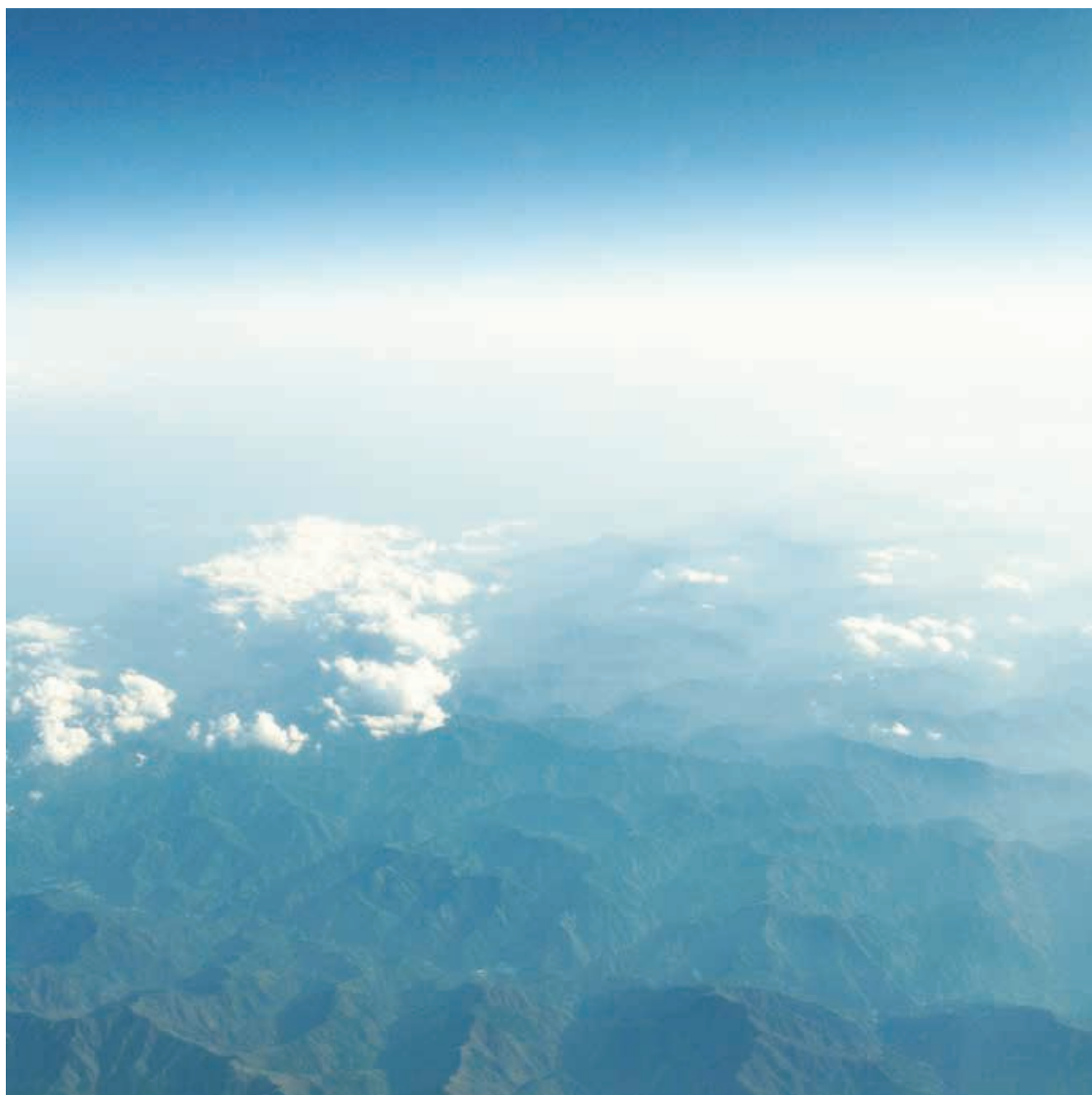


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## ORIGINAL ARTICLE

# A Study on the Vitalization of Silver Industry by Analyzing the Needs of Silver Industry in the Daejeon, South Korea

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## ABSTRACT

Recently silver industry has been recognized as the market with growth potential among companies in the long term. The information on the needs of users who are potential consumer and the understanding of their awareness of silver industry in the aspect of the demand of silver industry seems to be important for both private companies and the government.

Therefore, this study to form the basis for the development of silver industry in Daejeon by researching and analyzing the needs of the silver industry of the elderly living in Daejeon, utilizing the information for establishing the policy to promote silver industry, simultaneously and building the network of local resources to support silver industry.

The research for this study was conducted for 1,000 elderly people who are 65 and over living in 84 dong's in Daejeon about the degree of interest in silver industry, the needs of housing, health care, recreation, finance and welfare products and the current situation of the old age life. By analyzing the needs of elderly people for silver industry, this study suggested the methods in the four categories such as housing, health care, finance and welfare products to promote silver industry in Daejeon

### <Key-words>

Silver industry, finance, health care, long-term care, development of welfare products, recreation, housing for elderly person.

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## I . Introduction

Silver industry, which generally includes high-end housing complex, clothing, food, leisure and medical products that are tailored according to the preference of elderly population, was coined by shrewd Japanese businessmen comparing white hair to the silver for elderly people who dislike the word of old age and dark image. The silver also means people who are living the life after retirement, that is, in the twilight years of their life. Since the late of 1990's, the silver has been used to indicate elderly people; in South Korea, it has been used as the same meaning, but it has not been legally or administratively stipulated and its origin has not been academically reported, either.

Even though silver industry has not been clearly conceptualized, it has been used as a business term in the perspective of business strategy as aging has proceeded based on the developments of industry and medicine; it is also called as industry for the elderly, silver business or silver service.

Silver industry can be classified into two kinds in narrow and broad senses. Silver industry in a narrow sense includes housing service for the elderly and long-term care services including bathing service, housekeeping service, day service and short stay service. Silver industry in a broad sense is the business for the people who are preparing for old age life from young age as well as elderly people and its ranges of business include all the products and services related to money management, life management to live a desirable life, employment, preparation of a life plan, etc. In this situation, silver industry is the for-profit business to provide the goods and services to elderly people based on the market competition; therefore, it can be said that all the existing industries may be included in the silver industry, which means that the size of silver industry is enormous and there is full of possibility for the great development.

The way of thinking has changed to emphasize the quality of life, since the rapid economy growth has greatly improved the level of life from 1970's in South Korea, which has forced the welfare policy and facilities for elderly people that have only aimed to provide food, clothing and shelter into changing and being improved (Jeongmin Go and Hyeonseung Jeong, 2002).

While Daejeon Metropolitan City Government has made great effort to foster the high-tech industry centering on Daedeok Science Town, it has not been concerned to foster silver industry by linking both industries yet.

It is expected that combining human resources and physical infrastructure of Daedeok Science Town with silver industry will not only activate the local economy, but also rapidly increase manpower demand.

The detailed plan and the network among related agencies are urgently needed to be established based on the analysis of current situation of silver industry in Daejeon.

In the near future, silver industry will play an important role for the welfare for elderly people, because silver industry has been recognized as the industry with growth potential

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by private companies and the institutional and legal preparations for silver industry have been prepared.

It is believed that, for demand forecast, understanding the needs and awareness of potential users for silver industry will be useful for both silver industry related for-profit companies and governments; in this context, for this study, the demand and awareness of silver industry will be explored for the people living in Daejeon.

This study aimed to utilize the results of analysis of the needs of elderly people for silver industry as the basic information to establish the policy to foster silver industry and simultaneously to form the basis of the development of silver industry in Daejeon by establishing the plan for building the network to link resources to support silver industry.

## **II . Research on the Needs of Silver Industry in Daejeon**

### **1. Research Subject**

Elderly people who are 65 and over from 85 dongs among 178 beopjeong-dongs(legal dong) and 79 haejeong-dongs(administrative dong) in Daejeon have been selected for this study; elderly people who are living in facilities are excluded. For the research method, the face-to-face interview with subjects was employed to understand their needs.

### **2. The Contents of Research**

Based on the health condition, from elderly people who are healthy enough to perform activities of daily living to those who requires to be protected due to dementia, stroke, arthritis, etc. were included. For this study, elderly people who require to be protected are defined as those who need protection due to the dementia, stroke and other diseases. Because this research intended to understand the needs of subjects, elderly people who require the protection for the activities of daily living regardless of whether they were medically diagnosed were included in the subjects of this research.

### **3. Respondents**

The subjects, themselves, were interviewed in person. The subjects who cannot go out or answer by themselves due to the physical and cognitive impairment were excluded.

### **4. Interviewers and Research Period**

Interviewers visited the house of each subject and conducted face-to-face interview. Eight Interviewers were selected from the assistant researchers attending the senior year of Woosong University. This research was conducted for 30 days from August 1, 2010.

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### III. Analysis and Interpretation of the Results of Survey on Needs for Silver Industry in Daejeon

#### 1) Demographical Characteristics of the Subjects

The results of the demographical characteristics of the subjects to analyze the needs for silver industry in Daejeon are shown in Table 1.

Table 1. Demographic Characteristics of Subjects

Characteristics		Frequency	Percentage	Characteristics		Frequency	Percentage
Gender	Male	356	35.6	Age	65-69	281	28.1
	Female	644	64.4		70-74	302	30.2
	Total	1,000	100.0		75-79	184	18.4
Family composition	Living alone	123	12.3		80-84	90	9.0
	Elderly couple	315	31.5		85-89	75	7.5
	Elderly person(s) and unmarried child(ren)	121	12.1		90 and over	68	6.8
	Elderly person(s) and married child(ren)	282	28.2		Total	1,000	100.0
	Elderly person(s) and grandchild(ren)	94	9.4	Educational background	No education	435	43.5
	Others	65	6.5		Elementary school	236	23.6
	Total	1,000	100.0		Middle school	142	14.2
Cost bearer	Public charge	180	18		High school	102	10.2
	Users paying actual expense	75	7.5		University and over	85	8.5
	Potential welfare recipients	73	7.3		Total	1,000	100.0
	Self-pay	672	67.2				
	Total	1,000	100.0				

The results were shown as follows; female subjects were more than male subjects, subjects in 70's were more than other ages, the percentage of elderly couple was higher and there were subjects with the educational background of middle school or less.

#### 2) The Degree of Interest in Silver Industry and the Needs for Housing

The results of the survey on the needs of elderly people in Daejeon for silver industry are shown in Table 2.

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Table 2. The Degree of Interest in Silver Industry

(%)

Age	Definitely interested	Interested	Just so-so interested	Not interested	Definitely not interested
65-69	20.1	28.7	25.3	16.3	9.6
70-74	16.3	26.3	24.1	18.8	14.5
75-79	13.6	24.8	22.2	25.2	14.2
80-84	11.2	21.2	20.5	18.3	28.8
85-89	9.1	19.3	16.7	28.8	26.1
90 and over	8.3	16.2	15.2	30.2	20.1
Total	13.1	22.8	20.7	22.9	18.9

It is assumed that the reason that the degree of interest in silver industry is low among elderly people living in Daejeon seems to be because of the low awareness of silver industry itself.

The results of the question, “What kind of residence type is proper for old age life?” are shown in Table 3.

Table 3. The Degree of Interest in Residence Type in Old Age Life

(%)

Age	General apartment	Apartment for the elderly	Fee charging nursing home	Silver town	Recreational facilities for the elderly	Residence for three generation family
65-69	20.3	12.9	19.9	22.4	14.2	10.3
70-74	19.1	16.1	17.7	21.1	16.3	9.7
75-79	14.2	20.4	16.5	22.5	15.1	11.3
80-84	11.5	19.6	18.1	28.6	13.3	8.9
85-89	18.7	18.4	16.4	22.5	11.7	12.3
90 and over	22.2	14.7	17.9	24.2	12.2	8.8
Total	17.7	17.0	18.8	23.6	13.8	10.2

The type of residence that the respondents are most often interested in was silver town regardless of age.

The results of the question, “What do you consider most to determine the type of residence?” are shown in Table 4.

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Table 4. The Factors to Consider for the Determination of the Types of Residence

(%)

Age	Cost	Location	The relationship with children	Facilities and services	Surrounding environment	Others
65-69	24.5	15.1	14.9	20.9	10.8	13.8
70-74	20.1	10.4	25.3	20.7	16.3	7.2
75-79	18.7	19.6	16.5	21.1	16.7	7.4
80-84	22.4	16.1	18.1	22.5	11.7	9.2
85-89	22.2	22.5	17.7	20.3	15.1	2.8
90 and over	14.2	12.9	16.4	20.3	28.6	7.6
Total	20.4	16.1	18.2	20.9	16.5	8.0

When determining the types of residence, it was found that respondents from 65 to 69 years old consider the cost as most important (24.5%); those from 70 to 74 consider the relationship with children as most important (25.3%); those from 75 to 79 years old consider facilities and services as most important (21.1%); those from 80 to 84 years old also consider facilities and services as most important (22.5%); those from 85 to 89 consider the location as most important; and those 90 and over consider surrounding environments as most important (28.6%). In the results of looking into the relation between income and the factors to consider most when determining the types of residence, while the respondents with high income are more likely to consider facilities and services, those with low income are more likely to consider the cost or the relationship with children.

### 3) The Needs for Silver Industry related to Medical Healthcare

The results of the question, "Are you interested in medical healthcare among silver industry?" are shown in Table 5.

Table 5. The Degree of Interest in Medical Healthcare

(%)

Age	Definitely interested	Interested	Just so-so interested	Not interested	Definitely not interested
65-69	30.2	18.1	24.3	18.0	9.3
70-74	28.4	20.3	22.1	17.4	7.8
75-79	25.5	28.9	26.3	6.4	12.9
80-84	24.3	27.3	21.5	17.7	9.2
85-89	14.5	34.4	19.6	21.3	10.2
90 and over	10.3	40.1	25.6	15.8	8.2
Total	22.2	28.2	23.2	16.1	9.6

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As shown in the table 5, elderly people in Daejeon are interested in medical healthcare among silver industry.

The results of the question, “What kind of services do you want most in the medical healthcare?” are shown in Table 6.

Table 6. The Services related to Medical Healthcare

(%)

Age	Hospital for the elderly	Good medicine and medical devices	Information for geriatric medicine	Health examination program	In-home healthcare
65-69	23.2	16.2	11.2	32.3	17.2
70-74	34.3	6.4	15.7	23.6	20.0
75-79	36.1	22.6	10.3	12.4	18.6
80-84	31.6	28.8	14.2	10.2	15.2
85-89	25.3	30.3	11.2	21.1	12.1
90 and over	37.8	15.1	10.1	11.2	25.8
Total	31.9	19.9	12.1	18.5	18.2

In results, the service that respondents answered that they are most interested in was the hospital for the elderly (31.9%) and they are also interested in excellent medicine and medical devices (19.9%), health examination program (18.5%), in-home healthcare (18.2%) and information for geriatric medicine (12.1%) in descending order.

#### 4) The Needs of Leisure Activities

The results of the question, “Are you interested in leisure activities?” are shown in Table 7.

Table 7. The Degree of Interest in Leisure Activities

(%)

Age	Definitely interested	Interested	Just so-so interested	Not interested	Definitely not interested
65-69	27.2	29.1	23.3	17.1	3.3
70-74	25.3	30.1	20.2	18.6	5.8
75-79	16.5	20.2	17.9	19.1	26.3
80-84	14.2	21.3	20.3	16.3	27.9
85-89	10.1	26.1	14.4	20.1	29.3
90 and over	9.5	14.4	25.9	19.6	31.3
Total	17.1	23.5	20.3	18.5	20.7

As shown in the table 7, elderly people in Daejeon tend to be interested in leisure



activities.

The results of the question, “What kind of services do you want most among the leisure activities?” are shown in Table 8.

Table 8. The Types of Leisure Activities

(%)

Age	Volunteer work	Lifelong education program	Sports	Hobby	Travel	Others
65-69	18.1	20.3	19.2	17.0	14.2	11.2
70-74	12.1	20.1	18.2	27.0	13.1	9.5
75-79	11.8	16.4	10.1	28.7	14.2	18.8
80-84	11.2	14.6	9.8	18.4	22.7	23.3
85-89	10.5	12.4	8.4	29.9	11.3	27.5
90 and over	9.2	13.1	7.2	27.2	20.1	23.2
Total	12.2	16.2	12.2	24.7	15.9	18.9

In results, the types of leisure activities that respondents answered that they are most interested in was activities related to their own hobbies(31.9%) and they are also interested in lifelong education program (16.2%), travel (15.9%), sports(12.2%) and volunteer works (12.2%) in descending order; in addition, 18.9% of respondents answered that they are interested in others. In the results of looking into the relation between gender and leisure activity, it was found that male respondents are more likely to be interested in sports, activities related to their own hobbies and travels than female respondents and female respondents are more likely to be interested in volunteer works and lifelong education program. In addition, while respondents with higher level of education background are more likely to be interested in volunteer works, lifelong education program or travel, respondents with lower level of educational background are more likely to be interested in sports and activities related to their own hobbies.

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### 5) The Needs for Financial Services

The results of the question, “Are you interested in financial services?” are shown in Table 9.

Table 9. The Degree of Interest in Financial Services

(%)

Age	Definitely interested	Interested	Just so-so interested	Not interested	Definitely not interested
65-69	19.3	33.4	14.9	12.1	20.3
70-74	20.5	30.5	14.5	12.8	21.7
75-79	13.3	18.4	20.8	22.1	25.4
80-84	12.7	16.3	14.6	21.8	34.6
85-89	10.7	14.9	20.5	21.2	33.3
90 and over	9.7	17.7	19.2	24.7	28.7
Total	14.3	21.9	17.4	19.1	20.3

As shown in the table 9, elderly people in Daejeon are highly interested in financial services, which can be understood that elderly people have financial difficulty.

The results of the question, “What kind of financial services do you want most?” are shown in Table 10.

Table 10. Financial Services

(%)

Age	Pension benefit	The receipt of diverse insurance	Trust or saving	Management of real estate	Others
65-69	22.3	19.5	18.1	30.9	9.2
70-74	24.1	17.2	20.1	23.7	14.9
75-79	23.7	16.8	21.8	24.1	13.6
80-84	27.2	29.1	23.3	17.1	3.3
85-89	27.9	20.3	21.3	16.3	14.2
90 and over	31.3	19.6	25.9	13.7	9.7
Total	26.1	20.4	21.8	20.9	10.8

In results, the types of financial services that respondents answered that they are most interested in was pension benefits (26.1%) and they are also interested in trust or saving (21.8%), management of real estate (20.9%), receipt of diverse insurance (20.4%) and others (10.8%) in descending order.

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## 6) The Needs for Silver Products

The results of the question, “Are you interested in silver products and support system to assist old age life?” are shown in Table 11.

Table 11. The Degree of Interest in Silver Products and Supports

(%)

Age	Healthy food	Goods for the elderly	Clothing and shoes for the elderly	Home appliances for the elderly	Information network System	Others
65-69	24.5	20.9	14.9	15.1	13.8	10.8
70-74	25.1	18.3	16.6	14.2	11.2	14.6
75-79	19.8	22.3	20.3	11.8	12.3	13.5
80-84	17.3	25.3	18.7	12.6	10.1	16.0
85-89	20.1	24.8	21.2	13.1	12.3	8.5
90 and over	18.7	23.5	20.8	20.2	12.7	4.1
Total	20.9	22.5	18.8	14.5	12.1	11.3

In results, the types of silver products that respondents answered that they are most interested in was goods for the elderly (22.5%) and they are also interested in clothing and shoes for the elderly (18.8%), home appliances for the elderly (14.5%), information network system (12.1%) and others (11.3%) in descending order.

The results of the question, “What kinds of goods for the elderly do you want to be developed?” are shown in Table 12.

Table 12. The Goods for the Elderly Desired to Be Developed

(%)

Age	Household goods	Goods for assisting the life of the elderly	Goods for first aid	Goods for leisure	Others
65-69	28.1	24.3	17.1	15.1	15.4
70-74	25.9	23.2	18.3	14.3	18.3
75-79	19.8	18.7	23.4	22.7	15.4
80-84	23.4	24.4	19.7	16.1	16.4
85-89	24.5	23.7	22.8	16.7	12.3
90 and over	26.3	22.1	20.3	17.8	13.5
Total	24.7	22.7	20.3	17.1	15.2

As shown in the above table, all the items of goods for the elderly are almost evenly desired by the respondents.

## 7) The Old Age Life

The results of the question, “Do you try to control exercises and foods for the healthy old age life?” are shown in Table 13.

Table 13. The Control of Exercises and Foods

(%)

Age	Definitely yes	yes	Just so-so	No	Definitely no
65-69	25.3	28.1	20.1	12.3	14.2
70-74	22.5	25.2	20.0	18.7	13.6
75-79	20.3	22.4	17.4	27.2	12.7
80-84	15.7	20.1	18.8	34.1	11.3
85-89	16.3	18.2	22.1	33.3	10.1
90 and over	15.1	16.2	23.2	36.2	9.3
Total	19.2	21.7	20.3	26.9	11.9

In results, it was found that the elderly in Daejeon are not active to control exercises and foods for keeping healthy life.

The results of the question, “Are you pensioner or insurance policyholder or Do you save certain amount of money regularly?” are shown in Table 14.

Table 14. Whether Respondents Have Pension, Insurance or Saving Account or not

(%)

Age	Definitely yes	yes	Just so-so	No	Definitely no
65-69	20.1	24.1	21.6	21.3	12.9
70-74	21.4	23.6	20.6	19.8	14.6
75-79	10.1	13.7	15.2	34.7	26.3
80-84	9.4	14.3	18.4	27.5	30.4
85-89	8.3	12.1	14.6	31.9	33.1
90 and over	7.7	10.3	12.4	38.4	31.2
Total	12.8	16.3	17.1	28.9	24.8

In results, because it was found that elderly people are not prepared enough to live an economically stable life, the countermeasures for this situation need to be prepared urgently.

The results of the question about activities related to respondents' hobbies are shown in Table 15.

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Table 15. Whether respondents have hobbies or not

(%)

Age	Definitely yes	yes	Just so-so	No	Definitely no
65-69	6.4	45.2	22.8	8.4	17.2
70-74	5.6	45.6	23.2	7.6	18.0
75-79	6.0	6.4	16.8	24.0	46.8
80-84	4.8	5.2	18.8	29.6	41.6
85-89	3.2	4.8	19.6	25.2	47.2
90 and over	2.8	3.2	20.0	20.4	53.6
Total	4.8	5.9	20.2	31.6	37.4

In results, elderly people in Daejeon are not aware of the necessity of activities related to their own hobbies and do not perform activities related to their own hobbies actively, either. Because the activities related to hobbies is indispensable to prevent depression and keep healthy life, the countermeasures for this situation need to be prepared urgently.

## IV. Conclusion

- The problems of silver industry in Daejeon and the measures to promote it.

### 1) The Problems of Silver Industry in Daejeon

First, network needs to be built.

Cooperative system to promote silver industry has not been completely built. Cooperative system to support Daedeok Science Town, companies, local government, welfare foundation, etc. through exchanging information and providing technology, administrative skill and manpower is required.

Second, the supply of services and facilities are deficient.

As shown in table about the supply of housing for elderly people, those who want to live in silver town that is conveniently designed for elderly people have increased, because elderly people who want to separate from children have increased. However, the policy of Daejeon City government has not been made to consider the needs of elderly people. To increase the supply of housing for elderly people, the individuals or companies to want to participate in silver industry need to be supported. Moreover, the stinting supports should be given to install the facilities for elderly people.

Third, the companies are silver industry are deficient.

The companies that belong to silver industry, which can be categorized into housing, in-home services, healthcare, finance, leisure and devices, are mostly located in

Seoul and Gyeonggi area, but the companies that supply products and services are chronically deficient in provincial areas. Therefore, the diverse political inducements to attract the companies to supply products and services for elderly people need to be made.

## **2) The Measures to Promote Silver Industry**

### **①Housing and Facilities**

For elderly people with the low and middle income, the construction of houses for three-generation family need to be facilitated and the fund needs to be provided. In addition, the active advertisement strategy targeting elderly people, associations of elderly people and social groups needs to be implemented to promote the business related to housings. When constructing and selling new public tract house in the future, the portion of houses only for elderly couple and those for elderly couple and their children need to be specified and it should be designed to help its residents and local residents exchange each other. When remodeling the houses that elderly couples have occupied, the measures including financial supports need to be performed to help the houses change for them to live conveniently and comfortably.

The policy that gives preferential right to buy to elderly people who have lived in constructing sites and local residents needs to be set up to help elderly people live together with family, relatives and friends in the place they have lived during their whole life when constructing new apartments or houses.

Fee-charging nursing home needs to be expanded based on the National Pension Fund; for the residents to take a loan to enter the nursing home, the measure that social welfare foundation that runs the nursing home instead of themselves or their families provides collateral needs to be implemented to reduce economic burden of residents, because they tend to avoid providing personal asset as collateral.

Daejeon metropolitan city government needs to form a basis for elderly people to live a stable life by establishing urban type and urban suburban type of silver town that embrace housing, medical care, leisure and culture, jobs, etc. and by helping their houses remodel through the good loan conditions.

### **②Healthcare and Long-term care**

( i ) Supports for the Establishment of Hospital for the elderly (Specialized Long-Term Care Facilities for the Elderly with Dementia)

The concerns about dementia have been heightened rapidly; the elderly population with dementia is expected to rapidly increase to 397,000 in 2020, which means that it will have increased 285.8% for 25 years.

To systemically and steadily care dementia patients, the volunteers as well as professionals need to be fostered and the cooperative system including family, professionals and volunteers needs to be established.

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Progressive measures to cope with the increase of the elderly with dementia need to be established; the facilities for recipients of National Basic Livelihood Security as well as general population need to be expanded to meet 100% of demand; and the amount and quality of in-home services need to be heightened.

#### ( ii ) Fostering of Professionals

In reality the qualified professionals in the field of health, medicine and rehabilitation for elderly people working at health and medical institutions are not sufficient and the fostering and training of professionals who take care of elderly people have not been implemented well. Because even elderly persons in the middle class tend to avoid paying fees for the healthcare services, the government needs to support general elderly population in middle class for the promotion of healthcare services. Because even general hospitals or university hospitals hesitate to install the ward for the elderly, it is assumed that it may be difficult for for-profit companies to expect to make profit from running hospitals for the elderly currently.

As for the short and long term measures for securing the health and medical professionals, refresher training for public health doctors and family physicians who are involved in the treatment of elderly people needs to be implemented. Even though 44% of patients that the public health doctors treat are elderly people, they are placed without specialized training for treating elderly people. Most of all, to solve this situation, refresher training for geriatric medicine needs to be implemented, which essentially needs the cooperation of Ministry of Health and Welfare, medical associations, hospital associations and college of medicine. In addition, doctors, nurses, physical therapists and other caregivers who provide treatments and rehabilitation services that are tailored for geriatric diseases need to be fostered and given refresher training.

#### ③Finance and Insurance

The government needs to expand National Pension System, which is mandatory to an entire people nationwide and to activate the personal pension system.

Personal pension, which is the financial product to compensate the weak points of National Currently personal pension, has been given tax benefits by government based on the social needs of stimulating savings and preparing old age life and became a promising silver product.

In preparation for the increase of old-old elderly people, long-term care insurance is necessary to be expanded to include elderly people who cannot perform ADL by themselves or have dementia. It is also expected that a lot of financial products to manage investment with the assets of elderly people will be developed

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#### ④Devices and Products for Elderly People

Diverse devices and products to help elderly people live a normal life and those with disabilities be rehabilitated are needed.

The demand of welfare devices and products that are used for health examination, physical therapy, walking, sleeping, caring, bathing, etc. is expected to greatly increase to help elderly people live a healthy life and perform the activities of daily living, because old-old elderly people (75 and over) are expected to greatly increase.

Because welfare devices and products for elderly people are manufactured as small quantity batch production, which cannot benefit from the economy of scale, the cost in the process of manufacturing and distributing needs to be reduced. Moreover, as most of manufacturers are small companies and have difficulty in R & D, the political supports need to be given for R & D.

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