

[Attachment 2]

김제시 고령친화 기준 평가결과 (Gimje baseline assessment)

2023. 12



1 Age-friendliness Survey

1.1 Survey Overview

1) Survey Purpose

- o It is intended to check the status of the age-friendly city Kimje-city by conducting a survey on the residents of Kimje-city, and to use it as basic data for the establishment of an age-friendly city by identifying the age-friendliness and importance of each field.
- o It is intended to identify the needs of outdoor spaces and buildings, traffic environment, housing environment, community support and health, social participation of seniors, resident participation and employment, respect for the elderly and society, communication and information of age-friendly city Kimje-city, and reflect them in the establishment of detailed projects.

2) Questionnaire Design

- o The Kimje-city Age-Friendliness Survey was conducted through face-to-face interviews using structured questionnaires, and 499 samples were collected according to the quota sampling method.

[Table 1-1] Age-friendness questionnaire design

category	contents
1. survey subject	• Gimje-city residents, 499 adult aged 55 or older
2. survey period	• Sep. 11 ~ Sep. 26, 2023(15 days)
3. survey region	• all Gimje-city area
4. survey method	• face-to-face interviews using structured questionnaires
5. sampling	• 499 samples according to the quota sampling
6. survey contents	<ul style="list-style-type: none"> • Outdoor spaces and buildings(14 items) • Transportation environment(6 items) • Residential environment(10 items) • Communnity support and healthy(8 items) • Elderly people' s social participation(8 items) • Resident participation and employment(8 items) • Respect for the elderly and social integration(8 items) • Communication and information(8 items) • Importance and priority(urgency) of Kimje-city based on WHO eight major areas(8 items)
7. analysis methods	<ul style="list-style-type: none"> • SPSS 25.0, MS OFFICE(EXCEL) <div style="display: flex; justify-content: space-around; text-align: center;"> <div style="border: 1px solid black; padding: 5px; background-color: #c8e6c9;"> <p>Editing</p> <p>errors and omissions checking</p> </div> <div style="border: 1px solid black; padding: 5px; background-color: #c8e6c9;"> <p>Punching & coding</p> <p>Coding and data entry of curveyresults</p> </div> <div style="border: 1px solid black; padding: 5px; background-color: #c8e6c9;"> <p>Data cleaning</p> <p>error checking of the input data</p> </div> <div style="border: 1px solid black; padding: 5px; background-color: #c8e6c9;"> <p>Data processing</p> <p>SPSS 25.0</p> </div> </div>

3) Analysis methods

- o The overall analysis was conducted based on frequency analysis and cross-analysis according to age group.
- o The distribution of respondents was divided into those under 60s and those over 60s, and the mean, standard deviation, F value, and significance probability were calculated and compared.
- o In addition, T-test was conducted based on age group for 8 areas

to analyze significance level.

4) Survey Questionnaire

- o The survey questionnaire of the age-friendly city Kimje-city is divided into two major categories: questions related to the eight areas of the age-friendly city and general characteristics of respondents, and consists of a total of 85 questions.

[Table 1-2] Age-friendness related questionnaire

category		# of items	details
Respondents' general characteristics		11	sex, age, marriage education status, child(y/n), residence, period, exercises, housing type, health condition etc
Age friendliness Questionnaire	• Outdoor spaces and buildings	14	Your thoughts and feelings of Kimje-city's outdoor spaces and buildings
	• Transportation environment	10	Your thoughts and feelings of Kimje-city's transportation environment
	• Residential environment	10	Your thoughts and feelings of Kimje-city's residential environment
	• Communnity support and healthy	8	Your thoughts and feelings of Kimje-city's communnity support and healthy
	• Elderly people's social participation	8	Your thoughts and feelings of Kimje-city's elderly people's social participation
	• Resident participation and employment	8	Your thoughts and feelings of Kimje-city's resident participation and employment
	• Respect for the elderly and social integration	8	Your thoughts and feelings of Kimje-city's respect for the elderly and social integration
	• Communication and	8	Your thoughts and feelings of Kimje

category		# of items	details
	information		-city' s communication and information
total			85 items

5) Likert scale

- o The coding of the response sheet used a 5-level Likert scale, and the meaning of each scale is as follows : the lower the average value, the more positive, and the higher the average, the more negative.

1 : Very positive, 2 : Positive, 3 : Neutral, 4 : Negative, 5 : Very negative

2 Survey Results

2.1 Respondents' general characteristics

- o The response rate by gender is about 10.2% more for women than for men, and regarding marital status, married people account for about 58.5% of the total.
- o Regarding the level of education of the respondents, approximately 80.6% of the respondents have a middle school or higher education level, and their living type is in the following order: detached house (29.3%), row house (18.4%), and apartment (16.8%).
- o 1 to 3 family members account for approximately 77.3% of the total, with 2 being the most common.

- o Approximately 17.2% of the total are recipients of social security benefits, and they mainly live with their spouse and children (26.5%).
- o Regarding the health status, about 60.2% of the total are above average, and conversely, 39.4% of the cases are not in good health.
- o Approximately 67.8% of respondents exercise for health management at least 1 day a week, while approximately 31.3% of respondents do not exercise.
- o The proportion of disabled people among respondents is 12.2%, and the age range of respondents is 40.08% under 60 years old, 14.43% 60–64 years old, 22.04% 65–74 years old, and 23.45% 75 years or older.

[Table 2-1] Demographic characteristics

category		frequency	ratio(%)	note
sex	male	224	44.9%	
	female	275	55.1%	
marrage	no response	1	0.2%	
	single	58	11.6%	
	married	292	58.5%	
	divorce	46	9.2%	
	bereavement	85	17.0%	
	others	17	3.4%	
education	no response	1	0.2%	
	uneducated	20	4.0%	
	elementary school graduate	76	15.2%	
	middle school graduate	142	28.5%	
	high school graduate	147	29.5%	
	college graduate or higher	113	22.6%	
housing type	no response	2	0.4%	
	house	146	29.3%	
	apt	84	16.8%	
	town house/multi-generatiion	92	18.4%	

	category	frequency	ratio(%)	note
	officetels	15	3.0%	
	non-residential building	27	5.4%	
	housing exclusively for the elderly	35	7.0%	
	single room	53	10.6%	
	others	45	9.0%	
family member	no response	100	16.7%	
	1 person	129	21.5%	
	2 people	207	34.6%	
	3 people	127	21.2%	
	4 people	33	5.5%	
	5 or more	3	0.5%	
social security benefits	no response	10	2.0%	
	Target of supply	86	17.2%	
	Not eligible for supply	403	80.8%	
cohabitant	father	0	0.0%	
	parents	1	0.2%	
	Parents & Spouse	18	3.6%	
	Parents & Others	1	0.2%	
	Father/Spouse/Children	7	1.4%	
	mother	1	0.2%	
	mother & Spouse	10	2.0%	
	mother/Spouse/Children	3	0.6%	
	mother/child	13	2.6%	
	spouse	2	0.4%	
	Spouse/Children	132	26.5%	
	Spouse/Children/Other	95	19.0%	
	Spouse/Other	8	1.6%	
children	26	5.2%		
health condition	no response	1	0.2%	
	very healthy	92	18.4%	
	health	109	21.8%	

category		frequency	ratio(%)	note
	Similar to same age	100	20.0%	
	Not healthy	81	16.2%	
	Very unhealthy	116	23.2%	
Number of exercises	no response	5	1.0%	
	Not done	156	31.3%	
	1-2 days a week	125	25.1%	
	3-4 days a week	197	39.5%	
	5 days or more a week	16	3.2%	
Disability	no response	8	1.6%	
	yes	61	12.2%	
	no	430	86.2%	
age range	no response	0	0.00%	
	ordinary citizen	200	40.08%	
	60-64 years old	72	14.43%	
	65-74 years old	110	22.04%	
	75 years or older	117	23.45%	

2.2 Age friendliness Questionnaire

1) Outdoor spaces and buildings

- o The detailed items on Gimje City’s external environment and buildings consist of 14 questions in a total of 7 areas, and the composition is as follows.

[Table 2-2] Questionnaire about outdoor spaces and buildings

Sufficient resting facilities	1. Our neighborhood has many parks and trails where you can travel comfortably.
	2. There are many rest areas and restrooms in our neighborhood that you can conveniently use.
pedestrian convenience	3. There are sufficient sidewalks on pedestrian paths.
	4. The walkway floor is free of obstacles and is easy to walk around.
safe crosswalk	5. Crosswalks give you enough time to cross.
	6. Crosswalks are equipped with special traffic lights and emergency bells for the elderly.
Environment and Safety	7. There is a well-established response system for accidents involving the elderly (falls, illness, injuries, etc.).
	8. Our neighborhood is safe with no risk of crime.
Elderly consideration service	9. Public facilities have reception desks exclusively for the elderly and services that take into account the characteristics of the elderly.
	10. Public facilities have sufficient information facilities (safety handles, etc.) for the elderly.
Degree of convenience facilities	11. The sidewalks and sidewalks in my neighborhood are wide enough for wheelchairs.
	12. Public facilities in our neighborhood are equipped with sufficient convenience facilities, including elevators.

Appropriate public restroom	13. The public restrooms in my neighborhood are clean and the number of them is reasonable.
	14. Public restrooms in our neighborhood are equipped with appropriate facilities (emergency bell, switches, etc.).

o Among the questions about external space and buildings, sufficient crossing time for crosswalk, installation of special traffic lights and emergency bells for the elderly at crosswalks, establishment of an accident response system for the elderly, safety from the risk of crime, reception desks exclusively for the elderly in public facilities and services that take into account the characteristics of the elderly, More than 30% of respondents expressed negative opinions regarding the installation of information facilities for the elderly and the weak in public facilities, the construction of sufficient convenience facilities such as elevators in public facilities, and the establishment of clean public restrooms, indicating the need for improvement.

[Table 2-3] Frequency analysis results for each item

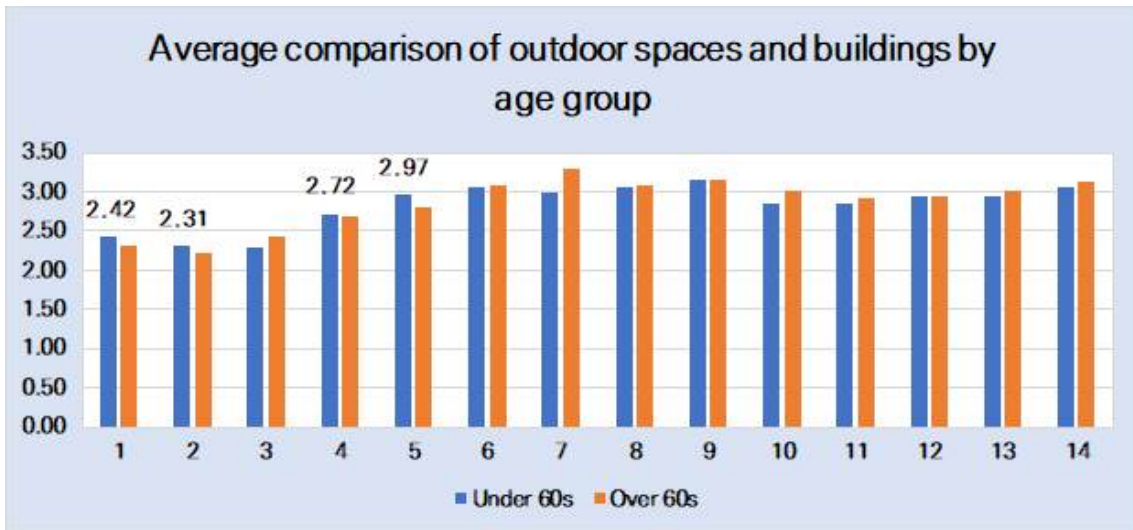
category	1	2	3	4	5	6	7	8	9	10	11	12	13	14
no response	2.8%	2.8%	2.8%	3.6%	3.8%	3.4%	2.8%	3.8%	3.2%	3.0%	3.2%	4.2%	3.6%	4.4%
very positive	20.2%	26.1%	23.0%	14.0%	11.0%	8.4%	4.8%	5.8%	6.8%	8.0%	7.2%	4.6%	3.8%	2.8%
positive	33.9%	33.5%	32.1%	27.3%	25.5%	17.4%	19.4%	22.2%	24.0%	23.8%	26.3%	27.9%	25.5%	18.2%
neutral	31.9%	24.6%	24.2%	29.1%	24.4%	29.3%	27.1%	26.7%	28.7%	31.5%	33.5%	32.1%	35.7%	41.3%
negative	10.8%	10.2%	13.6%	20.4%	24.8%	25.9%	28.3%	22.4%	22.6%	21.0%	22.8%	22.0%	21.6%	24.8%
very negative	0.4%	2.8%	4.2%	5.6%	10.4%	15.6%	17.6%	19.0%	14.6%	12.6%	7.0%	9.2%	9.8%	8.4%

o Looking at the response results by age group regarding external space and buildings, those under 60 showed more positive responses than those over 60 for items 1, 2, 4, and 5, but for other items, Regarding this, respondents over 60 years of age showed negative response results.

[Table 2-4] Results of outdoor spaces and buildings

category		n	mean	STD
Our neighborhood has many parks and trails where you can travel comfortably.	Under 60s	197	2.42	0.898
	Over 60s	288	2.30	0.960
There are many rest areas and restrooms in our neighborhood that you can conveniently use.	Under 60s	197	2.31	0.991
	Over 60s	288	2.21	1.002
There are sufficient sidewalks on pedestrian paths.	Under 60s	197	2.30	1.019
	Over 60s	288	2.43	1.051
The walkway floor is free of obstacles and is easy to walk around.	Under 60s	196	2.72	1.007
	Over 60s	285	2.68	1.035
Crosswalks give you enough time to cross.	Under 60s	194	2.97	1.028
	Over 60s	286	2.81	1.040
Crosswalks are equipped with special traffic lights and emergency bells for the elderly.	Under 60s	196	3.06	0.951
	Over 60s	286	3.09	0.996
There is a well-established response system for accidents involving the elderly (falls, illness, injuries, etc.).	Under 60s	197	2.98	0.950
	Over 60s	288	3.30	0.873
Our neighborhood is safe with no risk of crime.	Under 60s	196	3.07	0.950
	Over 60s	284	3.09	0.949
Public facilities have reception desks exclusively for the elderly and services that take into account the characteristics of the elderly.	Under 60s	196	3.15	0.908
	Over 60s	287	2.89	0.978
Public facilities have sufficient information facilities (safety handles, etc.) for the elderly.	Under 60s	197	2.84	0.981
	Over 60s	287	3.00	0.941
The sidewalks and sidewalks in my neighborhood are wide enough for wheelchairs.	Under 60s	197	2.86	0.969
	Over 60s	286	2.91	0.905

category		n	mean	STD
Public facilities in our neighborhood are equipped with sufficient convenience facilities, including elevators.	Under 60s	195	2.94	0.906
	Over 60s	283	2.94	0.895
The public restrooms in my neighborhood are clean and the number of them is reasonable.	Under 60s	196	2.94	0.869
	Over 60s	285	3.01	0.864
Public restrooms in our neighborhood are equipped with appropriate facilities (emergency bell, switches, etc.).	Under 60s	193	3.07	0.823
	Over 60s	284	3.12	0.793



[Fig 2-1] Comparison of averages by age group for outdoor spaces and buildings

2) Traffic environment

- o The detailed items on Gimje City’s transportation environment consist of 10 questions in a total of 3 areas, and the composition is as follows.

[Table 2-5] Questionnaire about traffic environment

Convenience of use	1. Convenient access to the bus stop
	2. Be safe and comfortable when using public transportation
	3. Public transportation has regular intervals.
	4. When moving within the area, public transportation is sufficient.
	5. The stop is fully equipped with facilities for comfortable waiting.
Senior-friendly transportation	6. Public transportation routes and timetables are large and visible.
	7. There are many low-floor buses that are convenient for the elderly and infirm to use.
	8. Traffic lights and signs are large and visible for older people.
Preferential public transportation for seniors	9. There are sufficient seats for seniors on public transportation.
	10. Bus drivers take into consideration the safety of the elderly when boarding and disembarking and when starting and stopping.

- o As a result of responses to detailed items in the transportation environment field, more than 30% of buses had negative opinions. The detailed items included sufficient amenities at stops, improved visibility of traffic lights and signs, securing sufficient seats for the elderly in public transportation, and bus drivers getting on and off

the bus. safety consideration for the city's elderly, etc.

[Table 2-6] Frequency analysis results for each item

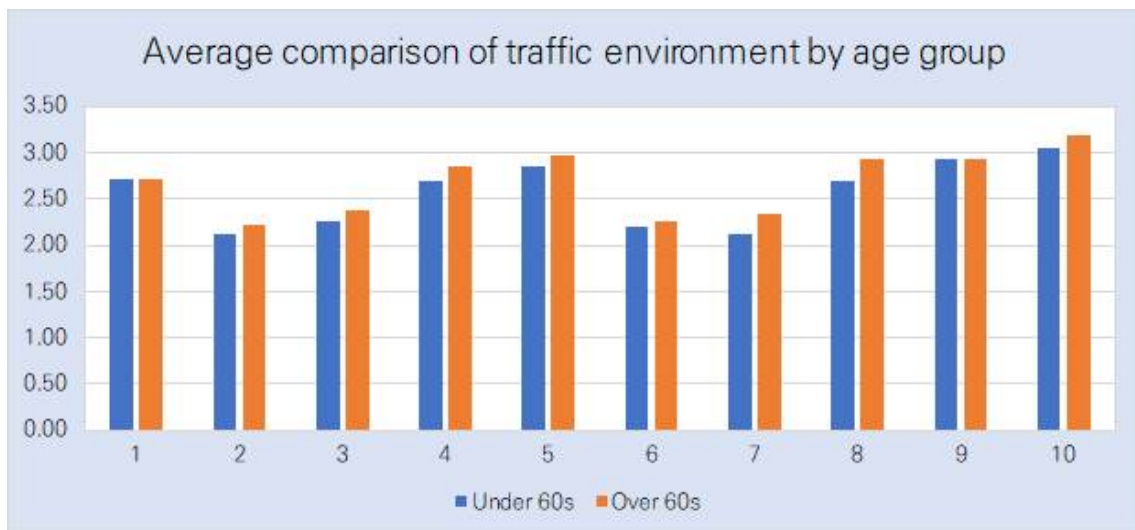
category	1	2	3	4	5	6	7	8	9	10
no response	3.2%	2.8%	2.8%	3.2%	3.0%	3.2%	2.8%	3.0%	3.4%	3.6%
very positive	7.4%	21.0%	18.6%	9.4%	5.0%	16.4%	19.6%	8.0%	5.4%	5.4%
positive	29.3%	46.5%	40.9%	27.1%	26.3%	48.9%	45.1%	27.1%	26.3%	17.4%
neutral	43.5%	20.6%	24.4%	35.1%	35.9%	23.0%	20.6%	34.7%	31.5%	32.1%
negative	16.4%	8.4%	12.8%	22.8%	27.5%	7.2%	10.4%	22.2%	25.5%	27.3%
very negative	0.2%	0.6%	0.4%	2.4%	2.4%	1.2%	1.4%	5.0%	8.0%	14.2%

- o The results of responses to the traffic environment showed that people over 60 had more negative views on all items than those under 60.

[Table 2-7] Results of Traffic environment

category	n	mean	STD	
Convenient access to the bus stop	Under 60s	195	2.72	0.859
	Over 60s	288	2.71	0.824
Be safe and comfortable when using public transportation	Under 60s	197	2.13	0.871
	Over 60s	288	2.22	0.881
Public transportation has regular intervals.	Under 60s	197	2.27	0.955
	Over 60s	288	2.38	0.925
When moving within the area, public transportation is sufficient.	Under 60s	196	2.69	0.992
	Over 60s	287	2.85	0.900
The stop is fully equipped with facilities for comfortable waiting.	Under 60s	196	2.86	0.881
	Over 60s	288	2.98	0.885
Public transportation routes and timetables are large and visible.	Under 60s	196	2.21	0.884
	Over 60s	287	2.26	0.802

category		n	mean	STD
There are many low-floor buses that are convenient for the elderly and infirm to use.	Under 60s	197	2.13	0.905
	Over 60s	288	2.34	0.915
Traffic lights and signs are large and visible for older people.	Under 60s	197	2.70	0.967
	Over 60s	287	2.93	0.894
There are sufficient seats for seniors on public transportation.	Under 60s	195	2.93	0.944
	Over 60s	287	2.99	0.901
Bus drivers take into consideration the safety of the elderly when boarding and disembarking and when starting and stopping.	Under 60s	194	3.05	0.920
	Over 60s	287	3.20	0.891



[Fig 2-2] Comparison of averages by age group for traffic environment

3) Housing environment

o The detailed items on the housing environment in Gimje City consist of 10 questions in a total of 5 areas, and the composition is as follows.

[Table 2-8] Questionnaire about housing environment

Housing cost adequacy	1. In our neighborhood, there is no difficulty in finding a house that suits your financial ability.
	2. You can easily purchase the supplies needed for home renovation.
Senior-friendly housing structure	3. Our house is structured to prepare for natural disasters such as fires and earthquakes.
	4. Our house is adequately equipped with living facilities such as water, toilet, and heating.
Home maintenance service	5. Gimje City can receive sufficient counseling and services related to housing.
	6. Gimje City has a service that supports home repairs and structural changes for the elderly and vulnerable.
Senior-friendly residential environment	7. Gimje City has many suitable houses for the elderly and the disabled.
	8. Our neighborhood has many different types of public and private rental housing.
Convenient accessibility	9. There are convenient facilities (hospital, pharmacy, supermarket, etc.) within a short distance of my house.
	10. My house is convenient and close to public transportation.

o As a result of the responses to the housing environment, it was easy to find a house suitable for economic ability, sufficient coun-

seling and services related to housing, services to support home repair and structural changes for the elderly, provision of appropriate housing for the elderly and the disabled, and various types of housing. It appears that public and private rental housing needs improvement.

[Table 2-9] Frequency analysis results for each item

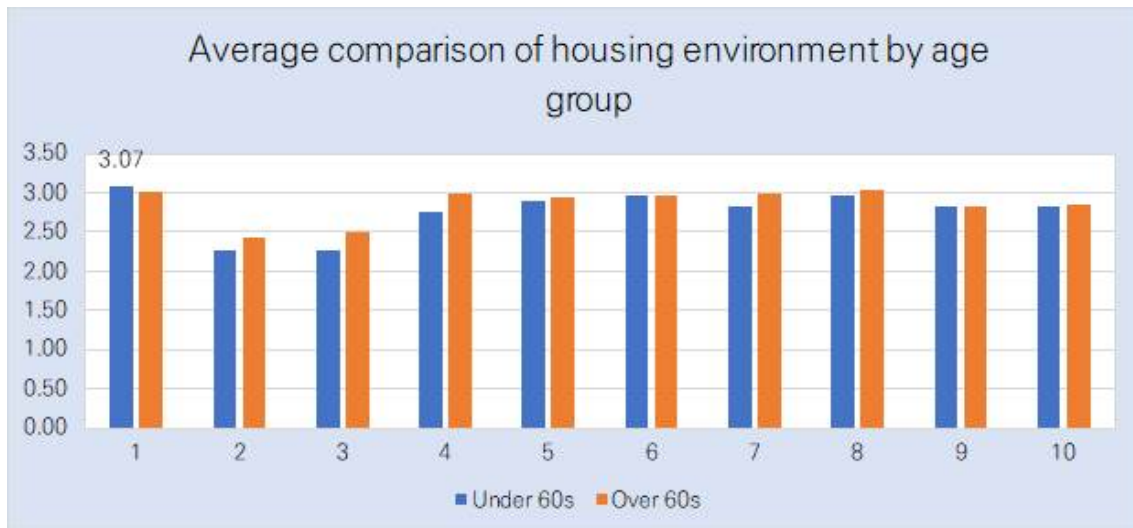
category	1	2	3	4	5	6	7	8	9	10
no response	2.8%	2.8%	3.2%	3.0%	3.0%	3.2%	3.8%	3.4%	3.0%	2.8%
very positive	6.8%	16.0%	14.6%	5.0%	7.2%	8.8%	7.2%	6.4%	6.0%	7.6%
positive	19.6%	46.3%	43.9%	28.1%	27.1%	23.4%	26.9%	24.2%	30.7%	25.9%
neutral	34.1%	19.0%	22.2%	36.7%	28.3%	26.5%	27.7%	28.3%	31.3%	38.1%
negative	30.3%	12.0%	12.4%	22.0%	24.0%	23.4%	18.6%	27.3%	20.8%	18.2%
very negative	6.4%	3.8%	3.6%	5.2%	10.4%	14.6%	15.8%	10.4%	8.2%	7.4%

o As a result of the responses regarding the housing environment, except for item 1, most people over 60 had negative views.

[Table 2-10] Results of Housing environment

category	n	mean	STD
In our neighborhood, there is no difficulty in finding a house that suits your financial ability.	Under 60s	197	3.07
	Over 60s	288	3.01
You can easily purchase the supplies needed for home renovation.	Under 60s	197	2.26
	Over 60s	288	2.42
Our house is structured to prepare for natural disasters such as fires and earthquakes.	Under 60s	197	2.27
	Over 60s	286	2.50
Our house is adequately equipped with living facilities such as water, toilet, and heating.	Under 60s	196	2.76
	Over 60s	288	2.98
Gimje City can receive sufficient counseling and services related to housing.	Under 60s	197	2.89
	Over 60s	287	2.95
Gimje City has a service that supports home	Under 60s	197	2.96

repairs and structural changes for the elderly and vulnerable.	Over 60s	286	2.98	1.010
Gimje City has many suitable houses for the elderly and the disabled.	Under 60s	194	2.83	0.948
	Over 60s	286	3.00	0.975
Our neighborhood has many different types of public and private rental housing.	Under 60s	196	2.97	0.933
	Over 60s	286	3.03	0.967
There are convenient facilities (hospital, pharmacy, supermarket, etc.) within a short distance of my house.	Under 60s	196	2.83	0.921
	Over 60s	288	2.88	0.920
My house is convenient and close to public transportation.	Under 60s	197	2.83	0.862
	Over 60s	288	2.85	0.936



[Fig 2-3] Comparison of averages by age group for housing environment

4) Community support and health

o Detailed items on community support and health in Gimje City consist of 8 questions in a total of 4 areas, and the composition is as follows.

[Table 2-11] Questionnaire about Community support and health

Facility accessibility	1. There are many medical and welfare facilities (hospitals, clinics, public health centers) and are conveniently located for the elderly.
	2. The procedures and standards for using medical and welfare facilities are simple and convenient.
First aid for the elderly	3. Elderly people can receive on-site services for first aid.
	4. There is an emergency response system for the elderly in the event of natural disasters such as heat waves and heavy rain.
Service provided	5. When you need care due to health issues, you can receive appropriate services.
	6. Regular health check-up services are provided for the elderly.
Customized medical welfare	7. There is an opportunity to receive help when you need it in your daily life.
	8. There are facilities where seniors can receive free treatment (physical, vocational).

o Community support and health response results include first aid systems for the elderly in the event of natural disasters, appropriate elderly care services, regular health check-ups for the elderly, provision of opportunities to receive help when someone needs it, and support for the elderly. There is a need for

improvement in facilities where people can receive free treatment (physical, vocational).

[Table 2-12] Frequency analysis results for each item

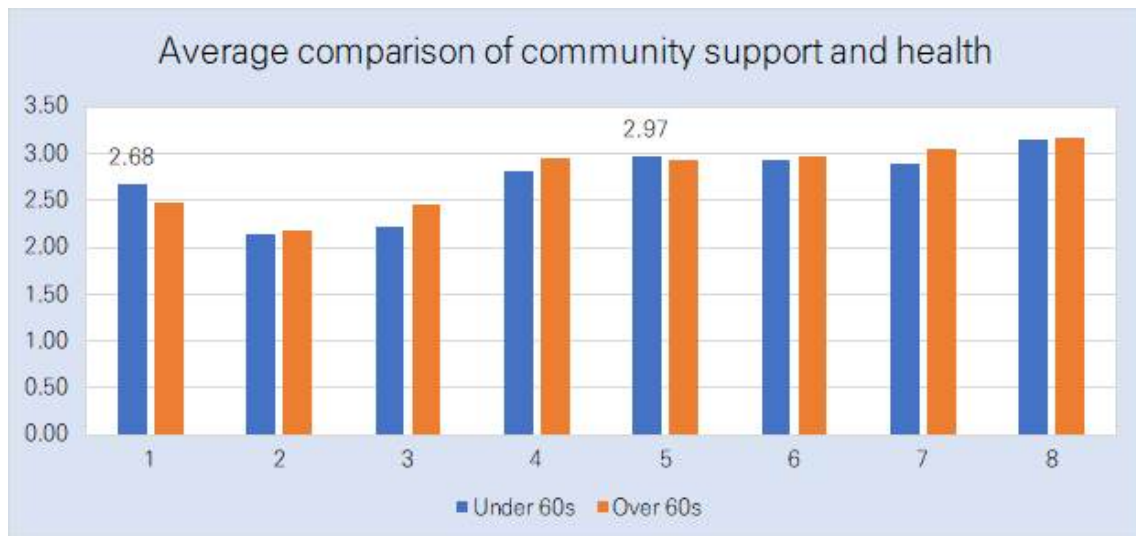
category	1	2	3	4	5	6	7	8
no response	3.2%	3.0%	3.4%	3.6%	3.4%	3.6%	3.2%	3.6%
very positive	11.0%	19.0%	19.0%	9.2%	5.8%	6.6%	8.8%	3.8%
positive	37.7%	51.7%	41.3%	21.0%	25.5%	27.7%	20.6%	16.8%
neutral	30.9%	17.8%	18.4%	37.3%	33.5%	25.9%	30.1%	35.5%
negative	16.6%	7.0%	15.6%	24.4%	25.1%	23.6%	22.8%	25.7%
very negative	0.6%	1.4%	2.2%	4.4%	6.8%	12.6%	14.4%	14.6%

o As a result of the responses regarding community support and health, except for items 1 and 5, most people over 60 expressed negative thoughts.

[Table 2-13] Results of Community support and health

category	n	mean	STD	
There are many medical and welfare facilities (hospitals, clinics, public health centers) and are conveniently located for the elderly.	Under 60s	195	2.68	0.903
	Over 60s	288	2.48	0.910
The procedures and standards for using medical and welfare facilities are simple and convenient.	Under 60s	196	2.14	0.829
	Over 60s	288	2.17	0.846
Elderly people can receive on-site services for first aid.	Under 60s	195	2.22	0.978
	Over 60s	287	2.46	1.002
There is an emergency response system for the elderly in the event of natural disasters such as heat waves and heavy rain.	Under 60s	193	2.81	0.984
	Over 60s	288	2.94	0.913
When you need care due to health issues, you can receive appropriate services.	Under 60s	195	2.97	0.890
	Over 60s	287	2.93	0.929

category		n	mean	STD
Regular health check-up services are provided for the elderly.	Under 60s	194	2.93	0.941
	Over 60s	287	2.97	0.987
There is an opportunity to receive help when you need it in your daily life.	Under 60s	196	2.90	1.008
	Over 60s	287	3.05	0.961
There are facilities where seniors can receive free treatment (physical, vocational).	Under 60s	195	3.15	0.854
	Over 60s	286	3.17	0.851



[Fig 2-4] Comparison of averages by age group for community support and health

5) Social participation of seniors

- o The detailed items on the social participation of the elderly in Gimje City consist of 8 questions in a total of 4 areas, and the composition is as follows.

[Table 2-14] Questionnaire about Social participation of seniors

Providing opportunities for social participation	1. Our neighborhood hosts many events and attractions for seniors.
	2. Social activities in which older people can participate are taking place in various spaces (welfare centers, lifelong education centers, etc.).
Provision of social participation information	3. Provide sufficient information to seniors prior to the event.
	4. The methods and procedures for elderly people's participation in social activities are easy and convenient.
intergenerational bonding	5. Many spaces are provided for resolving conflicts between generations or for gatherings.
	6. There are many events and programs for intergenerational harmony.
Accessibility to social activities	7. Transportation services are provided for the elderly or the disabled with limited mobility.
	8. Social activities are held in places where seniors can visit comfortably.

- o As a result of responses to the social participation of the elderly, there is a need for improvement in events and programs for intergenerational harmony, provision of transportation services for the elderly or the disabled, and places for social activities that the elderly can comfortably visit.

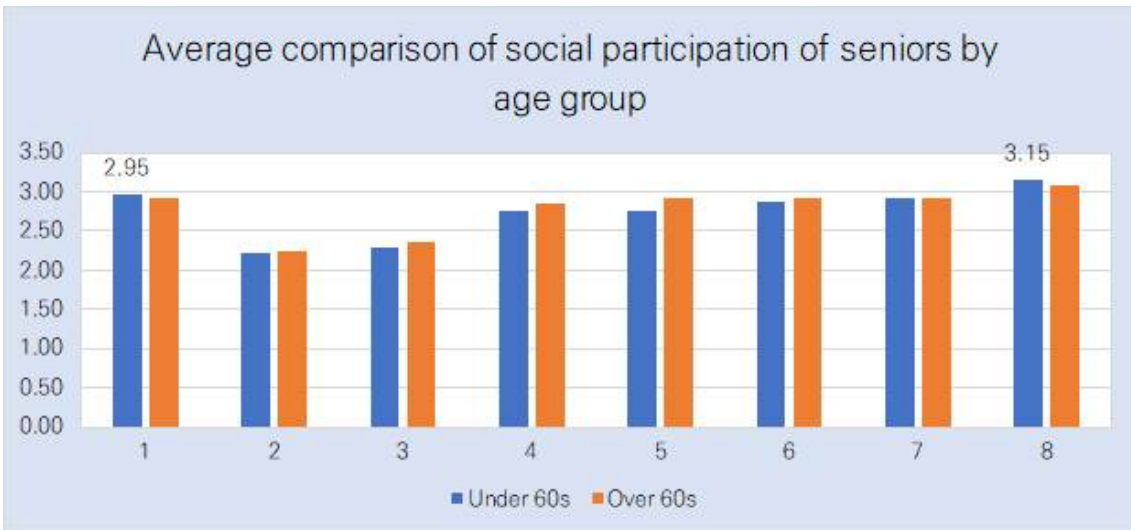
[Table 2-15] Frequency analysis results for each item

category	1	2	3	4	5	6	7	8
no response	3.4%	3.2%	3.2%	3.8%	3.4%	3.8%	3.2%	3.6%
very positive	5.2%	21.2%	20.4%	7.2%	7.8%	8.4%	6.8%	3.0%
positive	23.6%	45.3%	39.7%	29.5%	26.7%	23.6%	26.7%	21.4%
neutral	39.7%	17.6%	21.2%	34.7%	34.9%	32.9%	31.3%	34.1%
negative	25.9%	11.4%	12.6%	22.0%	22.2%	20.8%	22.4%	25.7%
very negative	2.2%	1.2%	2.8%	2.8%	5.0%	10.4%	9.6%	12.2%

- o As a result of the responses regarding the social participation of the elderly, except for items 1 and 8, people over 60 expressed negative thoughts.

[Table 2-16] Results of Social participation of seniors

category	n	mean	STD	
Our neighborhood hosts many events and attractions for seniors.	Under 60s	195	2.95	0.881
	Over 60s	287	2.93	0.856
Social activities in which older people can participate are taking place in various spaces (welfare centers, lifelong education centers).	Under 60s	195	2.21	0.959
	Over 60s	288	2.23	0.921
Provide sufficient information to seniors prior to the event.	Under 60s	196	2.30	0.984
	Over 60s	287	2.35	0.981
The methods and procedures for elderly people' s participation in social activities are easy and convenient.	Under 60s	195	2.75	0.916
	Over 60s	285	2.84	0.905
Many spaces are provided for resolving conflicts between generations or for gatherings.	Under 60s	195	2.75	0.921
	Over 60s	287	2.91	0.927
There are many events and programs for intergenerational harmony.	Under 60s	193	2.88	0.927
	Over 60s	287	2.92	0.976
Transportation services are provided for the elderly or the disabled with limited mobility.	Under 60s	196	2.92	0.900
	Over 60s	286	2.92	0.962
Social activities are held in places where seniors can visit comfortably.	Under 60s	194	3.15	0.797
	Over 60s	287	3.08	0.891



[Fig 2-5] Comparison of averages by age group for social participation of seniors

6) Resident participation and employment

- o The detailed items on resident participation and employment in Gimje City consist of 8 questions in a total of 4 areas, and the composition is as follows.

[Table 2-17] Questionnaire about Resident participation and employment

Securing volunteers	1. There are many volunteer activities in which seniors can participate.
	2. There are enough volunteers to help the elderly.
volunteer work	3. Volunteer activities in which older people can participate are encouraged.
	4. Volunteer organizations link volunteer activities by considering the characteristics of the elderly.
elderly employment	5. Gimje City has many jobs suitable for the elderly.
	6. We do not discriminate against the elderly in terms of employment maintenance and training.
training services	7. After retirement, you can receive counseling and education from experts for re-employment and starting a business.
	8. There are many service organizations where you can obtain job and startup information.

- o As a result of the responses regarding resident participation and employment, volunteer activities in which the elderly can participate, volunteer organizations conduct volunteer activities that take into account the characteristics of the elderly, find jobs suitable for the elderly, prevent discrimination against the elderly in employment maintenance and training, and promote reemploy-

ment and employment after retirement. There is a need for improvement in providing educational counseling and increasing the number of organizations that provide job and start-up information.

[Table 2-18] Frequency analysis results for each item

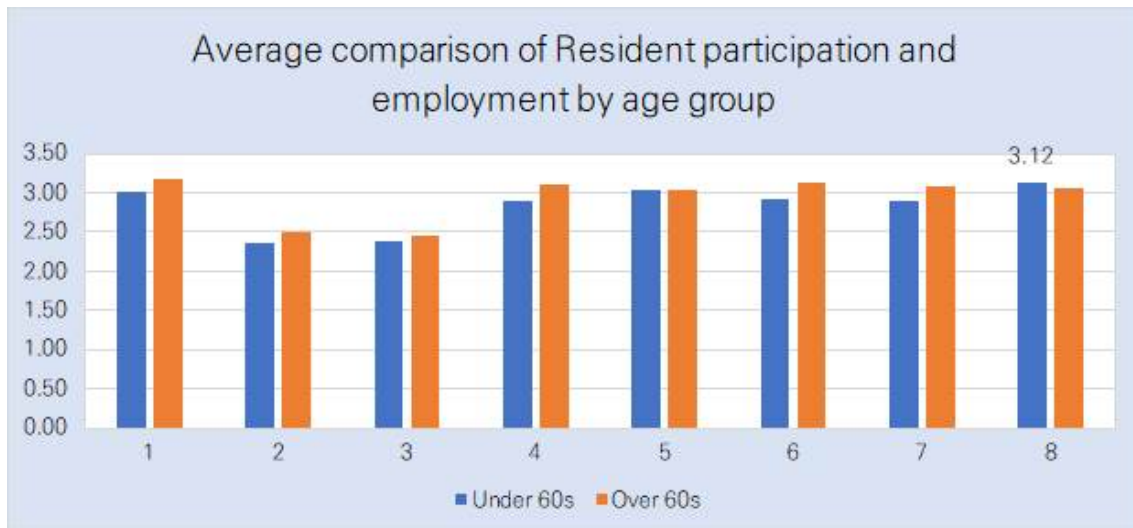
category	1	2	3	4	5	6	7	8
no response	3.0%	3.0%	3.4%	3.6%	3.4%	3.2%	4.2%	3.4%
very positive	3.6%	10.0%	10.0%	6.0%	6.6%	6.6%	5.0%	3.4%
positive	19.0%	47.1%	48.5%	21.8%	21.6%	23.4%	24.0%	21.6%
neutral	37.1%	27.5%	25.9%	33.5%	30.9%	26.5%	32.3%	34.5%
negative	33.7%	8.8%	8.8%	26.9%	23.6%	21.8%	23.2%	26.1%
very negative	3.6%	3.6%	3.4%	8.2%	13.8%	18.4%	11.2%	11.0%

o As a result of the responses regarding resident participation and employment, except for item 8, most people over 60 expressed negative thoughts.

[Table 2-19] Results of Resident participation and employment

category	n	mean	STD	
There are many volunteer activities in which seniors can participate.	Under 60s	196	3.02	0.822
	Over 60s	288	3.18	0.859
There are enough volunteers to help the elderly.	Under 60s	196	2.36	0.856
	Over 60s	288	2.49	0.831
Volunteer activities in which older people can participate are encouraged.	Under 60s	194	2.38	0.868
	Over 60s	288	2.44	0.820
Volunteer organizations link volunteer activities by considering the characteristics of the elderly.	Under 60s	196	2.89	0.960
	Over 60s	285	3.10	0.879
Gimje City has many jobs suitable for the elderly.	Under 60s	196	3.03	0.979
	Over 60s	286	3.03	0.917

We do not discriminate against the elderly in terms of employment maintenance and training.	Under 60s	196	2.91	0.991
	Over 60s	287	3.12	0.940
After retirement, you can receive counseling and education from experts for re-employment and starting a business.	Under 60s	194	2.89	0.909
	Over 60s	284	3.08	0.898
There are many service organizations where you can obtain job and startup information.	Under 60s	196	3.12	0.836
	Over 60s	286	3.07	0.880



[Fig 2-6] Comparison of averages by age group for resident participation and employment

7) Respect for the elderly and social integration

o The detailed items on respect for the elderly and social integration in Gimje City consist of 8 questions in a total of 4 areas, and the composition is as follows.

[Table 2-20] Questionnaire about Respect for the elderly and social integration

Respect for the elderly	1. People who provide services to the elderly (civil servants, social workers, etc.) are polite.
	2. People in my neighborhood respect the elderly and treat them politely.
elderly presence	3. There are many opportunities for older people to pass on their knowledge and experience to the younger generation.
	4. We continuously seek opinions to provide policies for the elderly.
Providing education to the elderly	5. Local areas provide education for the elderly and invite them to participate in various events.
	6. Opportunities to pass on knowledge and experience to older people are provided.
community help	7. Appropriate support is provided to elderly people who have difficulty living.
	8. Volunteering and service provision for the elderly are gradually increasing.

o As a result of the response to respect for the elderly and social integration, there is a need for improvement in the polite attitude of elderly service providers (public officials, social workers), provision of opportunities to pass on knowledge and experience of the elderly, and appropriate support for the elderly in poverty.

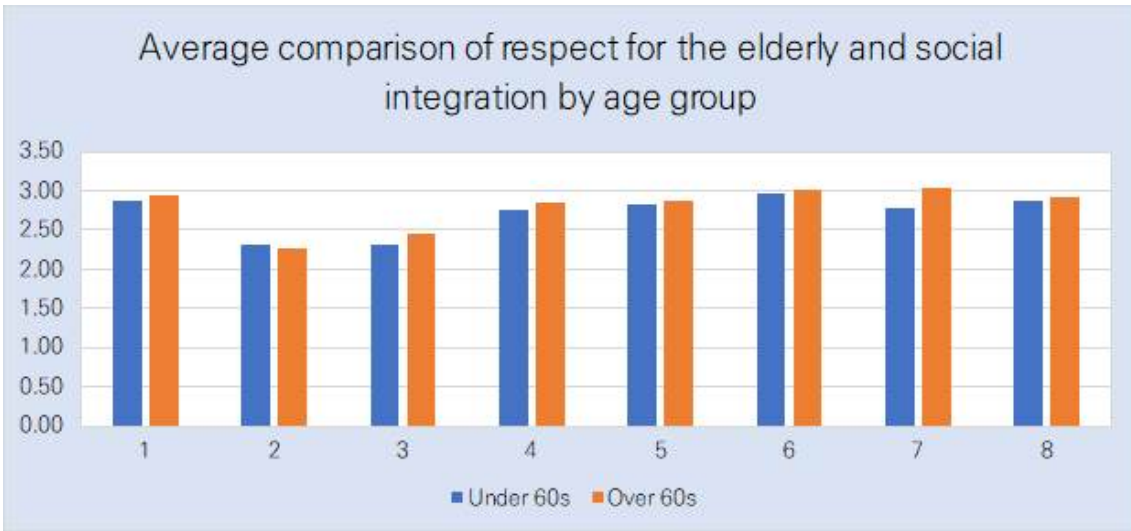
[Table 2-21] Frequency analysis results for each item

category	1	2	3	4	5	6	7	8
no response	3.0%	3.4%	3.2%	3.6%	3.8%	3.4%	4.0%	3.4%
very positive	10.2%	16.6%	14.8%	8.2%	6.6%	6.0%	6.8%	6.2%
positive	18.6%	48.9%	45.1%	29.3%	27.9%	21.6%	25.5%	25.9%
neutral	37.7%	17.8%	21.0%	31.3%	34.7%	36.1%	31.3%	36.1%
negative	26.9%	10.0%	12.8%	23.2%	20.8%	22.4%	21.6%	19.6%
very negative	3.6%	3.2%	3.0%	4.4%	6.2%	10.4%	10.8%	8.8%

- o As a result of the responses regarding respect for the elderly and society, people over 60 expressed negative thoughts about all items.

[Table 2-22] Results of Respect for the elderly and social integration

category	n	mean	STD	
People who provide services to the elderly (civil servants, social workers, etc.) are polite.	Under 60s	196	2.88	0.914
	Over 60s	288	2.93	0.991
People in my neighborhood respect the elderly and treat them politely.	Under 60s	195	2.31	0.878
	Over 60s	287	2.27	0.929
There are many opportunities for older people to pass on their knowledge and experience to the younger generation.	Under 60s	196	2.31	0.905
	Over 60s	287	2.45	0.952
We continuously seek opinions to provide policies for the elderly.	Under 60s	196	2.75	0.979
	Over 60s	285	2.86	0.925
Local areas provide education for the elderly and invite them to participate in various events.	Under 60s	194	2.82	0.928
	Over 60s	286	2.87	0.897
Opportunities to pass on knowledge and experience to older people are provided.	Under 60s	195	2.97	0.930
	Over 60s	287	3.01	0.885
Appropriate support is provided to elderly people who have difficulty living.	Under 60s	193	2.78	0.976
	Over 60s	286	3.03	0.904
Volunteering and service provision for the elderly are gradually increasing.	Under 60s	195	2.87	0.890
	Over 60s	287	2.92	0.908



[Fig 2-7] Comparison of averages by age group for respect for the elderly and social integration

8) Communication and information

- o The detailed items on communication and information in Gimje City consist of 8 questions in a total of 4 areas, and the composition is as follows.

[Table 2-23] Questionnaire about Communication and information

Providing visual information	1. Various information needed for everyday life is posted in a place where it can be easily and conveniently accessed.
	2. Notices in public facilities use large letters and eye-catching colors.
Provision of auditory information	3. Public facility information and consultations take the elderly into consideration and provide information in a loud and clear voice.
	4. Local information magazines and local broadcasts provide information easily using standard language familiar to the elderly.
Senior-friendly informatization	5. In our city, seniors can easily receive information technology (computer, smartphone) education.
	6. I use my smartphone well.
Providing senior-friendly information	7. Retirement living information for the elderly is provided through various media.
	8. Local information magazines and local broadcasts reflect the interests of seniors well.

- o As a result of responses to communication and information, improvements are needed in the use of standard language familiar to the elderly in local information magazines and local broadcasting, the provision of easy information, and the use of smartphones.

[Table 2-24] Frequency analysis results for each item

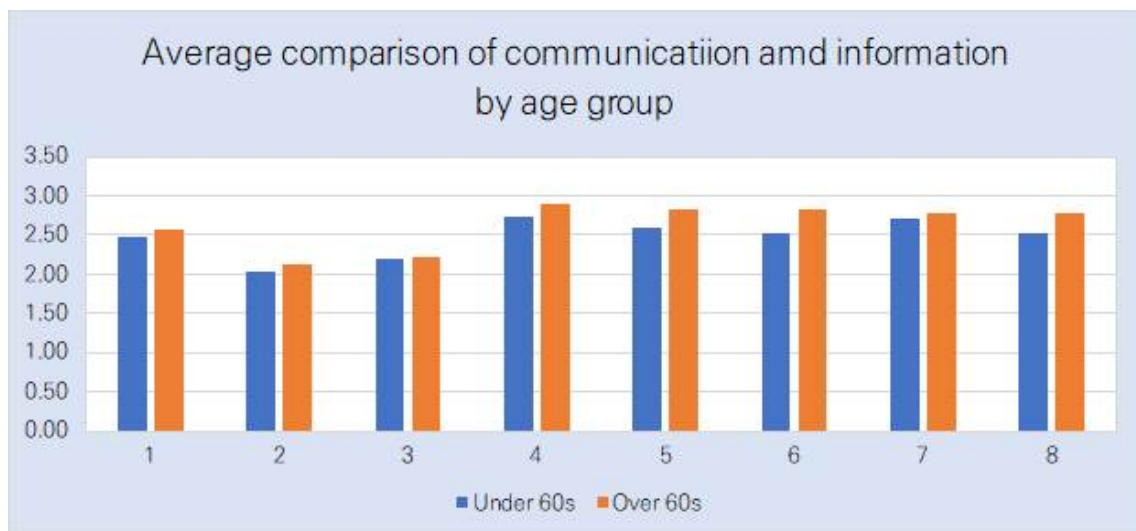
category	1	2	3	4	5	6	7	8
no response	2.6%	2.6%	3.0%	3.6%	2.8%	3.0%	3.0%	3.6%
very positive	10.4%	22.0%	20.8%	11.8%	9.4%	9.6%	8.8%	10.6%
positive	37.5%	51.1%	46.7%	24.2%	28.5%	33.1%	31.7%	30.1%
neutral	37.3%	18.0%	17.0%	28.5%	38.3%	30.5%	31.9%	36.3%
negative	11.6%	5.6%	10.6%	29.3%	19.0%	17.8%	17.8%	16.4%
very negative	0.6%	0.6%	1.8%	2.6%	2.0%	6.0%	6.8%	3.0%

o As a result of responses to communication and information, people over 60 expressed negative thoughts about all items.

[Table 2-25] Results of communication and information

category	n	mean	STD	
Various information needed for everyday life is posted in a place where it can be easily and conveniently accessed.	Under 60s	197	2.47	0.773
	Over 60s	289	2.57	0.892
Notices in public facilities use large letters and eye-catching colors.	Under 60s	197	2.04	0.788
	Over 60s	289	2.12	0.829
Public facility information and consultations take the elderly into consideration and provide information in a loud and clear voice.	Under 60s	197	2.20	0.880
	Over 60s	287	2.23	0.958
Local information magazines and local broadcasts provide information easily using standard language familiar to the elderly.	Under 60s	195	2.73	1.027
	Over 60s	286	2.91	1.016
In our city, seniors can easily receive information technology (computer, smartphone) education.	Under 60s	197	2.60	0.993
	Over 60s	288	2.82	0.836
I use my smartphone well.	Under 60s	196	2.53	1.005
	Over 60s	288	2.83	0.889
Retirement living information for the elderly is provided through various media.	Under 60s	195	2.70	0.966

category		n	mean	STD
Local information magazines and local broadcasts reflect the interests of seniors well.	Over 60s	289	2.78	0.920
	Under 60s	196	2.53	0.885
	Over 60s	285	2.77	0.932



[Fig 2-8] Comparison of averages by age group for communication and information

3 IPA analysis

3.1 IPA Overview

- o In the process of diagnosing the employment friendliness of Gimje City, Gimje citizens responded to questions about which areas of the eight WHO areas they consider important and which areas should be promoted first. As a result, there were many improvements in the areas of external space and buildings, as well as communication and information appears to be necessary.
- o In this study, IPA was conducted by applying priority, a concept similar to satisfaction, and the analysis method is as follows.
 - IPA determines which variables among the attributes to be surveyed are meaningful, sets the location on the matrix using the importance and priority of each attribute, and compares and analyzes them.
 - In general, IPA examines each factor on a Likert 5-point scale, and then sets the importance and priority coordinates of each factor with the Y-axis of the matrix as the priority and the X-axis as the importance (or satisfaction).
 - IPA consists of four quadrants, each quadrant has different characteristics, and it is necessary to establish a response strategy accordingly.
 - . The first quadrant is the top-priority improvement area. Its priority is high but its importance is evaluated low, so it is the area that needs the fastest improvement, and since it is not satisfied with the current service, it is necessary to invest

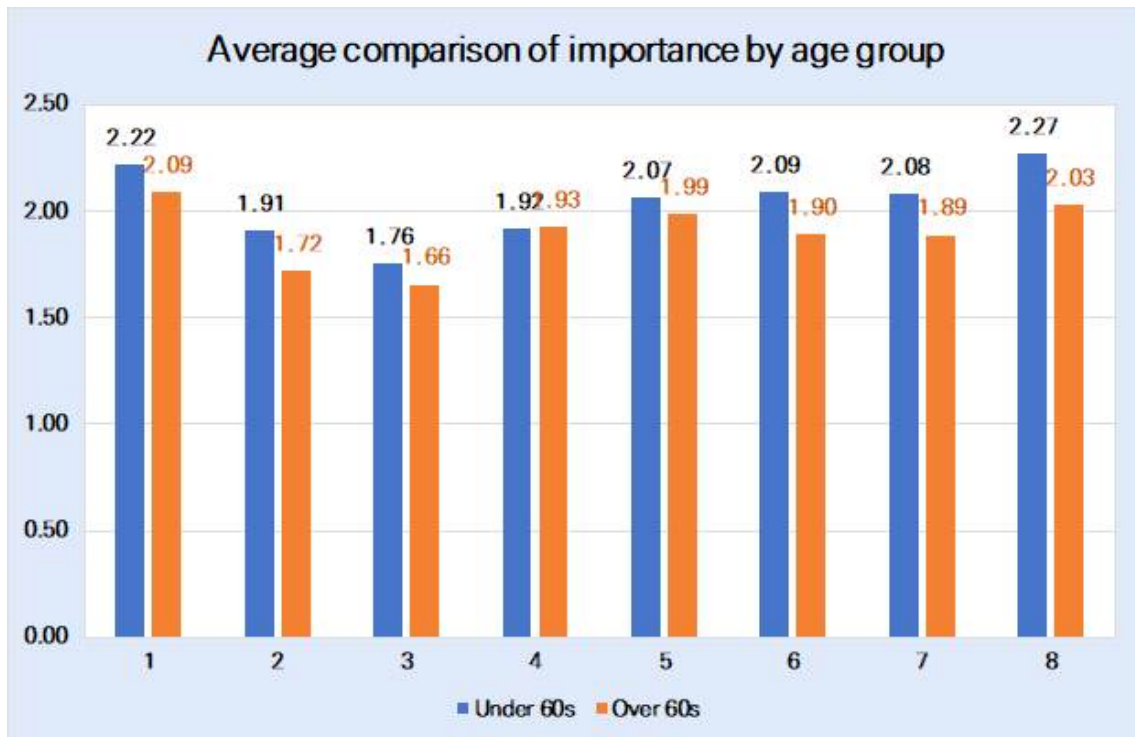
- most intensively and its capabilities need to be exerted actively.
- . The second quadrant is a gradual improvement area, and both importance and priority are evaluated low, so there is no need for investment or interest beyond the current situation and has a low priority.
- The third quadrant is the status quo area. Its priority is low but importance is high. If the over-invested resources in this area are invested in a gradual improvement area or the top priority improvement area, better results can be obtained and efforts are needed to maintain the status quo.
- . The fourth quadrant is a relatively strong area, and the attributes corresponding to this area have high importance and high priority, so management is needed to maintain the current state continuously.)
- o If the response results for the importance and priority of the WHO's eight major areas are reflected on a 5-point Likert scale and plotted in a scatterplot format, each area is displayed in four quadrants, which can be used to derive the main points of policy.

3.2 Results of IPA analysis

- o As a result of the importance response for the eight major areas, people over 60 gave more negative responses than people under 60 in all areas, so much effort is needed from Gimje City to create an elderly-friendly city.
- According to the 5-level Likert scale presented in the questionnaire, a higher average value means more negative opinions.

[Table 3-1] Importance of 8 Major Areas

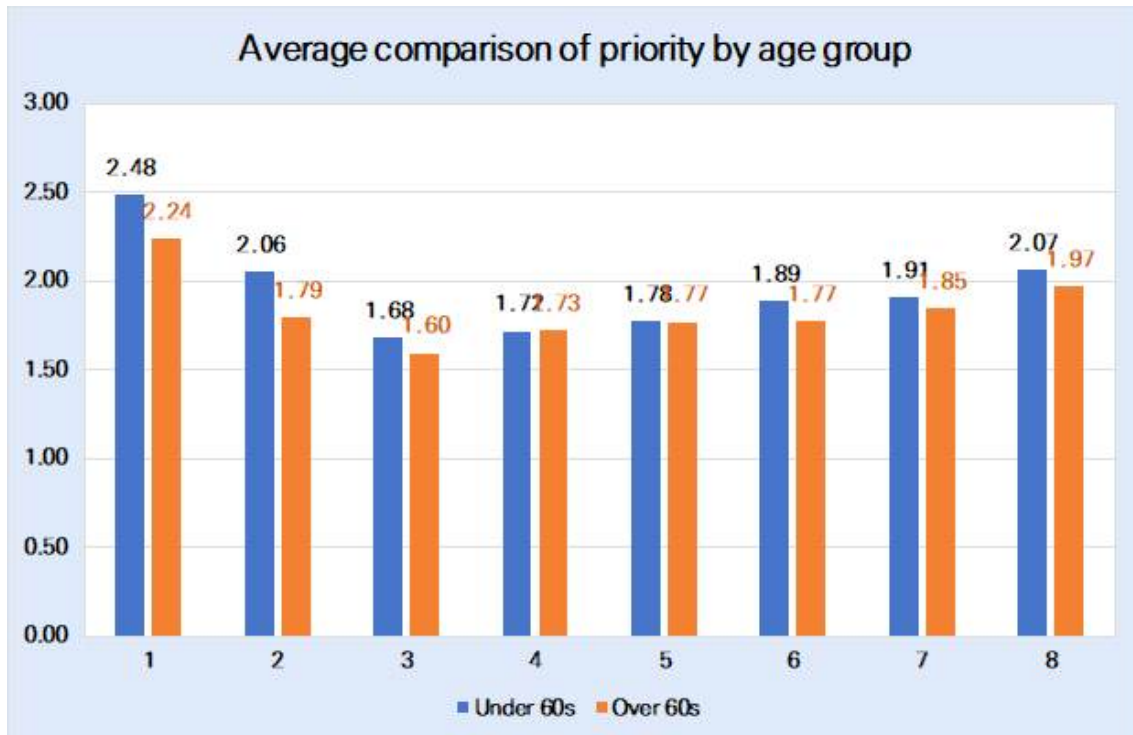
category	Outdoor spaces and buildings	Traffic environment	Housing environment	Community support and health	Social participation of seniors	Resident participation and employment	Respect for the elderly and social integration	Communication and information
no response	2.6%	2.8%	2.8%	3.4%	2.8%	2.8%	3.2%	2.6%
very positive	16.8%	35.7%	41.7%	29.7%	27.7%	29.9%	28.5%	17.2%
positive	51.9%	46.1%	43.7%	45.1%	41.7%	41.7%	43.7%	52.3%
neutral	26.5%	14.8%	11.4%	21.2%	26.3%	24.0%	24.0%	26.1%
negative	2.2%	0.6%	0.4%	0.6%	1.6%	1.6%	0.6%	1.8%
very negative	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%



[Fig 3-1] Average comparison of importance by age group

[Table 3-2] priority of 8 Major Areas

category	Outdoor spaces and buildings	Traffic environment	Housing environment	Community support and health	Social participation of seniors	Resident participation and employment	Respect for the elderly and social integration	Communication and information
no response	3.0%	3.0%	2.8%	2.8%	3.4%	3.2%	2.6%	2.6%
very positive	16.6%	35.5%	49.9%	44.9%	41.7%	36.5%	34.5%	24.8%
positive	42.7%	39.7%	34.7%	36.7%	37.3%	41.7%	42.1%	49.3%
neutral	25.5%	18.0%	11.2%	13.2%	15.4%	17.6%	19.4%	20.8%
negative	12.0%	3.8%	1.4%	2.4%	2.2%	0.8%	1.4%	2.4%
very negative	0.2%	0.0%	0.0%	0.0%	0.0%	0.2%	0.0%	0.0%

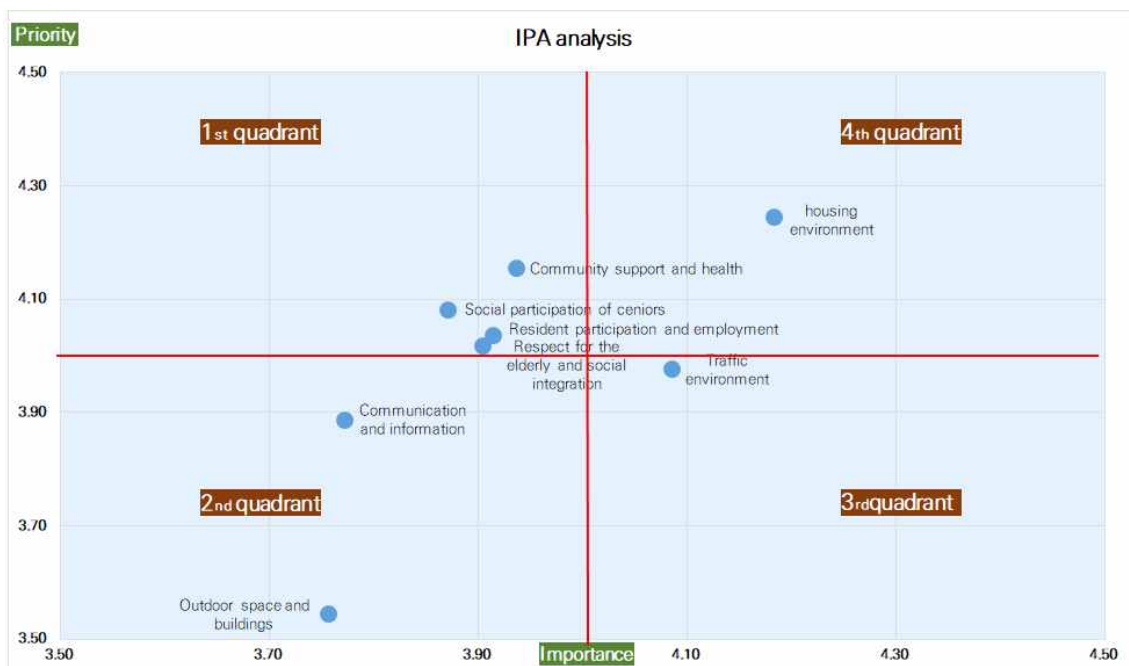


[Fig 3-2] Average comparison of priority by age group

o By combining the above IPA analysis results, we can know the distribution of each area of Gimje City in the 8 WHO areas.

[Table 3-3] Elderly friendliness of Gimje City based on WHO 8 areas

category	areas	remarks
1 st quadrant	<ul style="list-style-type: none"> • Community support and health • Social participation of seniors • Resident participation and employment • Respect for the elderly and social integration 	
2 nd quadrant	<ul style="list-style-type: none"> • Communication and information • Outdoor space and buildings 	
3 rd quadrant	<ul style="list-style-type: none"> • Traffic environment 	
4 th quadrant	<ul style="list-style-type: none"> • Housing environment 	



[Fig 3-3] Gimje city elderly friends' association distribution