



KDI SCHOOL

WORKING PAPER SERIES

KDI 국제정책대학원

KDI School of Public Policy and Management

A typology and Life Satisfaction of Older Koreans: A longitudinal Comparison

Kwon Jung

KDI School of Public Policy and Management

May, 2019

Working Paper 19-12

KDI 국제정책대학원
KDI School of Public Policy and Management

This paper can be downloaded without charge at:

KDI School of Public Policy and Management Working Paper Series Index:

<http://www.kdischool.ac.kr/new/eng/faculty/working.jsp>

The Social Science Network Electronic Paper Collection:

https://papers.ssrn.com/sol3/papers.cfm?abstract_id=3391035

A Typology and Life Satisfaction of Older Koreans: A Longitudinal Comparison

April 2019

A Typology and Life Satisfaction of Older Koreans: A Longitudinal Comparison

Abstract

Aging is a global phenomenon for many countries and Korea is not an exception. After becoming an aging society in 2000, Korea turned an aged country in 2017 by having 14.3% of its population with older than 65 years old. It is expected to become a super-aged society by 2025 (Statistics Korea 2018). No other country in the world has aged this fast. Unlike other developed countries that had a lot more time to deal with the aged population, Korean has to deal with the aging population without much preparation time. In this fast transition, knowing who they are and how they transform as aging progresses is important for both policymakers and businessmen. The objective of this study is to identify different segments of older Koreans based on their value system and to make a longitudinal comparison by using survey data collected in 2009 and 2017.

Keywords: Older Koreans, Segmentation, Aspiration, Life Satisfaction

JEL Code: M39

INTRODUCTION

Aging is a global phenomenon for many countries and Korea is not an exception. After becoming an aging society in 2000, Korea turned an aged country in 2017 by having 14.3% of its population with older than 65 years old. It is expected to become a super-aged society by 2025 (Statistics Korea 2018). No other country in the world has aged this fast. It took France 115 years and the U.S. 71 years to reach from an “aging society” to “aged society” (Lee 2001). Unlike other developed countries that had a lot more time to deal with the aged population, Korean has to deal with the aging population without much preparation time. In this fast transition, knowing who they are and how they transform as aging progresses is important for both policymakers and businessmen. The objective of this study is to identify different segments of older Koreans based on their value system and to make a longitudinal comparison by using survey data collected in 2009 and 2017.

The fast transition of age structure in Korea brings out both problems and opportunities. Problems include the distortion of the labor force in the market, social welfare burden, changes in consumption patterns and cultural activities of its members. While the aging phenomenon creates an increased need for social welfare, it also opens new market opportunities due to the rising demand for the silver industry that is targeted to old people.

Despite its importance, the work to examine diversity in this substantial number of people has yet to be conducted sufficiently in Korea. At best, the aged population is treated as one segment that is contrasted against younger groups of the population. The older population may be even more heterogeneous than the younger population considering that they are comprised of many different cohorts. The entrance of the baby boomers in the aged population and the fastest transition to aging aggravate volatility among them. Although demographic variables including age have been widely used in segmenting the market (Bone

1991), there is a greater need to examine the diversity among them other than simple demographic variables because older people usually experience various social, psychological, and physical changes as they get older. In addition, the fastest transition of aging in Korea brings another question of whether the diversity among the older people remains stable during the transition.

Therefore, the objective of this study is twofold. First, it aims to identify and validate a representative typology of older Koreans based on their lifestyle and value system. In doing so, meaningful dimensions of older Koreans' lifestyle and value system are identified and the distinctiveness of the resulting segments is further substantiated by examining them in terms of demographics, aspirations, and life satisfaction variables. Second, a longitudinal comparison is made to examine any meaningful changes occurred during the aging transition by comparing data collected in both 2009 and 2017.

SURVEY METHOD AND CONSTRUCT MEASURED

Samples

A survey was conducted in December 2009 and 2017 across four major cities in Korea, using a quota sampling approach for senior Koreans who are older than 60 years old. Quotas were set first for gender and age categories (60~64, 65~69, 70~74, 75~79, and 80+) based on population statistics. Then, they were adjusted to ensure minimum respondents of 15 for each subcategory. A total of 750 valid responses were collected by a professional marketing research company.

Construct Measured

The values and lifestyle questions consists of a total of 31 items on the following eight concepts: (1) financial concern (four items), (2) materialistic inclination (four items), (3)

concern for appearance (three items), (4) health consciousness (four items), (5) staying active (four items), (6) optimistic/ nostalgic tendency (four items), (7) independence (four items), and (8) innovativeness (four items). These concepts are chosen to reflect three “grey discontinuities” that occur to older consumers: economic, physical, and mental discontinuities (Tempest, Barnett, and Coupland 2002). Financial concern and materialistic inclination are chosen to tap the economic discontinuity. Concern for appearance, health consciousness, and staying active are chosen to reflect the physical discontinuity. The remaining concepts are chosen to cover the discontinuity in the mental aspect. Items for each concept were selected based on a review of the past literature on senior consumers (Morgan and Levy 1993; Moschis 1992, 1994, 1996; Moschis and Friend 2008), lifestyle and values studies (Kau *et al.* 2004) as well as relevant studies that developed a scale for each concept (Mittal 1994; Richins 1994; Holbrook 1993; Goldsmith and Hofacker 1991). Additions and modifications were made according to current Korean social and economic situations. Aspirations and life satisfaction are measured in terms of the following four aspects: (1) relative importance of personal values in life, (2) most wanted things in life, (3) overall satisfaction with twelve aspects of personal life in general, and (4) overall satisfaction with sixteen aspects of life in their local community. Nine terminal values developed by Kahle and Kennedy (1988) were used to measure personal values. The items for the most wanted thing in life, life satisfaction were developed based on items used in Kau *et al.*'s (2004) study. Every value, lifestyle, aspiration, and life satisfaction item was measured on a six-point Likert scale.

RESULTS

Identification of Lifestyle-based Value Dimensions

Factor Analysis. Using 31 items that measured various dimensions of values and lifestyles, exploratory factor analysis was performed to identify underlying value dimensions

of older Koreans. The Bartlett test of sphericity ($\chi^2=5636.43, p<.00$) and the Kaiser-Meyer-Olkin (KMO) measure of sampling adequacy (.86) provided sufficient justification for using factor analysis on the data set.¹ The final number of factors was determined after considering the latent root criterion, the scree plot test, and the interpretability of factor solutions. The latent root criterion and scree plot identified the 6-factor solution as a possible candidate for the final factor solution. Then, the interpretability of five, six and seven-factor solutions were compared by examining items that were highly loaded to each factor. The results show that the six-factor solution provides the best consistent interpretability among the three solutions; thus, it is selected as the final factor solution. In the process, five items were excluded from the analysis due to their low communalities and/or simultaneous high loadings to several factors. Thus, 26 items were used to obtain the final six-factor solution using the principal component analysis with the varimax rotation. The six factors explained 54.6% of the variance. The rotated factor matrix was examined to interpret and name the factors. Since the sample size is large enough (i.e., greater than 350), factor loadings greater than .30 were identified as significant (Hair *et al.* 2014). The items loaded on each factor and their loadings are summarized in Table 1. Based on the examination of the factor loadings of each variable, the six factors are named as follows:

Insert Table 1 here

- * **Factor 1: Desire for Socially Active & Healthy:** This factor has six loaded items and explains 11.3% of the variance. It is named as “Desire for Socially Active & Healthy” because most of the highly loaded items are related to active involvement in various social activities such as lectures, classes, trips, and community volunteering. Items related

¹ Kaiser (1974) suggested the following guideline for interpreting KMO: 0.90 or above is marvelous, 0.80 is meritorious, 0.70 is middling, 0.60 is mediocre, 0.50 is miserable, and below 0.50 is unacceptable. The result of 2009 survey was .92.

to maintaining good health condition are loaded together because good health is a necessary condition for active involvement in social activities.

* **Factor 2: Desire for Look & Status:** This factor has five loaded items and explains 10.8% of the variance. It is labeled as “Desire for Look & Status,” as most of the highly loaded items are related to the maintenance of young and stylish appearance as well as the desire to own things to impress other people.

* **Factor 3: Innovative Tendency:** This factor has four loaded items and explains 9.8% of the variance. It is called as “Innovative Tendency,” as most of the loaded items are related to innovative characteristics such as willingness to take risks and preference for stimulation, changes and new things. It also captures an independent tendency, which is a relevant characteristic of innovativeness.

* **Factor 4: Nostalgic Conservatism:** This factor has four loaded items and explains 7.9% of the variance. It is named as “Nostalgic Conservatism,” as half of the loaded items represent people’s longing for the past and skeptical perception about the future whereas the other half items are related to careful conservatism in their financial management.

* **Factor 5: Financially Concerned:** This factor has three loaded items and explains 7.5% of the variance. It is labeled as “Financially Concerned,” because the loaded items represent people’s tight financial situation and cautious spending behaviors. Memory deterioration is related to this factor as well.

* **Factor 6: Achievement-based Optimism:** This factor has four loaded items and explains 7.4% of the variance. It is called as “Achievement-based Optimism,” because it captures optimistic views on people’s current and future lives together with their achievement and success.

Longitudinal Comparison of Factor Structure (2017 vs. 2009). A longitudinal comparison of lifestyle-based value structure between 2009 and 2017 reveals both similarities

and differences (Table 2 reports the result of 2009 factor analysis). Overall, both factor structures identify value dimensions reflecting three grey discontinuities. Commonly identified dimensions are the financial concern dimension reflecting economic discontinuity, the desire for social involvement dimension reflecting social discontinuity, and the innovativeness, the optimism and the nostalgic tendency dimensions reflecting mental discontinuity.

Insert Table 2 here

The health consciousness dimension and the desire for independence dimension were identified as distinct value dimensions in 2009 result. However, they are not captured as distinct value dimensions in 2017 result. Items that used to be loaded to the health consciousness factor in 2009 result are redistributed to the desire for socially active & health and the desire for look & status factor in 2017 result. Items loaded to the independence dimension are redistributed to the desire for socially active & healthy and the innovativeness tendency factor in 2017 result. The disappearance of the health consciousness and the independence factor does not implicate that they become unimportant in 2017. Rather, it can be interpreted that they become more basic and fundamental value dimensions so that they become default dimensions for other value dimensions, especially for the social involvement and the look & status desire dimensions.

In addition, we find a new emerging value dimension of the desire for look & status and the optimistic & innovative value dimension has been separated to make them as independent value dimensions in 2017. All these changes imply that physical and mental value dimensions of older Koreans have shifted toward a more active and mentally younger direction.

Identification of Lifestyle and Value-based Clusters

Cluster Analysis. Meaning clusters of older Koreans are identified by conducting a cluster analysis with the factor scores of the identified six factors. To decide the appropriate number of final clusters, this study adopted the procedure recommended by Punj and Stewart (1983) and McIntyre and Blashfield (1980). It involves a validation process by dividing the sample into halves. The first half is used as a test sample, and the second half is used as an internal validation sample. The test sample is utilized to generate the possible alternative cluster solutions, and the internal validation sample is then used to select the best solution based on stability and reproducibility of cluster membership of the test sample.

Since cluster solutions are sensitive to outliers, outlying observations are examined before conducting cluster analysis. Observations beyond plus and minus 4-factor scores, which is equivalent to beyond plus and minus 4 standard deviations, are identified. A total of nine observations are identified and they are excluded in the cluster analysis. Accordingly, the 741 cases were randomly divided into two data sets, D1 and D2, each containing 371 and 370 cases respectively. D1 was used as a test sample and D2 as a validation sample. To obtain an initial idea of alternative numbers of clusters to be considered, hierarchical cluster analysis using Ward's method and Euclidean distances was first conducted on the whole samples. The changes in agglomeration coefficients, which represent increases in the within-cluster variance for each step of combining clusters, were examined to identify initial alternative cluster solutions. A big change in the agglomeration coefficient is an indication of combining two heterogeneous clusters. The big jump in the agglomeration coefficient was observed around the seven-cluster solution. Therefore, four to eight clusters were considered as alternative cluster solutions. Then, the test sample (D1) was cluster analyzed using hierarchical clustering method for the alternative number of clusters (i.e., $n=4, 5, 6, 7$ and 8) and the cluster centers for each cluster were calculated. The cross-validation procedure

utilizing constrained and unconstrained solutions for each alternative number of clusters was performed on the validation sample (D2). For the each given number of clusters, the constrained solution classified cases in D2 using K-means method with the cluster centers of the test sample, whereas the unconstrained solution generated clusters using hierarchical clustering method without any restrictions. The cluster solution that had the closest agreement between the constrained and the unconstrained solutions of D2 was selected as the final solution. The chance-corrected coefficient of agreement, kappa, was computed on two solutions of D2 for each of the five alternatives. The kappa value for 4, 5, 6, 7 and 8 cluster solutions were 0.505, 0.468, 0.519, 0.619, and 0.618, respectively. As the decision criterion is to maximize kappa, the seven-cluster solution was selected as the optimal solution. Then, the final seven-cluster solution was generated using the polled data. The cluster centers on each of six factors are presented in Table 3.

Insert Tables 3 here

Characterization and Description of the Clusters. Based on the cluster centers of the six-factor scores (presented in Table 3), the clusters are labeled as: (1) Successful Socials, (2) Unstable Socials, (3) Practical Social, (4) Contented Solitaries, (5) Financially-concerned Solitaries, (6) Carefree Oldies, and (7) Nostalgists. They are described in the following paragraphs with their distinct demographic characteristics. The detailed demographic make-up of the clusters is shown in Table 5.

Insert Table 5 here

- **Successful Socials:** This cluster comprises 21.3% of the respondents and characterizes those who are high on the desire for socially active and healthy (highest) and high on the achievement-based optimism (second highest). These tendencies led

us to name this group as the successful social group. This group also shows a strong desire for good look and status (highest) and innovative tendency (second highest). At the same time, it possesses a little bit of financial cautiousness and nostalgic tendency.

Demographically, this group is more represented by younger age group of the 60s (50%), has slightly more females (57.6%) than males, and has a balanced educational background with slightly more people with high school level education (33.5%). It reveals no unique characteristic in monthly income aspect.

- **Carpe Diem Socials:** This cluster represents 13.6% of the respondents and characterizes those who have the least nostalgic tendency (lowest) and are not much optimistic about the future (about average). They also show a relatively high level of desire for socially active & healthy (second highest) and for the desire to look & status. Therefore, this cluster is named as the carpe diem social group.

Demographically, this group has a slightly more male (55.4%). It comes from all age groups with slightly more from the early 70s (26.7%) and has a balanced educational background with slightly more people with middle school level education (26.7%). Financially, their monthly income distribution follows the average distribution with slightly more of them are in the income bracket of KRW 1m-1.99m (42.6%) and KRW 2m-2.99m (24.8%).

- **Practical Socials:** This cluster accounts for 13.4% of the respondents. It represents those who have some level of desire for social involvement & health (third highest) but the least desire for look & status (lowest). They show the highest level of innovative tendency as well. These characteristics led us to name this group as practical socials. In addition, they are not much optimistic about the future (second

lowest), have an average level of nostalgic conservative tendency, and somewhat financially concerned.

Demographically, this group has a slightly more male (57.6%). It comes from all age groups with slightly more from the early 70s (26.3%). This group follows the average distribution of educational background with slightly more people with middle school level education (26.3%). Financially, their monthly income distribution follows the average distribution with slightly more of them are in the income bracket of KRW 0~1m (29.3%) and KRW 1m~1.99m (39.4%). Relatively more of them are retired (63.6%).

- **Contented Solitaries:** 10.8% of the sample belongs to this cluster. It represents those who have the highest level of achievement-based optimism (highest) yet have a lower level of desire for social involvement (second lowest) and look & status (second lowest). These tendencies led us to name this group as the contented solitary group. This group also has a somewhat high level of nostalgic tendency (second highest) and is not much financially concerned (second lowest). They are low on innovative tendency (second lowest) as well.

Demographically, this group has slightly more female (55.0%). This group is a little bit older group with slightly more from the late 70s (28.8%) and the 80s (22.5%). Relatively more of them are living with a spouse (86.3%) and not retired (47.5%). Educational background-wise, they are with slightly more people with elementary school level education (31.3%) and college + education (11.3%). Financially, their monthly income distribution follows the average distribution with slightly more of them are in the income bracket of KRW 1m~1.99m (45.0%).

- **Financially-concerned Solitaries:** This cluster comprises of 10.0% of the respondents. It represents those who are very much financially concerned (highest). At the same time, they have the least desire for social involvement & health (lowest).

These characteristics led us to name this group as financially-concerned solitaires.

Additionally, they reveal less nostalgic tendency (second lowest) and less desire for look & status.

Demographically, this group is the oldest group with 39.2% of them are older than 80 and a poorly educated group with 63.5% of them have elementary school or lower education. It is also a financially poorer group with more people in the income bracket of KRW 0~1 million (33.8%) and KRW 1 million ~ 1.99 million (45.9%). It is composed of relatively more singles with deceased spouse (33.8%) and retired people (66.2%).

- **Carefree Oldies:** This cluster represents 21.1% of the respondents. It characterizes those who are least financially concerned (lowest). They have a slightly high level of innovative tendency and about the average level of desire for look & status and social involvement. Also, they are not much nostalgic conservative (third lowest) and not much optimistic about the future either (third lowest). These characteristics lead us to name this group as carefree oldies.

Demographically, this group is a relatively younger group with 48% of them are in their 60s. It is relatively well-educated group with relatively more people are high school (39.7%) and college+ level education (14.7%). It is also a relatively high-income group with more people from income bracket of KRW 3 million ~ 4.99 million and most of them are living with their spouse (89.1%).

- **Nostalgists:** This cluster accounts for 9.9% of the respondents. It has the strongest nostalgic conservative tendency (highest) and the least achievement-based optimism (lowest). It reveals the lowest level of innovative tendency (lowest) and somewhat concerned about financials (second highest). These characteristics led us to name this group as nostalgists. Additionally, they show about the average level of desire for social involvement & health and slightly less desire for look & status.

Demographically, this group has a slightly more female (55.0%), slightly older with more of them are in their late 70s (26.3%) and 80s (23.3%), and slightly more of them are retired (64.4%). It reveals no unique characteristic in other aspects.

Longitudinal Comparison of Clusters (2017 vs. 2009). A longitudinal comparison of lifestyle-based value clusters between 2009 and 2017 reveals both similarities and differences. The results of 2009 analysis are presented in Table 4 and 6. Overall, both cluster results of 2009 and 2017 identified three distinct groups of older Koreans: those who want to be socially active (i.e., socials), those who are reluctant to be socially active (i.e., solitaires), and those who do not care about their financials (i.e., carefrees).

Insert Tables 4 & 6 here

Although it identified the same basic typology of older Koreans, the grouping of 2017 result has become more sophisticated and diverse than that of 2009. The 2017 result identifies three different types of socials (i.e., successful socials, carpe diem socials, and practical socials) and two different types of solitaires (i.e., contented solitaires and financially-concerned solitaires). The carefree group has been further segregated into the carefree oldies and the nostalgists (please refer to the description on them in the previous section for their difference in value orientation).

Aspiration and Life Satisfaction among Clusters

To obtain a better understanding of the new clusters of older Koreans, we next examine their aspirations and life satisfaction. Table 7 reports the longitudinal comparisons between 2009 and 2017 results.

Insert Table 7 here

A longitudinal comparison was made first to examine any changes occurred during

the period. The level of importance of values and things to own has been declined during the period on most of the aspects, which can be interpreted that older Koreans become more realistic and practical. The level of life satisfaction between the two periods turned out to be similar. But, satisfaction in terms of material comfort and health has been improved during the period, which means that the perception of their financial and physical aspects has been improved over the years.

The comparison among the identified clusters shows significant differences in their aspiration (The comparison is focused on the 2017 result. For 2009 comparison, please refer to Jung and Jung (2010)). Table 8 summarizes the results. Similar to the result of 2009, security (4.87), fun & enjoyment in life (4.75), warm relationship with others (4.73) are identified as the three most important values in life whereas being well-respected (4.57), excitement (4.53), and sense of belonging (4.50) are identified as the three least important values. Among the clusters, the nostalgists score higher than other groups on most of the personal values except for excitement and sense of belonging. On the other hand, the Carpe Diem socials and the carefree oldies put lower importance on most of the values than other groups.

Insert Tables 8 here

The lower half of Table 8 shows each cluster's response on the importance of things to own. Overall, people regard health as the most important things to own (5.11) followed by happiness (5.00), personal safety (4.94), and security (4.88) and the order was similar to that of 2009 result. Comparison among the clusters reveals that the nostalgists score higher than other groups on most of the items except for power and luck as they did in the personal value result. On the other hand, the carefree oldies and the financially-concerned solitaires tend to put lower importance on some of the things than other groups.

Table 9 shows the responses of the seven clusters to questions on life satisfaction in general. For all eleven aspects of life in general, the financially-concerned solitaires report the lowest scores among all clusters, making this group the least satisfied with life in general. They also show the lowest overall score for life satisfaction. On the other hand, the successful socials seem to be most satisfied with life in general, reporting the highest scores for most of eleven aspects of life. Their overall life satisfaction score is highest for all clusters.

Insert Table 9 here

Overall, our analysis of the seven clusters in terms of their aspirations and life satisfaction shows significant differences among them. These differences are consistent with the traits and attitudes of the identified clusters and provide supporting evidence to the labels given to them.

CONCLUSIONS & DISCUSSIONS

The structure of clusters and value orientations of older Koreans from 2009 and 2017 survey data turn out to be similar, but the longitudinal comparison reveals some changes occurred during the aging transition. The longitudinal comparison of lifestyle-based value structure reveals that both 2009 and 2017 analysis identify value dimensions reflecting three grey discontinuities. Commonly identified dimensions are the financially-concern dimension reflecting economic discontinuity, the desire for social involvement dimension reflecting social discontinuity, and the innovativeness, the optimism and the nostalgic tendency dimensions reflecting mental discontinuity. However, the health consciousness dimension and the desire for independence dimension that were identified as distinct value dimensions in 2009 are not captured as distinct value dimensions in the 2017 result. The disappearance of the health consciousness and the independence factor does not implicate that they become

unimportant in 2017. Rather, it can be interpreted that they become more basic and fundamental value dimensions so that they become default dimensions for other value dimensions, especially for the social involvement and the look & status desire dimensions. The new emerging value dimensions of the desire for look & status and the optimistic & innovative value dimension imply that physical and mental value dimensions of older Koreans have shifted toward a more active and mentally younger direction.

The longitudinal comparison of the identified clusters reveals that both 2009 and 2017 analysis identified three distinct groups of older Koreans: those who want to be socially active (i.e., socials), those who are reluctant to be socially active (i.e., solitaires), and those who do not care about their financials (i.e., carefree). Although it identified the same basic typology of older Koreans, the 2017 result identifies three different types of socials (i.e., successful socials, carpe diem socials, and practical socials) and two different types of solitaires (i.e., contented solitaires and financially-concerned solitaires). The carefree group has been further segregated into the carefree oldies and the nostalgists. These changes indicate that the fast transition creates changes on the dynamics among older Koreans and that the older Koreans in 2017 have become more sophisticated and diverse than those of 2009.

The typology and the lifestyle and value dimension identified in this study help us to understand old Koreans better and, to a certain extent, old Asian consumers as well. The findings of this study are hoped to provide good insights for policymakers in developing aging-related policies as well as for marketers who are interested or currently doing business, in Korea or Asian consumer markets.

Although it is a good starting effort, further research efforts should be directed towards the following aspects to increase our understanding of the older population. First, the other behavioral aspects of the clusters should be explored. This will deepen our

understanding and provide additional evidence for validating the identified typology of older Koreans. Further analysis is currently being conducted to examine the behavior of the clusters across several behavioral aspects such as leisure, media consumption, shopping and buying behaviors, adoption of technology, and financial & investment behaviors.

Second, it is necessary to be replicated across other Asian countries where population aging is a huge issue in recent years, with the ultimate objective of developing a general typology of older Asian consumers. We hope our study could be used as a leading initiative for this attempt.

Last but not least, there is a need for additional longitudinal studies. 2017 was the year that Korean became an aged society. The current study results provide a good comparison of the before and after the transition to the aged society. Korea is expected to be a super-aged society in 2025. Another study after 2025 would provide another good comparison of the before and after the transition to super-aged society.

Table 1
Factor Loadings on Lifestyle & Value Dimensions: 2017 Survey

Items	Factor Loadings
Factor 1: Desire for Social Involvement & Health (Alpha=.76)	
17. I am interested in going to lectures and taking courses.	.702
19. I want to continue working at something even after retirement.	.697
16. I want to go on a cruise trip.	.667
15. I regularly exercise.	.649
18. I often find time to be involved in community or charity work.	.572
12. My health, in general, is in good shape	.422
Factor 2: Desire for Look & Status (Alpha=.77)	
10. I usually have one or more outfits that are of the very latest style.	.751
11. I am interested in using cosmetics or products that will make me look younger.	.686
09. It is important to look as young as possible.	.684
08. I usually look out for well-known brand to reflect my status in life.	.636
07. I like to own things that impress people.	.597
Factor 3: Innovative Tendency (Alpha=.77)	
29. I like stimulations and changes.	.812
28. I don't mind taking high risks if the chances of success are good.	.791
30. I often try new ideas or products before my friends do.	.780
25. I like to arrange my own travel arrangements without depending on a travel agent.	.356
Factor 4: Nostalgic Conservatism (Alpha=.65)	
23. Technological change will not ensure a brighter future.	.726
22. Things used to be better in the good old days.	.691
31. I have to admit most of my investments are conservative.	.625
27. I usually invest my extra money after seeking advice from investment consultants from financial institutions.	.597
Factor 5: Financially Concerned (Alpha=.61)	
02. I am very cautious when spending my money.	.796
01. I am generally on a tight budget.	.707
14. My memories are not as good as they used to be.	.594
Factor 6: Achievement-based Optimism (Alpha=.64)	
20. I believe that the best years of my life are now and in the future.	.589
06. I try to keep my life simple, as far as possessions are concerned	.575
03. My future financial situation is relatively secured.	.570
21. I consider that I am one of the successful people.	.548

Table 2

Factor Loadings on Lifestyle & Value Dimensions: 2009 Survey

Items	Factor Loadings
Factor 1: Desire for Social Involvement (Alpha=.87)	
08. I usually look out for well-known brand to reflect my status in life.	.668
04. I am willing to sell my house for cash if I need money.	.662
11. I am interested in using cosmetics or products that will make me look younger.	.658
10. I usually have one or more outfits that are of the very latest style.	.654
07. I like to own things that impress people.	.613
18. I often find time to be involved in community or charity work.	.534
17. I am interested in going to lectures and taking courses.	.516
Factor 2: Optimistic & Innovative (Alpha=.83)	
29. I like stimulations and changes.	.814
28. I don't mind taking high risks if the chances of success are good.	.780
30. I often try new ideas or products before my friends do.	.714
20. I believe that the best years of my life are now and in the future.	.574
21. I consider that I am one of the successful people.	.450
Factor 3: Health Conscious (Alpha=.71)	
12. My health, in general, is in good shape	.698
13. Improving or maintaining my health through exercise and diet is important.	.671
09. It is important to look as young as possible.	.648
15. I regularly exercise.	.593
Factor 4: Independent (Alpha=.69)	
25. I like to arrange my own travel arrangements without depending on a travel agent.	.623
19. I want to continue working at something even after retirement.	.589
24. Even when I can no longer care for myself, I will not rely on my children to care for me.	.569
26. I think I am more independent than most people are.	.564
Factor 5: Financially Concerned (Alpha=.53)	
01. I am generally on a tight budget.	.815
02. I am very cautious when spending my money.	.748
31. I have to admit most of my investments are conservative.	-.352
Factor 6: Nostalgic Tendency (Alpha=.45)	
22. Things used to be better in the good old days.	.710
23. Technological change will not ensure a brighter future.	.637
14. My memories are not as good as they used to be.	.452
06. I try to keep my life simple, as far as possessions are concerned	.436

Table 3
Cluster Centroids and Number of Cases of Seven Segments: 2017 Survey

Clusters/ Factors	Success- ful Socials	Unstable Socials	Practical Socials	Contented Solitaries	Financially concerned Solitaries	Care-fre e Oldies	Nostal-g ists	F
Desire for social involvement & Health	<u>.51</u> ^d	<u>.44</u> ^d	.28 ^d	-.41 ^b	<i>-1.68</i> ^a	-.01 ^c	.00 ^c	83.16 **
Desire for Look & Status	<u>.55</u> ^c	<u>.31</u> ^d	<i>-1.06</i> ^a	-.29 ^{bc}	-.11 ^b	.05 ^c	-.11 ^{bc}	42.47 **
Innovative Tendency	<u>.65</u> ^c	-.67 ^b	<u>.99</u> ^f	<i>-1.10</i> ^a	.05 ^c	.29 ^d	<i>-1.16</i> ^a	167.10 **
Nostalgic Conservatism	.43 ^d	<i>-.88</i> ^a	-.02 ^c	<u>.51</u> ^d	-.48 ^b	-.28 ^b	<u>1.06</u> ^c	72.01 **
Financially concerned	.40 ^c	.30 ^c	.42 ^c	-.59 ^b	<u>.99</u> ^d	<i>-1.28</i> ^a	<u>.45</u> ^c	162.81 **
Achievement-based Optimism	<u>.72</u> ^c	-.06 ^{cd}	-.36 ^b	<u>.84</u> ^e	.05 ^d	-.26 ^{bc}	<i>-1.19</i> ^a	78.08 **
Number of cases	158	101	99	80	74	156	73	
% of respondents	21.3%	13.6%	13.4%	10.8%	10.0%	21.1%	9.9%	

Note: The highest values for each factor are in bold and underlined, and the lowest are in bold and italic.

Table 4
Cluster Centroids and Number of Cases of Four Segments: 2009 Survey

Clusters/ Factors	Optimistic Socials	Healthy Solitaries	Care Frees	Weak Reclusive	F
Desire for socially involved	<u>.69</u> ^d	-.50 ^b	.27 ^c	<i>-.90</i> ^a	126.81 **
Health conscious	.18 ^c	<u>.73</u> ^d	-.39 ^b	<i>-1.31</i> ^a	192.79 **
Optimistic & Innovative	<u>.83</u> ^c	<i>-.67</i> ^a	-.03 ^b	-.15 ^b	127.30 **
Independent	.07 ^b	<u>.19</u> ^b	.00 ^b	<i>-.63</i> ^a	16.62 **
Financially concerned	.42 ^c	.17 ^b	<i>-1.03</i> ^a	<u>.88</u> ^d	203.96 **
Nostalgic oriented	.11 ^b	<u>.18</u> ^b	<i>-.33</i> ^a	.04 ^b	11.58 **
Number of cases	213	233	208	96	
% of respondents	28.4%	31.1%	27.7%	12.8%	

Note: The highest values for each factor are in bold and underlined, and the lowest are in bold and italic.

Table 5
Demographic Characteristics across Seven Segments: 2017 Survey

	Total	Success- ful Socials	Unstable Socials	Practical Socials	Contented Solitaries	Financially concerned Solitaries	Care-free Oldies	Nostalgists
Number of cases	741	158	101	99	80	74	156	73
Gender								
Male	49.8%	42.4%	55.4%	57.6%	45.0%	48.6%	53.8%	45.2%
Female	50.2%	57.6%	44.6%	42.4%	55.0%	51.4%	46.2%	54.8%
Age								
60-64	20.1%	23.4%	19.8%	22.2%	13.8%	8.1%	25.6%	17.8%
65-69	19.8%	26.6%	18.8%	19.2%	20.0%	8.1%	22.4%	13.7%
70-74	20.0%	14.6%	26.7%	26.3%	15.0%	16.2%	21.2%	20.5%
75-79	20.0%	18.4%	16.8%	15.2%	28.8%	28.4%	16.0%	24.7%
80 +	20.1%	17.1%	17.8%	17.2%	22.5%	39.2%	14.7%	23.3%
Marital status								
Single	0.5%	1.3%	0.0%	0.0%	0.0%	0.0%	0.6%	1.4%
Married	81.1%	76.6%	85.1%	78.8%	86.3%	66.2%	89.1%	80.8%
Deceased	18.4%	22.2%	14.9%	21.2%	13.8%	33.8%	10.3%	17.8%
Education								
No education	8.0%	10.8%	5.0%	4.0%	8.8%	24.3%	2.6%	5.5%
Elementary	26.0%	26.6%	18.8%	24.2%	31.3%	36.5%	19.2%	35.6%
Middle	25.9%	21.5%	38.6%	32.3%	16.3%	24.3%	23.7%	26.0%
High	31.4%	33.5%	27.7%	32.3%	32.5%	14.9%	39.7%	28.8%
University +	8.6%	7.6%	9.9%	7.1%	11.3%	0.0%	14.7%	4.1%
Income ¹								
~ KRW 1m	18.6%	21.5%	9.9%	29.3%	15.0%	33.8%	6.4%	24.7%
KRW 1m~1.99m	36.8%	33.5%	42.6%	39.4%	45.0%	45.9%	26.9%	35.6%
KRW 2m~2.99m	20.1%	20.9%	24.8%	13.1%	21.3%	14.9%	24.4%	16.4%
KRW 3m~4.99m	20.4%	19.0%	20.8%	16.2%	17.5%	4.1%	36.5%	13.7%
KRW 5m +	4.0%	5.1%	2.0%	2.0%	1.3%	1.4%	5.8%	9.6%
Residence Place								
Seoul	33.6%	10.1%	47.5%	19.2%	55.0%	28.4%	41.7%	49.3%
Busan	26.6%	27.2%	20.8%	45.5%	11.3%	33.8%	25.6%	19.2%
Daejeon	20.2%	35.4%	10.9%	13.1%	21.3%	6.8%	17.9%	27.4%
Kwangjoo	19.6%	27.2%	20.8%	22.2%	12.5%	31.1%	14.7%	4.1%
Retired								
Yes	58.8%	58.2%	54.5%	63.6%	52.5%	66.2%	56.4%	64.4%
No	41.2%	41.8%	45.5%	36.4%	47.5%	33.8%	43.6%	35.6%

Note: The highest values for each factor are in bold and underlined, and the lowest are in bold and italic.

¹ The exchange rate is roughly US\$1=KRW1, 168 as of April 2019.

Table 6
Demographic Characteristics across Four Segments: 2009 Survey

	Total	Healthy Solitaries	Care Frees	Optimistic Socials	Weak Dependents
Number of cases	750	233	208	213	96
Gender					
Male	50.0	<u>52.8</u>	50.5	51.2	<u>39.6</u>
Female	50.0	<u>47.2</u>	49.5	48.8	<u>60.4</u>
Age					
60-64	20.0	22.7	<u>24.0</u>	20.2	<u>4.2</u>
65-69	20.0	21.0	19.2	<u>22.5</u>	<u>13.5</u>
70-74	20.0	22.3	<u>16.8</u>	18.8	<u>24.0</u>
75-79	20.0	<u>21.9</u>	20.7	18.3	<u>17.7</u>
80 +	20.0	<u>12.0</u>	19.2	20.2	<u>40.6</u>
Marital status					
Single	.3	.0	.0	.0	2.1
Married	65.6	66.1	<u>73.6</u>	67.1	<u>43.8</u>
Deceased	34.1	33.9	<u>26.4</u>	32.9	<u>54.2</u>
Education					
No education	10.5	<u>4.7</u>	9.6	11.3	<u>25.0</u>
Elementary	32.8	33.0	32.7	<u>30.0</u>	<u>38.5</u>
Middle	24.7	<u>22.3</u>	25.5	<u>26.3</u>	25.0
High	26.9	<u>33.0</u>	27.4	28.2	<u>8.3</u>
University +	5.0	<u>6.8</u>	4.8	4.2	<u>3.1</u>
Income ¹					
~ KRW 1m	34.3	30.0	<u>28.4</u>	31.5	<u>63.5</u>
KRW 1m~1.99m	26.4	<u>30.0</u>	26.9	27.7	<u>13.5</u>
KRW 2m~2.99m	15.7	13.3	15.4	<u>21.6</u>	<u>9.4</u>
KRW 3m~4.99m	21.1	24.9	<u>25.5</u>	16.4	<u>12.5</u>
KRW 5m +	2.5	1.7	<u>3.8</u>	2.8	<u>1.0</u>
Residence Place					
Seoul	33.3	37.8	34.1	<u>23.0</u>	<u>43.8</u>
Busan	26.7	17.2	24.5	<u>45.1</u>	<u>13.5</u>
Daejeon	20.0	16.3	23.1	<u>24.4</u>	<u>12.5</u>
Kwangjoo	20.0	28.8	18.3	<u>7.5</u>	<u>30.2</u>
Retired					
Yes	44.7	<u>42.5</u>	47.6	42.7	<u>47.9</u>
No	55.3	<u>57.5</u>	52.4	57.3	<u>52.1</u>

Note: The highest values for each factor are in bold and underlined, and the lowest are in bold and italic.

¹ The exchange rate is roughly US\$1=KRW1, 168 as of April 2019.

Table 7
Longitudinal Comparison of Aspiration & Life Satisfaction

	Total	2017	2009	Change	t
Number of cases	1500	750	750		
<u>Important Values in Life</u>					
Security	4.98	4.87	5.09	-0.22	-4.56**
Fun and enjoyment in life	4.88	4.75	5.01	-0.26	-5.86**
Warm relationships with others	4.87	4.74	5.01	-0.27	-6.06**
Self-respect	4.74	4.65	4.82	-0.17	-3.58**
Sense of accomplishment	4.7	4.61	4.78	-0.17	-3.62**
Self-fulfillment	4.64	4.59	4.69	-0.10	-2.33*
Being well-respected	4.69	4.58	4.81	-0.23	-5.10**
Excitement	4.63	4.53	4.73	-0.20	-4.73**
Sense of belonging	4.56	4.51	4.61	-0.10	-2.22*
<u>Importance of Things to Own</u>					
Health	5.21	5.11	5.32	-0.21	-4.70**
Happiness	5.04	4.99	5.09	-0.10	-2.30*
Personal Safety	5.02	4.95	5.09	-0.14	-3.29**
Security (job, home, etc.)	4.90	4.89	4.92	-0.03	-0.91
Peace of mind	4.97	4.88	5.07	-0.19	-4.57**
Leisure	4.80	4.80	4.80	0.00	-0.12
Success in work	4.78	4.75	4.82	-0.07	-1.58
Wealth	4.76	4.71	4.82	-0.11	-2.96**
Social status	4.65	4.66	4.64	0.02	0.47
Freedom	4.73	4.65	4.81	-0.16	-4.06**
Love	4.70	4.64	4.76	-0.12	-2.72**
Youthfulness	4.71	4.63	4.80	-0.17	-4.36**
Friendship	4.74	4.60	4.88	-0.28	-6.53**
Power	4.59	4.60	4.58	0.02	0.41
Luck	4.65	4.57	4.73	-0.16	-3.61**
Good looks	4.36	4.38	4.35	0.03	0.57
<u>How satisfied with ...</u>					
Relationship with children	4.47	4.49	4.45	0.04	0.96
Friends	4.39	4.37	4.41	-0.04	-0.94
Marriage/relationships	4.39	4.37	4.40	-0.03	-0.58
Relationship with parents	4.30	4.34	4.21	0.13	2.01 *
Relationship with siblings	4.34	4.33	4.34	-0.01	-0.14
Health	4.19	4.28	4.10	0.18	3.56 **
Material comfort	4.07	4.17	3.96	0.21	4.08 **
Physical appearance	4.09	4.12	4.06	0.06	1.31
Job	4.12	4.10	4.19	-0.09	-1.18
Leisure activities	4.11	4.10	4.13	-0.03	-0.48
Money	3.82	3.86	3.78	0.08	1.27
Overall satisfaction	4.22	4.24	4.19	0.05	1.18

Table 8. Aspirations by Segments: 2017 Survey¹

	Total	Successful Socials	Unstable Socials	Practical Socials	Contended Solitaries	Financially concerned Solitaries	Carefree Oldies	Nostalgists	F
Number of cases	741	158	101	99	80	74	156	73	
<u>Important Values in Life</u> ²									
Security	4.87	4.85 ^{ab}	4.69 ^{ab}	4.97 ^b	4.88 ^{ab}	4.92 ^{ab}	<u>4.67</u> ^a	<u>5.42</u> ^c	7.00**
Fun and enjoyment in life	4.75	4.73 ^{ab}	<u>4.55</u> ^a	4.87 ^b	4.78 ^{ab}	4.76 ^{ab}	4.59 ^a	<u>5.19</u> ^c	3.93**
Warm relationships with others	4.73	4.70 ^{ab}	<u>4.48</u> ^a	4.77 ^b	4.83 ^b	4.68 ^{ab}	4.66 ^{ab}	<u>5.25</u> ^c	6.39**
Self-respect	4.65	4.65 ^a	4.62 ^a	4.68 ^a	4.69 ^a	<u>4.43</u> ^a	4.54 ^a	<u>5.12</u> ^b	4.54**
Sense of accomplishment	4.61	4.66 ^{ab}	4.47 ^{ab}	4.62 ^{ab}	4.54 ^{ab}	4.72 ^b	<u>4.41</u> ^a	<u>5.05</u> ^c	5.40**
Self-fulfillment	4.59	4.69 ^{ab}	<u>4.44</u> ^a	4.55 ^a	4.66 ^{ab}	4.58 ^a	4.46 ^a	<u>4.84</u> ^b	2.85**
Being well-respected	4.57	4.70 ^{ab}	<u>4.44</u> ^a	4.48 ^{ab}	4.61 ^{ab}	4.64 ^{ab}	4.46 ^a	<u>4.74</u> ^b	2.14*
Excitement	4.53	4.68 ^b	4.41 ^a	4.61 ^{ab}	<u>4.70</u> ^b	4.42 ^a	<u>4.40</u> ^a	4.44 ^a	3.06**
Sense of belonging	4.50	4.61 ^{bc}	4.36 ^{ab}	4.47 ^{ab}	4.50 ^{abc}	<u>4.26</u> ^a	4.52 ^{bc}	<u>4.74</u> ^c	3.09**
<u>Importance of Things to Own</u> ²									
Health	5.11	4.98 ^a	<u>4.96</u> ^a	5.03 ^{ab}	5.26 ^b	5.14 ^{ab}	5.01 ^{ab}	<u>5.71</u> ^c	8.00**
Happiness	5.00	4.88 ^a	<u>4.84</u> ^a	4.90 ^a	5.21 ^b	4.99 ^{ab}	4.93 ^a	<u>5.51</u> ^c	7.38**
Personal Safety	4.94	4.87 ^a	4.86 ^a	4.91 ^{ab}	4.90 ^{ab}	5.11 ^b	<u>4.81</u> ^a	<u>5.42</u> ^c	6.38**
Security (job, home, etc.)	4.88	4.93 ^{ab}	4.80 ^{ab}	4.86 ^{ab}	4.76 ^{ab}	5.03 ^{bc}	<u>4.73</u> ^a	<u>5.22</u> ^c	3.57**
Peace of mind	4.87	4.87 ^{ab}	4.87 ^{ab}	4.87 ^{ab}	4.95 ^b	4.92 ^b	<u>4.67</u> ^a	<u>5.18</u> ^c	3.71**
Leisure	4.78	4.73 ^{ab}	4.72 ^{ab}	4.82 ^{ab}	4.91 ^{ab}	4.88 ^{ab}	<u>4.64</u> ^a	<u>4.99</u> ^b	1.96
Success in work	4.75	4.83 ^a	4.68 ^a	4.67 ^a	4.78 ^a	4.78 ^a	<u>4.58</u> ^a	<u>5.14</u> ^b	4.56**
Wealth	4.70	4.72 ^a	4.72 ^a	<u>4.60</u> ^a	4.68 ^a	4.66 ^a	4.63 ^a	<u>4.97</u> ^b	2.03
Social status	4.66	4.70 ^{ab}	4.65 ^{ab}	4.62 ^{ab}	<u>4.50</u> ^a	4.65 ^{ab}	4.66 ^{ab}	<u>4.85</u> ^b	1.00
Freedom	4.66	4.58 ^{ab}	4.64 ^b	4.66 ^b	4.70 ^b	<u>4.38</u> ^a	4.71 ^b	<u>5.00</u> ^c	4.44**
Love	4.64	4.67 ^{ab}	4.54 ^a	4.72 ^{ab}	4.73 ^{ab}	4.57 ^a	<u>4.51</u> ^a	<u>4.88</u> ^b	2.20*
Youthfulness	4.63	4.64 ^a	4.60 ^a	4.55 ^a	4.69 ^a	4.55 ^a	<u>4.54</u> ^a	<u>4.96</u> ^b	2.64*
Friendship	4.61	4.71 ^{bc}	4.55 ^{abc}	4.67 ^{abc}	4.61 ^{abc}	<u>4.42</u> ^a	4.51 ^{ab}	<u>4.78</u> ^c	2.17*
Power	4.60	<u>4.67</u> ^a	4.54 ^a	4.57 ^a	<u>4.49</u> ^a	4.59 ^a	4.62 ^a	4.63 ^a	0.44
Luck	4.57	4.59 ^a	<u>4.47</u> ^a	4.57 ^a	4.50 ^a	<u>4.65</u> ^a	4.60 ^a	4.59 ^a	0.50
Good looks	4.38	<u>4.62</u> ^b	4.30 ^a	4.22 ^a	<u>4.23</u> ^a	4.32 ^{ab}	4.39 ^{ab}	4.42 ^{ab}	2.48*

*: $p < .05$, **: $p < .01$

a,b,c,d: Means with different alphabets are significantly different ($p < .05$) based on Duncan contrasts.

¹ The highest values for each aspect of aspiration are in bold and underlined, and the lowest are in bold and italic.

² was Every item was measured with a 6 point scale (1 = Not important at all, 6 = Very important).

Table 9. Life Satisfaction by Segments: 2017 Survey¹

	Total	Successful Socials	Unstable Socials	Practical Socials	Contended Solitaries	Financially concerned Solitaries	Carefree Oldies	Nostalgists	F
Number of cases	741	158	101	99	80	74	156	73	
How satisfied with ... ²									
Relationship with children	4.48	<u>4.60</u> ^c	4.50 ^{bc}	4.55 ^{bc}	4.56 ^b	<i>4.19</i> ^a	4.47 ^{bc}	4.32 ^{abc}	2.44*
Friends	4.36	<u>4.59</u> ^c	4.17 ^{ab}	4.28 ^b	<u>4.60</u> ^c	<i>3.99</i> ^a	4.38 ^{bc}	4.32 ^b	7.04**
Marriage/relationships	4.37	<u>4.64</u> ^d	4.33 ^{bc}	4.30 ^{bc}	4.44 ^{bcd}	<i>3.68</i> ^a	4.55 ^{cd}	4.18 ^b	11.13**
Relationship with siblings	4.33	<u>4.54</u> ^b	4.37 ^b	4.34 ^b	4.35 ^b	<i>3.76</i> ^a	4.27 ^b	4.52 ^b	6.71**
Relationship with parents	4.33	<u>4.66</u> ^c	4.24 ^b	4.28 ^b	4.28 ^b	<i>3.70</i> ^a	4.38 ^{bc}	4.36 ^b	7.72**
Health	4.28	<u>4.57</u> ^c	4.26 ^b	4.26 ^b	4.39 ^{bc}	<i>3.65</i> ^a	4.28 ^b	4.19 ^b	8.86**
Material comfort	4.16	<u>4.58</u> ^c	3.97 ^{bc}	4.12 ^{cd}	4.24 ^{cd}	<i>3.59</i> ^a	4.29 ^d	3.79 ^{ab}	12.53**
Physical appearance	4.11	<u>4.47</u> ^c	4.04 ^b	4.01 ^b	4.19 ^b	<i>3.61</i> ^a	4.12 ^b	3.95 ^b	8.43**
Leisure activities	4.10	<u>4.49</u> ^d	4.00 ^{bc}	3.88 ^b	4.06 ^{bc}	<i>3.54</i> ^a	4.21 ^c	4.07 ^{bc}	10.36**
Job	4.09	<u>4.44</u> ^c	4.01 ^b	4.14 ^{bc}	3.94 ^b	<i>3.47</i> ^a	4.20 ^{bc}	3.93 ^b	7.76**
Money	3.85	<u>4.30</u> ^d	3.76 ^{bc}	3.63 ^b	3.99 ^c	<i>3.14</i> ^a	3.99 ^c	3.62 ^b	13.16**
Overall satisfaction	4.24	<u>4.51</u> ^d	4.10 ^b	4.37 ^c	4.50 ^d	<i>3.58</i> ^a	4.24 ^{bc}	4.01 ^b	15.69**

*: $p < .05$, **: $p < .01$

^{a,b,c,d}: Means with different alphabets are significantly different ($p < .05$) based on Duncan contrasts.

¹ The highest values for each aspect of aspiration are in bold and underlined, and the lowest are in bold and italic.

² was Every item was measured with a 6 point scale (1 = Not important at all, 6 = Very important).

REFERENCES

- Bone, Paula Fitzgerald (1991), "Identifying Mature Segments," *Journal of Services Marketing*, 5 (Winter), 47-60.
- Goldsmith, Ronald. E. and Charles F. Hofacker (1991), "Measuring Consumer Innovativeness," *Journal of Academy of Marketing Science*, 19 (Summer), 209-221.
- Hair, Joseph F., William C. Black, Barry J. Babin, and Rolph E. Anderson (2014), *Multivariate Data Analysis*, 7th edition, Englewood Cliffs, NJ: Prentice Hall.
- Holbrook, Morris B. (1993), "Nostalgia and Consumption Preference: Some Emerging Patterns of Consumer Tastes," *Journal of Consumer Research*, 20 (September), 245-256.
- Jung, Kwon and Jihye Jung (2010), "Four Faces of Silver Consumers: A Typology, Their Aspirations and Life Satisfaction of Older Korean Consumers," *KDI School Working Paper Series*.
- Kahle, L. R. and P. Kennedy (1988), "Using the List of Values (LOV) to Understand Consumers," *Journal of Service Marketing*, 2 (4), 49-56.
- Kaiser, H. F. (1974), "An Index of Factorial Simplicity," *Psychometrika*, 39, 31-36.
- Kau, Ah Keng, Kwon Jung, Siok Kuan Tambyah and Soo Jiuan Tan (2004), *Understanding Singaporeans: Values, Lifestyles, Aspirations and Consumption Behaviors*, Singapore: World Scientific Publishing Company.
- Lee, H. H. (2001), "Aging and Government's Financial Response," in *Role of Government's Finance in Rapidly Changing Economic and Social Environment*, M. S. Kang and H. H. Lee eds., KDI.
- McIntyre, Robert M. and Roger K. Blashfield (1980), "A Nearest-Centroid Technique for Evaluating the Minimum-Variance Clustering Procedure," *Multivariate Behavioral Research*, 2 (April), 225-238.
- Mittal, Banwari (1994), "An Integrated Framework for relating Diverse Consumer Characteristics to Supermarket Coupon Redemption," *Journal of Marketing Research*, 31 (November), 533-544.
- Morgan, Carol M. and Doran J. Levy (1993), *Segmenting the Mature Market: Identifying, Targeting and Reaching America's Diverse, Booming Senior Markets*, Chicago, IL: Probus Publishing Company.
- Moschis, George P. (1992), *Marketing to Older Consumers*, Westport, CN: Quorum Books.
- Moschis, George P. (1994), *Marketing Strategies for the Mature Market*, Westport, CN: Quorum Books.

- Moschis, George P. (1996), *Gerontographics: Life-stage Segmentation for Marketing Strategy Development*, Westport, CN: Quorum Books.
- Moschis, George P. and Scott B. Friend (2008), "Segmenting the Preferences and Usage Patterns of the Mature Consumer Health-care Market," *International Journal of Pharmaceutical and Healthcare Marketing*, 2 (10), 7-21.
- Punj, Girish and David W. Stewart (1983), "Cluster Analysis in Marketing Research: Review and Suggestions for Application," *Journal of Marketing Research*, 20 (May), 134-148.
- Richins, Marsha L. (1994), "Special Possessions and the Expression of Material Values," *Journal of Consumer Research*, 21 (December), 522-533.
- Statistics Korea (2018), *2017 Population and Household Survey*, Statistics Korea (available at: http://kostat.go.kr/portal/korea/kor_nw/1/10/1/index.board?bmode=read&aSeq=370326, accessed 8 May 2019)
- Tempest, Sue, Christopher Barnett, and Christine Coupland (2002), "Grey Advantage: New Strategies for the Old," *Long Range Planning*, 35, 475-492.