INFLUENCES OF ELDERLY'S PURCHASE DECISION IN HEALTH-PROMOTING DIETS

BY

MISS PORNTIP TANONGSAK

AN INDEPENDENT STUDY SUBMITTED IN PARTIAL FULFILLMENT OF
THE REQUIREMENTS FOR THE DEGREE OF
MASTER OF SCIENCE PROGRAM IN MARKETING
(INTERNATIONAL PROGRAM)
FACULTY OF COMMERCE AND ACCOUNTANCY
THAMMASAT UNIVERSITY
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was approved as partial fulfillment of the requirements for

the degree of Master of Science Program in Marketing (International Program)

on........6 JUN 2016.......................

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ABSTRACT

Senior citizens will dominate the Thai consumer market by 2020, key drivers affecting their purchase of health-promoting foods were studied. Effective communication methods to market healthy products for older people were also examined. The study started with secondary research to find consumer trends, prices and places where the health-promoting diets are available for sales. The in-depth interviews were conducted to explore the factors influencing purchase decision for healthy foods and media usage for senior citizens. The results of in-depth interview were later used in designing survey questionnaire. An online questionnaire was developed and sent out at the first week of March, 2016. Target respondents for this survey were senior citizens who live in Bangkok aged at least 60 years old who had been purchased healthy diets in the past year. Then, data were collected and analyzed in the 4th week of March, 2016. The sample size of the data was 101 respondents. The statistical tests were conducted using SPSS. The results were interpreted and

summarized. These findings may help health-promoting diet business owners and related parties better create effective marketing strategies. The findings also useful for future researchers who try to generalize the findings for Thailand population.

ACKNOWLEDGEMENTS

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CHAPTER 1
INTRODUCTION

Thailand is currently ranked third for most rapidly aging populations in the world, and the government is facing challenges to meet the needs of aging society ("Ageing population, Thailand", 2014(See appendix 1). The proportion of the older population is anticipated to increase from 8.7 percent in 2000 to 15.2 percent in the year 2020, and 30 percent in the year 2050 (See appendix 2). The number of older persons will continue to rise, and reach 11 Million by 2020 (World Health Organization). That means older people will dominate the Thai consumer market (See appendix 3).

Many health problems can seriously affect the overall health and wellbeing of the elderly, moreover, the ageing population tends to have a higher chance of encountering big and small ailments, and thus having a higher possibility of consuming consumer health products. Following this approach, Dietary functional approaches can substantially improve quality of life during aging and decreasing disability (Ferrari, 2006).

The research methods will be exploratory research and descriptive research starting with secondary research and then later move to primary research on qualitative research, and questionnaire for quantitative research. Upon the quantitative dimension, in-depth interview will provide the guideline for the questionnaires design. Population of interest for this study is the people over 60 years old who purchase health-promoting diets for the past year. The sample selection of this study will use a non-probability sampling method with the mixture of purposive and snowballing methods in order to obtain targeted respondents.

Aging populations will change the consumer market in many ways. The key to capture the senior market is to understand their essential values and beliefs, influencers, and information sources before purchase. However, there is still a gap between perceived value of Health-Promoting Diets and actual purchase behavior. The study of "Influences of elderly's purchase decision in health-promoting diets" is a

contemporary topic in applied marketing and under health area of marketing knowledge. This will aid marketers and related parties to understand behaviors and key drivers concerning senior citizens in Thailand.

1.1 Problem Statement

In Thailand, consumers are expected to take better care of their health. However, the survey from Department of Health showed that only 5% of senior citizens have good health (See appendix 4), and thus they have a higher probability to purchase consumer health products (See appendix 5). There is a gap in driving purchase intention into health-promoting diets for elderly people, which can assist marketers and related parties to understand consumer behavior.

1.2 Research Purpose

The purpose of this study is to explore the consumers' behavior about choosing health-promoting diets, more specifically, to understand key drivers that can impact senior citizens' purchasing criteria in Thailand. The second is to evaluate the effective communication methods to market health-promoting diets for senior citizens.

This research will be beneficially to business owners of healthy diets who are currently providing products to senior citizens to be able to market correctly resulting in product purchase by the aging population. The real consumers are aging people who are willing to take better care of their health conditions and prefer consuming health-promoting diets.

1.3 Research Objectives

      1. To understand the conduct of business.

      2. To explore consumers' behaviors in choosing health-promoting diets

      3. To understand customers' attitude towards consuming health-promoting diets

      4. To understand key drivers that can impact senior citizens' purchasing criteria in Thailand.

      5. To summarize future trends and directions of business.
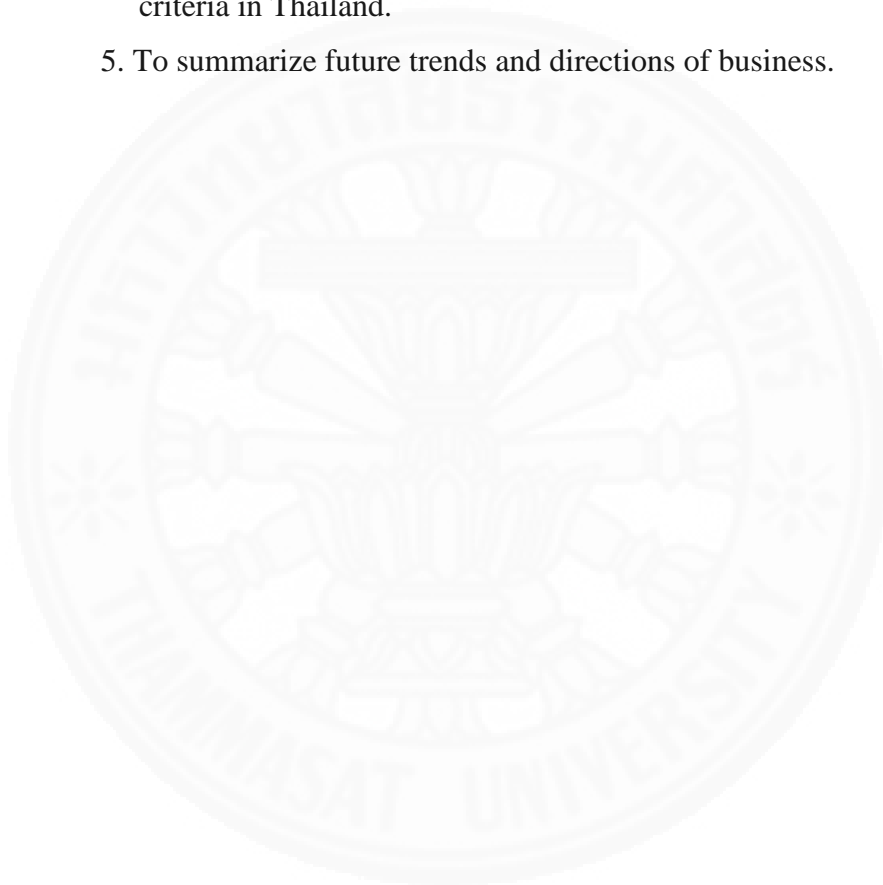
CHAPTER 2
REVIEW OF LITERATURE

This section includes a discussion of the findings of a set of previous studies related to the areas of interest in this study:

2.1 Population Ageing and the well-being of older persons in Thailand

Population aging is occurring in Thailand where fertility rates have fallen sharply over the past decades, this process is recent and pronounced. Thailand is particularly fortunate in having a series of nationally representative surveys of the older population that permit determining important trends in the well-being of the older age population (Knodel & Chayovan, 2008).

2.2 Older population and health system- a profile of Thailand

The older population is growing faster relative to the growth of the total population. The proportion of the population in their elderly years (60+) is anticipated to increase from 8.7 percent in 2000 to 10.8 percent in the year 2010, 15.2 percent in the year 2020, and 30 percent in the year 2050. The number of older persons will continue to rise, from approximately 5.3 million at present to 7.2 million in 2010 and will reach 11 million by 2020 (World Health Organization).

2.3 Functional foods and physical activities in health promotion of aging people

Many health problems can seriously affect the health of the elderly. Following this approach, Dietary functional approaches and physical activity can substantially improve quality of life during aging, decreasing disability (Ferrari, 2006).

2.4 Health and Wellness in Thailand

According to Euromonitor International, domestic and international players recorded fairly balanced value shares in health and wellness during 2014. Consumers trust the quality of products offered by western companies. Domestic players also compete well with regard to innovation and marketing efforts as they seek to garner stronger consumer interest within health and wellness. Manufacturers combined various health and wellness propositions into premium products to better satisfy consumers' needs.

2.5 Discovering Thai senior consumers' patterns

Population aging would change the consumer market in many ways. The key to capture the senior market is to understand their important values and beliefs such as aging people prefer buying necessity products in contrast to buying luxurious ones, price is the first criteria of purchasing products, seniors' information sources before purchase are family members, advertising materials, and friends, while one-fourth say they never seek any information (Anantachart, 2013).

2.6 Owning Health the Move towards Self-care and Implications for Marketers

The Internet has played a major role in empowering consumers by providing opportunities for self-diagnosis links to healthcare professionals, user forums, information on health products and services, price comparison services and purchasing online (Euromonitor International, 2010).

2.7 Consumer Health in Thailand

Consumer health experienced a positive performance in 2015. Thai consumers were becoming more knowledgeable thanks to greater accessibility to information via online media and print publications. Thai consumers enjoy more accessibility to the products via several offline platforms whereas online platforms via mobile applications will be the next episode of channel development. Over the forecast

period, consumer health is expected to show respectable growth. Thai consumers are expected to take better care of their health condition (Euromonitor International, 2015). The aging population tends to have a higher chance of encountering big and small ailments, and thus they have a higher possibility of purchasing consumer health products. More importantly, aging people are becoming more educated on taking good care of themselves.

2.8 Lifestyle, Media Exposure and Purchasing Behavior of Older Consumers in Bangkok.

Lifestyles of older people were segmented into 8 groups such as conservative group, activity-lover group, progressive and daring group. Different groups have different behavior such as Conservative group had positive correlation with purchasing behavior. Activity-lover group had positive correlation with media exposure (Siriwongpakhon, 2013).

2.9 A Study of Media Exposure Behavior to Relation with Elderly of Self-reliance in Bangkok Metropolis

Among the elderly was the media with the highest exposure television broadcasts. Radio broadcasts, publication, internet, and activity media was exposed in low level. The personal media was in average level (Hirunro, 2002).

2.10 A survey of Japanese trader's aspect in health-promoting diet market in Thailand

Japanese traders who are interested in health-promoting diet for elderly people market in Thailand have gathered information from National Bureau of Agricultural Commodity and Food Standards, Ministry of Agriculture and Cooperatives to assess the possibility of the market. Furthermore, Japanese traders who specialize in health-promoting diet for elderly people have divided health promoting diet products into three categories.

1. Soft food products which enhance the chewing ability of elderly, in type of ingredient and ready-to-eat.

2. Standard food products which refer to the change in normal food process. For example, the soft fish bones in fish steak or the reducing sugar and salt in normal food.

3. Enhancing viscosity in food products, which refer to products that increase the viscosity in food to reduce risk of choking hazards while swallowing. (Boworn, 2013)

Figure 2.1: Market size of the nursing-care diets
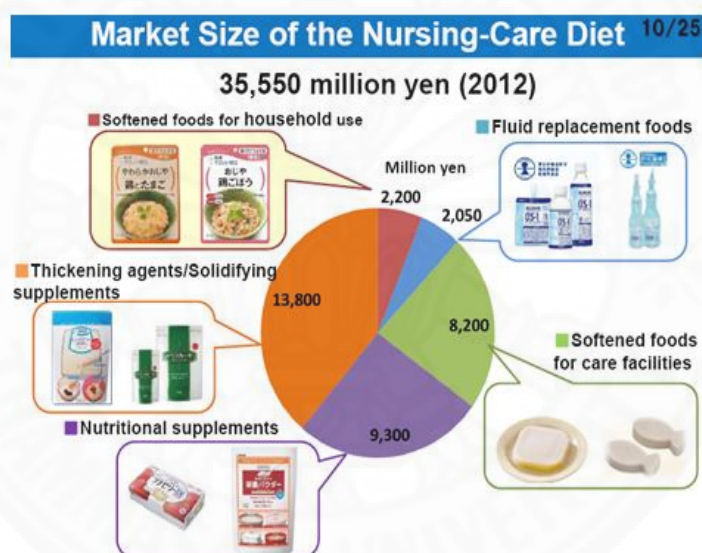
ที่มา : The current situation and the future direction of the Long-term Care Insurance System in Japan -With a Focus on the Housing for the Elderly. March 2013.

As a summary of the literature, the contents can be classified as following (1) research on the Thailand's elderly population society ,(2) research on the group of older population who will be a large segment that are concerned about health issues,(3) research on the health market and health dietary approach which are interested subjects,(4) research on market situations, health and wellness propositions for premium products,(5) research on consumer behaviors and the keys to capture the senior market by understanding their important values and beliefs,(6) research on

senior's behaviors and consumption patterns on the use of internet for information searching,(7) research on consumer behaviors and aging population who have become more educated on taking good care of themselves and have a higher possibility of consuming consumer health products,(8) research on consumer lifestyle segmentation for different groups with different behavior,(9) research on media exposure and television as the highest type of exposed broadcasts, (10) research on product categories for elderly nursing care diets.

CHAPTER 3
RESEARCH METHODOLOGY

3.1 Research Methodology

The research method will be exploratory research and descriptive research starting with secondary research and then move to primary research for the qualitative research part and creating a questionnaire for the quantitative research part.

3.1.1 Secondary research

Secondary research was conducted to obtain information regarding the current market overview. It provided the important overview figure for market situation, consumer trends, attitudes, lifestyle and behavior of consumers to understand the key drivers in purchasing towards health-promoting diets and media exposures for senior citizens. The research was done through the study of academic journals and articles from Euromonitor International, Google Scholar, and other credible websites. Moreover, definition of senior citizens will be defined and other related information will be used for questionnaire design.

3.1.2 Primary research

Three types of primary research, which are the observation, in-depth interview and questionnaire survey, will be employed in order to gain insights and deep understanding of consumer behavior and key drivers on senior citizens in purchasing health-promoting diets in Thailand

3.1.2.1 Exploratory research
Observation:

To gather information and about purchasing behavior that occurs at the store. Moreover, customers were observed in term of their behavior such as how long does it take to choose the product, do the customer read the label before choosing the

product or what is the popular product. It helped to find some specific characteristics of customers and to understand insights of customers that they did not tell interviewer.

In-depth interview:

To understand in deep on consumer view in every aspect and to explore different core factors that influence consumer, in-depth interview is used to identify consumer's attitude toward choosing health-promoting diets such as, what are their concerns, purchasing behaviors, and the factors of purchasing decision to conduct the further questionnaire.

3.1.2.2 Descriptive research

Survey:

To create solid and reliable results, descriptive research is required to quantify, validate and ranking the results from exploratory research. Questionnaire will be designed by results from exploratory research in order to collect statistical data to answer all objectives of the study. Questionnaire will consist of opened-ended questions, closed-ended question, multiple choice and utilization of the Likert scale. The questionnaire will pass pre-test process before launch to real test. The results from this research will be used to analyze as the objectives of the study.

3.2 Sampling plan

Purposive sampling will be used in the study in order to select targeted informants. The specific method of sampling used for selecting the interviewees will be the mixture of purposive and snowballing sampling. First, purposive sampling method will be utilized to recruit early interviewees. Then, the snowballing sampling method will be used by having interviewees suggest people who are likely to match the respondent's criteria. With purposive sampling the sample is 'hand-picked' for the research because the researcher already knows something about the specific group of people or events and can deliberately select particular ones. This method is seen as instances that are likely to produce the most valuable data. Snowballing is an effective technique for building up a reasonable-sized sample.

3.3 Identification of key research variables

The key variables of this study are divided into independent and dependent variables. The independent variables are the demographics and motives, while the dependent variable is purchase decision for health-promoting diet in Thailand.

3.4 Target population

Population of interest for this study is people at the age of over 60 who have purchased health-promoting diets for the past year.

3.5 Data Collection

3.5.1 Qualitative Methods

Secondary research

Internet search was done to gather information from published sources and websites e.g., Euromonitor International, google scholar, Thai Elderly Promotion and Health Care Association and other credible websites. To find out information such as definition of elderly people, market situation etc.

Observation

According to suitable timeline, the observations were done in 2 venues. First, at Golden Place, on November 11, 2015 from 3pm-6pm. And second, at Tops supermarket, on January 30, 2016 from 9am-12am. Observations have been conducted in order to observe and gather some basic information at the shelf in real situation and what kinds of grocery items they purchase at the checkout.

In-depth interview

A list of semi-structured questions will be used to obtain in-depth answers from interviewees, five respondents were recruited using convenient sampling method from users of health-promoting diets. The method of selecting respondents was convenient sampling and snowball sampling, whereby respondents are asked for their referrals who are also health-promoting diet consumers. Brief introduction about the

research objectives were informed to potential respondents prior to the interview and the screening questions were asked to ensure that the respondents are qualified users of the product. The whole interview was designed to last for 40-45 minutes. Five respondents of in-depth interview are; two males who live in Bangkok, age 60 and 71, business owner and retired. Both of them live with family. Three females in in-depth interview live in Bangkok metropolitan region. One is housewife and lives with her family. Two women are the business owner, one lives with her family and another one lives alone.

3.5.2 Quantitative Method

Questionnaires survey

The sampling method of questionnaire survey was non-probability sampling method using convenient sampling technique and snowball sampling technique. The 101 questionnaire surveys distributed on both offline and online depend on respondent preferences.

- Offline questionnaires were distributed through physical channel. Questionnaire were distributed to customers at Suan-Lumpini Park, Foodland at Salaya, Tops Supermarket at MBK, Golden Place, and Bhudhamonthon Park.

- Online questionnaires were distributed online via facebook fan page, Line application, and website (http://www.healthcarethai.com/)

Time period for questionnaire distribution was from Jan 12th, 2016 - Feb 7th, 2016. At the beginning of offline and online questionnaires, the screening questions were asked to ensure that all respondents are members of population interest. Questionnaires distributed to respondents of health-promoting diets in last year, aged over 60 years old and live in Bangkok metropolitan region. Please see full questionnaire in Appendix A

3.6 Data Analysis

The data analysis separated into two parts which were qualitative data analysis and quantitative data analysis. The data analysis was performed by these following procedures:

3.6.1 Qualitative data analysis

<u>Observation</u>: findings were summarized in term of time that customer spent at the shelf and what kind of product they pick up at the store.

<u>In-depth interview:</u> Result is summarized into four main points as following;

- Demographic: including age, gender, occupation, education, family status, income, and exercise behavior.
- The starting point of health-promoting diet interest.
- Health-promoting diet information receiving.
- Influencers in choosing health-promoting diet.

3.6.2 Quantitative data analysis

The response from in-depth interviews used to make the questionnaire. Survey data analysis done through Statistical Package for the Social Sciences (SPSS) and Microsoft Excel software program to disclose and interpret results for proposed study. The disqualified respondents are not used to analyze. The missing data is edited with mean value of certain variable. Others comment is filled to providing choices if possible otherwise they are used to interpret qualitative comments. The methods of analyses include factor analysis, two-step cluster analysis, frequency comparison, cross-tabulations, mean comparison, Chi-square tests, and independent t-test. The following table is a sample of how research results were reported;

Table 3.1: Sample of results and findings are shown in dummy tables.

Characteristics	Data
Age	Mean, Standard Deviation, Median
Gender	Number of male and female, %
Education level	Primary or less education, upper secondary or higher education
Household income	Low, medium, high
Household structure	Alone, with spouse, with children, with other relative, with no relative.

3.7 Theoretical Framework

In this study, the underlying theoretical framework is shown in Figure 3.1.
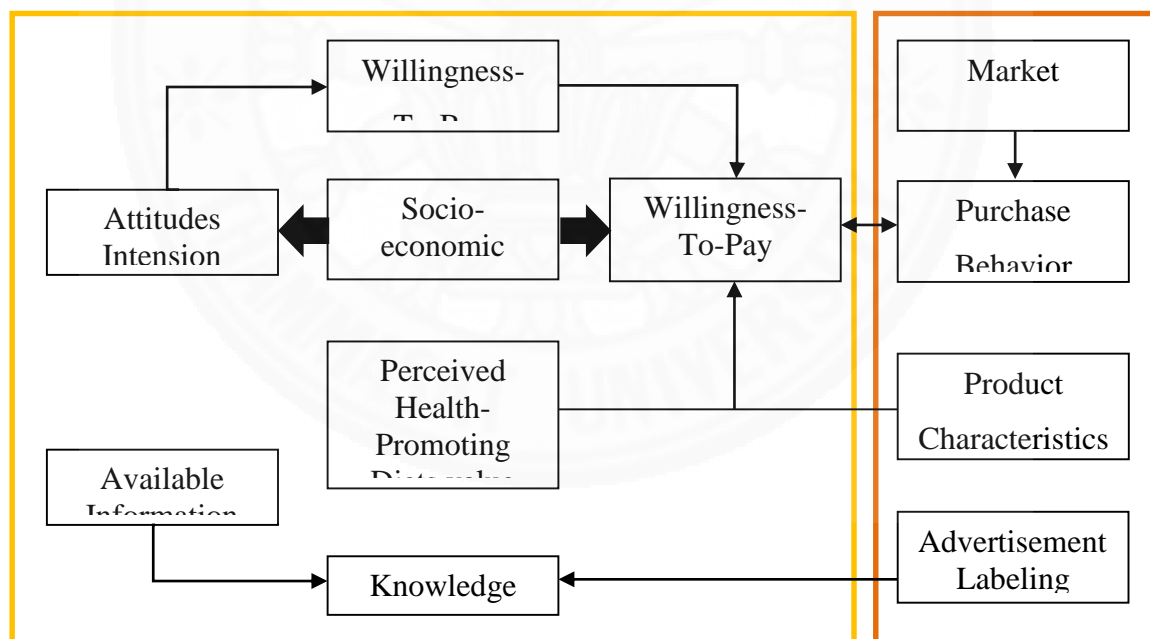
(Praewporn, 2014)

Figure 3.1 : Theoretical Framework

CHAPTER 4
RESULTS AND DISCUSSIONS

4.1 Results from Observation

   The three hours observations have been done twice at Golden Place and Tops supermarket. In total of 34 respondents, they spent 12 minutes in average in front of the shelf to choose the product. 70% read the label and compare different brands. 30% picked up the product immediately. At Golden Place, the respondents spent more time to compare the products. At Tops supermarket, the respondents mostly picked up the product immediately because they used to the products and have been used these products for a while. The average time is 8 minutes.

Table 4.1 : Results from the observation

	N	Average time	Products	% of purchase
Golden Place	12	12 min.	Rice; Brown rice, Rice berry rice Grains; basil seed, oat, chia seed Oil; Rice bran oil, sunflower oil	75% 58.3% 41.7%
Tops supermarket	22	8 min.	Vegetable; hydroponic, organic Milk, Meat; Non-chemical, organic	90% 72.7% 59%

4.2 Results from In-depth interview (See appendix7)

       1. All interviewees have purchased health-promoting diets and have a desires to repurchase

       2. All interviewees emphasized on buying products that they perceived to be valuable. They are looking for products that can promote good health and longevity. They also have high purchasing power and can make purchase decision easily.

       3. The behaviors of elderly people are various. Media consumption and factors that influence the decision to purchase are also different among the group. For example, 4 out of 5 elderly people like to attend social events and gatherings to discuss and exchange information on their topics of interest, implying that friends have a lot influence for this group. Meanwhile, some senior citizens use social media to spread words and ideas through Facebook Group and LINE application, so this group can spread information very quickly.

       4. 4 out of 5 respondents from in-depth interview preferred buying products in store than online. They always repurchase the product if quality is good and price is reasonable. For a new product, they will read label thoroughly before purchasing.

       5. 3 out of 5 respondents from the in-depth interviews stated that they started to consume the health-promoting diets because they are fear of cancer which developed very fast nowadays. They feel that environment they live in and food they eat may contribute to cancer.

       6. 3 out of 5 have started studying health promoting diet by finding information from books and magazines before changing their media consumption behavior.

4.3 Results from survey

       This chapter represents the finding of data analysis from 199 respondents. The data was screened and found 101 respondents in population of interest who have different profiles in following;

4.3.1 Demographic

Table 4.2 : Summary of respondents' demographics (n=101)

Respondent Demographics	Count	Column N %
Gender		
- Male	29	28.7%
- Female	72	71.3%
Marital status		
- Single	20	19.8%
- Married	67	66.3%
- Widowed or divorced	14	13.9%
Educational level		
- Less than bachelor degree	23	22.8%
- Bachelor degree	58	57.4%
- Greater than bachelor degree	20	19.8%
Occupation		
- Government employee	13	12.9%
- Employee	1	0.9%
- Private employee	17	16.8%
- Business owner	34	33.7%
- Housewife/Husband	15	14.9%
- Retired	21	20.8
Household income		
- Less than 50,000 Baht	22	21.8%
- 50,000-100,000 Baht	31	30.7%
- 100,001-300,000 Baht	24	23.8%
- 300,001-500,000 Baht	11	10.9%
- Greater than 500,000 Baht	13	12.9%
Household structure		
- Live alone	10	9.9%
- Live with family	91	90.1%

From 101 respondents, the majority of the respondents are female, 72 persons (71%). The major respondent's marital status is married, 67 persons, which accounts for 66%, followed by single 20 persons (20%), and widowed or divorced 14 persons (14%). The major education of respondents is bachelor degree which 58 persons (57%), followed by greater than bachelor 20 persons (20%), and less than bachelor 23 persons (23%). The major occupation is business owner which accounted for 34 persons from 101 respondents (34%), followed by retired 21 persons (21%) and other

occupations are private employee 17 persons (17%), Housewife/Husband 15 persons (15%), Government employee 13 persons (13%), and employee 1 persons (1%). The major population has income between 50,000 – 100,000 Baht and 100,001 – 500,000 Baht which 31 persons (31%) and 24 persons (24%), followed by less than 50,000 Baht 22 persons (22%), greater than 500,000 Baht 13 persons (13%), and 300,001-500,000 Baht 11 persons or 11% of the total 101 respondents. The household structure is living with family and living alone which 91 persons (90%) and 10 persons (10%). The average number of family member is 4 persons.

4.3.2 Consumer Behavior

Table 4.3 : Summary of respondents' behavior profile (n=101)

Behavior profile	Count	Column N %
Medical problem		
- Yes	53	52.5%
- No	48	47.5%
Annual health check up		
- Yes	87	86.1%
- No	14	13.9%
Frequency of exercise		
- Never	20	19.8%
- 1-2 times per week	56	55.4%
- 3-6 times per week	16	15.8%
- Everyday	9	8.9%
Frequency of consuming health-promoting diets		
- Never	3	3%
- 1-2 times per week	50	49.5%
- 3-6 times per week	31	30.7%
- Everyday	17	16.8%

For medical problem, more than half of respondents have congenital disease. 87 persons or 86% of respondents have annual health checkup, while 14 persons (14%) did not have annual checkup. For the frequency of exercise, majority is 1-2 times per week which are 56 persons (55%), followed by never which are 20 persons (20%), 3-6 times per week which are 16 persons (16%), and every day which are 9 persons (9%). The major population has consumed health-promoting diets 1-2 times per week which are 50 persons (50%), 3-6 times per week which are 31 persons (31%), every day 17

persons (17%), and three respondents who have not consumed in a week, account for 3% of the total 101 respondents.

Table 4.4 : Summary of purchasing behavior: product

Preferred product of health-promoting diets		Count	Column N %
Rice	Yes	76	75.2%
	No	25	24.8%
Grains	Yes	52	51.5%
	No	49	48.5%
Veggie and fruits	Yes	69	68.3%
	No	32	31.7%
Non-toxic meat	Yes	18	17.8%
	No	83	82.2%
Milk	Yes	48	47.5%
	No	53	52.5%
Oil	Yes	34	33.7%
	No	67	66.3%
Organic product	Yes	29	28.7%
	No	72	71.3%
Ready-to-eat	Yes	21	20.8%
	No	80	79.2%
Non-toxic food	Yes	20	19.8%
	No	81	80.2%
Detox food	Yes	11	10.9%
	No	90	89.1%
Snack	Yes	11	10.9%
	No	90	89.1%
Other	Yes	1	1.0%
	No	100	99.0%

Table 4.5 : Summary of purchasing behavior: type

Preferred type of health-promoting diets		Count	Column N %
	Ingredient	59	58.4%
	Ready-to-eat	36	35.6%
	Snack	6	5.9%
	Other	0	0.0%

This section of the results shows the popular health-promoting diets that the respondents often consume are rice, vegetables, and fruits. Moreover, they often purchase health-promoting diet in type of ingredient more than ready-to-eat and snack types.

Table 4.6 : Summary of frequency of purchase per week

How often you purchase per week		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Less once a week	17	16.8	16.8	16.8
	1-2 times per week	54	53.5	53.5	70.3
	3-5 times per week	23	22.8	22.8	93.1
	6-7 times per week	7	6.9	6.9	100.0
	Total	101	100.0	100.0	

One-Sample Statistics

	N	Mean	Std. Deviation	Std. Error Mean
How often you purchase per week	101	2.1980	.80025	.07963

One-Sample Test

	Test Value = 2					
	t	df	Sig. (1-tailed)	Mean Difference	95% Confidence Interval of the Difference	
					Lower	Upper
How often you purchase per week	2.487	100	.015	.19802	.0400	.3560

An independent-samples t-test was conducted to test purchasing of health-promoting diets in term of frequency conditions. There was a significant scores M= 2, SD= 0.80025 conditions; t(100)=2.487, p = 0.008 (one-tailed). These results suggest that the respondents who are health-promoting diet customers purchased healthy diet at least 1 time per week.

Table 4.7 : Summary of relation between purchase frequency and number of family members

	Numbers of family member			
	1-4 people		5 or more people	
	Count	Mean	Count	Mean
How often you purchase per week	69	2.09	32	2.44

Comparisons of Column Means[a]

	Numbers of family member	
	1-4 people	5 or more people
	(A)	(B)
How often you purchase per week		A

Results are based on two-sided tests assuming equal variances with significance level .05. For each significant pair, the key of the smaller category appears under the category with larger mean. The figures above show the more family members in household, the more often purchase health-promoting diet.

a. Tests are adjusted for all pairwise comparisons within a row of each innermost sub-table using the Bonferroni correction

Table 4.8 : Summary of distribution channel

Test Statistics

	Hyper-market	Specialty store	Fresh market	Super-market	Online store	Other
Chi-Square	23.772[a]	18.307[a]	12.129[a]	1.673[a]	71.535[a]	97.040[a]
df	1	1	1	1	1	1
Asymp. Sig.	.000	.000	.000	.196	.000	.000

a. 0 cells (0.0%) have expected frequencies less than 5. The minimum expected cell frequency is 50.5.

For the place to shop of 101 respondents, the answers show that they often buy the health-promoting diet from hypermarket. On the contrary, specialty store, fresh market, and online channel are not the places that they would buy healthy diet(See appendix 6).

Table 4.9 : Summary of relation between income and money spending

How much money spend per time		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1-100 baht	5	5.0	5.0	5.0
	101-300 baht	18	17.8	17.8	22.8
	301-500 baht	22	21.8	21.8	44.6
	501-1000 baht	26	25.7	25.7	70.3
	over 1000 baht	30	29.7	29.7	100.0
	Total	101	100.0	100.0	

More than 50 percent of respondents spend more than 500 baht per time they shop for health-promoting diet. However, higher income did not mean spend more money on healthy diet.

4.3.2 Consumer Attitude

Table 4.10 : Summary of reason to consume health-promoting diet

Reason to eat health-promoting diets		Count	Column N %
Better health condition	Yes	94	93.1%
	No	7	6.9%
Longevity	Yes	46	45.5%
	No	55	54.5%
Beauty	Yes	26	25.7%
	No	75	74.3%
Prevent cancer	Yes	43	42.6%
	No	58	57.4%
Treatment for health issue	Yes	46	45.5%
	No	55	54.5%
Social and image	Yes	6	5.9%
	No	95	94.1%
Other	Yes	0	0.0%
	No	101	100.0%

	Better health condition	Longevity	Beauty	Prevent cancer	Treatment for health issue	Social and image
Chi-Square	74.941[a]	.802[a]	23.772[a]	2.228[a]	.802[a]	78.426[a]
df	1	1	1	1	1	1
Asymp. Sig.	.000	.371	.000	.136	.371	.000
a. 0 cells (0.0%) have expected frequencies less than 5. The minimum expected cell frequency is 50.5.						

The output shows statistically significant that respondents eat the health promoting diet because they want to have better health condition. Beauty and social image are not the reasons that senior citizens consume healthy meal. (n = 101, p = 0.05)

Table 4.11 : Summary of the factors that impact on purchasing

	Count	Mean	Standard Deviation
Low price	101	3.00	1.21
Convenient	101	3.58	1.11
Tasty	101	3.56	1.17
Home delivery	101	2.80	1.17
Trials	101	2.77	1.11
Shown calories	101	2.94	1.16
Easy to cook	101	3.48	1.01
Reputation	101	3.30	1.10
Socially acceptable	101	3.24	1.09
Promotion	101	3.09	1.15
Membership	101	2.56	1.17

The output shows that top 3 factors which influence the customers to purchase health-promoting diet are as followings: Convenient to buy, Good taste, and Easy to cook.

4.3.3 Media Consumption

Table 4.12 : Summary of media consumption

One-Sample Statistics

	N	Mean	Std. Deviation	Std. Error Mean
TV	101	3.2376	1.06910	.10638
Radio	101	2.9010	1.09092	.10855
Publishing	101	2.9604	1.15690	.11512
Online	101	2.9505	1.03321	.10281

One-Sample Test

	Test Value = 3					
	t	df	Sig. (2-tailed)	Mean Difference	95% Confidence Interval of the Difference	
					Lower	Upper
TV	2.234	100	.028	.23762	.0266	.4487
Radio	-.912	100	.364	-.09901	-.3144	.1164
Publishing	-.344	100	.732	-.03960	-.2680	.1888
Online	-.482	100	.631	-.04950	-.2535	.1545

M=3, t(100) = 2.234, p=0.014 (one-tailed)

The figures show that TV has the highest influential credibility among all the media. In term of credibility of the media, the respondents were asked to rate from the scale 1-5 (1 strongly not believe to 5 strongly believe). TV is the most popular media that senior citizens consume. The survey result shows 63% watch TV at least 3 days per week, and 61% spend time online at least 3 days per week. Meanwhile, radio and printed materials are less popular; the results show that more than 50% of respondents say they consume 1 time or less per week.

Table 4.13 : Summary of online media consumption

	Search engine	Facebook	Instagram	Chat applications	Twitter	Blog or website	Online magazine
Mean	4.0792	3.7030	2.2574	3.9010	2.0099	3.0990	2.2178
N	101	101	101	101	101	101	101
Std. Deviation	1.89041	1.88438	1.54048	1.95195	1.35274	1.63404	1.29309

Internet usage of targeted population; search engine, such as Google or Yahoo, are the most popular followed by chat application i.e., LINE or Whatsapp and Facebook.

Table 4.14 : Summary of senior citizens' influencers

One-Sample Statistics

	N	Mean	Std. Deviation	Std. Error Mean
Family	101	3.7129	1.23561	.12295
Friend	101	3.1287	.93449	.09299
Actors or actress	101	2.0099	.95389	.09492
Celebrities	101	2.3465	.97402	.09692
Doctor or specialist	101	3.8416	1.16390	.11581

One-Sample Test

	Test Value = 3					
			Sig. (2-tailed)	Mean Difference	95% Confidence Interval of the Difference	
	t	df			Lower	Upper
Family	5.798	100	.000	.71287	.4689	.9568
Friend	1.384	100	.169	.12871	-.0558	.3132
Actors or actress	-10.431	100	.000	-.99010	-1.1784	-.8018
Celebrities	-6.742	100	.000	-.65347	-.8457	-.4612
Doctor or specialist	7.267	100	.000	.84158	.6118	1.0714

The result shows statistically significant that family members and physician specialist have influences on senior citizens to purchase health-promoting diet. On the other hand, celebrities and actors/actress have no influences on purchasing health-promoting diet.

Table 4.15 : Summary of relation between income and online media

	HH Income			
	300K or below		Above 300K	
	Count	Mean	Count	Mean
Search engine	231	4.04	72	4.21
Facebook	231	3.58	72	4.08
Instagram	231	2.16	72	2.58
Chat applications	231	3.83	72	4.12
Twitter	231	1.90	72	2.37
Blog or website	231	2.99	72	3.46
Online magazine	231	2.22	72	2.21

Comparisons of Column Means[a]

	HH Income	
	300K or below	Above 300K
	(A)	(B)
Search engine		
Facebook		A
Instagram		A
Chat applications		
Twitter		A
Blog or website		A
Online magazine		

Note: The case is weighted by 3

Results are based on two-sided tests assuming equal variances with significance level .05. For each significant pair, the key of the smaller category appears under the category with larger mean. The result indicates the strong correlation between the online media (Facebook, Instagram, Twitter, Blog or website) and income. The higher the income, the more the usage of these online media.

a. Tests are adjusted for all pairwise comparisons within a row of each innermost suitable using the Bonferroni correction

There are statistically different between income and online media usage as well as education and online media usage.

Table 4.16 : Summary of relation between educational level and online media

	Educational Level					
	Below Bachelor		Bachelor		Postgraduate	
	Count	Mean	Count	Mean	Count	Mean
Search engine	72	2.92	171	4.09	60	5.45
Facebook	72	2.96	171	3.58	60	4.95
Instagram	72	1.58	171	2.26	60	3.05
Chat applications	72	3.37	171	3.82	60	4.75
Twitter	72	1.75	171	1.96	60	2.45
Blog or website	72	2.96	171	2.93	60	3.75

Online magazine	72	1.92	171	2.19	60	2.65

Comparisons of Column Means[a]

	Educational Level		
	Below Bachelor	Bachelor	Postgraduate
	(A)	(B)	(C)
Search engine		A	A B
Facebook		A	A B
Instagram		A	A B
Chat applications			A B
Twitter			A B
Blog or website			A B
Online magazine			A

Note : The case is weighted by 3

Results are based on two-sided tests assuming equal variances with significance level .05. For each significant pair, the key of the smaller category appears under the category with larger mean. Similar to income, the higher the education tends to use more online media. The result shows people who hold bachelor degree use more online media than high school or equivalent graduates and post graduate use the most types of online media.

a. Tests are adjusted for all pairwise comparisons within a row of each innermost sub-table using the Bonferroni correction.

CHAPTER 5
CONCLUSIONS AND RECOMMENDATIONS

As aging society becomes an increasingly important factor of business in today's business context. Senior citizens will dominate the Thai consumer market. It seems from this study that senior citizens aim to have better health conditions. Almost all of them started to consume the health-promoting diets because they are concerned about cancer and think it can be related to bad environment. This is the opportunity for business owner of healthy diets who are currently providing products to senior citizens to be able to market correctly. Senior citizens are concerned with the value of money, and also have high purchasing power and make purchase decisions easily, but only for valuation product. From this study the key drivers that can impact senior citizens' purchasing criteria is the health value significantly. Moreover, the factors that influence purchasing are buying convenience, good taste, and easy to cook. The popular healthy foods in current market are rice, vegetable and fruits. Senior people usually cook at home more than going out, so healthy food in the form of ingredients is more popular than ready-to-eat food or snack. Moreover, the increasing of family size, increase the frequency of the purchase. However, higher income did not mean that they spend more money on healthy food because all the targets have different perspectives in health conditions. Due to the fact that perceiving value and affordable price are also different among the targets, the business owner should mainly set the core value of products in good quality for better health.

The most effective communication methods to the market health-promoting diets for senior citizens from this study is Television, which is the most popular to gain reach and high credibility. Although the actors and stars or celebrities do not influence to the target family members, special physicians are the real influencers.

Online channel is the second rank of effective media. It takes high reach but low credibility. The business owner who spends their budget in Television communication should not ignore the online channel. Online channel are growing rapidly in this target. The most popular application for online channel is search engines such as

Google or Yahoo. Thus, the business owner should set a promoting plan on online channel such as making SEO or an easy understanding website which allows the target to enter the website easily. The content should be suitable for the target especially the targets who have higher income and education because they tend to use more online media. Even though the study shows that radio and published media are not effective media which low reach and low credibility. However, in-depth interviews show that the publishing media is the first tool for health-promoting diets starter. The starter will find out information from publishing and then switch to other media for more specialty.

Finally, senior citizens are more likely to buy healthy products from the stores more than online. The most popular store is hypermarkets. For Specialty store, fresh market, and online channel are not success for this target. For a new product, senior targets always read the label for comparing before purchasing. However, they always repurchase and disperse information over online and offline channel. Almost all of them like to attend social events and gatherings to discuss and exchange information, so they set up the club on their topic of interest. Using Word-of-mouth with this target to quickly spread information is the best way to create the awareness of elderly people.

The limitations of this study, first, the sampling method in this study was based on non-probability samples due to the definite number of population are not known. Next, the research findings cannot represent the entire population in Thailand. And the last, due to time and budget constraint this research will focus on senior citizens who are health-promoting diet users and reside in Bangkok.

The result of this study will benefit health-promoting diet marketers or business owners in term of understanding consumer insights and select the effective communication channel to target segments as the report provide senior citizens shopping behavior, media consumption, purchase frequency.

This initial study of "Influences of elderly's purchase decision in health-promoting diets" can be further conducted to enhance outcomes. The following initiatives are suggested if the study were to be further researched. The future research can be focused on senior citizens' online usage, attitudes and perceptions towards

health-promoting product. The future report can be done in a large sample with a random selection method. Therefore, the results can be generalized for the whole population of senior citizens who purchase health-promoting diet.

Regarding the future trend of health-promoting diets, the popularity of the subject has increased rapidly and is attracting investors from both local and international standpoints. This means that more products will be introduced in the market and will be easier to access and purchase. More varieties will result which ultimately benefits the consumers. For providers of these goods, providers can find ways to increase value of their products through communication strategies that utilize online channels in tandem with traditional media such as television. In this sense, the content in each respective channel should serve a different purpose, for an example, television to build awareness and online channels to directly communicate with consumers on a personal level. Finally, it remains imperative that the competitive advantage of health-promoting diets is value-for-money, as this is the number one trait that the target segment (senior citizens) look for.

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APPENDICES
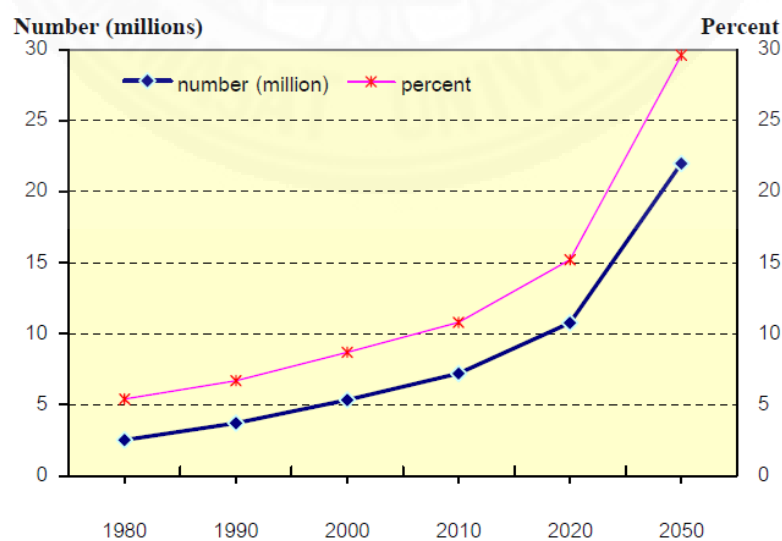
APPENDIX

Figure 1 Age profile of the population of Thailand in 1960, 1980, 2000 and 2020.
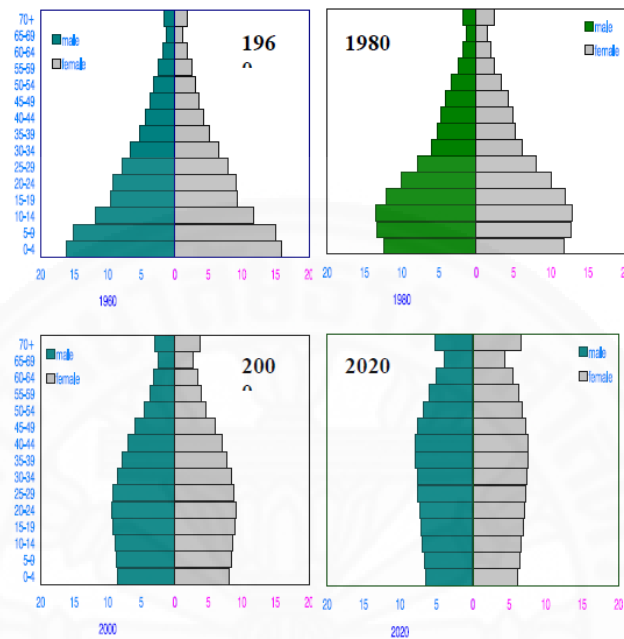
Appendix 1: Age profile of the population of Thailand in 1960, 1980, 2000 and 2020.

Figure 2 Linear graph of total number and percent of the older population in Thailand, 1980 - 2050.

Appendix 2: Linear graph of total number and percent of the older population in Thailand 1980-2050.
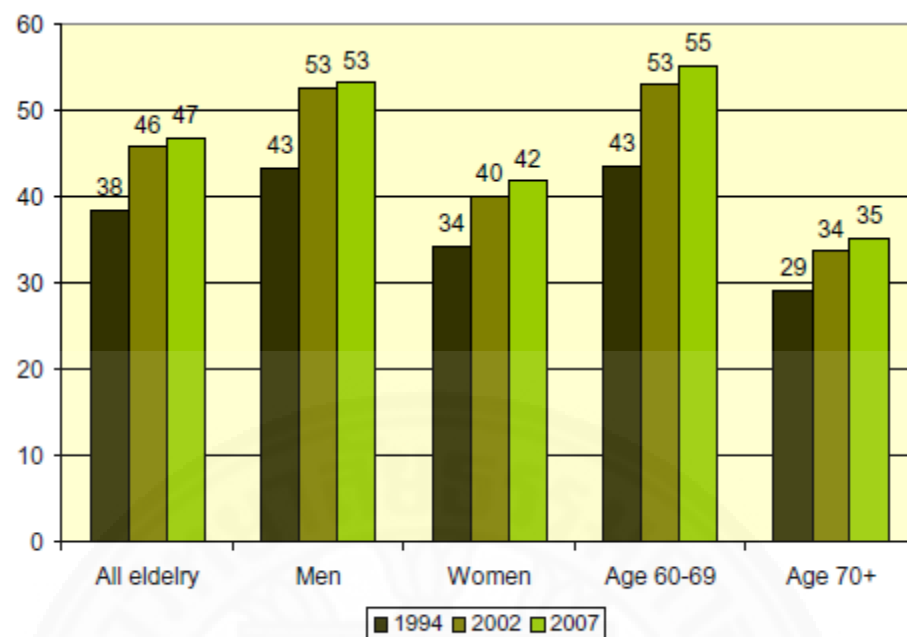
Source: 2007 Survey of Older Persons in Thailand

Appendix 3: Percentage of population age 60 and older reporting good or very good health, Thailand 1994, 2002, 2007.

Source: Euromonitor International
Note: Slimming products excludes OTC obesity (e.g. Alli)

Appendix 4: Consumer Health Products – Leading Sector Shares 2009
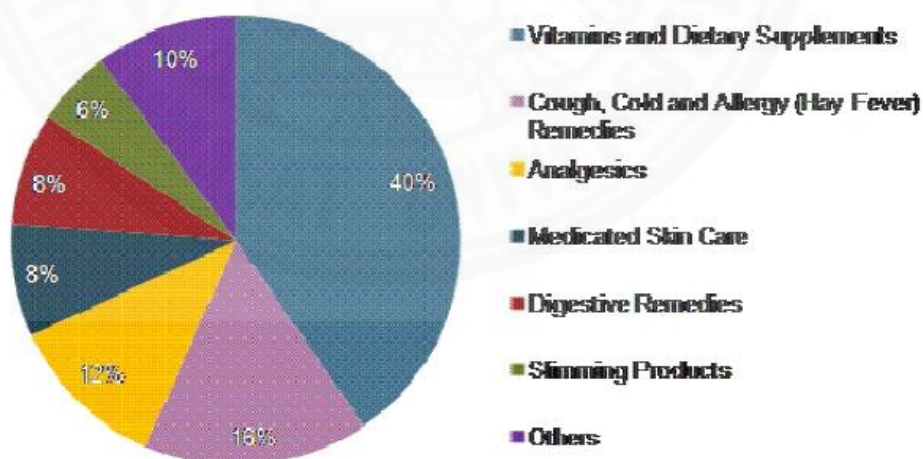
THB million	2014	2015	2016	2017	2018	2019
Beauty From Within	2,541.2	2,665.0	2,790.9	2,915.2	3,037.2	3,158.8
Bone and Joint Health	1,708.5	1,720.8	1,740.5	1,767.1	1,798.2	1,832.1
Brain Health and Memory	-	-	-	-	-	-
Cardiovascular Health	-	-	-	-	-	-
Digestive Health	13,501.8	14,390.3	15,279.6	16,145.6	17,000.2	17,812.2
Endurance	8,313.5	8,902.6	9,404.5	9,917.8	10,438.6	10,970.5
Energy Boosting	19,853.2	20,474.6	20,934.0	21,448.1	22,051.5	22,712.4
Food Intolerance	653.3	688.2	723.2	758.5	793.7	828.1
General Wellbeing	95,158.6	101,397.3	107,671.3	114,006.8	120,175.6	126,075.3
Immune Support	27.2	28.0	29.0	30.2	31.6	33.0
Oral and Respiratory Health	6,760.4	7,177.2	7,613.4	8,078.8	8,561.9	9,071.4
Urinary Tract Health	-	-	-	-	-	-
Vision Health	57.3	62.5	67.5	72.2	76.6	81.2
Weight Management	15,970.3	17,074.5	18,152.6	19,217.6	20,279.7	21,322.5
Health and Wellness by Prime Positioning	164,545.2	174,581.0	184,406.5	194,358.0	204,244.8	213,897.6

Source: Euromonitor International from trade associations, trade press, company research, trade interviews, trade sources

Appendix 5: Forecast Sales of Health and Wellness by Prime Positioning: Value 2014-2019

Hypermarket

	Observed N	Expected N	Residual
Yes	75	50.5	24.5
No	26	50.5	-24.5
Total	101		

Specialty store

	Observed N	Expected N	Residual
Yes	29	50.5	-21.5
No	72	50.5	21.5
Total	101		

Online store

	Observed N	Expected N	Residual
Yes	8	50.5	-42.5
No	93	50.5	42.5
Total	101		

Appendix 6: Distribution channel

Appendix 7: In-depth interview

<u>Respondent 1</u>

Mrs. Kim,   female, age 61.

Occupation: Housewife

Family status: Live with family

Education: Bachelor

Income: 800K THB per month

Exercise: Every day (jogging, yoga, personal train)

The interviewee has been health conscious since her youth years, but started to take things seriously at around the age of 30 by becoming a member of the Vegetarian Club, which is located near Ari Road. The purpose of this is to consume healthy foods in order to facilitate a healthy lifestyle, and ultimately, longevity. Furthermore, consumption of healthy foods also contribute to better overall health, and reduces the risk of cancer. Mrs. Kim reports that she consumes home cooked food with organic ingredients such as, pesticide free vegetables, organic rice. To further complement her healthy lifestyle, Mrs. Kim also consumes enhancing supplements such as vitamins and regularly visits specialist doctors for health checkups.

The respondent searches for news regarding healthy foods from three communication channels. The first is books and magazines, which she trusts in the credibility of the information despite some being outdated (she feels that health-related information doesn't require constant updating). Some examples of print materials are "The Secret" and "Cheewajit" book and magazine respectively. Secondly, she consumes online media from sources such as Line, where she receives forwarded messages from peers and double checks the content for credibility. Lastly, Mrs. Kim participates in activities organized by the Vegetarian Club on a monthly basis, where she leverages the opportunity to purchase unique food products as well as exchange health information with other members.

The influencers that have the most impact on her are actors and celebrities that live a healthy lifestyle such as Nirut Srichanya, Acharaporn Paiboonsawan. She will sometimes try these endorsed products and recommend them

to her peers and even purchase them for her family members. Often times, she will purchase through direct sales in large quantities and does not consider online channels.

Respondent 2

Mr. Chanon,   Male, age 60.

Occupation: Retired

Family status: Live with family

Education: Bachelor

Income: 500K THB per month

Exercise: 2-3 times per week (jogging)

       Mr. Chanon is interested in healthy food because he receives information regarding cancerous diseases, therefore increasing the awareness of harmful environmental factors towards the human health, and therefore tries to eat clean (foods that aren't artificial or too processed). He starts with finding print material and watching documentaries about growing vegetables at home and is a member of the Facebook group: Insee Agriculture "When urban-folk grow their own vegetables" and "Vegetable Basket." Here he is able to exchange information with other members quickly and accurately, which usually adjourns his information search from sources such as other print material and television. One of the main purposes of consuming healthy food is for better health and cancer prevention. Some examples include, self-grown pesticide-free vegetables, organic rice, organic meat, and other chemically enhanced meats. He selects his meals in accordance with the food pyramid and also takes supplements such as calcium. Mr. Chanon does not regularly see the doctor.

       The respondent finds information regarding healthy lifestyles from fairs such as K-Village, Farmer markets, Lemon Farm, and Rama 9 temple. Here he feels that the information is in-depth and credible and also looks to other sources such as Facebook, where he follows a particular page to find interested or special information.

       The key influencers that highly affect Mr. Chanon are members of various clubs who give in-depth information. If these products are satisfactory, he will recommend them to his friends and families and will apply for a long-term membership.

He usually purchases his food from the organic section in supermarkets and sometimes buy products online.

<u>Respondent 3</u>

Mrs. Kate,	Female, age 63
Occupation:	Retired
Family status:	Live alone
Education:	Bachelor
Income:	200K THB per month
Exercise:	3 times per week (Aerobic)

Mrs. Kate became health conscious when she was around 50 years of age due to a series of forwarded emails regarding healthy lifestyles from various sources. From a recent health check-up, her doctor advised that she started to exercise and avoid certain foods, which results in her finding more information regarding healthy lifestyles through print material and television, where she believes almost 100% of what she finds. The purpose of eating healthy food is for a healthy lifestyle and prevention of diseases where Mrs. Kate consumes healthy foods such as organic rice, hydroponic vegetables, homemade dried fruits, and juice. She usually prepares food using chemical free methods (baking soda) and uses natural seasoning for her meals. Furthermore, she also consumes vitamins on a daily basis and visits the doctor on a yearly basis for cancer detection.

Mrs. Kate receives news regarding healthy lifestyles from social media sources such as "Line" and search engines such as Google. She is a member of the "Healthy Lovers Club" and many others; however she doesn't trust these sources, even from forwarded messages from her peers, and usually runs a Google search before purchasing.

Key influencers that have high impact on Mrs. Kate are her children and her friends, in that order. Usually both influencers will purchase items for her to try and if she finds them useful, she will further recommend it to other of her friends through trial gifting. She usually buys items from hyper and supermarkets by reading the labels

on the product to aid the decision-making process. Mrs. Kate has never bought anything online.

<u>Respondent 4</u>

Mrs. Su,   Female, age 67

Occupation: Business owner

Family status: Live with family (one daughter, a doctor)

Education: Master

Income: 500K THB per month

Exercise: 2-3 times per week (Aerobic)

Mrs. Su began her quest for healthy foods since 47 when she realized she couldn't take care of her health as well as before and decided to look to food for assistance. The purpose of consuming healthy foods is for better health and to live longer. She usually consumes healthy foods such as "Clean Food" and a variety of snacks. Mrs. Su sees the doctor regularly.

She finds information regarding healthy lifestyles primarily through the social media application: Instagram – as she finds this source to be the most credible and academically sound compared to other sources such as Facebook or other media outlets such as television and radio. She finds these sources to be not trustworthy, as she claims that they sell primarily for financial gain and can contain jaded information regarding the products.

The key influencer of Mrs. Su is her daughter who brings in products for her to try. If she is satisfied with the benefits she will purchase regularly (high loyalty) and would not consider other brands. She usually purchases her products through Instagram, which include readymade clean meals, where she purchases on a weekly basis (10 meals). Mrs. Su also looks to other clean food specialists such as "Bai Miang" and "Lemon Farm."

<u>Respondent 5</u> Male

Mr. Hong,   Male, age 71.

Occupation: Business owner

Family status: Live with family

Education: High school

Income: 400K THB per month

Exercise: Every day (jogging)

Mr. Hong started to gain interest in a healthy lifestyle at around 55 years old due to a friend he met while jogging. The reason he chose to pursue this lifestyle is for the health benefits and longer health. Mr. Hong usually consumes healthy foods such as organic produce (rice and vegetables), where he prefers to prepare and cook raw ingredients, while giving importance to convenience in the preparation process (easy to cook). Furthermore, he takes supplements such as vitamins and regularly visits the doctor.

Mr. Hong usually looks for information from his peers, print materials and ignores online channels of communication. Additionally, he views product salesman and product labels as another credible source of information.

The key influencers that affect Mr. Hong's decision-making process are his family members and product salesmen. He usually purchases vegetables in the fresh market, where he buys regularly from the same vendor. For other products such as rice, he goes to hyper and supermarkets because he feels that healthy-styled products are not as present and clustered in comparison with modern trade channels, hence he values convenience in the selection process. Furthermore, he also values delivery services of modern trade channels, where if such service is provided, he will usually purchase at a larger quantity as it contributes to the buyer's convenience. Lastly, Mr. Hong values a great salesman, and will increase the likelihood of purchase if information is properly communicated.

BIOGRAPHY

Name	Miss Porntip Tanongsak
Date of Birth	September 22, 1987
Educational Attainment:	Bachelor of Landscape Architecture (B.L.A.), Chulalongkorn University
Work Experiences	Board of Director, P91 CO.,LTD.