



SENIOR RESEARCH

Topic: Demographic and Economic Factors Affecting
Adults' Perceptions Toward the Elderly in Thailand

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Abstract

Aging population issue, which results from decreasing birth rate and increasing proportion of older people (65+), has recently become more and more crucial in Thailand. The increasing rate of Thai senior citizens has been even more rapid than that of the world's seniors. The attitudes toward the elderly play a role in this issue since they were found to affect their well-being and behaviors. Hence, this research aims to analyze how older people are perceived in Thailand, and what influences those perceptions. Data used in this study is based on the 2011 survey from the National Statistical Office (NSO) which is about the opinions people aged from 18 to 59 had of the elderly aged over 60 in Thailand. The data was put into two main methods: Confirmatory Factor Analysis (CFA) and Structural Equation Modeling (SEM), and the results appear that Thai adults hold favorable perceptions toward the elderly, and factors affecting the perceptions are region, age and number of seniors in family. These significant factors are consistent with modernization theory, social identity theory and conflict theory on aging. Concerning the society development as time goes by together with the aging population, the role and status of seniors could be reduced, and the positive perceptions toward them could have a downward trend.

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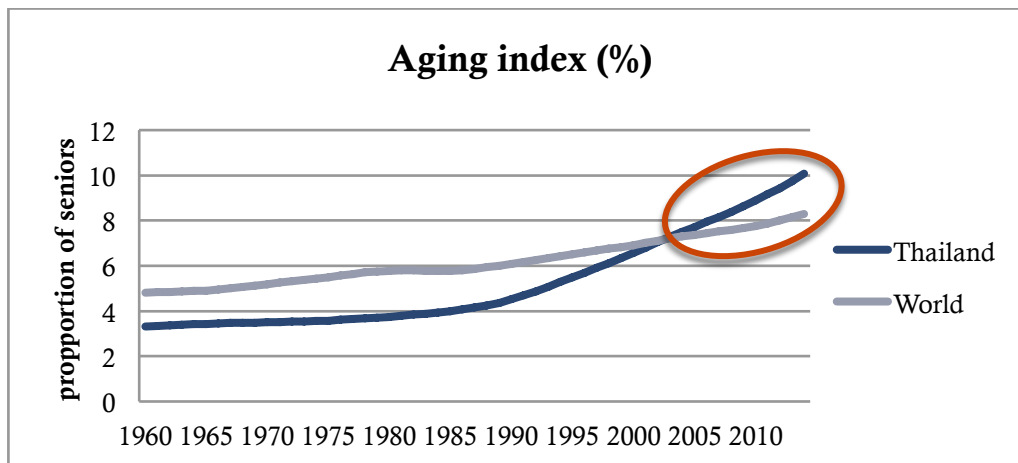
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1. Introduction

Aging population is a critical issue nowadays in Thailand and globally. The world population has been shifting due to the increasing proportion of elderly and decreasing fertility rates. In Thailand, the aging population is growing rapidly at even faster rate than the world aging population. Figure 1 represents the evidence for the increasing proportion of seniors, who are 65 and above, in Thailand compared to the world. The slope of Thai aging index is rather steep from 1990 to 2014, indicating the recent rapid growth of senior citizens in Thailand. According to the World Bank, while the proportion of total seniors in the world increases only 0.8% from 7.3% in 2006 to 8.1% in 2014, the proportion of Thai seniors increases as much as 2.2% from 7.9% in 2006 to 10.1% in 2014.

Figure 1: Proportion of Seniors to Total Population in Thailand and the World



Concerning the aging population, one issue that could come with it is ageism, the negative attitudes towards the older persons. It originated from the Western, particularly in American culture where 72% of American elderly were discriminated from people and institutions. How seniors are perceived is vital since it was found that attitudes toward seniors have an impact on how they live and the way they act. The well being of the elderly depends not only on the old age allowance and social welfare but also common attitudes toward them. However, based on the 2011 adults' opinion survey from the National Statistical Office (NSO), ageism does not exist in Thailand. The reason should come from the cultural aspects of high seniority, filial piety and family integration. Most Thai adults, 76% of the respondents in the survey, expect to rely on their children when becoming elderly. Hence, it should be concerned about how seniors are perceived in Thailand and what influences those perceptions toward

them. This paper aims to represent the way people aged 18-59 perceive the elderly and figure out what really affects the perceptions toward the elderly in Thailand in terms of demographic and economics factors from the NSO survey. The study differs from other research papers since it analyzes factors of perceptions toward the elderly in Thailand using Confirmatory Factor Analysis (CFA) and Structural Equation Modeling (SEM) methods. Moreover, the model also includes the number of seniors in the family as a factor influencing the perceptions.

The organization of this paper is as follows. Section 2 describes theoretical framework illustrating theories that some of the research hypotheses are based on. Section 3 provides previous empirical studies related to the perceptions toward older persons. Section 4 explains research hypotheses. Section 5 and 6 present data and model used in this research, respectively. Section 7 represents results and conclusions from this study, and section 8 is the part of discussions about the perceptions toward the elderly and aging population issue in Thailand.

2. Theoretical Framework

2.1 Modernization Theory on Aging

According to Goldstein & Beall (1981) modernization was defined as the revolution of a relatively rural society, that has comparatively restricted technology, undifferentiated institutions and conventional views, toward more modern society with high technology, differentiated institutions, and unconventional perspectives. The modernization theory on aging, initiated by Cowgill & Holmes (1972), states that older persons have lower importance when the society develops due to the conversion from agriculture and handcrafted production, which involve with families, to manufacture, which requires simply young labor. Some cross-cultural studies support that modernization leads to the lower the status of the elderly.

In 1974, the modernization theory on aging was refined and classified into four categories which are health technology, economic and industrial technology, urbanization, and education.

First, the improvement of health technology, which includes medical practice as well as public health, generates not only advantages but also disadvantages toward the elderly. While it benefits them in terms of the healthcare and longevity, it pushes

the elderly out of the labor force since the greater longevity workers live, the higher competition the labor market has. In manufacture sector, younger workers are preferred over older ones driving the elderly to retirement. According to the modernization theory when they are retired, they lose incomes as well as respects bringing about the lower importance.

Second, the growth of economic and industry technology has a negative impact on the social position of the elderly. The reason is similar to the previous improvement. New jobs created from this growth of technology prefer young workers whose potential suits the work in the industrial sector since they are inclined to be more flexible, and have greater strengths. Consequently, older people have to retire causing the decline of their role in the society. It is interesting that how dependency works in modern societies contrast with how it does in the conventional ones. In conventional communities, younger generation relies on the older since the older have dominance over the family business whereas in modern societies, older people depend on the younger due to the exclusion from industrial labor market.

Third, urbanization correlates with the improvement of health, economic, and industrial technology. Urban companies tend to look for younger generation whose expected salary is considerably lower, relative to those high experienced seniors. In addition, companies are likely to invest and develop their workforces in long term, keeping the choice to hire seniors away. Urbanization also attracts adults to move and work far from the elderly family members, creating a nuclear family which comprises only parents and their children and weakening the traditional norms of extended family and dominant seniors. Urbanization takes grandchildren away from their grandparents causing the decrease in intergenerational contacts between young and old people; as a result, the status of older people declines.

Fourth, the evolution of education can widen the gap between the old and the young. This is because older generations seem to obtain conventional kind of knowledge whereas young generations learn in more effective way with high technology. Moreover, the progress in technology together with science can also take place the elderly' specialized skills resulting in the lower status of the elderly.

Later on, the modernization theory was tested in cross-country research by

Palmore and Manton (1974). They found that the social position of the elderly was comparatively low in the early phase of modernization, yet this is not constant throughout time. The study discovered that, in fact, the impact of modernization on the elderly's status fluctuates depending on the stage of modernization. Therefore, their suggestion about the modernization theory is to include the stage of modernization in the analysis.

Moreover, there are some critics about the inconsistency of the modernization theory. Anthropologists found that there was no uniformity and linearity consequences for the effect of modernization on the elderly's status. In addition, the theory was noticed to rely on inaccurate assumptions about the social position of the elderly in the past. It analyzed the impact of the modernization too broadly and neglected other relevant variations such as cultures, family structures and social classes. According to Quadagno (1982) former evidence showed that there was a remarkable alteration among different elderly in different societies and different time. Older Europeans differs from older Asians mainly due to the distinct cultures. Thus, older people cannot be categorized as one group for the whole around the world.

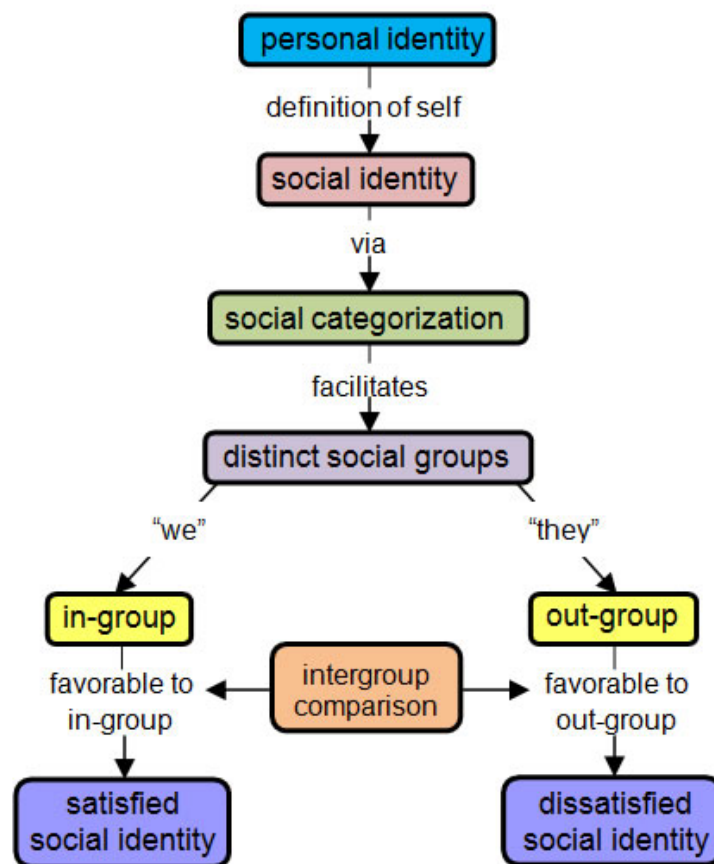
However, Fisher (1977) supported the decline in the elderly's status over time which was similar to the modernization theory, yet the conflict is that in America, the status had begun decreasing before the modernization occurred. He claimed that the decline in the elderly's status was the result of the cultural transition in the late eighteenth in the U.S. due to the prominence of the liberty and equality. The viewpoints full of liberty and equality devalued the seniority in older people. Nevertheless, regarding the period of declining elderly's status, Achenbaum (1978) insisted that the negative perceptions toward older people from the cultural transition began in the U.S. after the Civil war. The elderly were perceived favorably till 1860s. In spite of the unmatched time period found for the decline in the elderly's status, both researchers emphasized the cultural aspect instead of the change in socioeconomic factor.

Although, the modernization theory on aging has some arguments questioning its accuracy, it still sounds logical that the greater sophisticated society can lead to the decline in the elderly's status because of the rational explanations of 4 sub-categories of modernization mentioned earlier. Consequently, Hypothesis 1 in this study is based

on the modernization theory on aging, predicting that people in rural areas have more positive attitudes toward the elderly, relative to those in urban or suburb areas. This assumes the further from Bangkok, the less modernization.

2.2 Social Identity Theory on Aging

Figure 2: The structure of Social Identity Theory taken from Age of Sage



The above figure represents the components of the social identity theory created by Age of Sage. Before people can identify their social identity, they have to perceive their personal identity. The personal identity is the combination of biosocial indicators like sex, age and race, and it also includes people's life experiences (Brewer & Gardner 1996, & Weigert et al. 1986). When the personal identity of the definition of self is found, the next step is the social identity. People are not consistent with the personal identity here since they act following the perception from the group. According to Hogg & Abrams (1988), a social identity is a personal realization for a

social group that individuals belong. The social group comprises of people with the same social classification. The identification process is called self-categorization which takes the self spontaneously as an object that can be categorized or called in specific ways regarding other social classifications (Turner et al. 1987). The self-categorization is the core part of the social identity since it distinguishes social groups and reduces the ambiguity about themselves and others. People who hold the same social categorization as the self are classified into the group with the self and called the in-group. On the other hand, people with different social categorizations from the self are classified into the out-groups. The intergroup comparison appears when there are different groups in the society. The in-group has positive perceptions toward the group members and hold prejudices against the out-groups. The reason is that the in-group includes the self-identity and individuals attempt to keep the self-esteem. This classification into groups comes together with the individual roles as joining a group. The values and expectations created from the roles can bring about the behavior that is perceived to be appropriate.

Age identity is one of the classification categories in the social identity. Concerning the social identity theory initiated by Tajfel & Turner (1979), people assess their own age group more positively than others (Kite & Wagner 2002). The social identity theory on aging contains in-group bias process. Young adults are influenced by ageism causing the distance between them and the elderly which can lead to their identification of the elders simply as human beings (Butler 1975, 2009). Various research papers found that young adults have unfavorable attitudes toward older people and favorable attitudes toward young people. For example, according to Levy and Banaji (2002) young people appear to hold negative perceptions toward older people. One possible reason following the theory is because they perceive the older as the out-groups which includes others, not themselves. The negative attitudes perceived by the young are not only toward the aged but also the process of aging (Slotterback & Saarnio 1996). In terms of the opposite direction, the perception of the older group toward the younger seems to be rather complicated. The social identity theory suggested that the member of a group that has the perception of lower social position tends to apply strategies to preserve the self-identity. One possible strategy could be the concentration on aging advantages such as full of wisdom and experiences. The other strategy could be through isolating from the group by perceiving other older members in the group as a negative out-group. Yet, the latter

strategy may lead to ageism among the elderly themselves. Moreover, as time passes, the in-group of adults might have less differentiation from the out-group of older people and less positive perception toward their own group. However, according to Rupp et al. (2005), ageism does not exist in the elderly society. The elderly people, instead, hold more positive perspectives toward older groups (Chasteen et al. 2002). The negative attitudes toward the elderly are generally expected to be more prominent in younger than in older people.

There are also assumptions against the aforementioned belief that the younger hold more negative attitudes toward the elderly relatively. One is that as people get older, they hold more negative perceptions toward the elderly during the period before becoming the elderly or joining the social identity of the elderly in-group. Another comes from the pro-youth bias, which is the prejudice against old age. Not every older person can accept the truth about aging and be able to adapt to the new stage of life with optimistic viewpoint. According to Hummert et al. (2002), it was found that adults and the elderly are not very satisfied with their own age group. The main cause could come from the physical deterioration. Members of older age group are inclined to estimate their own in-group quite negatively or neutrally. It is undeniable that becoming elderly is not quite a pleasant process of life since it comes with negative effects on health condition as well as physical appearance.

Even though elderly people can be unsatisfied with themselves due to the health deterioration, people are inclined to view others with something in common to themselves more positively than those with distinctive characteristics. Therefore, Hypothesis 2 in the research, created following the social identity theory, assumes that age is positively related to the attitudes toward elderly since older adults are relatively more similar to the elderly.

2.3 Conflict Theory on Aging

The term 'dependency' was defined as an essential factor relevant to the adjustment of one's ability to live one's life normally (Gallagher et. al 1980). In other words, it was also perceived as a reliance on others for support or care that can come in the physical, social, economic or psychological domain (Baltes 1995). Conflict theory on aging states that while the child dependency is seen as normal, the old age dependency is perceived as pain and disturbance (Thorson 2000).

The dependency in old age is perceived mainly as a consequence of decline and deterioration due to the loss in physical and mental capabilities from aging. The elderly people need dependency since they are inclined to face problems in later life period due to an increase in biological vulnerability. Adapting themselves into aging tends to require great efforts and adjustment which can lead to stressful experiences for individuals and families. According to Brody (1985), most people experience some stages of dependency before the end of their lives.

While the child and old age dependencies are a common process in human development, they have different inner meanings and are perceived differently for three reasons.

First, the dependency in children is declining gradually along with time whereas the dependency in older people seems to last long and increase with time. As children grow up, they are less dependent, and the pace of decreasing dependency in children is related to the way their parents raise their children. In contrast, as the elderly people become older, they have higher dependency, and the caregivers do not know when they do not have to take care of the elderly anymore since they cannot control the deterioration of the elderly's health conditions.

Second, parents or guardians who bring up their children expect to rely on them in the future, yet the care for elderly family members is undervalued for the treatment benefits. It was viewed that investing in the young yields higher payoffs because of the greater productivity and the longer life span. This kind of concepts was also mentioned in the broader context like the health care access. According to Barrientos et al. (2003), due to the greater social benefits from curing the young, scarce resources were targeted to allocate more on the young than the older people. In the rational based assumption, it makes sense that people act more positively towards those with higher benefits to them or the society.

Third, the child dependency is generally expected due to the family plan of a couple whereas the old age dependency is an unexpected plan. When people are married, children issue is inevitable. The number of children in the family can be based on the preferences of the couple as well as the family status. Married couples have the vision of their lives with children and are prepared for that; as a result, the child dependency is commonly perceived as normal. On the other hand, the dependency in those grandparents or elderly family members can come in different and unpredicted ways that vary across individuals and families. Some older people,

especially American, may prefer to live on their own, yet the life span and health condition of the elderly are uncertain; as a result, they may have to depend on their adult children one day without signs. In the case that adults does not have high incomes, they may have to work harder or spend less to spare a part of their money for nursing the elderly. This can create pressure for those working adults leading to the perception of the elderly as burden.

Concerning the unfavorable perceptions of old age dependency due to the uncertain period of dependency, relatively less future value and unexpected family plan, Hypothesis 3 in this research expects that the higher number of seniors lead to the less favorable attitudes toward them due to the greater unexpected pressure.

3. Previous Empirical Studies

The analysis of factors influencing the perceptions toward the elderly in Thailand is developed from theories related to aging and other literatures in different countries. Numerous research papers analyzed perceptions toward the elderly in aging population countries, particularly in the U.S. For example, according to Ivester & King (1977), they studied American adolescents' attitudes toward the elderly and found that in the U.S., attitudes toward the elderly were more positive in rural area which they gave a reason that the families in rural area had higher integration. Besides, they found that social class had a positive effect on the perceptions toward the elderly whereas gender did not have any effect. However, Allan (2008) found that Canadian females held more positive attitudes toward older persons than males did. In terms of the study in the U.S., Laditka et al. (2004) also analyzed attitudes about aging there. What they found is that older respondents held more positive attitudes toward older Americans. This significant relationship is consistent with the social identity theory by Kite & Wagner (2002) since it stated that people hold more favorable perceptions toward their own age group. In addition, the study from Hweidi (2006) in Jordan also supported the positive relationship between age and perceptions toward the elderly. Moreover, the education was found to be positively related to the perceptions as well, and it also discovered that senior males in Jordan had more positive attitudes toward the elderly. This indicates the stronger effect of age than gender on the perceptions. In contrast, Thorson et al. (1974) disagreed with Hweidi in terms of the direct effect of age on the perceptions since he found age indirectly

affected the perception. Nevertheless, he agreed with the positive relationship of the education and the perceptions toward the elderly. Furthermore, according to Luo et al. (2010), Taiwan was found to have positive attitudes toward the elderly, especially from people with high level of education and urban dwelling. The research also supported that the attitudes toward the elderly affected the well-being of older Taiwanese, and age was found to have a positive relationship with the perceptions toward the elderly as well. A recent study by Ajayi (2015) found related theories on aging which are conflict on aging and modernization theories, implying the significant effect of society people live in and number of seniors in family people live with on the perceptions toward the elderly.

4. Hypotheses

Hypothesis 1: People in rural areas have more positive attitudes toward the elderly, relative to those in urban or suburb areas.

Although, Luo et al. (2010) found that those who are better-educated and live in urban areas have more positive attitudes toward the elderly in Taiwan, Americans living in rural area were found to perceive the elderly more positively (Ivester & King 1977). In addition, according to the modernization theory on aging by Cowgill & Holmes (1972), it states that older people have lower importance in more advanced society since the development in the society can force the elderly out of the workforce, create nuclear families isolating the elderly away from families and replace the elderly's specialized skills.

Hypothesis 2: Age is positively related to the attitudes toward elderly.

While Thorson et al. (1974) found the indirect effect of age on the favorable perceptions toward the elderly, Laditka et al. (2004), Hweidi (2006) and Luo et al. (2010) found that age is positively related to the favorable perceptions toward the elderly. Moreover, the social identity theory on aging by Kite & Wagner (2002) also indicates that people hold more positive attitudes toward their own age group. This is because people want to protect their own identity as well as self-esteem; as a result, they perceive people with the same characteristics as themselves more positively, and at the same time they bias against others who differ from themselves. In terms of

empirical evidence, Kite et al. (2005) found the older people are, the more positive attitudes toward elderly should be held.

Hypothesis 3: The higher number of seniors can lead to the less favorable attitudes toward them.

According to the conflict theory on aging by Thorson (2000), it implies that the perspectives toward elderly person as a dependent are quite negative, unlike those toward a child as a dependent mainly due to the uncertain and unexpected dependency in old age. Moreover, some studies (Zambrini et al. 2008, Allan & Johnson 2009, & Lee 2009) also found that living with the elderly does not cause more positive attitudes toward them, and it even increases the anxiety of aging for those who live with them. The other reason could be the quality of contact between those adults and seniors since it was found, instead of frequency of contact, to have impact on the attitudes toward elderly (Knox et al. 1986, & Schwartz & Simmons 2001). As a result, the less number of seniors is likely to obtain more quality contact resulting in more positive perceptions.

Hypothesis 4: Females hold more positive attitudes toward elderly than males.

Although, Ivester & King (1977) found no effect of gender on the perceptions toward the elderly, numerous studies (Zambrini et al. 2008, Bodner & Lazar 2008, Cherry & Palmore 2008, & Allan & Johnson 2009) found that males have less favorable perceptions toward elderly than females.

Hypothesis 5: Education has a direct relationship with the attitudes.

Various studies (Brown 1967, Campbell 1971, Gillis 1973, Thorson et al. 1974, & Hweidi 2006) found that the higher years of education bring about the greater favorable perceptions toward elderly.

Hypothesis 6: Income has an impact on the attitudes toward elderly.

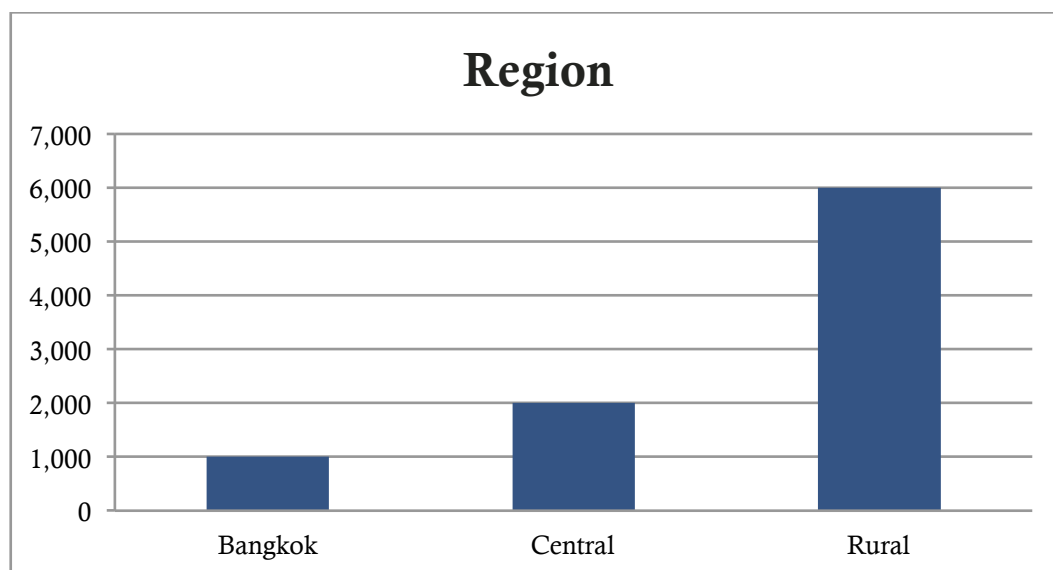
Thorson et al. (1974) suggested that social class might affect the perceptions toward elderly. Moreover, Ivester & King (1977) and Harris et al. (1975) found the positive correlation between income and the perceptions of the elderly.

5. Data

The data used in this study is based on the 2011 survey from the National Statistical Office (NSO). The survey is about the opinions people aged from 18 to 59 had of the elderly aged over 60 in Thailand. Stratified three-stage sampling was used to collect 9,000 observations from 5 areas of Thailand which are Bangkok, Central region except Bangkok, Northern region, Northeastern region, and Southern region. The sample communities were, first, randomly selected in each region, then in each sample community, sample households that have members aged between 18 and 59 were randomly selected, and after that sample household members were randomly selected to cooperate in the survey. The NSO officers interviewed the sample group with different gender, age, education level and career on 4 - 20 February 2011.

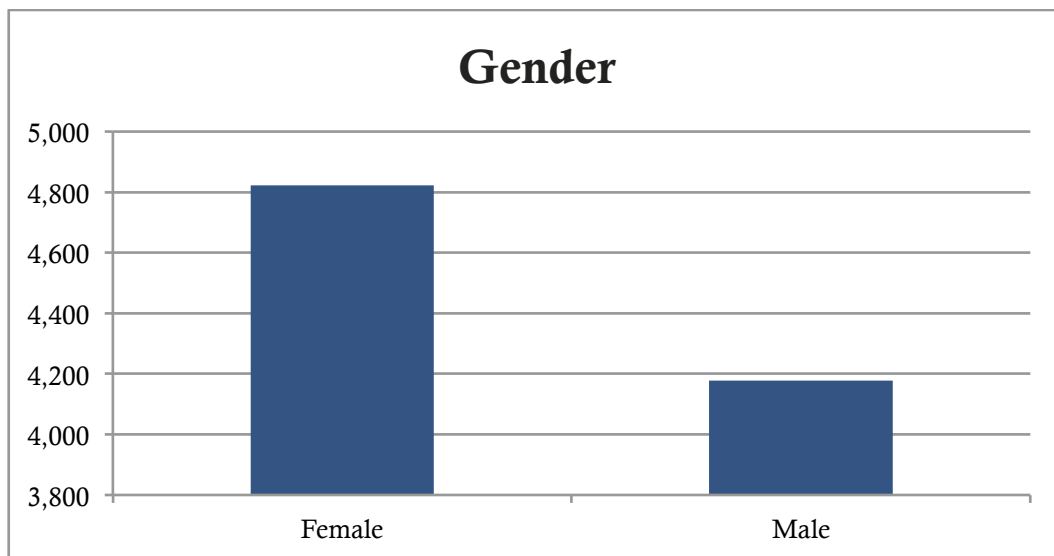
The expected factors affecting the perceptions toward the elderly are region, gender, age, education, number of seniors in family and income. The relevant information of the survey respondents is provided in the following bar graphs.

Figure 3: Regions that Respondents Live



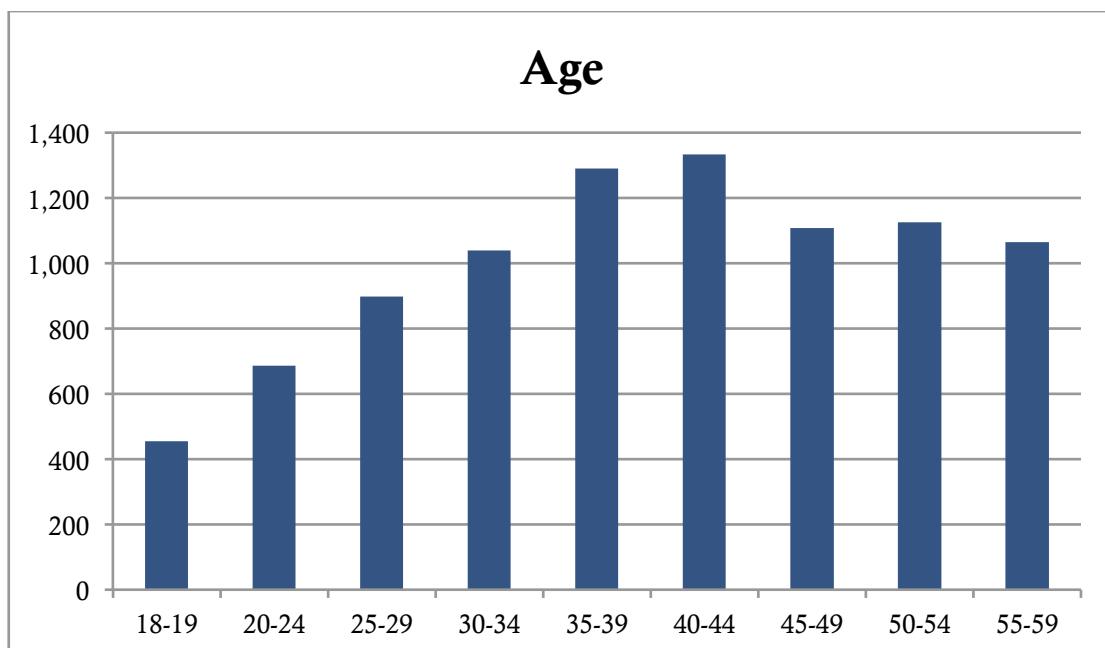
For the region variable, the North, Northeast and South are converted into rural areas so that the effect observed is compared between urban and rural areas. Hence, we can see that most of the respondents are from rural areas.

Figure 4: Gender of Respondents



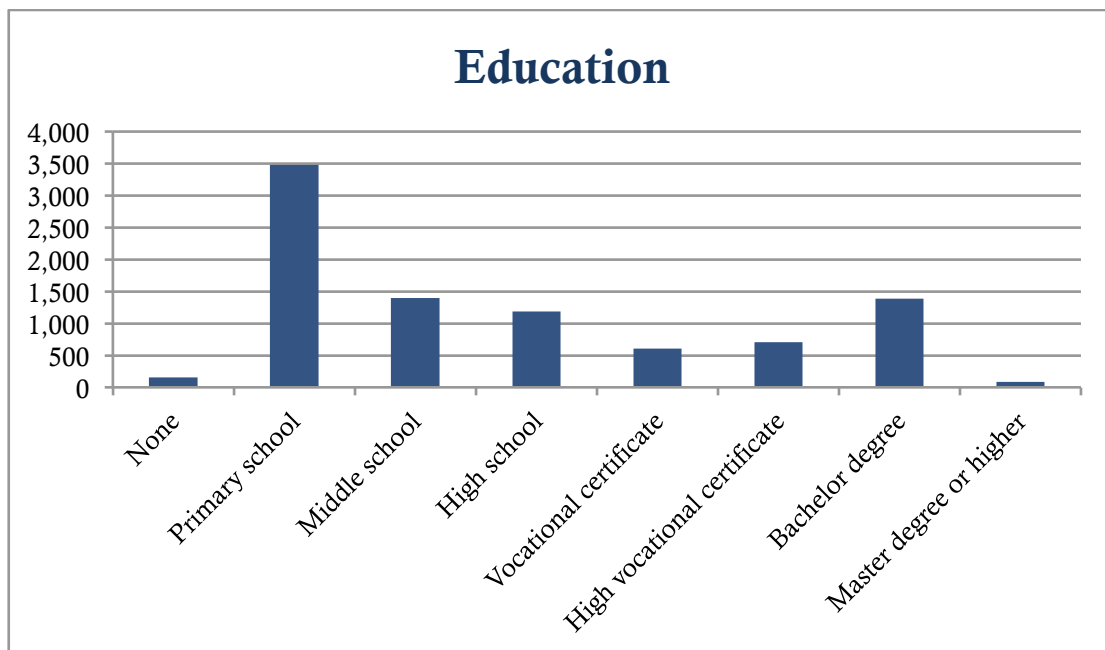
There are more females than males in this research. Females are counted for 46% of total respondents and males are the less 54%.

Figure 5: Age of Respondents



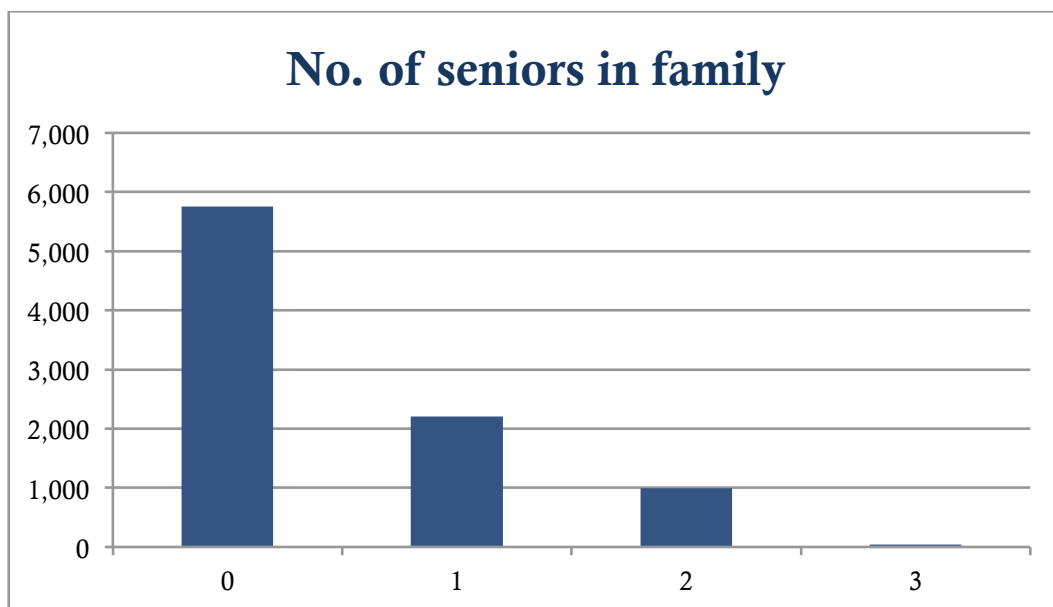
Most respondents, 65.8% of total respondents, age 35 and above, and the least portion of the survey respondents goes to young adults aged 18-19 which accounts for only 5%.

Figure 6: Highest Level of Education Respondents Achieved



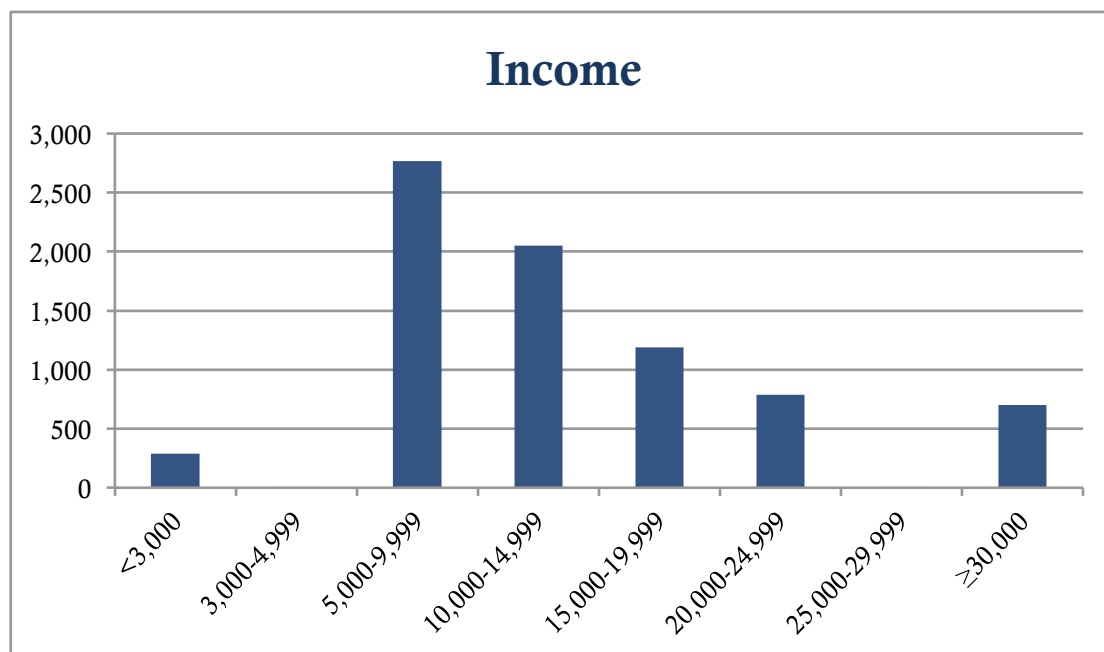
Most of the respondents achieved primary school as the highest level of education. This is consistent with the region information since most of respondents are from rural areas.

Figure 7: Number of Seniors in Family



Most adults in the survey, 63.97%, do not have any senior in the family. Some people have one or two elderly family members, and few people have 3 elderly family members.

Figure 8: Household's Monthly Income



Most adults from the survey, which accounts for 61.84%, have monthly income between 5,000 and 14,999 baht, and the number of people who receive higher income decreases with the range of higher income until 25,000-29,999 baht. While some respondents, 9%, earn more than 30,000 baht per month, there are also some, 3.67%, who earn less than 3,000 baht a month. This indicates the problem of income inequality in Thailand.

Table 1: Expected Factors Affecting the Perceptions Toward the Elderly in Thailand

Region	Gender	Age	Education	No. of seniors	Income
1 = Bangkok	0 = Female	1 = 18-19	1 = None	0 - 3	1 = < 3,000
2 = Central	1 = Male	2 = 20-24	2 = Primary school		2 = 3,000 - 4,999
3 = Rural		3 = 25-29	3 = Middle school		3 = 5,000 - 9,999
		4 = 30-34	4 = High school		4 = 10,000 - 14,999
		5 = 35-39	5 = Vocational		5 = 15,000 - 19,999
		6 = 40-44	certificate		6 = 20,000 - 24,999
		7 = 45-49	6 = High vocational		7 = 25,000 - 29,999
		8 = 50-54	certificate		8 = ≥ 30,000
		9 = 55-59	7 = Bachelor degree		
			8 = Master degree or higher		

Table 1 illustrates the expected factors applied to the model in Stata. For the region variable, the higher means the further away from Bangkok. For gender, the

higher indicates that males have more positive perceptions toward the elderly. For the rest four variables, the higher the numbers are, the greater the variables imply.

6. Model

The main analysis in this research is about the adults' perceptions toward the elderly, which is obviously abstract. Hence, the Structural Equation Modeling (SEM) is chosen to analyze the factors affecting the perceptions due to the fact that it is the appropriate model for the latent variable like perceptions. Before estimating the factors influencing the perceptions toward the elderly, Confirmatory Factor Analysis (CFA) method is conducted to measure the perceptions toward the elderly in Thailand. The concept of perceptions has multiple dimensions; as a result, the CFA is needed to capture those measurements for the perception. It is challenging how to observe people's perceptions, yet with the CFA and the opinion survey, what respondents answer in the related questions are estimated in the CFA bringing about the best-fitted indicators for the adults' perceptions toward the elderly in Thailand. The process of CFA isolated measurement error and selected the most appropriate indicators for the model. Consequently, the statements capturing the perceptions toward the elderly in Thailand from the CFA are what most Thai adults think about seniors. The perception indicators are those in the right-hand side of the model in figure 9 and 10. According to the survey, the CFA was derived from the part that asks for agreements of respondents toward sentences about seniors. Those respondents whose answers are not sure were dropped from the observation here, and the results are: 87% of respondents think that seniors have beneficial experiences. 91% think that they are good examples. 89.5% think that seniors should be given priority. 90% think that seniors can do things that benefit society. 91% think that seniors should earn respect. 91% think that seniors are worth for society, and 95% think that seniors should be taken care of. After the perceptions are realized in the form of model, the next step is about the estimation of the factors affecting the perceptions using the SEM which is the left-hand side of the figure 9 and 10. There are 2 models estimated for this study: model 1 includes all possible observations, and model 2 drops Bangkok residents or contains only respondents from suburb and rural areas to see if the significant factors vary from the rural perspectives.

Figure 9: SEM Model from Stata

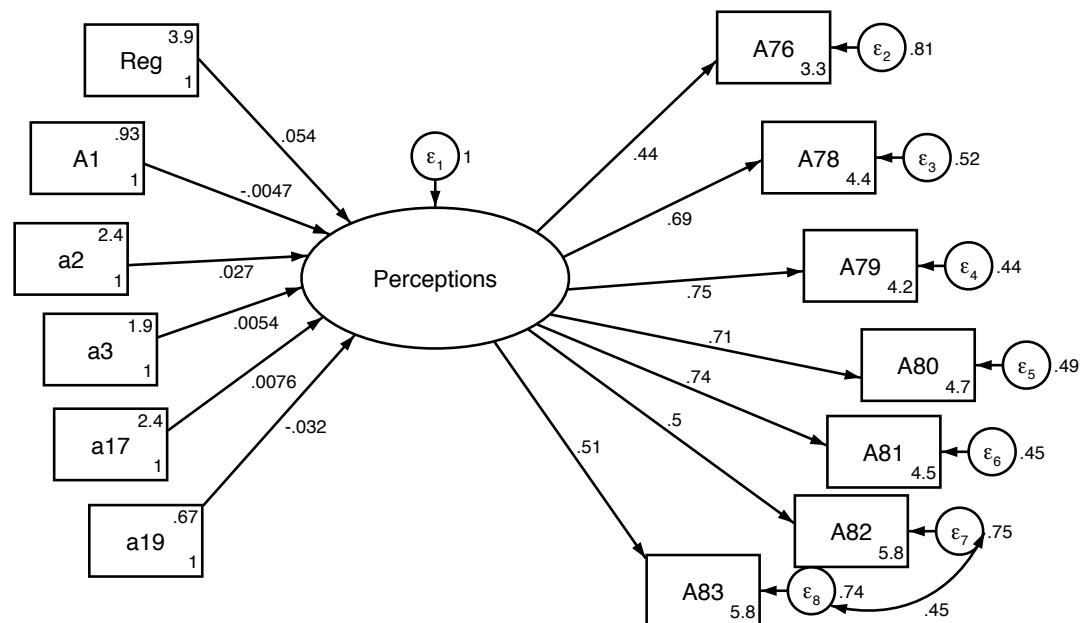
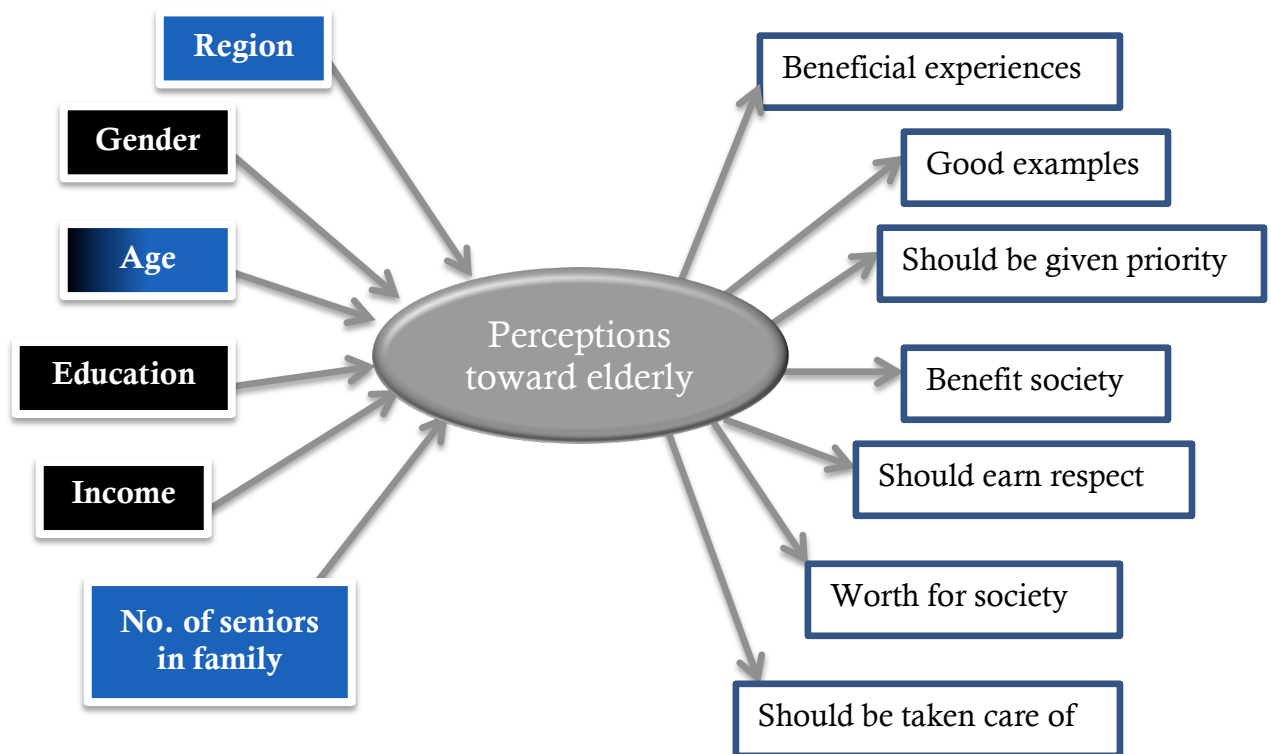


Figure 10: Visualized Diagram Clarifying Figure 9



7. Results and Conclusions

Table 2: Factor Analysis

	Eigenvalue
Factor 1	3.553
Factor 2	0.750
Factor 3	0.669
Factor 4	0.573
Factor 5	0.504
Factor 6	0.489
Factor 7	0.462

Table 3: Factor Loadings

	Factor 1
A76	0.665
A78	0.739
A79	0.732
A80	0.732
A81	0.754
A82	0.682
A83	0.678

Table 4: Alpha Analysis and Goodness of Fit

	Alpha
A76	0.820
A78	0.807
A79	0.809
A80	0.808
A81	0.804
A82	0.819
A83	0.830
Chi-square (13)	423.383
RMSEA	0.059

The three tables above are the part of CFA results. From table 2 and 3, after measurement errors were dropped from the CFA, there was only one factor that had eigenvalue more than 1, and factor loadings of every variable were more than 0.5. Then, alpha analysis in table 4 was estimated to assess the reliability of those indicators of perceptions toward the elderly. All alphas in the table are above 0.7 which is its standard value, confirming the reliability of the perception indicators. In terms of the goodness of fit, the Root Mean Square Error of Approximation (RMSEA) is low, indicating the good fit of the CFA.

Table 5: Results from 2 Models Estimated using the SEM

	Model 1	Model 2
Region	0.054*** (0.01)	0.047*** (0.01)
Gender	-0.005 (0.01)	-0.012 (0.01)
Age	0.027* (0.01)	0.033** (0.02)
Education	0.005 (0.02)	0.009 (0.02)
Income	0.008 (0.01)	0.005 (0.02)
Number of seniors in family	-0.032** (0.01)	-0.039*** (0.01)
Chi-square (49)	401.013	389.269
RMSEA	0.032	0.033

(* p < 0.1, ** p < 0.05, *** p < 0.01)

Table 5 represents the results from SEM part which can be described as follows. From the model 1 which includes all possible observations, there are two significant factors: region and number of seniors in family. The signs of both variables are as predicted and consistent with the modernization theory and conflict theory on aging. The results verify Hypothesis 1 and 3. For the region analysis, the further away from Bangkok people live, the greater favorable perceptions toward the elderly they hold, meaning that urban residents are inclined to have relatively less positive attitudes toward older people. This tends to support the modernization theory on aging which indicates that the social status and role of the elderly are relatively low in more advanced society (Cowgill & Holmes, 1972). In terms of the number of seniors in family, the signs in both models are negative implying that the higher number of seniors in the family, the less favorable attitudes toward them. It seems to

indicate that the old age dependency is not quite pleasant confirming the conflict theory on aging which states that while the child dependency is seen as normal, the old age dependency is perceived as pain and disturbance (Thorson, 2000). This is probably because the old age dependency is unexpected, and the period of the dependency is uncertain.

The model 2, excluding Bangkok residents which is 12% of total observations, has one more significant factor which is age. Region, age and number of seniors in family are statistically significant in this model. In terms of the region variable, it means that Thai adults who live in rural area perceive the elderly more positively than those who live in suburb area. Regarding age variable, while it is insignificant at 5% level in model 1, it is statistically significant in model 2, meaning that older people who live in suburb and rural areas hold more favorable attitudes toward the elderly than younger people in those areas. As a result, Hypothesis 2 is only applicable in model 2. For the number of seniors, the interpretation is the same as before, yet when both models are compared, this variable is more negative and significant in model 2. This means that in suburb and rural areas, the higher number of seniors in family has a stronger effect on the perceptions towards the elderly. The reason could be from the lower financial status since people in suburb and rural areas generally earn less, comparative to those in Bangkok. As a result, one more elderly in the family can lead to stress and pressure toward those adults who work for the family since they may either have to work harder to pay for a caregiver or have to spend more time taking care of the elderly.

To compare which model is more relevant to the data gathered from the survey, the goodness of fit is assessed by looking at the chi-square and RMSEA in table 5. The lower of both values are the better. While model 1 has slightly lower RMSEA, the chi-square value of model 1 is approximately 10 higher than that of model 2, indicating that model 2 is considered as a better model.

In both models, the insignificant indicators of the perceptions toward the elderly are the gender of the respondents, the highest level of education they achieve, and the household's monthly income. Hence, Hypothesis 4, 5 and 6 are proved to be false in Thailand. Although, in some studies found the effect of these variables on the perceptions toward older people, they have no impact on the adult's perceptions toward the elderly in Thailand based on the 2011 opinion survey from the NSO.

8. Discussions

Regarding aging population, the attitudes toward the elderly should be concerned since they are found to indicate how seniors behave and their well-being. Although, it seems like Thai people in the present hold favorable perceptions toward the elderly, this may not last perpetually. As time passes, older people in Thailand are expected to increase proportionately, and the country develops. Thus, in the future, the perceptions towards the elderly can be less positive due to the complete aging population and the modernization in the society. The lower fertility rate and the higher proportion of seniors can put adults into tough situation where one adult may have to work for 2 or more senior family members, particularly in the family facing financial problems. Consequently, young people should be motivated to plan well for their retirement lives or there should have some appropriate works supporting seniors. Most respondents from the survey also agreed that older people should not stop working or do nothing.

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