

**FACTORS AFFECTING THE SATISFACTION LEVEL ON MARKETING
AND SERVICES OF THAI LOW-COST AIRLINES CASE STUDY:
THAI ELDERLY PASSENGERS**

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ABSTRACT

As a result of entering into a phase of an aging society in Thailand, the ratio of Thai elderly is getting higher each year. This will generally reflect trends of Thai consumer behavior which will vary according to a change in the percentage of the aging population. Elderly people, then, become a new customer base to which several business organizations are paying attention. The aviation industry, like many others, is paying a lot of attention to the increasing ratio of elderly passengers, especially the low-cost airlines. The Airlines business, itself, basically is a business that relies heavily on customer satisfaction. The purpose of this research is to study factors affecting marketing and services provided by Thai low-cost airlines towards Thai elderly passengers. Through the application of the Purposive Sampling approach, the sample used was 500 Thai elderly passengers who use low-cost airlines at Don Mueang International Airport. Descriptive Statistics and Ordered Logistic Regression were applied to analyze the factors that affect the satisfaction level in three areas: the airline's overall marketing image, the airline's personnel of the airlines and the service standard of the airlines. The findings revealed that age, income per month and physical limitation of the elderly passengers affect the satisfaction level of the passengers against low-cost airlines. These results were much advantageous that each low-cost airline may take them into its consideration to further refer to or use as the ground for continuous development of its services to maintain the customer base and good image of the airlines.

Keywords: Low-cost airlines, Elderly, Marketing, Services

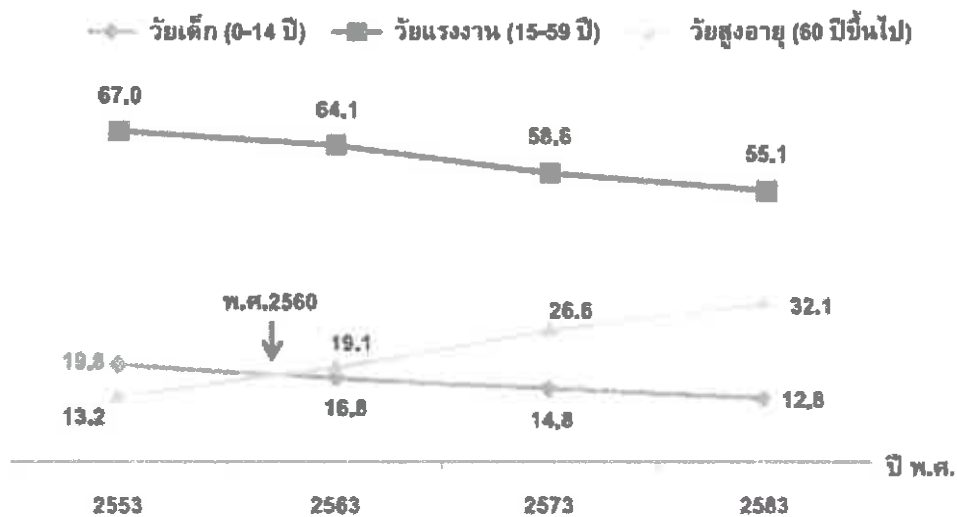
1. Introduction

With the development in science and technology especially in medical and public health, medical treatment, food consumption, and lifestyles become major interests for the population in this century because the age of a healthy population is increasing. On the other hand, the birth rate is declining because of the pressing

condition of the economy, a change in lifestyles and in attitudes of different generations which is the attitude toward having a small family or being single. (National Statistical Office, 2020) As a result, the ratio of elderly people is increasingly high year by year. The National Economic and Social Development Board have forecasted that the Thai population will have increased from 66.48 million in 2008 to 70.65 million in 2025 and will later decline to 70.63 million in 2030. The ratio rates of the population are as follows:

- Children from 0-14 years will decrease from 15.9 million in 1990 to 9.54 million in 2030
- Elderly 60 years upwards will increase from 4.02 million to 17.74 million in the same period.

This can be declared that Thailand has been entering into the Ageing Society since 2004 and will completely become the Aged Society in 2024.



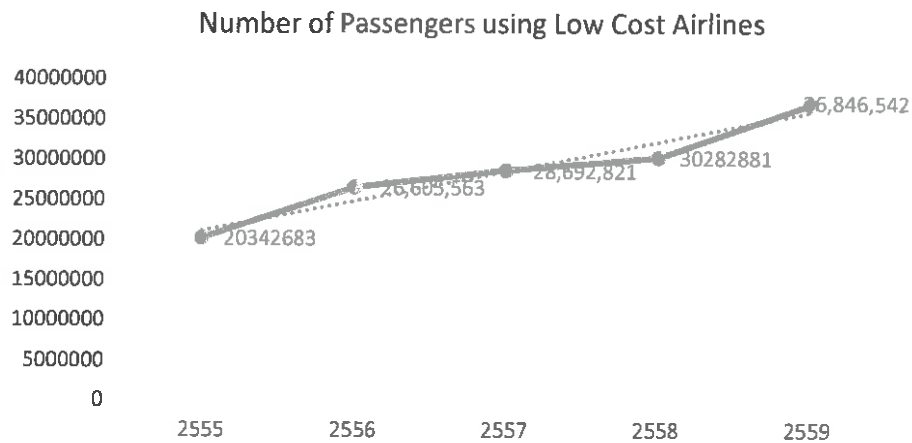
Picture 1 The ratio of the elderly when compared to child and labor age in Thailand

Source: National Statistical Office, 2020

Tourism is considered an important part of the everyday life of elderly people because the elderly love traveling (Pongyiwa, 2015). As a result, the safe and sound quality of transportation and communication will be an answer for elderly travelers. Travel by air is considered a conformity mode of travel to the limited physicality of the elderly passengers over other means of travel. It shortens the time to destinations when compared to other traveling modes at the same distance or the same destination (Nutthapol, 2016)

Low-cost airlines have developed strategies to focus mainly on minimizing the cost of operation to enable the lower-class customer to travel by airplane. Low-cost airlines' philosophy is to reduce all fringe services that it sees unnecessary for a passenger while traveling. This results in a new format of the service to air passengers who are different from other full- service or legacy airlines, for example; instead of serving food and beverage on board the flight, low-cost airlines provide passengers the inflight sales of food and beverage (Nutthapol, 2016). This is not only cutting the operation cost of the low-cost airlines but also increasing revenue from onboard sales.

Likewise, the sales of other inflight merchandise i.e., special menus, various goods, and souvenirs. Low-cost airlines do not provide lounge services to their passengers to enhance cost cutting on space rent at the departure airports. In addition, low-cost airlines generally operate only one class of service, which is economy class. This helps also reduce room between seats on the aircraft which will make more space for more seat capacity to sell on each flight. Moreover, low-cost airlines stop issuing paper tickets, using only electronic ones. They heavily rely on internet booking/reservation, to reduce the cost of issuing the paper ticket, the cost of commission for airline ticket agents, and the cost of office space for the airline representatives



Picture 2 shows number of passengers who use low-cost airlines

Source: Department of Air Transport, 2019

From Picture 2, we can see that low-cost airlines have received increased attention from the passengers continuously and year by year and the trend has shown an upwards tendency in terms of the increasing number of passengers.

For this reason, low-cost airlines have become a popular choice, unlike the old days when air traveling is restricted to the upper class who have more disposable income to spare for air traveling. Low-cost airlines allow more chances for passengers to travel by air as another choice of traveling, which affects the traveling choice of consumer behavior leaning more towards air travel. The type of passengers who choose low-cost airlines as a form of traveling ranges from children, young adults, adults, and the elderly. Though, the environment in the cabin while flying is not so much accommodating to them, especially for elderly passengers. Air traveling is not only the safest form of transportation but also it helps save time for travel. These reasons contribute to the increase in the number of air-traveling passengers including elderly passengers. (Department of Air Transport, 2019) For the mentioned reasons, the researchers are interested to study factors that affect the satisfaction level of elderly passengers towards marketing and services provided by Thai low-cost airlines.

2. Research Objectives

1. To study demographic factors; age, gender, marital status income, human capital factors; education, a physical limitation that affects the Thai elderly passengers' satisfaction with the services of Thai low-cost airlines.
2. To study the level of satisfaction of elderly passengers towards Thai low-cost airlines
3. To study the elderly passenger's behavior against Thai low-cost airlines

3. Conceptual Framework and Hypothesis

Independent Variables: the elderly demographic, the economic capital factors, the physical limitations, and the selection of low-cost airlines

Dependent Variables: overall marketing image satisfaction towards low-cost airlines, overall satisfaction towards the airline personnel, and the services of the low-cost airlines.

From the above variables, the researchers have set the assumptions for this study as follows:

The demographic

The economic capital factors

The human capital factors

The physical limitation factors

The service usage satisfaction factors of the elderly (marketing image, staff, and service)

4. Research Method

This research is survey research by using the calculation without the known population size according to Roscoe's method. The formula uses a 95% confidence level, and a tolerance of 5% from the sampling size of 500 samples. The sample group is the Thai elderly passengers who use low-cost airlines at Don Mueang International Airport. Purposive Sampling with a self-administered method has been used to obtain the answers to the questionnaire given by the researchers. The questionnaire used consists of 2 parts,

Part 1 is the questions about the demographic of the respondent, for example, gender, age, marital status, education, income, physical limitation, and the low-cost airlines used. The check list question style is used.

Part 2 is the questions that are designed to inquire about satisfaction and the influencing factors towards the chosen low-cost airlines used, for example, overall marketing image, personnel of low-cost airlines, and low-cost airline services. For this part of the questionnaire, the Likert Scale is employed mainly but when the respondent was not able to answer the questionnaire with reference to the Likert scale, the ask-and-answer method is used to get the answer, then the record of the answer is at the later stage verified.

All the answers from the questionnaire and ask-and-answer method are processed with a statistical software package and write up the result with statistic descriptive, correlation statistics with Ordered Logistic Regression analysis.

5. Results of The Study

5.1 Descriptive Statistics

1. The demographic, gender of the respondent is more of male (271 = 54.2%) than female (229 = 45.8%), the average age is 63.78 years ranging from the lowest at 60-64 years of age (271 respondents = 43.4%) to the highest at 80-84 years of age (12 respondents = 2.4%), the majority of education level is from the lowest in Bachelor Degree (273 respondents = 54.6%) to the highest Doctoral Degree (6 respondents = 1.2%), the majority of the profession of the respondent is merchant/freelancer (196 respondents) and the minority of the profession of the respondent is university officer (1 respondent), the highest income of the respondent is at 18,567.78 baht/month by the most answered is at 0-20,000 baht/month (263 respondents) and the least answered is at 200,001-300,000 baht/month (1 respondent), the majority of the marital status is at married/living together (336 respondents = 67.2%) and the least answered is divorced/widowed/separated (64 respondents = 12.8%), on the physical limitation, we found that the bone problem is the highest answer (257 respondents = 51.4%) and the least answer is healthy (45 respondents = 9.0%). Last but not least, the Low-Cost Airlines frequently used, the most answer is Thai Air Asia (217 respondents = 43.4%) and the least answer is Thai Lion Air (73 respondents = 14.6%)

2. The average result of the analysis of satisfaction and influencing factors in choosing low-cost airlines found that there is substantial use of marketing factors used. Each of the 3 areas can be summed up as follows: satisfaction in air fare has the average of 2.99 which is classified as 'satisfied', satisfaction in marketing promotion has the average of 2.82 which is classified as 'satisfied', satisfaction in distribution channel of the air ticket has the average of 2.83 which is classified as 'satisfied', satisfaction in external physical environment has the average of 2.88 which is classified as 'satisfied', satisfaction in the modern of the service equipment used in servicing the passengers has the average of 2.87 which is classified as 'satisfied', the satisfaction in image of the airline used has the average of 2.93 which is classified as 'satisfied'.

Satisfaction in the personality of the airline personnel, satisfaction in the uniform of personnel has the average of 2.96 which is classified as 'satisfied', satisfaction in friendliness and hospitable attitude has the average of 2.84 which is classified as 'satisfied', satisfaction in giving suggesting/clarity of the answer towards questions asked has the average of 2.80 which is classified as 'satisfied', satisfaction of tentativeness, eagerness of providing service has the average of 2.85 which is classified as 'satisfied', satisfaction in providing solution for the passengers has the average of 2.87 which is classified as 'satisfied'

Satisfaction in the overall services given by low cost airlines, satisfaction in the quick and efficient of providing service has the average of 2.99 which is classified as 'satisfied', satisfaction in responding correctly to the passengers request has the average of 2.94 which is classified as 'satisfied', satisfaction in following through until the end of service has the average of 2.90 which is classified as 'satisfied', satisfaction in value for money has the average of 2.96 which is classified as 'satisfied', satisfaction in repeating the usage of the airline has the average of 2.97 which is classified as 'satisfied'.

5.2 Correlation statistics with Ordered Logistic Regression analysis

1. The testing of the correlation linear multiple plural relations (Multicollinearity) of Independent Variables

Each of the Independent Variables is tested in relation so; they can be the variables in the multiple regression analysis. The criteria in considering the suitable variables for analysis is a coefficient correlation between correlated variables that is less than 0.50 or more than or equal to 0.50 that is to say, there is a high correlation between the pair of independent variables which can be caused the problem of multicollinearity of the independent variables which from the analysis of the correlation between the pair of the independent variables found that if every independent variable has coefficient correlation (Pearson Correlation) less than 0.50, there will be no/low relation between independent variables. This means the independent variables cannot be used in finding the factors that are influencing the elderly traveling pattern.

2. The testing of the parallel line test to see the suitability of the logistic regression analysis

The testing of the parallel line test to see the suitability of the logistic regression analysis by using the result analysis of the O-model found that the value of prob chi2 is 0.8081 which means an insignificant value. The suitability of using the Proportional Odds Model, the model that uses the cumulative logit function by setting the fixed value of regression coefficient of each and every independent variable while setting the changeable value of intercept depending on the level of the dependent variable, is suitable and give no difference statistical result from the set model both the regression coefficient of the independent variables and/or the changeable intercept. This is to say that the use of Ordered Logistic Regression in finding the relationship between the set of independent variables and the changeable of dependent variables has statistical reliability.

Table 1 shows the value of Ordered Logistic Regression that influences the satisfaction in overall marketing factors used by low-cost airlines, overall satisfaction in personnel of the low-cost airlines, overall satisfaction in low-cost airlines services

Independent Variables	Overall satisfaction in marketing factors used by low-cost airlines	Overall satisfaction in personnel of the low-cost airlines	Overall satisfaction in low-cost airline services
	Odd Ratio	Odd Ratio	Odd Ratio
Demographic Factors			
Gender			
Female (reference group)			
Male	0.9876	0.9526	0.9413
Age	1.0231***	1.0145***	1.0176***
Marital Status			
Single (reference group)			
Married/Lived in	1.7601	1.4565	1.6458
Divorced/Widowed/Separated	4.1232	4.8142	4.7654

Table 1 (continued)

Economic Capital Factors			
Profession			
Unemployed (reference group)			
Civil Servant/State Enterprise	12.0563**	14.0745**	13.4156**
Company Employee	8.4677**	7.4579**	9.6511**
Merchant/Entrepreneur	3.1245	2.4589	4.6579**
Employed	5.1456	4.9878	6.1456
Agricultural/Fishery	1.4534	1.5673	1.4564
Average Salary per month	1.0000***	1.0000***	1.0000***
Independent Variables	Overall satisfaction in marketing factors used by low-cost airlines	Overall satisfaction in personnel of the low-cost airlines	Overall satisfaction in low-cost airline services
	Odd Ratio	Odd Ratio	Odd Ratio
Human Capital Factors			
Education Level			
Doctoral Degree (reference group)	-	-	-
Lower than Bachelor Degree	1.1453	1.1263	1.1432
Bachelor Degree	1.0876	1.0659	1.0843
Master Degree	1.0055	1.0042	1.0062
Physical Limitation Factors			
Physical Limitation			
Healthy (reference group)			
Bone Problem	0.8756**	0.9154**	0.8323**
Chronic Health Condition	0.9152**	0.9232**	0.9563**
On Prescription	0.9332**	0.9155**	0.9576**
Usage of the Low-Cost Airline Factors			
Low-Cost Airlines Used			
Thai Lion Air (reference group)			
Nok Air	1.2343	1.3467	1.4545
Thai Air Asia	1.1321	1.4534	1.6786
Sample size	500	500	500
Prob>chi2	0.0000	0.0000	0.0000
Pseudo-R2	0.3153	0.3262	0.3075
Log likelihood	-452.14324	-467.18765	-449.13423

p-value=.05 *pvalue=.01

From **Table 1**, the conclusion can be made that the older the population is, the more satisfaction in every area with low-cost airlines. It can be seen that the highest increase in satisfaction is at 1.0237 times (significance level 0.01) towards the overall marketing factors that are used by low-cost airlines, and the second highest increase is at 1.017 times (significance level 0.01) towards the low-cost airline service and the increase in the satisfaction towards the personnel of the low-cost airline is at 1.0145 times (significance level 0.01)

The conclusion of the Economic Capital Factors can be seen that the more salary the elderly earn, the more satisfaction in every area towards low-cost airlines is increased by 1.000 times (significance level 0.01). In detail, the elderly who is in the profession of Civil Servant/ State Enterprise/ Company Employee and Merchant/Entrepreneur have more satisfaction when compared to the Unemployed elderly.

The elderly who are Civil Servant/ State Enterprise/ Company Employee and Merchant/ Entrepreneur have increased their satisfaction ratio towards the personnel of the low-cost airlines at the highest level of 14.0745 times (significance level 0.05), the second highest increase is at 13.4153 times (significance level 0.0) towards for the low-cost airlines' service and towards the low-cost airline marketing factors used by the low-cost airline is at 12.0563 times (significance level 0.05) respectively.

The elderly who are Company Employees have the highest increased satisfaction ratio towards the services of low-cost airlines at 9.6511 times (significance level 0.05), towards marketing factors used in low-cost airlines at 8.4677 times (significance level 0.05) and towards the low-cost airline's staff at 7.4579 times (significance level 0.05). For the rest of the elderly profession when compared to the Unemployed elderly, there was no significant increase in the level of satisfaction.

The conclusion on the Human Capital Factor on the level of the Elderly's Education has no significant level.

The conclusion on the Physical Limitations is founded that for every elderly who have physical limitations there is a reduction in the satisfaction ratio towards the low-cost airlines, compared with the healthy elderly.

The conclusion on the usage of low-cost airline factors is founded that there is no significant increase in the level of satisfaction statistically between Nok Air, Thai Air Asia, and Thai Lion Air towards the increase the satisfaction towards the marketing factors, the services, and the personnel overall.

6. Conclusion and Discussion

From the study, it is concluded that the first factor that affects the satisfaction of the service in Thai low-cost airlines in the case study of Thai elderly passengers is the age of the elderly. This means for every increase in the age of the elderly, there will be an increase in satisfaction with the airlines, the personnel, and the services.

The second factor is the elderly's profession, it is founded that the elderly who are in the profession of Civil Servant/ State Enterprise/ Company Employee and Merchant/ Entrepreneur have more satisfaction towards the marketing factors, the personnel, and the service of Thai low-cost airlines than the elderly who are

unemployed which corresponds to the study of Rojanamukda (2015) and Wannaphahun (2015) that revealed the same result. This can be assumed that on a business trip of those who are Civil Servants/ State Enterprises/ Company Employees and Merchant/ Entrepreneurs, the price and reputation of the low-cost airlines are assessed and are chosen carefully before making a purchase. This means that they are more concerned with a purchase decision of the low-cost airlines' services than those elderly who are Civil Servants and have the requirement to 'choose Thai-owned airlines priority' policy and all expenses paid for. Though the price of air-ticket on Thai-owned airlines, sometimes, is 20-50 percent higher. For this reason, elderly who are Civil Servants rarely travel by low-cost airlines.

The influencing factors in the satisfaction of elderly passengers towards Thai low-cost airlines also include Economic Capital Factor. The more salary the elderly earn the more satisfied with the overall low-cost airlines, the personnel, and the services. In addition, for the Physical Limitation factor, healthy elderly have more satisfaction with the airline, the personnel, and the services when compared with those elderly who have physical limitation.

7. Recommendations

The recommendations from this study can be summed up into the following:

1. Since elderly passengers with higher aging value a higher level of satisfaction towards marketing factors and all kinds of services received from low-cost airlines. As a result, in order to maintain a level of satisfaction, low-cost airlines should continue to develop tailor-made services, including marketing factors. Particularly, elderly passengers would need more and additional types of services to cater to the increasing number of the elderly population.
2. Due to the fact that the elderly who are still employed, including one with an average high salary, would indicate higher satisfaction towards various kinds of services and overall marketing factors from low-cost airlines. Low-cost airlines, then, should take into consideration of buying power of this group of elderly passengers.
3. When some elderly passengers who have physical limitations are still not satisfied with services provided by low-cost airlines. Low-cost airlines, thus, should pay more attention to further improving both services and marketing factors. Particularly, when Thailand is heading towards an aging society which results in an increasing number of the elderly year after year.

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