An empirical study on elderly lifestyle segmentation

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Abstract

An aging society has become one of the most significant social transformations. A new generation of older people, baby boomers, will shortly become the main segment of an aging society. The new elder generation has different characteristics from the past, reflecting their identity and lifestyle. Therefore, it is necessary to understand the need from the aging population of baby boomers. This research aims to segment the elderly lifestyle, responding to the changes caused by the recent trends of an aging society, and baby boomers entering their senior years in Thailand. The research focuses on elderly people living in an urban area, Bangkok, the capital city of Thailand. The lifestyle segmentation uses psychographic factors questions regarding *activity*, *interest*, and *opinion* statements. The tools for segmentation were both factor analysis and clustering assignment. Results show six distinct lifestyle segments: sociable, healthy living, homemaker, self-reliant, modernism, and introvert.

Keywords: aging society, elder, baby boomer, lifestyle, lifestyle segmentation

1. Introduction

Population aging is occurring throughout the world. Globally, the number of older persons is growing faster than those of other young age groups due to the decline of fertility, the rising life expectancy, and the rising proportion of the population above a certain age as well. According to such change, from the viewpoint of demography, the elderly are not considered as a minority group anymore; nowadays, we live in an aging society (Oh, 2016).

From the report of the United Nations (2017) regarding the world population, the estimate of people aged 60 or over is at 962 million, which accounted for 13 percent of the global population in 2017. The annual growth rate of the population aged 60 or above is approximately 3 percent. The population aged 60 or over in Asia is expected to shift from 12 percent of the total population in 2017 to 24 percent in 2050 (United Nations, 2015, 2017).

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From such an increasing share of older persons in the global population, an aging society is poised to become one of the most significant social transformations in the twenty-first century (United Nations, 2015). An increase in the elderly population could shift the consumption level of certain goods toward more healthcare services and leisure. Institute for Small and Medium Enterprises Development (ISMED) in 2013 stated that the transformation of the demographic structure to an aging society would result in changes to the long-term and short-term macroeconomic conditions through several channels, including production patterns, consumption patterns, saving behavior, investment decisions, government policy, as well as changes in international trade.

In an era of demographic structural change, the growing proportion of elders inevitably affects various business sectors, especially for the new generation of older people who will shortly become the main segment of the aging society. The new elderly generation has different characteristics from those in the past; physical and mental characteristics reflect their identity and lifestyle (ISMED, 2013).

The fertility impact of World War II is evident in population aging patterns as well. The growth rate of the global population aged 60 years or over peaked in 2010-2015 and the rate of growth of the population aged 80 years or over is projected to peak in 2030-2035, marking the periods during which those born during the post-war baby boom reach older ages (United Nations, 2015). According to National Research Council of Thailand (NRCT) (2017), the recent trend of the Thai population clearly demonstrates that people who were born after World War II, amounting to 1 million people per year, will become elderly in the next decade. The period with the highest birth rate is denoted as the "baby boomer period," showing a dramatic acceleration in population growth (Park, Lee and Kim, 2013). According to the Bureau of Mental Health Strategy (2015), the population aged 60 years or over in Thailand is at 10 million in 2013, accounting for 14.9 percent of the total population. Therefore, Thailand currently has transformed into an "aged" society. Furthermore in 2023, Thai people aged 60 years or older are estimated to increase up to 14.1 million, representing 21 percent of Thailand's population, which means that Thailand will become a "complete aging society or super-aged" in a few years (National Research Council of Thailand (NRCT), 2017).

With generational concepts used as a demographic cohort, the people who become part of the complete aging society were mainly born after World War II, from 1946 to 1964. When the baby boomers enter their senior years, they tend to have different characteristics and demands from those older generations in the past. Therefore, to plan appropriate strategies, it is necessary for all segments, including the government sector, private sectors and, public-private sector cooperation, to understand the needs from the aging population of baby boomers. With particular social and historical experiences, there is a need to explore the new lifestyle of elderly people from the baby boomer generation.

2. Elderly lifestyle

In a globalized world, the importance of a proper segmentation method for identifying target consumers has been increasing. Because of differences in attitudes, values, and behaviors among older consumers, a "shotgun" approach to marketing does not appear to be an effective strategy. The vast majority of the research in this area focuses on the usage or development of different techniques. For marketers, the lifestyle of individuals has always been interesting in terms of the behavior of people as well as their feelings, attitudes, interests, and opinions. People can be grouped based on what they like to do, how they like to spend their leisure time and how they choose to spend their income, which are recognized by a lifestyle marketing perspective. Therefore, lifestyle became one of good criteria for dividing people into groups for a better target. González and Bello (2002) claim that lifestyle is the most holistic segmentation approach because such an

approach can take into account completely anything, and everything, that might help marketers identify and reach desirable target markets. This research presents a way to segment a mature market and segment an aging population based on their lifestyle.

2.1 Lifestyle segmentation

The lifestyle concept, introduced over half a century ago in the marketing field by Lazer, is based upon the fact that individuals have characteristic patterns of living, which may influence their motivation to purchase products and brands (Lazer, 1963). Chaney (2002) defines lifestyles as 'patterns of action that differentiate people…Lifestyles, therefore, help to make sense of what people do, and why they do it, and what doing it means to them and others.' Today, we usually define lifestyle as the patterns in which people live and spend their time and money (Kaynak and Kara, 2001). Plummer (1974) states that "…the basic premise of lifestyle research is that the more you know and understand about your customers the more effectively you can communicate and market to them … ." Thus, the research to find out which factors influence individual lifestyle is worth pursuing.

Segmentation analysis is based on the assumption that individuals differ in perceptions, attitudes, and consumption behavior, but these differences are not entirely idiosyncratic. That is, there should be subgroupings of the older population whose members share similarities, but differ markedly from members of other subgroupings (George, 1992).

2.2 Lifestyle evaluation

In the field of marketing, an emphasis is placed on research dealing with lifestyles to investigate consumers' consumption behaviors. Lifestyle evaluation tools have been developed (Fong, Matsumoto, Lun and Kimura, 2007) which focus on the measurement of valued aspects of life, living mode, consumption behavior, attitude, etc.

Segmentation approaches were initially based on geographic criteria, such that companies would cluster customers according to their area of residence or work. Then, segmentation based on socioeconomic indicators followed, such that customers would be grouped according to age, gender, income, or occupation (Miguéis, Camanho and Falcão e Cunha, 2012). Common factors which determine the pattern of lifestyle as demographic segmentation variables include age, gender, family size, family life cycle, income, occupation, education, generation, ethnicity, nationality, religion, and social class. Over the years, there has been much literature that supports the use of demographic segmentation. Another suggested segmentation basis is employment.

However, Myriam Töpfer and Bug (2015) point out that demographics or geographics on their own does not give a complete picture of the consumer. Psychographics was a term first introduced by Demby (1974), putting together psychology and demographics. Psychographic or lifestyle refers to consumers' activities, interests, and opinions. More specifically, it focuses on what people like to do, what their areas of interests are, and what opinions people hold on various matters. By implying psychographics information with demographics, the marketer will better understand the wants and needs of the consumers. Plummer (1974) claims that lifestyle segmentation does a better job than demographics alone. Therefore, apart from demographics or geographics, other psychographic approaches were addressed in the following.

The focus of marketers and consumer researchers has generally been on identifying the broad trends that influence how consumers live, work, and play (Myriam Töpfer and Bug, 2015), which is along with other authors such as Peter and Olson (1996) who define 'lifestyle' as "the manner in which people conduct their

lives, including activities, interests, and opinions." According to such a concept of lifestyle, one of the most popular approaches to measure lifestyle was introduced by Wells and Tigert (1971), who used the rating statements about activities, interests, and opinions (AIO). As summarized in Table 1, the AIO approach relies on the concept that lifestyle is about the self and experiences.

- Activity is the manifestation of action and living pattern: work, hobbies, social events, vacation, entertainment, clubs, community, shopping, sports, etc.

- Interest focuses on surroundings, objects, events or topics: family, home, job, community, recreation, fashion, food, media, achievements, etc.

- An opinion is a descriptive belief: of oneself, social issues, politics, business, economics, education, products, future, culture, etc.

Table 1. Lifestyle-Dimensions

Activities	Interests	Opinions
Work	Family	Themselves
Hobbies	Home	Social Issues
Social Events	Job	Politics
Vacation	Community	Business
Entertainment	Recreation	Economics
Club Member	Fashion	Educations
Community	Food	Products
Shopping	Media	Future
Sports	Achievements	Culture

Note: Wells and Tigert (1971)

3. Research method

3.1 Data and sample

According to the Department of Older Persons (DOP) (2016), statistics on the aging population in Thailand 2016 show that people older than 60 years living in the Bangkok area account for 16.47% of the Bangkok population (936,865 people). The sampling unit of this study is elders in the baby boomer generation who were born after World War II, from 1946 to 1964 and living in the Bangkok metropolitan region. As the sampling frame was not available, this study uses non-probabilistic sampling based on a purposive sampling method. According to the table for determining the sample size when given a population, Krejcie and Morgan

(1970) suggest a sampling size of 384 for a population greater than 1,000,000. This research applies a minimum sample size of 400 people allowing for incomplete questionnaires. The sample size is 400 respondents with individuals aged 55-73 years living in the Bangkok metropolitan area. Before the questionnaire was distributed, each respondent was checked to ensure that his/her age was between 55-73 years and he/she could still perform his/her daily activities.

The questionnaire was conducted and distributed to senior people in 2 different ways. The first way was to distribute an online questionnaire using a Google Form via social media, i.e., Facebook and Line application, during April-June 2019. The second way was to use off-line questionnaires which were collected from various places around Bangkok and Nonthaburi areas during May-June 2019.

3.2 Survey instrument

From the literature review, factors were identified from related research, theories, and documents to design the questionnaire for the study. The research tool comprises items to evaluate baby boomers' lifestyle and their background. The questions were reviewed by two professors.

The questionnaire consists of 4 sections as follows:

Section 1. Background: contains questions about demographics and geographic factors regarding gender, family size, income, occupation, education, living area, etc.

Section 2. Lifestyle – Activity: contains 23 questions about psychographic factors regarding activities based on an interval scale (Likert, 1932). The 5-point rating scale, ranging from "Always" to "Never/Rarely" was used to identify the frequency that the respondent participates in each activity.

Section 3. Lifestyle – Interest: contains 22 questions about psychographic factors regarding interest-based on an interval scale (Likert, 1932). The 5-point rating scale, ranging from "Strongly interested" to "Strongly uninterested" was used to identify the level that the respondent is concerned with for each subject.

Section 4. Lifestyle – Opinion: contains 22 questions about psychographic factors regarding opinions based on an interval scale (Likert, 1932). The 5-point rating scale, ranging from "Strongly agree" to "Strongly disagree" was used to identify the level that the respondent agrees with each subject.

Table 2. Reliability of the instrument

Questions	Item Num.	Average Spearman's correlation coefficient	Reliability level
Activity	23	0.7007	Strong
Interest	22	0.6374	Moderate
Opinion	22	0.6379	Moderate

Reliability was conducted by a Test-Retest technique calculated by Spearman's correlation coefficient. A total of 31 respondents completed the questionnaire and the same group of respondents repeated the same questionnaire after two weeks. In Table 2, all variables regarding *activity*, *interest*, and *opinion* were tested for reliability. Based on the 95% confidence of the Spearman's correlation coefficient estimated scores for indicating reliability included strong reliability (0.70 and above), moderate reliability (0.40-0.60), and weak reliability (0.30 and below) (Dancey and Reidy, 2007). Questions for activity perspective have strong

reliability at an average Spearman's correlation coefficient 0.7007, while interest and opinion's reliability are at a moderate level. Therefore, all items were acceptable and reliable to measure the constructs.

Content validity test was conducted by five professors to ensure each question about lifestyle was valid for the topic. According to content validity for lifestyle questionnaires, three questions regarding activity, five questions about interest, and one question concerning opinion were eliminated. Five questions were removed due to the small variance of the answers. Therefore, the final questionnaire of activity, interest, and opinion contains 19 questions, 16 questions, and 17 questions respectively.

Ethics statement

All participants were informed about the aim of the study and gave their verbal consent. The study was approved by the research ethics review committee for research involving human research participants, health sciences group, Chulalongkorn University.

4. Result

The total number of respondents was 632 cases, 118 cases (18.7%) by off-line and 514 cases (81.3%) by on-line survey. After filtering out the questionnaires which were incomplete, the final sample for analysis in this study was 465 (73.6%) respondents. In Table 3, among the 465 cases, males and females are almost in the same proportion, 225 (48.4%) males and 240 (51.6%) females. Most of the respondents, 264 cases or 56.8%, are 60-64 years old. The smallest number of responses came from 70-73 year old people. The majority of the respondents are relatively highly educated with 204 cases (43.9%) graduating with a master's degree or above, and 191 respondents (41.1%) graduating with a bachelor's degree or equivalent. Classifying by revenue per month, around half of the respondents earn more than THB 50,000 a month, and about half of the respondents spend no more than THB 30,000 per month.

Table 3. Descriptive statistics of sample

Respondents	Frequency (%)	Respondents	Frequency (%)
Gender		**Revenue (Baht/month)**	
Male	225 (48.4%)	≤ 10,000	63 (13.5%)
Female	240 (51.6%)	10,001-20,000	86 (18.5%)
		30,001-40,000	43 (9.2%)
Age		40,001-50,000	50 (10.8%)
55-59 years old	122 (26.2%)	50,001-100,000	108 (23.2%)
60-64 years old	264 (56.8%)	> 100,000	115 (24.7%)
65-69 years old	55 (11.8%)		
70-73 years old	24 (5.2%)	**Expenditure (Baht/month)**	
		≤ 10,000	75 (16.1%)
Education		10,001-20,000	78 (16.8%)
Below vocational diploma	38 (8.2%)	20,001-30,000	90 (16.4%)
		30,001-40,000	59 (12.7%)
Vocational diploma or equivalent	32 (6.9%)	40,001-50,000	53 (11.4%)
		50,001-100,000	65 (14.0%)
Bachelor's degree or equivalent	191 (41.1%)	> 100,000	45 (9.7%)

Master's degree or above	204 (43.9%)		

4.1 Factor analysis

An exploratory factor analysis was performed in SPSS Software to identify the underlying dimensions of each psychographic measurements of lifestyle, including activity, interest, and opinion. Kaiser-Meyer-Olkin (KMO) for activity, interest, and opinion were 0.849, 0.846, and 0.867 respectively, while Bartlett's Test of Sphericity shows supports on all measurements at a 0.000 level of significance, which indicated that the data were appropriate for principal components analysis. Thus, the Principal Component Analysis (PCA) with Orthogonal Rotation was viable. Accordingly, responses of the activity, interest, and opinion were factor analyzed with varimax rotation. An eigenvalue of 1.0 was used for factor extraction criterion.

4.1.1 Lifestyle – Activity

The results indicated a four-factor solution (Table 4) that accounted for 52.258% of the total variance. The four factors obtained were named as follows according to included activities with the highest factor loadings. The variances explained for each factor were 17.916%, 13.721%, 12.688%, and 7.889%, respectively.

Travelling, joint events including religious ceremonies, clubs, and charities, exercise, etc. are the main activities for Factor Activity 1: outgoing, sociable and generous. Gardening, cooking, embroidery, and taking care of animals are the main activities for Factor Activity 2: homemaker and nature-loving. Reading books, spending time with the family and going out shopping and dining are the main activities for Factor Activity 3: family and shopping. Staying alone and spending time at home are the main activities for Factor Activity 4: isolated and unsociable.

4.1.2 Lifestyle – Interest

The results indicated a four-factor solution (Table 4) that accounted for 58.421% of the total variance. The four factors obtained were named as follows according to included interests with the highest factor loadings. The variances explained for each factor were 17.725%, 16.448%, 14.579%, and 9.669% consecutively.

Learning new skills, religion and culture, taking care of health, concern for food hygiene, and finding solutions are the main interests for Factor Interest 1: physical and mental health-conscious, self-development and problem-solving. Investment, new trends in fashion, technology and product and service solutions are the main interests for Factor Interest 2: trendy, and interested in the future and living. Cooking, cleaning, and home decoration solutions are the main interests for Factor Interest 3: homemaker and organized. Children and community development solutions are the main interests for Factor Interest 4: family and social concerns.

4.1.3 Lifestyle – Opinion

The results indicated a four-factor solution (Table 4) that accounted for 55.589% of the total variance. The four factors obtained were named as follows according to included opinions with highest factor loadings. The variances explained for each factor were 16.145%, 15.906%, 13.106%, and 10.433% consecutively.

The main opinions for Factor Opinion 1: self-reliance and self-sufficiency are about beliefs that work experience is more important than a degree; people should be able to continue working without limitation by retirement; people should stand on their own feet; and it will be better tomorrow. The main opinions for Factor Opinion 2: believe in equality, self-development, and social responsibility are about beliefs that a

country's politics and economics are all citizen's concern; elderly people should know about computers and technology; and the private sector should implement a CSR program. The main opinions for Factor Opinion 3: moderationist and civilized are about beliefs that people should live in moderation; religious doctrines are important, and Thai culture should be preserved. The main opinions for Factor Opinion 4: leader and independent are about beliefs that oneself is a leader rather than a follower; oneself is younger than people in the same generation; and old age is the most independent age.

Table 4. Factor analysis of activity, interest and opinion (AIO)

	Factor 1	Factor 2	Factor 3	Factor 4		Factor 1	Factor 2	Factor 3	Factor 4		Factor 1	Factor 2	Factor 3	Factor 4
Activity 1	.296	.227	.007	.222	Interest 1	-.002	.156	.796	.169	Opinion 1	.130	.119	.068	.709
Activity 2	.187	.337	.434	.151	Interest 2	.170	.085	.786	.122	Opinion 2	.059	.088	-.067	.758
Activity 3	.265	.613	-.110	.042	Interest 3	.000	.145	.166	.786	Opinion 3	-.010	.051	.466	.657
Activity 4	.105	.735	.044	.068	Interest 4	.020	.583	.127	.184	Opinion 4	.047	.188	.704	.184
Activity 5	.136	.709	-.032	.134	Interest 5	.353	.292	.079	.588	Opinion 5	.061	.801	.043	.134
Activity 6	.116	.608	.196	.021	Interest 6	.273	.593	.025	.274	Opinion 6	.099	.708	.168	.106
Activity 7	.093	.422	.500	.067	Interest 7	.465	.267	.379	-.188	Opinion 7	.327	.281	-.194	.319
Activity 8	.660	.198	.297	-.073	Interest 8	.238	.496	.526	-.051	Opinion 8	.158	.594	.379	.097
Activity 9	.450	.450	.165	.081	Interest 9	.112	.780	.214	-.001	Opinion 9	.191	.731	.247	.024
Activity 10	.071	.040	-.024	.827	Interest 10	.339	.747	.062	.025	Opinion 10	.335	.401	.393	.159
Activity 11	-.121	.226	.091	.787	Interest 11	.620	.151	.428	-.195	Opinion 11	.519	.333	.339	.137
Activity 12	.514	.056	.519	.059	Interest 12	.354	.059	.537	.248	Opinion 12	.737	-.085	.076	.029
Activity 13	.627	.068	.440	.038	Interest 13	.640	.118	.157	.276	Opinion 13	.748	.052	.252	.017
Activity 14	.755	.206	.129	-.063	Interest 14	.559	-.110	.231	.431	Opinion 14	.637	.291	.080	.093
Activity 15	.806	.224	-.029	.015	Interest 15	.738	.340	.105	.080	Opinion 15	.631	.271	.162	.152
Activity 16	.666	.190	.217	.015	Interest 16	.656	.387	-.010	.156	Opinion 16	.294	.211	.697	-.065
Activity 17	.163	-.085	.783	-.034						Opinion 17	.408	.225	.613	-.092
Activity 18	.121	.046	.719	-.024										
Activity 19	.385	-.188	.370	.266										

4.2 Cluster analysis

After the identification of the factorial structure of lifestyles, factor scores were calculated and submitted to a cluster analysis by SPSS Software to segment the participants who share similar characteristics. K-Means Clustering, which was a non-hierarchical algorithm, was applicable since the sample consisted of more than 200 cases, and the number of elderly people clustered in Bangkok has not been reported before. Cluster analysis was conducted by using factor scores of four activity factors, four interest factors, and four opinion factors obtained from the factor analysis. The results are shown in Table 5. Cluster 5 is the largest cluster with 114 cases or 25 percent, followed by Cluster 1 accounting for 110 cases or 24 percent. The following clusters were almost equal in size: Cluster 4 and 6 have 88 cases (19%) and 83 cases (18%), respectively. The smallest cluster is Cluster 3, accounting for only 4 percent of the sample. The significance test in ANOVA shows that the means in the clusters are different from each other.

Table 5. Cluster analysis of activity, interest, and opinion factors

	Cluster 1	Cluster 2	Cluster 3	Cluster 4	Cluster 5	Cluster 6
Respondents:	110 cases	50 cases	20 cases	88 cases	114 cases	83 cases
Activity						

Factor 1: outgoing, sociable and generous	**.88250**	.06824	**-1.05837**	-.43043	-.17031	-.26538
Factor 2: home maker and nature-loving	**.63013**	.05848	**.79233**	-.48035	**-.56273**	.22093
Factor 3: family and shopping	.32027	**.66515**	-.18097	.56854	.38371	**-.70578**
Factor 4: isolated and unsociable	.06860	-.55027	-.08216	**-.76781**	.31301	**.64453**
Interest						
Factor 1: physical and mental health-conscious, self-development, and problem-solving	.51397	**.69566**	.36488	-.83641	.07677	-.40681
Factor 2: trendy and interested in the Future and living	.41427	-.48558	-1.23684	**1.37960**	**.65674**	**-.71672**
Factor 3: home maker and organized	**.59397**	-.29961	**.68653**	-.65860	-.31953	.36503
Factor 4: family and social concerns	**.63146**	.01197	-.34587	-.72338	**-.63994**	.13874
Opinion						
Factor 1: self-reliance and self-sufficiency	.44184	.34912	.77209	**1.34617**	-.19779	-.45302
Factor 2: belief in equality, pay attention to economics, politics, and social responsibility	.30469	**-.72452**	**.85611**	-.45860	**.58609**	**-.49241**
Factor 3: moderationist and civilized	.21061	**.75048**	-.19806	**-.95425**	-.10816	.47679
Factor 4: Leader and independent	**.55698**	-.00981	**-1.77425**	**1.60750**	.28141	-.43914

4.2.1 Lifestyle segment descriptions

Each cluster created was given a name to emphasize the dominant lifestyle characteristics of the respondents in that particular cluster. Displayed in Table 4 are the factor items in each cluster and their respective loadings, showing the relative importance of each item.

Cluster 1. The first cluster was labeled "Sociable" (24% of the sample) because its members had the highest factor score on the scale "outgoing, sociable and generous" (.88250). The elderly people in this cluster like socializing and helping others. They are outgoing and still love traveling, playing sports, and joining events, including parties and charities. They are also a family person who looks after the house and the family according to the high score on the scale "family and social concern" (.63146). They may be a leader of the family and society due to a high score on the scale "leader and independent" (.55698). Even though they are older, they still love to play an important role in their family and society.

Cluster 2. This cluster was labeled "Healthy living" (11% of the sample) because its members had the highest factor score on the scale "physical and mental health-conscious, self-development, and problem-solving" (.69566) and "moderationist and civilized." (.75048) This cluster is composed of health-conscious people who take care of both their physical and mental health, as well as their family. They have religious and cultural beliefs that they inherit. They live following the Middle Path Theory and do not care about political or economic issues. They prefer to be healthy to live on their own and have the ability to take care of themselves.

Cluster 3. The smallest cluster was labeled "Homemaker" (4% of the sample) because its members had the highest factor score on the scale "homemaker and nature-loving" (.79233) and "homemaker and organized" (.68653). This group does not like socializing but stays at home, gardening or raising animals. They accept their status in their old age and have a proper lifestyle according to their age. Therefore, they are not interested in new trends or new technology but still follow national and political events and news. This cluster is relatively similar to the image of aging people in the past; however, this cluster accounts for the smallest proportion of the sample, which implies that the elderly lifestyle has considerably changed from the past.

Cluster 4. This cluster was labeled "Self-Reliant" (19% of the sample) because its members had the highest factor score on the scale "trendy, and interested in the future and living," "leader and independent" (1.60750), and "self-reliance and self-sufficiency" (1.34617). They are independent and self-reliant. They have a more modern vision than others, do not agree with retirement policy, but believe in lifelong learning. They are still interested in investment and new trends to develop themselves, while they do not pay much attention to religion and old culture. They do not like to stay alone, enjoy staying with their family but are not quite sociable. The family should understand that elderly people who have such lifestyle as they still believe that they have ability to work and develop themselves, while they need the family to stay surrounded by.

Cluster 5. This largest cluster was labeled "Modernism" (25% of the sample) because its members had the highest factor score on the scale "trendy, and interested in the future and living" (.65674) and "belief in equality, pay attention to economics, politics, and social responsibility" (.58609). They are modern as they follow new trends, fashion, as well as social, political, and economic events. They pay attention to their surroundings except their homes and families due to a significantly low score on the scales "family and social concern" and "home maker and organizable". This kind of lifestyle surprisingly shows a new trend for elderly people in this era, which is totally different from what people normally think of older generations.

Cluster 6. The last cluster was labeled "Introvert" (18% of the sample) because its members had the highest factor score on the scale "isolate and unsociable" (.64453), while they had significant negative scores on the scale "trendy and interested in the future and living" (-.71672). They prefer to stay alone at home and are not interested in their surroundings or new trends. They live sufficiently and believe in religion as thier spiritual anchor, for example, following the Middle Path Theory. This type of an elderly person prefers to live peacefully after they retired.

4.2.2 Segment's demographic profiles

The demographic profiles of the clusters were then examined (Table 6). Several cross-tabulation calculations were performed to provide a demographic profile and the percentages of each cluster of each demographic profile were calculated (Table indicates '% within demographic profile'). In terms of gender profile, however, percentages were calculated within the cluster; male and female account for a similar proportion (225 and 240 cases, respectively). This study further employed chi-square tests to delineate the uniqueness of each cluster in terms of demographic characteristics and lifestyle clusters. To determine whether there was an association between clusters and demographic profiles, the Chi-Square Test of Independence calculations was utilized (Table 6). Since the p-value was greater than the significance level ($\alpha = 0.05$), the results show that gender, age, marital status, revenue, and expenditure were significantly different among all clusters.

Table 6. Demographic profiles of the six clusters of baby boomer lifestyle

	Total	Cluster 1 *Sociable*	Cluster 2 *Healthy living*	Cluster 3 *Home-maker*	Cluster 4 *Self-Reliant*	Cluster 5 *Modernism*	Cluster 6 *Introvert*	Chi-Square Value	Sig. Level
Respondents:	465	110 cases	50 cases	20 cases	88 cases	114 cases	83 cases		
Gender				*% within Gender (Row %)*				**32.455**	**.000**
Male	225	54 (49%)	13 (26%)	6 (30%)	50 (57%)	73 (64%)	29 (35%)		
Female	240	56 (51%)	37 (74%)	14 (70%)	38 (43%)	41 (36%)	54 (65%)		
Age				*% within Age (Row %)*				**30.662**	**0.01**
55-59 years old	122	29 (24%)	8 (7%)	6 (5%)	20 (16%)	29 (24%)	30 (25%)		
60-64 years old	264	62 (23%)	26 (10%)	7 (3%)	56 (21%)	70 (27%)	43 (16%)		
65-69 years old	55	12 (22%)	10 (18%)	4 (7%)	6 (11%)	14 (25%)	9 (16%)		
70-73 years old	24	7 (29%)	6 (25%)	3(13%)	6 (25%)	1 (4%)	1 (4%)		
Marital Status				*% within Status (Row %)*				**33.883**	**.004**
Single	85	15 (18%)	16 (19%)	3 (4%)	13 (15%)	18 (21%)	20 (24%)		
Married or cohabitation	310	73 (24%)	28 (9%)	13 (4%)	67 (22%)	86 (28%)	43 (14%)		
Widow	31	12 (39%)	5 (16%)	1 (3%)	3 (10%)	3 (10%)	7 (23%)		
Divorce or separation	39	10 (26%)	1 (3%)	3 (8%)	5 (13%)	7 (18%)	13 (33%)		
Revenue (Baht/month)				*% within Revenue (Row %)*				**58.721**	**.000**
Less than 10,000	63	16 (25%)	5 (8%)	8(13%)	9 (14%)	7 (11%)	18 (29%)		
10,001-20,000	86	19 (22%)	11 (13%)	3 (3%)	16 (19%)	15 (17%)	22 (26%)		
30,001-40,000	43	10 (23%)	7 (16%)	0 (0%)	5 (12%)	9 (21%)	12 (28%)		
40,001-50,000	50	10 (20%)	7 (14%)	2 (4%)	12 (24%)	11 (22%)	8(16%)		
50,000-100.000	108	29 (27%)	15 (14%)	3 (3%)	21 (19%)	27 (25%)	13 (12%)		
More than 100,000	115	26 (23%)	5 (4%)	4 (3%)	25 (22%)	45 (39%)	10 (9%)		
Expenditure (Baht/month)				*% within Expenditure (Row %)*				**66.930**	**.000**
Less than 10,000	75	19 (25%)	7 (9%)	8(11%)	10 (13%)	9 (12%)	22 (29%)		
10,001-20,000	78	18 (23%)	15(19%)	3 (4%)	15 (19%)	13 (17%)	14 (18%)		
20,001-30,000	90	26 (29%)	10(11%)	3 (3%)	15 (17%)	15 (17%)	21 (23%)		
30,001-40,000	59	12 (20%)	8(14%)	2 (3%)	13 (22%)	16 (27%)	8 (14%)		
40,001-50,000	53	10 (19%)	5 (9%)	3 (6%)	14 (26%)	15 (28%)	6 (11%)		
50,000-100.000	65	14 (22%)	4 (6%)	1 (2%)	8 (12%)	28 (43%)	10 (15%)		
More than 100,000	45	11 (24%)	1 (2%)	0 (0%)	13 (29%)	18 (40%)	2 (4%)		
Current Occupation				*% within Current Occupation (Row %)*					

Unemployed/ Retired	142	38 (27%)	20 (14%)	8 (6%)	18 (13%)	30 (21%)	28 (20%)
Private organization employee	99	16 (16%)	5 (5%)	4 (4%)	21 (21%)	41 (41%)	12 (12%)
Self-employed/ Business owner	120	27 (23%)	13 (11%)	2 (2%)	26 (22%)	24 (20%)	28 (23%)
Government officer	59	19 (32%)	7 (12%)	1 (2%)	11 (19%)	10 (17%)	11 (19%)
Freelancer	78	19 (24%)	9 (12%)	5 (6%)	19 (24%)	16 (21%)	10 (13%)

Cluster 1 shows that almost the same proportion of males and females are sociable and pay attention to their family, while they love traveling and joining social events. In Clusters 2 and 3, the number of females is almost three times as many as that of males. Therefore, women tend to have a healthier lifestyle and do more housework than men, while they like going out shopping and dining. Males tend to be more independent, and are more interested in future trends and investment than females according to Clusters 4 and 5. Women seem to live more sufficiently than men and do not follow new trends according to Cluster 6.

The clusters which are representative of the age group 55-59 are Clusters 1, 2, and 6, corresponding to baby boomers who have a sociable and healthy lifestyle, while some have a sufficient lifestyle. Cluster 5 is the best representative of the age group 60-64 with a modern lifestyle while representing the least of a homemaker person. People in the age group 65-69 are distributed almost evenly over all clusters with no significant difference. Surprisingly, people in the oldest age group 70-73 in this study are mostly sociable and the least isolate. Also, they are likely to join activities including family activities according to Clusters 2 and 4.

Baby-boomers who earn less than 40,000 Baht per month seem to have a more isolated lifestyle. According to Cluster 6, the majority of revenue group 40,001-50,000 are self-reliant and likely to continue working and investing. People in the revenue group above 50,000 Baht per month are more likely to have a sociable and modern lifestyle.

In terms of expenditure per month, unsociable baby boomers tend to spend money the least. On the other hand, the sociable cluster tends to have a monthly spending of more than 10,000 Baht to up to 20,000 Baht. People who spend more are modern, which may result from a lifestyle following new trends and fashion. They do not pay much attention to their home and family, so they may disregard saving for their family.

Considering occupation found those baby boomers who are mostly retired or unemployed like socializing and helping others, and have a loving family and enjoy looking after the house and family. Since they are not working, they tend to have free time for traveling, playing sports and joining events including parties and charities. Similarly, the respondents who work in a government organization are sociable, as well as show leadership. While the baby boomers who are self-employed or own their business and the freelancer group are not only sociable but also have a self-reliant lifestyle. They do not agree with retirement policy but believe in lifelong learning. That may be the reason that they keep continuing their business or freelance job. However, almost the same proportion of the self-employed and business owners are relatively introvert. The cluster which is the best representative of the employees of a private organization is Cluster 5, corresponding to baby boomers who have a modern lifestyle.

5. Discussion and conclusion

This study considered the elderly's lifestyle segmentation. Demographic data, in and of themselves, do not provide sufficient information in segmenting the elderly market. The lifestyle of the elderly provides more valuable information than chronological age alone. This lifestyle information can be used by a marketer to improve marketing strategies to appeal to a senior target group which is becoming the main segment of the aging society. At the same time, the world has transformed to a digital society. Information and communication technology has been widely implemented in society, including health and medical services, financial planning, etc. The majority of ageing baby boomers approaching retirement with a modern lifestyle may be comfortable with this technology, while others may find new technology difficult to handle. By using lifestyle clusters, desirable target markets could be able to be identified and understood. Marketers and technology developers should take this majority target group into account and understand how elderly people adapt in the complex process of informatization.

According to the findings, baby boomers' lifestyle could be identified in 6 types: sociable, healthy living, homemaker, self-reliant, modernism, and introvert lifestyle. Surprisingly, up to one-fourth of the sample have a modern lifestyle. They pay attention to their surroundings: keep up to date with new trends, fashion, as well as social, political and economic events. Males account for this cluster more than females. People who have such a lifestyle earn more revenue than others and also spend more than others at the same time. Most of them work for a private organization. Another majority cluster represents baby boomers who like socializing, are outgoing, and take care of their home and family. Retired people seem to be the largest group who enjoy such a lifestyle. The third cluster is the self-reliant baby boomers among whom there are more men than women with an independent lifestyle and they do not willingly stop working. The introvert lifestyle cluster represents mainly females and baby boomers who earn less than 40,000 Baht a month. Therefore, they tend to live sufficiently. The two smallest clusters are healthy and homemaker that are mainly women and retired or self-employed.

Such findings seem to reflect the different lifestyles of elderly people in most people's minds. Baby boomer's new lifestyle trend would lead to different marketing strategies for each target group. According to different lifestyles of baby boomers in Bangkok, all sectors should develop products or services to suit each segment, as well as policies or welfare to facilitate elderly people according to their lifestyles. However, to institute the baby boomer lifestyle in Thailand, location may be required to be taken into account. Baby boomers living in another part of the country or a rural area may have a different lifestyle from those living in the Bangkok Metropolitan region. Future studies are needed to cover all districts of the country to confirm the results.

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