# The Share of Nonprofit and For-profit Organizations in the Quasi-market: An Analysis of the Long-term Care Services Market in Japan

Nobuko KANAYA
Hiromasa TAKAHASHI
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Nobuko KANAYA

Hiroshima City University, Hiroshima, Japan

Hiromasa TAKAHASHI

Hiroshima City University, Hiroshima, Japan

Junyi SHEN

Kobe University, Kobe, Japan

This paper aims to examine the factors which affect the market shares of several nonprofit and for-profit providers in the long-term care insurance system. We focus on the impact of market size and growth, demand heterogeneity and philanthropic activities, using a prefectural panel data set. The results indicate, though not in all cases, that the market shares of 1) the market shares of nonprofit organizations are relatively larger in the areas with more unprofitable market conditions, 2) the market shares of citizen-driven nonprofit organizations are larger in the areas with more heterogeneous demand and 3) the market shares of citizen-driven nonprofit organizations are larger in the areas with more active civic voluntarism.

Corresponding author. Nobuko Kanaya. Address: 3-4-1 Ozukahigashi, Asaminami, Hiroshima 731-3194, Japan., Tel:+81-82-830-1540; Email: nkanaya@intl.hiroshima-cu.ac.jp

1. Introduction: Reasons to focus on nonprofit providers in LTCS

In 2000, the long-term care insurance system (LTCS) in Japan introduced a quasi-market or mixed market for the first time. A quasi-market is a public service market in which the state allows participation by independent nonprofit, for-profit and public providers competing with one another for custom; the state, however, retains control of the service market in order to prevent inequity due to low incomes and market failure due to poor information. These kinds of changes have been a global movement, including in social democratic welfare states (e.g. Le Grand, 2003:10).

Subsequently, the market of LTCS has grown rapidly with fierce competition among nonprofit and for-profit. In case of LTCS, the market share of public providers is quite limited. Also nonprofit providers are divided to government-driven nonprofit, citizen-driven nonprofit and semi-commercial nonprofit. Therefore it is considered appropriate to see the competition among government-driven nonprofit, citizen-driven nonprofit, semi-commercial nonprofit and for-profit providers in LTCS. The details will be mentioned later.

One of the focal points of quasi-market or mixed-economy research is comparing the differences of behaviors among nonprofit, for-profit and public providers. The focus of this paper is market selection of each nonprofit and for-profit provider. The reason is that the distribution of for-profit and several nonprofit providers is fairly diverse in LTCS, though LTCS is expected to provide universal care services as public services. For example in 2007, the proportion of for-profit providers of home visit care service by prefecture ranges from 19.6% to 72.0%, that of government-driven nonprofit providers ranges from 11.4% to 55.8%, and that of citizen-driven nonprofit providers ranges from 1.5% to 11.8% (MHWL, various years). It is worth to examine the factors that are likely to promote nonprofit and for-profit providers in LTCS because their behaviors may not be similar for their missions, regal statuses and relations with governments are not same.

Especially we focus the discussion on the factors affecting the market size of citizen-driven nonprofit providers in comparison with for-profit providers as well as government-driven nonprofit providers. The proportion of citizen-driven nonprofit providers is not big but there are reasons to focus on them.

First is that some of citizen-driven nonprofit providers are an important resource of informal services to supplement the formal LTCS for the elderly in need. LTCS has grown rapidly but it should be noted that the elderly person's life cannot be fully supported with only formal services in reality. It is required to secure extended services out of the quasi-market as a society, because formal public services cover only a part of

clients' needs under many institutional and financial constraints. Actually, various informal services have been developed by nonprofit organizations historically to overcome insufficient public and commercial services in many countries. The case is similar in Japan, especially for citizen-driven nonprofit providers, as we will mention later. Considering the present crisis of social security system, because of a super-aged society and serious fiscal deficit in Japan as well as in other developed countries, it is meaningful to study the factors that foster nonprofit providers engaged in providing informal services for the elderly out of the formal services.

Second is that it is necessary to see the behavior difference between government-driven nonprofit and citizen-drive nonprofit providers because the former is given more favorable tax and public assistance than other providers for their highly public beneficial purposes. It is worth to examine government-driven nonprofit providers enter to the disadvantaged areas more than others even though they face market competition.

Several studies have examined the determinants of the market size of the three sectors in the United States as we will mention later, but little research has studied the factors affecting the market size of nonprofit and for-profit providers in Japan.

The following contents of this paper are as follows. First, we review previous studies about the quasi-market and different providers. Second, we explain the status of the LTCS market and characteristic features of each nonprofit as well as for-profit provider in Japan. Third, we present the framework of analysis and examine the determinants of the market size of nonprofit and for-profit providers in LTCS for home visit services. Forth, we present conclusion and some policy implications.


## 2. Previous Studies

There are many studies analyzing different or similar behavior of among nonprofit, for-profit and public providers in quasi-market or mixed-economy regarding service performances in the same market, extended services in community and market selection.

As for service performances of for-profit and nonprofit providers in the same market, theoretically, it is explained that in the case of products with asymmetric information, nonprofit products are more favorable than for-profit products. The reason in that nonprofit providers are restricted by non-distribution constraints and are not motivated to cut costs like for-profit providers in situations of "contract failure" (Hansmann, 1980). Based on a survey examining more than 210 empirical studies on health care, it was identified that nonprofit

ownership appeared to be linked with higher quality and accessibility for unprofitable patients (Schlesinger and Gray, 2006). On the other hand, some discussions indicate that in a competitive market, nonprofit providers tend to resemble for-profit providers, pursuing profit maximization and cost effectiveness (Backman and Smith, 2000; Weisbrod, 1998). It is also pointed out that institutional pressures, including regulations and standards, made for-profit providers resemble nonprofit providers (Suda and Guo, 2009).

The above discussions are very important to manage the formal services for the elderly in the market effectively, but it is also important to see the difference of behavior out of the market as mentioned before. As for extended community services of for-profit and nonprofit providers out of markets, several studies indicate nonprofit providers are more engaged in charitable or community services (e.g., Clement et al., 2002; Schlesinger et al., 2003). It is also examined that nonprofits compete with for-profit firms in commercial market to cross-subsidize the preferred nonprofit activities (Shiff and Weisbrod, 1991).

As for market selection of for-profit and nonprofit providers, there are not so many studies. The studies that empirically examine the size of nonprofit and for-profit providers, sometimes including the government, are as follows. Hansmann (1987) investigates nursing homes, hospitals, primary and secondary education, and vocational schools, concluding that the size of the nonprofit sector is bigger in areas with more tax incentives (e.g., local sales tax and corporation income tax) for nonprofit organizations, and the size of the for-profit sector is bigger in areas with higher market potential, represented by population growth[1]. That indicates the size of the nonprofit sector is smaller in areas where the charitable contribution amount is larger. Gulley and Santerre (1993) conclude that the size of the nonprofit sector in hospitals has a positive correlation with the rate of local corporation income tax and property tax, but no significant correlation with income and population[2].

Ben-Ner and Hoomissen (1992), investigate social service, primary and secondary education, and childcare, and examine the effects of sector-specific demand and supply factors[3]. They consider nonprofit providers are prominent in two types of goods: trust goods and collective goods; the former are non-rival goods that are difficult for stakeholders to evaluate, and the latter are public, charitable, and certain mixed public-private goods (Ben-Ner and Hoomissen, 1991).

As for demand, they consider the larger the market, the more favorable a nonprofit's trust goods are, because it is difficult for users to make judgments owing to asymmetric information. On the other hand,

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[1]  The model is estimated in weighted least square logit regression. The market share is calculated by bed or enrollment.
[2]  The equations are estimated in maximum likelihood method. The market share is calculated by bed.
[3]  The equations are in the Cobb-Douglas form. The market size is employment.

nonprofits generally provide collective goods where the demand is too small for diverse tastes to be satisfied by the standard products of many for-profit providers. Moreover, it is explained that the demand for nonprofit products is revealed by high-demand stakeholders (e.g., the high income and better-educated group) who are dissatisfied with collective goods provided by the for-profits or government, because these goods are targeted at average consumers or median voters. That discussion is based on "public good" theory presented Weisbrod (1977). On the other hand, poorer and less educated stakeholders have a demand for goods provided by nonprofit providers, because their ability to choose a reliable for-profit provider for trust goods is lower. As for supply, it is explained that members of socially cohesive groups have an advantage in forming nonprofit organizations and controlling them with lower cost.

Based on the above considerations, Ben-Ner and Hoomissen (1992) assume as follows: (1) in large markets, nonprofit providers are relatively important suppliers of trust goods but not collective goods; (2) in areas where the population has greater income and better education, the nonprofit sector's presence is larger for collective goods, but the effect is intermediate for trust goods; (3) demand heterogeneity, e.g., unequal distribution of income and social, cultural, and religious differences enhances nonprofit provision; and (4) social cohesion enhances nonprofit provision.

The results are complex and diverse, depending on the industry with the nature of trust goods or collective goods. For example, social services are considered mixed goods comprised of trust goods and collective goods and it is explained that the results are not as clear as suggested in the assumptions as follows. Income has a positive impact but urbanization has a negative impact on for-profit providers. In the case of nonprofit providers, both higher education and poverty have a positive impact, but racial heterogeneity has a negative impact. The number of religious organizations has a positive impact, but the number of membership organizations has a negative impact on nonprofit providers. However, considering the results of all industries, the authors conclude that overall, the nonprofit sector is relatively larger in communities with a smaller market size, more heterogeneity, and more social cohesion.

Each result of the above study, which examined the determinants of market size, including tax incentives, demand growth/height and heterogeneity, inequality, and philanthropic support/social cohesion are mixed and not consistent. Therefore, to extend the studies, we examine the determinants of market share in LTCS considering specific conditions in Japan.

## 3. The Long-term Care Services Market and Nonprofit Organizations in Japan

LTCS is social insurance that provides a variety of in-home care, facility, and community-based services. In-home care services include home visit care, home visit nursing care, day service, rehabilitation, and so on; facility services include nursing home, care health facility, and sanatorium; whereas community-based services include group home and special home visits. The cost of LTCS is shared by national and local governments and taxpayers. LTCS has grown rapidly in a short time since it was established in 2000. For example, the total cost of LTCS increased by 3.6 trillion yen to 8.3 trillion yen in 2011 and the number of users increased by 1.5 million to 4.2 million between 2000 and 2011 (see Figure 1).
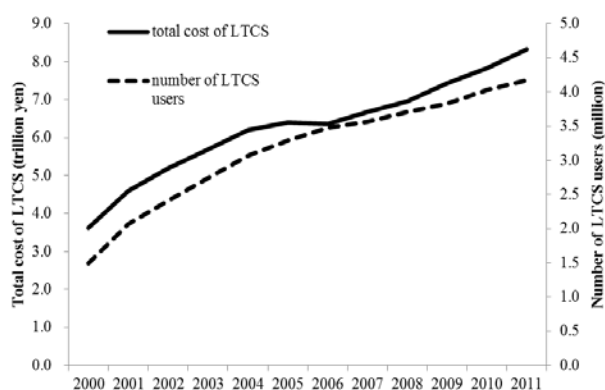


*Figure 1.* The total cost of LTCS and the number of LTCS users.

Source: MHWL(2012a)

LTCS is open to any organization that holds the legal status and meets the criteria. Therefore, LTCS providers consist of nonprofit, for-profit, and government providers. However, the nonprofit sector in Japan is not monolithic like in the U.S., but consists of several corporations. These corporations are divided by their origin roughly into government-driven nonprofits, citizen-driven nonprofits, and semi-commercial nonprofits. The government-driven nonprofits include shakaifukusi-kyogikai (CSW: Council for Social Welfare) and shakaifukushi-hojin (SWC: Social Welfare Corporation). CSW is a private but quasi-governmental corporation organized in every municipality to coordinate public welfare services. SWC is a private agent for the government to deliver welfare services. CSW and SWC are given the most favorable tax benefits with strict

government directions for they are a highly beneficial to public. The citizen-driven nonprofits are represented by tokutei-hieiri-katudo-hojin (SNC: Specific Nonprofit Corporation), a legal status introduced in 1998 for citizen-driven, generally small-sized, nonprofit organizations. Kyodo-kumiai (COOP: cooperative) and iryo-hojin (MEC: medical corporation) are nonprofit organizations, but considered to be semi-commercial. The cooperative is rooted in a civic engagement, but a large part of the present cooperatives are agricultural and consumer cooperatives, which are closer to business in Japan. The medical corporation is legally a nonprofit organization running hospitals and clinics, but is not always prohibited from distribution of residual property. Nonprofit organizations and for-profit organization (FPO) can be represented as shown in Figure 2.

Before LTCS was introduced, the public elderly care service providers were limited to local governments and government-driven nonprofit providers, that is, CSW and SWC. The entry regulation was to secure quality services. However, the regulation had led to a closed supply system with significant ineffectiveness and consequently, irresponsiveness to users. To meet the challenge, LTCS was designed with a market component, which was expected to bring service effectiveness and responsiveness through competition among diverse providers. The introduction of LTCS opened the door to a quasi-market, especially for in-home services.
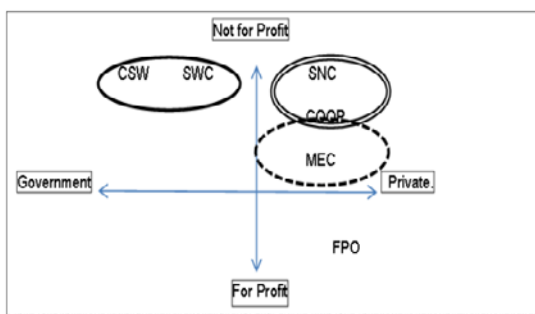


*Figure 2.* Nonprofit and for-profit organizations in Japan.

Since then, LTCS has succeeded in increasing the availability of elderly care services in a very short time. However, it is clear that the quantity and quality of LTCS is not sufficient as a whole to support the elderly in need. As an institutional service, LTCS requires strict regulations and standards for providers. Further, LTCS restricts service usage, depending on the user's physical condition and help provided by family members. As a result, there are many frail elderly who have to deal with troubles such as cooking meals, house cleaning, shopping, and going to hospitals without any assistance. Similarly, a lot of family members suffer from the

burden of supporting the elderly even if they use the maximum LTCS services[4].

In these situations, some citizen-driven nonprofit providers are engaged in extension services out of LTCS. Their extension services originate in voluntary mutual community services dating back to the 1970s or 1980s. At that time, there were almost no public or commercial care service providers for the elderly. When LTCS was introduced, some of those groups that had been named as Jumin sanka-gata zaitaku fuksi sabisu danntai (in-home service organization by community participation), registered as LTCS providers with SNC status. Nowadays, around 60% of them are engaged in care services of LTCS, along with mutual community assistance services (ZSK, 2009). There are many citizen-driven nonprofit LTCS organizations that provide community services based on voluntary work. For example, 72.4% of SNC or citizen-driven nonprofit LTCS providers are engaged in community service besides formal LTCS services (Hongo et al., 2011). The size of community service is not big at the macro level, but some citizen-driven nonprofit providers try to provide community services as much as institutional LTCS services (Kanaya, 2012).

LTCS encouraged the entry of new service providers and the number has increased sharply. For example, the number of home-visit care providers increased 2.5 times, and the number of day care service providers increased 4.1 times from 2000 to 2011 (MHLW, 2012b).

At the same time, the distribution of each service provider has changed, too. In the home visit care service, the share of formerly dominant CSW and SWC has decreased from 43.2% in 2000 to 24% in 2011. On the other hand, that of for-profit providers increased from 30.3% to 58.6%. The share of medical corporations in the home visit care service decreased from 10.4% to 6.5%, and that of cooperatives decreased from 4.6% to 3.0%. The share of SNC increased from 2.1% to 5.6% during the same period (see Table 1).

Nowadays, for-profit providers take the largest portion of many in-home services. They also seem to be much more skilled in extending business than overall nonprofit providers. Government-driven nonprofit providers, CSW and SWC, seem to be losing their long-standing dominance. As for SNCs, their share is limited, but the number of SNCs has increased six times. When LTCS was started, citizen-driven nonprofit providers were expected to lead in-home services because they were considered to provide empathic care based on mutual assistance or sometimes self-help. However, in reality, the role of citizen-driven nonprofit providers is not big in amount. Therefore, the evaluation regarding market competition is mixed.

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[4] According to MIC(2008), the number of workers who left their jobs for elder family's care increased by 92,500 to 145,000 between 2002 and 2006.

Table 1

*Share of Home Visit Providers of LTCS*

| Year | Total (%) | Local Gov. | Nonprofit | | | | | | For-profit | Others |
|------|-----------|------------|-----------|-----|------|------|------|------|------------|--------|
| | | | CSW | SWC (ecl.CSW) | MEC. | COOP | SNC | | | |
| 2000 | 9,833 | 652 | 4,250 | | 1,023 | 452 | 208 | | 2,975 | 270 |
| | (100.0) | (6.6) | (43.2) | | (10.4) | (4.6) | (2.1) | | (30.3) | (2.7) |
| 2007 | 21,069 | 157 | 1,863 | 3,729 | 1,522 | 746 | 1,242 | | 11,392 | 418 |
| | (100.0) | (0.7) | (8.8) | (17.7) | (7.2) | (3.5) | (5.9) | | (54.1) | (2.0) |
| 2011 | 21,315 | 113 | 1,553 | 3,550 | 1,395 | 641 | 1,196 | | 12,484 | 383 |
| | | 0.5 | (7.3) | (16.7) | (6.5) | (3.0) | (5.6) | | (58.6) | (1.8) |

Source:   MHLW (various years)

The distribution of each service provider is different by region. In 2007, the proportion of for-profit providers was highest in Tokyo Pref. (72.0%) and lowest in Shimane Pref. (19.6%). The proportion of CSW was highest in Nagano Pref. (27.5%) and lowest in Osaka (0.9%); and that of SWC was highest in Shimane Pref. (36.8%) and lowest in Tokyo Pref. (10.4%). It seems that generally, the proportion of for-profit providers is more in urban areas and that of government-driven nonprofit providers is more in rural areas. The percentage of SNC was highest in Kanagawa Pref. (11.8%) and lowest in Yamanashi Pref. (1.5%). However, the distribution pattern of SNC is not as clear as that of for-profit and government-driven nonprofit providers. What determines the differences in the market presence of various service providers? To answer this question, we examine the determinants as follows.

4. Analysis

### 4.1 Framework

We empirically examine the determinants of the market share of home visit care services in LTCS served by nonprofit and for-profit providers. The target service is home visit care, including housekeeping and nursing care, which are considered basic support for housebound seniors in need. The focus on home visit care services is important for three main reasons. First, it is one of the most popular residential care services and it represents the largest proportion of total in-home services. Second, it is a growing market open to new competitors in

LTCS, including citizen-driven nonprofit and for-profit providers. Third, it originated in the 1980s and was developed by grassroots voluntary organizations to assist neighbors who were unable to take care of older family members on their own.

The target service providers for home visit care services are for-profit and nonprofit providers. The local government is omitted, because its presence in this category of services is fairly limited. Unlike previous studies that deal with nonprofit as one sector, nonprofit providers are divided into five categories for our purpose: CSW, SWC, SNC, COOP, and MEC, because of the reasons mentioned above.

The framework of analysis follows the ideas of Hansmann (1987) and Ben-Ner and Van Hoomissen (1992). The factors that are assumed to have an impact on the market share of nonprofit and for-profit providers are market potential, demand heterogeneity, and charity environment or civic engagement.

Considering market potential, for-profit providers are likely to enter areas that have higher market potential, including market size based on demand. On the other hand, nonprofit providers are likely to enter the areas with lower market potential. In addition, among the latter, government-driven nonprofit providers, whose mission is to supplement underserved areas as a government-supported institution, are likely to enter disadvantaged areas more than other providers are.

Where demand heterogeneity is concerned, nonprofit providers are more likely to enter areas with heterogeneous demand, e.g., demand based on varied income and education levels. Considering government-driven nonprofit providers are public providers in a way, citizen-driven nonprofit providers are likely to enter areas with heterogeneous demand.

Regarding the charity environment of an area, it is likely that nonprofit providers are more established in areas with more active civic engagement. It should be noted that there are two kinds of volunteers in Japan: civic volunteers with private initiative as understood in the Western context and public cooperation or embedded volunteers who support governmental services[5] (e.g., Haddad, 2007). Because these two kinds of volunteers are dissimilar in nature, their impacts are considered differently. Citizen-driven nonprofit providers are likely established more in the areas with more active private initiative volunteers, whereas government-driven nonprofit providers are likely to be encouraged to enter areas with more active public cooperation volunteers.

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[5] The percentage of embedded volunteers is more than that of civic volunteers even today.

Tax incentives are not considered here, for the local tax rate on sales, property, and corporations are quite similar in Japan. In heterogeneity, racial heterogeneity and poverty rate are also not considered, because Japan is relatively ethnically homogeneous and the wealth gap is not big either, as compared with the U.S.

### 4.2 Data and Variables

We estimated six models by using panel regression techniques. The dependent variables in these models are the market share of the five types of nonprofit providers and for-profit providers in LTCS, respectively. They are represented by the percentage of each provider in the number of total providers. The data source is Kaigo sabisu shisetu/jjgyosho chosa (Survey Report of LTCS Providers) by the Ministry of Health, Welfare, and Labor (MHWL) from 2000 to 2007, which includes prefectural cross-section data. The percentage of providers may not be a completely accurate measure of their market share, but that is used because of the impossibility of gaining better data, e.g., users or employment. However, it is reported that the average annual LTCS income of each home visit service provider including CSW, SWC, MEC, FPO and other is fairly similar[6], therefore the size difference of each nonprofit and for-profit provider is considered to be relatively small.

The models using a prefectural panel data set are written as:

$$y_{it} = \alpha_i + \gamma_t + \sum_{i=1}^{k} \beta_j x_{jit} + \varepsilon_{it}$$

where y, the dependent variable, is the market share of nonprofit or for-profit provider, and $\beta$, the independent variables, is a factor which affects the market share of nonprofit or for-profit provider. $\alpha$ and $\gamma$ represent cross-section or period specific effects. The cross-sectional unit observed is represented by i and the dated period is represented by t.

Independent variables adopted and hypotheses are as follows.

Market potential is represented by: (1) the ratio of target population over 75 years in age, (2) the recipient ratio of LTCS in the population of those over 65 years, (3) population density, and (4) income per capita. Those may reflect market size based on demand for LTCS. The size of the target age population and recipients are considered to increase the market size. The target age is chosen as 75 years, because the healthy life expectancy is around 75 in Japan. Population density is a proxy for urbanization, which is also considered to increase the

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[6] The average annual income of LTCS is between 2,133,000 yen to 2,683,000 yen (MWHL 2008).

number of users. An average prefectural income per capita is chosen for income. Higher income implies greater demand for normal goods[7]; therefore, market size may be larger in areas with higher income.

Demand heterogeneity is represented by: (4) income per capita[8] and (5) the ratio of university graduates to the total population. It is considered that higher education and income tend to make people dissatisfied with the standard services provided by many for-profit and government-driven nonprofit providers, whose role is close to that of public providers. Therefore, citizen-driven nonprofit providers are likely to enter areas that have more demand heterogeneity.

The above hypotheses are basically based on the assumption for collective goods of nonprofits presented by Ben-Ner and Van Hoomissen (1992). However, considering that the authors indicate the social services are mixture of trust goods and collective goods, the effect may depend on the gradation of both goods in home visit services. For example, in case that home visit services have strong nature of trust goods, nonprofit providers are more important than for-profit providers in the area with large market as well as less educated people for asymmetry information.

Charitable environments are represented by: (6) participation rate in civic volunteer activity and (7) consultation activities of the local welfare commissioner. Charitable environments are considered in the two ways mentioned earlier. The participation rate in civic volunteer activity is the percentage of people who attended any volunteer activity in the previous year. Local welfare commissioner (referred to as LWC hereafter) is an official welfare guard volunteer appointed by MHLW. The number of LWCs is allocated according to a proportional distribution; therefore, the average number of consultations per commissioner is chosen as the proxy. Citizen-driven nonprofit providers are likely to enter areas with more civic voluntary activity and government-driven nonprofit providers are likely to enter areas with more LWC activity.

One-way and two-way error component models are used to estimate the effects on market share. The models are fixed-effects tested against pooled and random-effects by using Hausman specification test. The descriptive statistics are presented in Table 2.

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[7] The users are charged 10% of LTCS fee.
[8] The selection of income per capita which represents both market potential and demand heterogeneity follows the ideas of Ben-Ner and Van Hoomissen (1992).

Table 2

*Descriptive statistics of the variables*

|  | Average | Median | Maxi. | Mini. | S.D. | Obsv. | in |
|---|---|---|---|---|---|---|---|
| （Dependent Variables) | | | | | | | |
| Market share of | | | | | | | |
| SNC | 3.7 | 3.5 | 11.8 | 0 | 2.4 | 376 | % |
| CSW | 22.1 | 22.7 | 47.5 | 2.2 | 8.4 | 376 | % |
| SWC（not CSW） | 17.8 | 17.2 | 50 | 0.7 | 8.8 | 376 | % |
| For-profit | 36.9 | 36.1 | 74.5 | 8.3 | 15 | 376 | % |
| Cooperative | 4.7 | 4.3 | 14.4 | 0 | 2.5 | 376 | % |
| Medical Corporation | 9.8 | 8.7 | 27.9 | 2.8 | 4.4 | 376 | % |
| （Independent Variables） | | | | | | | |
| Population+75 | 9.7 | 9.7 | 15.4 | 4.8 | 2.1 | 376 | % |
| LTCS recipient | 105.2 | 108.3 | 162.6 | 41.4 | 26 | 376 | % |
| Pop. Density | 645.5 | 274.6 | 5833.8 | 71 | 1119.9 | 376 | no. of people per km$^2$ |
| Income | 275.5 | 276 | 457 | 200 | 40.7 | 376 | ten thousand yen |
| Higher Education | 13.2 | 12.3 | 26.8 | 7.2 | 4 | 376 | % |
| Civic Volunteer | 29.7 | 29.9 | 40.1 | 18.4 | 4.4 | 376 | % |
| Consultation of LWC | 44.2 | 41.1 | 103.7 | 23.7 | 15.3 | 376 | no. of consultation per commissioner |

Data Source

Population+75, Pop. Density: MIC, Kokusei Chosa (Census) and Suikei Jinko (Estimated Population)

LTCS recipient: MHLW, Kaigo-hoken jigyo jokyohokoku (Report of LTCS Business' State)

Income: Cabinet Office, Kenmin Keizai Keisan (Prefectural Economic Accounting)

Higher Education: MIC, Kokusei Chosa (Census)

Civic Volunteer: MIV, Shakai Seikatu Kihon Chosa (Basic Survey of Social Life)

Consultant of LWC: MHLW, Sakai Fukushi Gyosei Hokoku-rei (Report of Social Welfare Administration)

## 4.3. Results

The results are presented in Table 3. Considering market potential, the market share of SNC (hereafter referred to as SNC, other dependent variables are referred to in the same way) has a positive correlation with the variable, population+75 and negative correlation with income. Both CSW and SWC have a positive correlation with population density, but negative correlation with the variable, LTCS recipient; and SWC has a negative correlation with income. COOP has a negative relation with LTCS recipient. MEC has a positive correlation with population+75 and population density, but negative correlation with LTCS recipient. On the other hand, the market share of for-profit provider (FPO) has a positive correlation with population+75 and LTCS recipient but negative correlation with population density.

The results do not always fit the hypotheses, but it is indicated partially that for-profit providers tend to

enter areas with relatively higher market potential, except for population density or urbanization. Focusing on the target age population and recipient rate of LTCS, for-profit providers seem to enter areas with more potential users, which may indicate larger market size. On the other hand, the nonprofit sector seems to enter areas with relatively less market potential. As for income, SNC and SWC of the nonprofit sector have a larger market share in areas with lower income. As for the recipient rate of LTCS, CSW, SWC, COOP, and MEC have a larger presence in areas with a low recipient rate of LTCS.

Some results go against the hypotheses, too. SNC and MEC are larger in areas where the target age population is higher. CSW, SWC, and MEC are larger in highly populated areas, whereas FPO is smaller in these areas. One of the reasons for these complex results may be related to the nature of trust goods in home visit services. It is also suggested that the behavior differences between nonprofit providers and for-profit providers in LTCS are not very distinct.

Looking at demand heterogeneity, SNC has a positive correlation with higher education but negative correlation with income. SWC has a negative correlation with both higher education and income. COOP and MEC have a negative correlation with higher education.

The results do not always fit the hypotheses, but it is indicated partially that citizen-driven nonprofit providers tend to enter areas with more demand heterogeneity, whereas government-driven nonprofit providers tend to enter areas with less demand heterogeneity. Focusing on the educational level, it is indicated that SNC from the citizen-driven nonprofit sector is larger in areas with more heterogeneous demand. On the other hand, SWC of the government-driven nonprofit providers is large in areas with lower income and higher education. The effect of income is not very clear, probably because the proxy represents market potential, too.

FPO has a positive correlation with higher education. The result is against the demand heterogeneity hypothesis, but is in accordance with the consideration for trust goods; that is, less educated stakeholders choose nonprofit products because of asymmetric information, which also means that well-educated stakeholders do not exclude for-profit products because these stakeholders have the ability to choose a reliable product regardless of the provider's organizational form.

Regarding charitable environment, SNC and COOP have a positive correlation with civic volunteer activity but negative correlation with the LWC's consultation activity. With civic volunteer activity, CSW has a positive correlation and SWC has a negative correlation. MEC have a negative correlation with the LWC's

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consultation activity. FPO has a negative correlation with civic volunteer activity but positive correlation with the LWC's consultation activity.

Table 3

*Results of Estimation*

| | SNC | | | CSW | | | SWC | | | COOP | | | MEO | | | FPO | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Coef. | S.E. | | Coef. | S.E. | | Coef. | S.E. | | Coef. | S.E. | | Coef. | S.E. | | Coef. | S.E. | |
| Population +75 | 0.383 | 0.082 | *** | -1.421 | 1.330 | | 0.782 | 0.499 | | -0.072 | 0.146 | | 0.299 | 0.175 | * | 1.054 | 0.363 | *** |
| Recipient LTCS | -0.002 | 0.009 | | -0.098 | 0.016 | *** | -0.101 | 0.016 | *** | -0.009 | 0.005 | * | -0.019 | 0.004 | *** | 0.252 | 0.035 | *** |
| Population Density | -0.002 | 0.001 | | 0.016 | 0.003 | *** | 0.009 | 0.004 | ** | 0.000 | 0.000 | | 0.008 | 0.002 | *** | -0.029 | 0.003 | *** |
| Income | -0.015 | 0.005 | *** | -0.001 | 0.014 | | -0.064 | 0.020 | *** | 0.006 | 0.006 | | -0.008 | 0.027 | | 0.030 | 0.022 | |
| Higher Education | 0.968 | 0.237 | *** | -0.375 | 0.587 | | -2.126 | 0.757 | *** | -0.214 | 0.103 | ** | -1.808 | 0.242 | *** | 3.335 | 0.778 | *** |
| Civic Volunteer | 0.089 | 0.032 | *** | 0.727 | 0.121 | *** | -0.438 | 0.103 | *** | 0.154 | 0.032 | *** | -0.016 | 0.073 | | -0.580 | 0.117 | *** |
| LWC Consultation | -0.025 | 0.007 | *** | 0.003 | 0.009 | | -0.017 | 0.033 | | -0.022 | 0.010 | ** | -0.026 | 0.013 | * | 0.155 | 0.049 | *** |
| Constant | -8.742 | 2.886 | | 15.261 | 15.801 | | 79.210 | 8.903 | | 3.702 | 1.767 | | 31.104 | 7.156 | | -22.850 | 10.610 | |
| Adjusted $R^2$ | 0.833 | | | 0.951 | | | 0.889 | | | 0.164 | | | 0.901 | | | 0.948 | | |
| n | 376 | | | 376 | | | 376 | | | 376 | | | 376 | | | 376 | | |
| one way/ two way | one way (c.s.) | | | two way | | | one way (c.s.) | | | one way (c.s.) | | | one way (c.s.) | | | one way (c.s.) | | |
| fixed/random | fixed | | | fixed | | | fixed | | | random | | | fixed | | | fixed | | |

Note1: *** is 1% significant, ** is 5% significant and * is 10% significant.

Note2: c.s. means cross section.

The results do not always fit the hypotheses, but it is indicated partially that citizen-driven nonprofit providers tend to enter areas with more civic volunteer activity and government-driven nonprofit providers tend to enter areas with more public cooperation volunteer activity, though this does not hold for CSW.

It should be noted that citizen-driven nonprofit providers are more established in areas with more active private initiative volunteers, but less active public cooperation volunteers. The distribution of FPO is the reverse of this. That may indicate the fairly large differences in charitable environments between areas with more citizen-driven nonprofit and more for-profit providers.

The overall results indicate, although not in all cases, that (1) the market shares of both citizen-driven and government-driven nonprofit providers are relatively large in areas with more unprofitable market conditions (lower proportion of service recipients and lower income); (2) the market share of citizen-driven nonprofit providers seems larger in areas with more diverse needs, which are represented by a higher educational level, as compared to the market share of government-driven nonprofit organizations in these areas; and (3) the market share of citizen-driven nonprofit organizations tends to be larger in areas with more private initiative volunteers and less public cooperation volunteers, whereas that of for-profit organizations tends to be in the opposite direction.

While these results support some results of previous studies, there are also some new findings associated with the Japanese quasi-market. First, nonprofit providers tend to enter areas with lower market potential, but there may be a difference between citizen-driven nonprofit and government-driven nonprofit providers. Second, citizen-driven nonprofit providers tend to respond more to heterogeneous demand than do government-driven nonprofit providers, but the difference between nonprofit and for-profit providers is not very clear. The reasons for these results are likely related to the differences in the nature of the nonprofit sector in Japan and the U.S.

## 5. Conclusion and Policy Implications

We reviewed the role of nonprofit providers in a quasi-market, considering the specific nature of several nonprofit providers in Japan, in contradistinction to for-profit providers. We then examined the determinants of market share of LTCS and explored that the nonprofit sector tends to enter areas with less market potential and the citizen-driven nonprofit providers are established more in areas with higher private civic voluntarism.

The policy implications derived from these results are that the current governmental support for citizen-driven and government-driven nonprofit organizations needs reconsideration. Both nonprofit providers enter areas with relatively lower market potential, and the latter seem to be relatively more at a disadvantage than the former, but the difference is not very significant. However, the former receives much lower support than the latter, because the latter is supposed to serve highly public interests by convention since the 1950s. The aforementioned results question this assumption. In addition, it should be noted that promotion of civic engagement with private initiative is crucial for the growth of citizen-driven nonprofit providers. If it is assumed that citizen-driven nonprofit providers, which may provide informal community services as well as

formal LTCS services, have an important role in securing social support for the elderly as a whole, some policies to encourage them are required. Considering the increasingly complex social needs of contemporary families, the role of citizen-driven nonprofit organizations will be more important in the years to come.

On the other hand, this article has some limitations. As mentioned earlier, citizen-driven nonprofit providers are struggling in the stiff market competition of LTCS, and it is true that the nonprofit providers' distinctiveness and legitimacy in quasi-markets is questionable to some extent. In addition, the situation is changing every year. Further efforts are required to investigate the reality.

## References

BACKMAN E. and SMITH S., 2000, 'Healthy Organizations, Unhealthy Communities?', *Nonprofit Management and Leadership, 10*(4), 355-373.

BEN-NER A. and HOOMISSEN V., 1991, 'Nonprofit Organizations in the Mixed Economy', *Annals of Public and Cooperative Economics*, *62*, 519-550.

BEN-NER, A., and Hoomissen, V.,1992, 'An Empirical Investigation of the Joint Determination of the Size of the For-Profit, Nonprofit and Government Sectors', *Annals of Public and Cooperative Economics*, *63*, 391-415. '

CLEMENT, J.P., White, K. R., and Valdmanis, V. ,2002, 'Charity Care: Do Not-for-Profits Influence For-Profits?', *Medical Care Research and Review*, *59*(1), 59-78.

GULLEY, O. D., and Santerre R. E. ,1993, 'The Effect of Tax Exemption on the Market Share of Nonprofit Hospitals', *National Tax Journal, 46*, 477-486.

HADDAD M., 2007, *Politics and Volunteering in Japan: A Global Perspective*, Cambridge: Cambridge University Press.

HANSMANN H., 1980, 'The Role of Nonprofit Enterprise', *Yale Law Journal*, *89*(5), 835-901.

HANSMANN H., 1987, 'The Effect of Tax Exemption and Other Factors on the Market Share of Nonprofit Versus For-profit Firms', *National Tax Journal*, *40*(1), 71-82.

HONGO, H., ARAKI T., MATUSHITA, S., and SODEI, T.,2011, 'Kaigo-kei NPO no genjo to seidogai sabisu no tenkai ni muketa kadai (The Present Conditions of the Care-Service NPO and Problem for the Development of the Informal Service), *Fukuoka-kenritudaigaku Ningenshakaigakubu Kiyo*, *19*(2), 1-18.

(in Japanese)

KANAYA N., 2012, 'Kaigi-kei NPO no jizokusei to tayousei, kaigohoken seidogai sabisu no jittai bunseki kara' (Sustainability and Diversity of Citizen-Driven Nonprofit Care Providers for the elderly: An Analysis of Services of Nonprofit Organizations Extending beyond Institutional Long-term Care Insurance Services), *Hiroshima Journal of International Studies, 18*, 55-70. (in Japanese)

LE GRAND J., 2003, *Motivation, Agency, and Public Policy: Of Knights and Knaves, Pawns and Queens.* Oxford: Oxford University Press.

MHLW,2008,. Kaigo-jigyo keiei jittai chosa (Survey of LTCS Providers' Business Conditions).

MHLW, 2012a, Annual Health, Labour, and Welfare Report 2011-2012.

MHLW, 2012b, Kaigo-hoken jigyo jokyohokoku of 2011 (Report of LTCS Business' State).

MHLW, various years, Kaigo sabisu shisetu/jigyosho chosa (Survey Report of LTCS Providers).

MIC, 2008, Syugyo-kozo kihon chosa of 2007 (Employment Structure Statistics).

SCHLESINGER M., MITCHELL S. and Gray B., 2003, 'Measuring Community Benefits Provided by Nonprofit and For-Profit HMOs', *Inquiry, 40*(2), 114-132.

SCHLESINGER M. and GRAY B., 2006, 'Nonprofit Organizations and Health Care: Some Paradoxes of Persistent Scrutiny', in W. Powell and R. Steinberg eds., *The Nonprofit Sector: A Research Handbook, Second Edition,* Yale University Press, pp.378-414..

SUDA Y. and GUO, B., 2009, 'Dynamics Between Nonprofit and For-Profit Providers Operating Under the Long-Term Care Insurance System in Japan', *Nonprofit and Voluntary Sector Quarterly*, 40(1), 79-106.

SCHIFF J. and WEISBROD B., 1991, 'Competition Between For-profit and Non-profit Organizations in Commercial Markets', *Annals of Public and Cooperative Economics*, *62*, 619-640.

WEISBROD B.,1977, 'Toward a Theory of the Voluntary Nonprofit Sector in a Three Sector Economy', in B. Weisbrod, ed., *The Voluntary Nonprofit Sector,* D.C. Heath, pp.51-76.

WEISBROD B,1998, *To Profit or Not to Profit, Cambridge*: Cambridge University Press.

ZENKOKU SAKAIFUKUSI KYOGIKAI (ZSK) (Japan National Council of Social Welfare), 2009, Jumin sanka-gata zaitaku fuksi sabisu danntai katsudo jittai hokokusho (Report of In-home Service Organization by Community Participation Activity).