service activities; multiple responses)

	Served as member of national/international scientific committees/boards/bodies	Served as a peer reviewer (e.g., for journals, research sponsors, institutional evaluations)	Served as an editor of journals/book series	Served as an elected officer or leader in professional/academic associations/organization	Served as an elected officer of leader of unions	Been substantially involved in local, national, or international politics	Been a member of a community organization or participated in community-based projects	Worked with local, national, or international social service agencies	Other	Total	Count (n)
CA	49	91	25	33	7	5	39	15	6	271	1,098
US	32	72	22	31	2	15	52	21	6	252	945
FI	29	51	17	36	38	5	25	20	11	231	901
DE	26	46	32	36	2	4	0	33	4	182	577
IT	63	67	12	14	1	4	17	11	6	195	1,406
NL	32	48	19	22	3	5	33	15	12	190	744
NO	47	66	15	19	8	7	35	13	8	218	700
PT	51	54	18	31	4	7	23	7	11	205	759
UK	30	81	23	16	5	5	29	14	7	211	799
AU	33	80	23	31	3	5	49	14	7	245	1,047
JP	42	66	30	61	4	1	23	12	3	241	958
KR	83	82	62	79	4	3	24	13	12	364	882
HK	55	78	30	30	5	6	36	21	6	266	482
AR	26	49	18	20	5	8	30	20	22	197	600
BR	36	61	24	20	2	8	26	6	63	247	930
MX	78	42	16	29	6	7	32	10	8	228	1,551
ZA	34	61	17	26	5	6	48	16	6	220	574
CH	2	19	8	12	21	8	14	5	32	122	1,877
MY	43	51	30	39	18	1	47	17	7	254	979

Source: Data from the CICHER, Kassel University in September 2011.

Table 15.3 Positive Views and Activities about Teaching (Percent; responses 1 and 2)

	Your research activities reinforce your teaching	Your service activities reinforce your teaching	Count (n)
CA	82	43	1,050
US	71	51	1,109
FI	69	37	1,080
DE	64	36	1,009
IT	82	49	1,684
NL	70	60	817
NO	81	61	718
PT	73	5	1,117
UK	77	36	776
AU	75	51	865
JP	78	47	1,091
KR	85	56	909
HK	70	44	548
AR	78	59	913
BR	81	65	1,141
MX	83	74	1,857
ZA	65	48	698
СН	70	55	3,176
MY	69	37	1,120

Note: Scale of answer from 1 = Strongly agree to 5 = Strongly disagree. Source: Data from the CICHER, Kassel University in September 2011.

Findings from the Two National Surveys in Japan

Background. Before an in-depth analysis is to be made about what changes happened to Japanese academics' service activities over 1992-2007, this chapter will make a brief introduction to the Japanese higher education system and the distinguished features of Japanese academics.

Historically speaking, in the latter part of the nineteenth century when the modern imperial universities in Japan were founded, with relation to governance arrangements at both national and institutional levels. On the one hand, the central government rigidly controlled these universities, and on the other hand, each individual imperial university enjoyed a considerable measure of internal academic freedom, which German research universities influenced. Moreover, in addition to teaching activities and writing popular articles, the tradition of conducting research by Japanese academics was also based on the German model from as early as the late nineteenth century. Until the end of March 2004, academics in all national university had been civil servants, indicating that the government could regulate almost all their missions and activities. After the Second World War, during the Occupation period the Japanese higher education system, influenced by American models, was fundamentally reorganized. Among many reforms of higher education, policies of democratization and massification were implemented. As a result, huge changes took place in the roles and characteristics of the academics in Japanese higher education institutions. One of the big changes was the widespread growth of interest in research and establishment of various academic societies: in particular academics became more research-oriented, engaging in both pure research and applied research (Cummings and Amano 1977).

Two striking characteristics of the Japanese higher education system can be identified. First, the private sector constitutes a large proportion of both institutions and students. As of 2011, there were 86 national institutions, 80 local public institutions and 542 private institutions. The percent of students in private universities and junior colleges amounted to 73.5 percent and 94.3 percent of the totals and private universities and junior colleges also comprise a similarly large share of the totals (MEXT 2012). The percent of faculty members in private universities and junior colleges accounts for an enormous share of the total.

Second, the national, public and private sectors, established by different founders, are expected to play different roles and fulfill diverse functions. The national universities are expected to facilitate the advancement of basic and applied scientific research, some of which is large-scale (with substantial funding, often supported by the national budget) and which provides students from different backgrounds with general and professional education, and provides higher education opportunities for the community. The academics in national, public and private sectors are expected to play different roles and fulfill diverse functions. The majority of the academics in the private sector are involved in educational activities. More of them belong to faculties of humanities and social sciences. In contrast, the academics in national universities are expected to undertake more research activities (Huang 2006).

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Since the late 1990s, in response to the increased marketization and privatization of higher education, the academics in Japan have become involved in more diversified teaching and research activities. In terms of teaching activities, typical examples show that academics are developing curricula that are more closely related to students" concerns and more responsive to changes in the labor market. With respect to research activities, academics are asked to obtain more competitive funding and research grants, to undertake research projects focused more on community society and industry. Furthermore, as national quality assurance systems and national evaluation agencies have all been established in Japanese higher education, academics now face compulsory external evaluation by third-parties and interested stakeholders in addition to self-evaluation, peer-review, and evaluation by students. In most cases, these activities are concerned with curricular development, delivery of courses, the quality of teaching and research and so forth. In relation to the pattern of internal governance and management, in the name of enhancing efficiency, transparency and accountability, recent trends show that more power has been placed in governing bodies at the institutional level with a reduction in the autonomous rights residing in faculty meetings. Differing from the traditional style of governance and management in the national sector, after the incorporation of national universities in April 2004, non-university external experts are also expected to be involved in internal governance and management (Huang 2011).

Data Analysis and Discussion. As Table 15.4 shows, though no significant difference can be found about hours spent on service activities when classes are not in session, the time spent on service activities by Japan's academics while classes

Table 15.4 Hours Spent on the Following Activities When Classes are in Session and Not in Session (Arithmetic mean of hours per week)

	Years	In Session	sig.	Not in Session	sig.
Teaching	1992	19.2		7.7	
reaching	2007	20.1	n.	8.3	n.
Danasak	1992	20.7	***	29.2	***
Research	2007	16.0		23.9	
G	1992	3.8	*	4.1	
Service	2007	4.5	7	4.6	n.
Administration	1992	6.0	***	3.9	***
Administration	2007	7.5		5.9	
Other Acad-	1992	3.4	*	4.0	
emic Activities	2007	3.5		4.1	n.
Total Hours	1992	50.8		46.1	**
per Week	2007	49.9	n.	43.8	T- T-

Note: *** *p*<0.001, ** *p*<0.01, and * *p*<0.05.

Source: Created by the author based on major findings from the two national surveys in Japan in 1992 and 2007.

were in session increased from 3.8 percent to 4.5 percent and 4.1 percent to 4.6 percent between 1992 and 2007. As mentioned earlier, the time on service activities remained less than the time they spent on teaching, research, and administration.

In general, in the questionnaires, which were used in the international and national surveys in 1992 and 2007, the term "service" often includes such activities as paid or unpaid consulting, work with clients or patients and public or voluntary service. Table 15.5 shows the data about respondents" views on their service activities during the past year.

Table 15.5 With Which Types of Organizations Have You Worked? (Circle all that apply)

	1992 (%)	2007 (%)	Total (%)	sig.
Business or industry	38.0	31.4	35.6	***
Educational institutions	46.8	51.9	49.0	*
Local government bodies	18.7	41.3	28.2	***
National government bodies	26.3	24.6	25.6	n.
Private social service agencies (local and national)	27.9	18.1	23.8	***
Int'l government bodies	3.7	2.9	3.3	n.
Other international associations	5.6	2.3	4.2	***
Other	7.8	10.8	9.1	*

Source: Created by the author based on major findings from the two national surveys in Japan in 1992 and 2007.

As mentioned earlier in Table 15.2, compared with any other 18 countries, including Hong Kong, though Japanese academics were primarily involved with academic-related service activities from the international and comparative perspectives, over 1992-2007, the service activities which were carried out by Japan's academics for educational institutions and local government bodies increased. In particular, those activities for local government bodies grew from 18.7 percent to 41.3 percent. Interestingly, their service for business or industry, private social service agencies, and other international associations had all reduced. However, when being asked what percentage of their time they paid on such activities, as revealed in Table 15.6, the percentage of time Japan's academics spent on "paid" service activities increased from 42.9 percent to 46.3 percent during the period.

Table 15.6 Consider the Time You Spent Engaged in Such Service Activities Last Year. For What Percentage of This Time Were You Paid? (Arithmetic mean, percent)

1992	2007	Total	sig.
42.9	46.3	44.3	*

Source: Created by the author based on major findings from the two national surveys in Japan in 1992 and 2007.

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With regard to what circumstances affected academics' service activities, as shown in Table 15.7, among various circumstances or factors, except for the number of students enrolled in their classes and the amount of student advising they did in which no significant differences can be confirmed. In contrast to the decline in the percentage of changes in other items, only the data about their administrative work increased from 1.9 percent in 1992 to 2.2 percent in 2007. In a major sense, compared with what happened nearly 15 years ago, Japanese academics' administrative work had only strong positive influence on their service activities.

Table 15.7 Please Indicate How the Following Circumstances Influence Your Service Activities

	Answer	1992	2007	Total	sig.
The number of courses I was assigned to teach	Strong Positive Influence	5.4%	3.8%	4.7%	**
The kinds of courses I was assigned to teach	Strong Positive Influence	6.1%	3.1%	4.8%	***
The number of students enrolled in my class	Strong Positive Influence	1.6%	0.9%	1.3%	n.
The amount of student advising I do	Strong Positive Influence	1.9%	2.5%	2.1%	n.
My research commitments	Strong Positive Influence	9.0%	5.1%	7.4%	***
The availability of research funding	Strong Positive Influence	7.4%	3.3%	5.7%	***
My administrative work	Strong Positive Influence	1.9%	2.2%	2.0%	***
My nonacademic professional activities	Strong Positive Influence	9.3%	6.2%	8.0%	**

Source: Created by the author based on major findings from the two national surveys in Japan in 1992 and 2007.

Finally, compared with the data of 1992, Japanese academics reported that evaluation in academics' institutions increasingly played a more important role in their service activities by 2007 (Table 15.8).

Table 15.8 Please Respond to the Following Statements about Service Activities

	Answer	1992	2007	Total	sig.
Faculty in my discipline have a professional obligation	Yes	80.9%	79.8%	80.5%	n.
to apply their knowledge to problems in society	No	19.1%	20.2%	19.5%	
For me, service activity beyond the institution is a	Yes	20.2%	12.7%	17.3%	***
distraction and competes with essential academic work.	No	79.8%	87.3%	82.7%	
From an economic standpoint, it is necessary for me to	Yes	14.6%	8.2%	12.0%	***
engage in paid consulting work.	No	85.4%	91.8%	88.0%	
Service is important in faculty evaluation at this	Yes	34.5%	56.8%	44.1%	***
institution.	No	65.5%	43.2%	55.9%	

Source: Created by the author based on major findings from the two national surveys in Japan in 1992 and 2007.

To sum up, based on the discussion of major findings from the CAP international survey in 2007-2008 and the two national surveys in Japan, a general portrait of the academics' service activities and Japanese academics' characteristics in relation to their service activities can be provided as follows.

With regard to the data analysis of the international survey on the academics in the 18 countries and Hong Kong, apparently, the academics in all the participating countries spent the smallest percentage of their total hours per week on service activities in comparison with their far higher percentages of time on teaching and research activities. Major reasons for this might include: firstly, without saying, conducting teaching and research activities are the two most fundamental functions of their institutions and their utmost important missions. Especially in many emerging countries, as the primary mission of their higher education is to produce graduates for government and society and fewer efforts are made in other academic activities, including research and service. Actually, even in numerous research-intensive universities in mature systems, teaching is also considered as the top priority for academics. In addition to research, their academics have obligation to provide lectures for their students. Second, as less than half of the academics from 19 participating regional teams believed that their service activities did not reinforce their teaching, it could be assumed that they are not willing to spend time on service activities if a majority of them could hardly profit from any service activities.

Another clear finding from the international and comparative study is that, the academics from all the participating teams were more involved with academic or educational matters rather than political activities, particularly serving as peer reviewers. This indicates that their service activities are basically related to their academic or professional background. Compared with other forms of service activities, serving peer reviewers for journals, research sponsors, or institutional evaluations are more closely connected with academics' teaching and research. In most cases, it could also be considered as part of their professional or academic obligations. More importantly, it could be easily accepted by academics because it does not require much investment of infrastructure or any intensive budgetary allocation.

Additionally, if we make a comparative study of the service activities undertaken by the academics from different countries, it seems that more proportion of the academics from the "mature" countries was involved with service activities than those from the emerging countries. Relatedly, the academics from the emerging countries engaged more in teaching activities. There are various interpretations, which could be attributed to it. For example, a vast majority of higher education systems in mature countries enjoyed more autonomous in governance and management than those in emerging countries due to the fact that almost all modern universities in emerging countries were established by the state and are rigidly regulated or controlled by government. Differing from the academics from the emerging countries, a large number of the academics from the mature countries, particularly from Canada, Germany, Japan, and the United States, enjoyed more favorable teaching and research environments, more autonomous powers in participating in departmental and institutional governance arrangements, and possess a wider international academic networking. All these may have contributed to their higher engagement in service activities.

While in the case study of Japan based on the analysis of major findings from the two national surveys, one of the most noticeable results is that the percentage of Japanese academics' time allocation on service activities, including "paid" service activities, for both educational institutions and local government bodies clearly increased from 1992 to 2007. This implies that over the last 15 years, apart

from academic-related service activities, Japanese academics had also been actively involved with local political activities. Though an in-depth and more comprehensive research needs to be undertaken. Apart from the circumstances which affected academics' service activities in Table 15.7, it is worth noting that huge changes have happened in the cooperation between universities and industry or local community in recent years. To illustrate, for the last decades the dimension, forms and activities in the cooperation between university and industry or local community have been increasingly diversified. For example, the cooperation has become more institutionalized rather than at an individual level as it used to be more than 20 years ago. Its major forms and activities have been involved with not only research activities—a traditional way of cooperating between universities and industry or local community in Japan-but also in producing university graduates, and developing joint educational programs. In terms of academic field, it is not only confined to engineering and natural sciences, but also expanded to humanities and social sciences. According to the national survey by MEXT, as of 2010, compared with the previous year, the number of joint research projects undertaken in collaboration with private companies increased by 6.6 percent. The number of patent applications made by universities grew by 9.1 percent; as of 2010, while the number of venture business run by universities was 47, decreasing by 36.5 percent in comparison with the previous year (MEXT 2010). Besides, as mentioned earlier, the impact of the incorporation of national universities in 2004and the exercise of various external and third-party evaluations on each national university corporation and individual academics upon academics' service activities and their views on such activities cannot be overestimated. Furthermore, as indicated in Table 15.8, since only a very few of Japanese academics thought that service activity beyond their institutions is a distraction and competes with their academic work, it is likely to assume that it is also important for a majority of Japanese academics to engage in service activities.

CONCLUDING REMARKS AND IMPLICATIONS

As argued earlier, seemingly there exist some differences in the academics' hours spent on service activities between mature countries and emerging countries and their opinions of the relationship between service activities and their reaching activities, however, much more similarities could also be identified in the comparative study of the 18 countries and Hong Kong. For example, all the academics spent their least percentage of time on service activities than on teaching and research activities and their service activities were enormously related to their education or academic activities. While in the case study of Japan, the clear evidence shows that Japan's academics were not only actively involved with service activities, but also concerned with both academic-based activities and political-related activities. Besides, between 1992 and 2007, Japanese academics engaged in more service activities, especially their "paid" service activities apparently increased. Over the period, these activities have been increasingly affected by their administrative work and by the implementation of evaluation in

their institutions. Since the percentage of the academics who admitted that their service activities did not reinforce their teaching, if academics are encouraged to be more involved with service activities, perhaps further efforts should be made at both policy and institutional levels to ensure them to realize these service activities can help with their teaching or research activities. Besides, as universities are expected to be more responsive to the newly increasing needs from society, the market, and the local community, it is likely to assume that university academics' service activities will not be only limited to their discipline or academic field. They might also be expected to play more active and important roles in social, political, and cultural activities at international, national, and local levels. In this sense, national strategies and the provision of support services and faculty development for individual academics at the institutional level will become more profoundly necessary and important.

There are many limitations to this preliminary analysis of the academics' service activities. For example, no much data shows the co-relation between research activities and service activities in either CAP international survey or the Japanese national surveys. Besides, it is unclear of what percentage of academics' time should be spent on service activities while they can reinforce their teaching or research activities. Furthermore, research and practical issues to be addressed in future include:

- Is it necessary and important for academics to pay the same attention to service activities as they do to teaching or research activities?
- What kind(s) of service activities can reinforce academics' teaching and research activities? and
- What strategies should be developed to encourage academics to engage in more service activities which can both improve their teaching and research activities and be socially-oriented for the betterment of society?

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