

# Tourist Perceptions, Behavioral Characteristics and Demands of Agro-Safety Tourism as an Economic Value Add for the Ing River Basin Route, Thailand

Suriya Somchan<sup>a</sup>, Sirikhuan Panyarien<sup>b</sup>, <sup>a</sup>School of Management and Information Sciences, University of Phayao, Thailand, <sup>b</sup>Rajamangala University of Technology Lanna Lampang, Thailand, E-mail: [somchanup@gmail.com](mailto:somchanup@gmail.com), [rosegarden7305@gmail.com](mailto:rosegarden7305@gmail.com)

The objectives of this study were to study 1) the current perceptions of tourists about agro-safety tourism as a value add to economy along the Ing River Basin route, 2) their behavioral characteristics, and 3) demands. This study used a mixed methods research approach with quantitative research employing a questionnaire that received an Index of Item-Objective Congruence (IOC) score between 0.60 - 1.00 and a confidence level equal to 0.93. The Taro Yamane formula was used to calculate the size of the sample group at 400 people. Data analysis with the SPSS statistics software included descriptive statistic, t-test and one-way ANOVA. The qualitative research was conducted with a focus group of 21 stakeholders and the data was analysed for content and summarised. All data was verified using triangulation technique. It was found that the overall perception of Thai tourists is that the following aspects are most important: 1) accessibility, 2) tourism amenities, 3) administration and 4) attractions. Further, Thai tourists demands were found to focus on the following aspects: 1) administration, 2) tourism amenities, 3) attractions and 4) accessibility. This research was conducted to provide beneficial data for use in agro-safety tourism management and to continually add value to the economy.

**Key words:** *Perception, Behavioral Characteristics, Demands of tourists, Agro-safety Tourism.*

## Introduction

In the context of the Thai tourism industry, the 12<sup>th</sup> National and Social Development Plan (2017-2021), in consideration of changes such as the increase of the middle class in the global digital age, predicts that by the year 2036, the opportunity to gain revenue from the tourism industry will increase to 13 trillion baht from international tourists and 9 trillion baht from domestic tourists (International Economic Information Service Center, Department of International Economic Affairs Ministry of Foreign Affairs, 2018; cited by the Ministry of Tourism and Sports, 2018). In addition, the development of modern communication technology has made global society much more closely linked (Jermstiparsert, Sriyakul, & Rodoonsong, 2013). There are also risks from changes in the structure of the population in which the number of elderly people is increasing (Monnuanprang, Vanpetch, Sangngern, Maneechote, Chuaypanang, & Chodilok, 2019; Whangmahaporn, 2019), whereas the percentage of the working age population is decreasing. This is a concern as the elderly have health problems and there is an increasing tendency for them to live alone. The problem of poverty is still widespread in the regions of the Northeast and the North and this is coupled with the income gap between the richest group and the poorest group, which has reached 34.90 times.

Globalization has become a force that necessitates Thailand adapt and manage identified risks more wisely, which makes it necessary to give importance to integration and consideration of the budget allocation in order to convert the planning into action that achieves tangible results. The aim of the Office of the National Economic and Social Development Board (2018), in accordance with the established vision of the Ministry of Tourism and Sports is “Thailand: a quality tourist destination that has the ability to compete in tourism at the international level, in order to gain revenue and to distribute this income with fairness, balance and sustainability” (the Ministry of Tourism and Sports, 2018). The Bank of Thailand (2018), conducted a survey to gather data about the opinions of a total of 33 businesspersons in various fields in the North region regarding perceived confidence in business during the next 12 months. The findings were that there is confidence in overall improvement, including the clarity of the policies of the government, with 30.30 percent of entrepreneurs stating that business will be stable, while 18.20 percent of the entrepreneurs think that business will deteriorate in the context of the expansion of tourism, depending on the number of Chinese tourists. The majority of the entrepreneurs think that there will be continued demand in terms of the arrival of many more Chinese tourists (Bank of Thailand, 2018) and this is reflected in the strategies of the respondents grouped in the region of the upper North (Lanna Group, 2018), comprising Chiang Mai, Chiang Rai, Lampang, Lamphun, Phayao, Phrae, Nan and Mae Hong Son. The vision for this region is “Golden Gate of Trade to the World, Outstanding Lanna Culture, Liveable in Every Place”.

According to Tourism of the World (2018) research, there are seven categories of tourist behavior: goals, readiness, situations, interpretation, responses to the results and reactions to disappointment. Sirarungrotkanok (2016), conducted a study on the behavior and satisfaction of Thai tourists with regard to the management of tourism logistics in the case study of the Amphawa Floating Market in Samut Songkram province. The results of the study showed that overall, there was tourist satisfaction at a medium to high level with regard to the management of the Amphawa Floating Market tourism logistics regarding the majority of aspects: the physical convenience, availability of information, provision of services and the safety of the people and property. Further, the aspects of expenses and finance recorded a medium level of tourist satisfaction.

Manowaluilou & et al. (2015), study results on the potential of onshore attractions and behavior and the respective needs of tourists in Trat province as well as the creative design and development of a model for tourism activities, found that satisfaction was at the highest level and thus reflected what tourists think should be given importance for: 1) providing information about tourist cities to learn about history and culture, 2) communities creating learning about the ways of culture and 3) eating local food. In addition, tourists think that importance should be given to religion, the value of communities, nature and the environment and the safety of people and property.

In order to create a mechanism and a process to promote the practices that will result in efficiency and effectiveness all sector stakeholders perceptions must be integrated: the public sector, the private sector the government and the tourists. This research therefore aims to study: 1) the current perceptions of tourists toward agro-safety tourism as a value add to economy along the route of the Ing River Basin, 2) their behavioral characteristics, and 3) the tourist of tourists agro-safety tourism as a value add to Ing River Basin economy. The results of the study will be applied in the integration of the management of agro-safety tourism in order to add value to economy in the process of raising the level of goods and services standards in continual response to the demands of Thai tourists.

## **Literature Review**

### ***Perception Theory***

Perception is a process by which people select, organize and interpret stimuli (images, tastes, smells, sounds, textures) in order to provide meaning and coherence to the various things around them when seeing the same stimulus under the same conditions and at the same time (Morrison, 1989; Kotler, 2003). Therefore, Perception Theory (Serirat, and. et al , 2003; Kontoljinda, 2014) is the basis of learning and is essential for efficient learning. The factors of perception are composed of the senses and mental factors, which include original knowledge,

needs, attitudes, etc. Perceptions are composed by a process that has three areas and these are 1) experience, 2) interpretation, and 3) mood.

From previous research, it was found that the perceptions of a person result from seeing (75%), hearing (13%), touch (6%), smell (3%), and taste (3%), in addition to various other components, which are as follows: 1) intelligence - people who have a higher level of intelligence are more likely to have better awareness than people with lower levels of intelligence, 2) observation and consideration – these depend on skillfulness and interest in the stimuli and 3) the quality of the mind at the time of perceiving. If there is depression, stress or a negative mood, it may cause an interpretation of stimuli that is experienced as not good; however, in contrast, if the condition of the mind is clear and bright, it will result in perception and learning that are positive, beneficial and well organized (Bartholme and Melewar, 2009, 2011; Kannasoot and Ongkrutraksa, 2013)

The current research applied these questions regarding perception in accordance with the standards of Agro-tourism of the Ministry of Tourism and Sports (2018), comprising: 1) accessibility, 2) tourism amenities, 3) administration and 4) attractions.

### ***Theory of Needs***

The behavior of humans was explained by Maslow(1943) as a tendency to search for goals that will make their lives fulfilled in terms of their needs and desires (The Hierarchy of Needs Conception of Human Motivation). Maslow's classification of the needs of humans from basic to advanced has 5 levels: 1) Physiological Needs, 2) Safety Needs, 3) Social Needs, 4) Esteem Needs and 5) Self-actualization Needs. In addition, there is also the Travel Career Ladder theory of travel motivation of Pearce et al., as mentioned by Parasakul, (2015) and cited in Goeldner & Ritchie (2006). Pearce et al.,s theory is concerned with tourists. In particular Pearce extended the theory of the Hierarchy of Needs of Maslow, in order to divide it into five stages which are 1) physiological needs, 2) safety needs, 3) the need to build relationships, 4) esteem and self-development needs and 5) the need for the highest satisfaction. The important content of this theory, which is a theory that includes broad tourism needs, is that the needs of tourism do not need to start from the response to physical needs first, as posed by Maslow.

Therefore, the current research investigated tourism needs in accordance with the Agro-tourism standards of the Ministry of Tourism and Sports (2018), comprising of: 1) accessibility, 2) tourism amenities, 3) administration and 4) attractions.

### ***Tourist behavior***

The behavior of tourists (Tourism of the World, 2018; Pimonsompong, 2007) includes every type of action performed by tourists regardless of whether the tourists are aware or unaware of it and whether other people notice the action or not, in order to aim to respond to the various types of needs of each person and to create the highest satisfaction for tourists. Kim and Chalip (2004) mentioned that tourism behavior is impacted by factors that equally push and pull with coercive forces in tourism and which can include factors such as distance, currency and the risks. Cohen (1972) stated that tourists have needs of two types: 1) the need to have new and unusual experiences and the need for 2) a feeling of safety with familiar things.

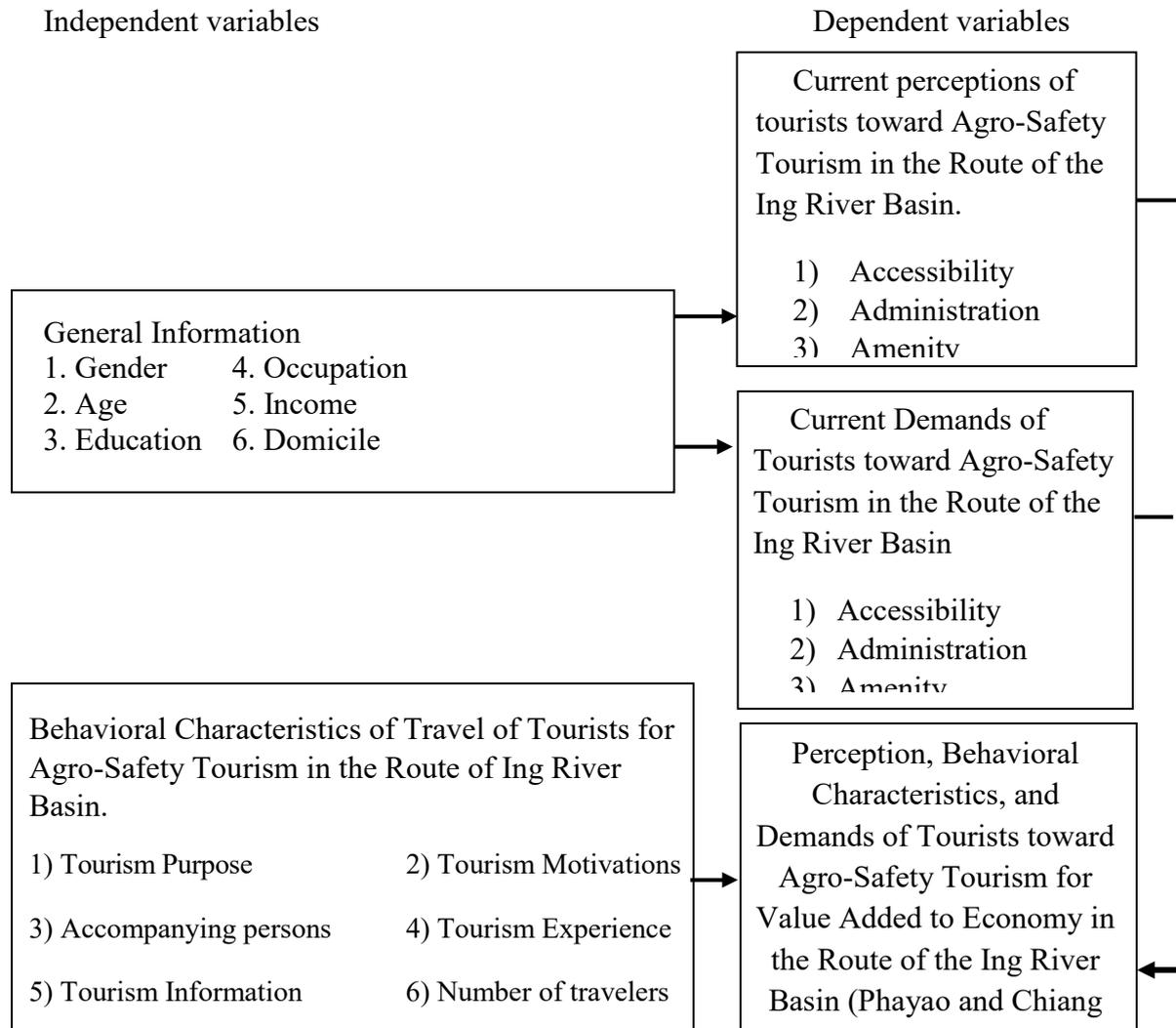
According to Mo, Howard and Havitz (1993), the factors that have an influence on the experiences of tourists which inspire the need to travel to various places include: 1) the tourism destination's environment, such as the destination orientation dimension and 2) the destination's service infrastructure. In addition, the tourism behavior of tourists includes the following: 1) Tourism Purpose, 2) Tourism Motivations, 3) People Accompanying for traveling, 4) Tourism Experience, 5) Tourism Information, 6) Number of People who come for traveling, 7) Vehicle, 8) Accommodation for traveling, 9) Times of traveling and 10) Expenditures for traveling (Phumila, 2009; Pimonsompong, 2007; Jittangwattana, 2005, 2006).

### **Hypothesis**

H<sub>0</sub>: There is no significant difference with regard to gender, age, education level, occupation, income and domicile affecting the demands of Thai tourists toward Agro-Safety Tourism for Value Added to Economy along the Route of the Ing River Basin.

H<sub>A</sub>: There is significant difference with regard to gender, age, education level, occupation, income and domicile affecting the demands of Thai tourists toward Agro-Safety Tourism for Value Added to Economy along the Route of the Ing River Basin.

## The Conceptual Framework



## Research Methodology

A mixed research methodology was used with quantitative research that employed a questionnaire as an upstream, midstream and downstream process to study the perception, behavioral characteristics and demands of Thai tourists toward agro-safety tourism in order to add value to economy along the route of the Ing River Basin, which includes the procedure as follows: 1) the population and sample group, 1.1) the population - Thai tourists totalling 2,588,650 people (National Statistics Office, 2018) and 1.2) the sample group, namely Thai tourists that have traveled along the route of the upper, middle and lower Ing River Basin. The calculation of the size of the sample group using the Taro Yamane (1973) formula and a confidence level of 95 percent and probability sampling indicated the size of the sample group as 400 people. Stratified Random Sampling by comparison of the proportion of the size of the sample group of tourists classified by province included Thai tourists in Chiang Rai province

of 2,298,952 people with the size of the sample group being 355 people and Thai tourists in Phayao province of 289,698 people with the size of the sample group being 45 people. Overall from a total of 2,588,650 people the size of the sample group was a total of 400 people.

2) The creation of the research tool resulted in a questionnaire divided into 4 parts, composed of **Part 1:** questions concerned with the demographic information, **Part 2:** the opinions concerned with the perceptions of tourists, **Part 3:** the behavioral characteristics of tourists and **Part 4:** the opinions concerned with the demands of Thai tourists that were collected. The questionnaire that was created was submitted to experts in order to consider the appropriateness and accuracy of the use of idiomatic language and the content included in the research. It was also submitted for consideration to evaluate the content validity by finding the Index of Item-Objective Congruence (IOC) between each question by a group of three experts, which found that the IOC of the questionnaire was between 0.60 - 1.00. The questionnaire was then revised according to the additional suggestions and recommendations of the experts, and was tested with a population that was not the sample group, and involved a total of 80 people from the municipal district of Chiang Mai province using Accidental Sampling. Using Cronbach's alpha coefficient based on the method of Cronbach (Tairuekham, 2009), the confidence level was shown to be equal to 0.93. The data analysis with the SPSS statistics software included percent, mean, standard deviation, t-test and one-way analysis of variance (ANOVA).

The qualitative research using the focus group is a downstream process for analysis and synthesis of the results of the study from objectives 1 and 2. The draft summary was brought to the focus group together with the stakeholders composed of community representatives (9 people), representatives of government agencies (4 people) representatives of the private sector (5 people) and representatives of professionals (3 people) with an overall total of 21 people. In addition, empirical knowledge about tourist attraction routes must have the development of the elements of tourism, composed: of 1) accessibility of tourists attractions, 2) administration of tourist attractions, 3) amenities of tourists attractions and 4) the attractiveness of tourist attractions. This is necessary to conduct content analysis and check the data by triangulation: the communities, the government agencies, the private sector and academic scholars for the accuracy of the content and the appropriacy of language that is in accordance with objectives of the research, so that the results can provide useful and appropriate benefits.

## Results

The results of the study were as follows.

**Part 1:** Current Perception of Tourists toward Agro-Safety Tourism for Value Added to Economy along the Route of Ing River Basin.

The results of the study regarding the gender of the tourists found that the majority are female (61.00 percent) and males accounted for 39.00 percent. Regarding age, it was found that the majority are in the age range of 23 - 28 years (Gen M) (37.00 percent), followed in order by the age range of between 29 - 39 years (Gen Y) (24.00 percent), the age range of between 40 - 54 years (Gen X) (20.50 percent), the age range of lower than 23 years (Gen Z) (8.50 percent), and the age range of between more than 54 years and up (Gen B) (10.00 percent).

Regarding education, the majority of the tourists have a bachelor's degree (45.00 percent), followed in order by secondary school/vocational school (19.00 percent), diploma level/advanced vocational school (17.00 percent), lower secondary school (7.00 percent), bachelor's degree (7.00 percent), primary school (4.00 percent) and other (1.00 percent). Regarding occupation, the majority of the tourists are composed of freelancers (27.00 percent), followed in order by student/university students (18.00 percent), personal business (16.00 percent), private company (14.00 percent), government service/state employee (12.50 percent), enterprises/public organizations (6.00 percent), retired (4.00 percent) and others, namely trading, (2.50 percent).

Regarding income, the majority of the tourists have an income of 5,001 - 20,000 baht (73.00 percent), 20,001 - 40,000 baht (18.00 percent), and 40,001 baht and up (9.00 percent). Regarding residence, the majority of the Thai tourists have a residence in Lampang province (8.30 percent), followed in order by those who have a residence in Lamphun province (8.00 percent), Phrae (4.80 percent), Phitsanulok (3.00 percent), Mae Hong Son and Sukhothai (1.00 percent equally), Phuket, Loei, Srisaket, Samut Sakhon and Ubon Ratchathani classified by province (0.80 percent equally), Songkla Saraburi, Suphanburi, Surin Udonthani and Uthaitхани classified by province (0.50 percent) equally, Phranakhon Sri Ayuthaya, Pichit, Petchaburi, Mukdaharn, Roi Et, Rayong, Lopburi, Sahon Nakhon, Nong Kai and Amnat Charoen classified by province (0.30 percent) equally.

## **Part 2: Current Perceptions of Tourists toward Agro-Safety Tourism for Value Added to Economy along the Route of the Ing River Basin**

The results of the study of the current perceptions of tourists toward agro-safety tourism along the route of the Ing River Basin are divided into 4 areas:

1) Regarding the **accessibility of agro-safety tourism destinations**, it was found that overall, in the perspective of Thai tourists, agreement was at a high level with the overall mean at 3.79. If considered individually, in order from the highest to the least, the first 3 rankings were 1) awareness of the condition of the routes leading to tourist attractions, signs showing the way, systems of interpretation for tourism, maps and diagrams of communities that are clear, as well as GPS system/Google Mapping for tourists to travel conveniently and comfortably with

agreement at a high level with the mean at 3.88, followed by 2) seeing interesting things and inspiring the decision to participate in activities of processing agro-safety products into souvenirs with agreement at a high level with the mean at 3.87, and 3) the times that are appropriate for traveling for tourism should be specified in viewpoints/learning points in communities with agreement at a high level with the mean at 3.85.

**2) Regarding the administration of agro-safety tourism destinations**, it was found that overall agreement was at a high level with the overall mean at 3.63. If considered individually in order from the highest to the least, there were: 1) meet or have discussions with communities concerned with the arrangement of the organizational management structure in order to show the duties in the performance of each sector clearly for tourists with agreement at a high level and the mean at 3.73, followed by 2) awareness of the development of public relations media of agro-safety tourism, of which there are many, such as Facebook, Line, Instagram, social networks and others, with agreement at a high level with the mean at 3.66, and 3) meetings or discussions with communities about dividing the agricultural areas for demonstrations for tourists who visit to experience and learn appropriately, with agreement at a high level with the mean at 3.64.

**3) Regarding the tourism amenities of agro-safety tourism destinations**, it was found that the overall agreement was at a high level with the overall mean at 3.66. If considered individually in order from the highest to the least, these were: 1) awareness of introducing places in order to clarify the rules, laws, and appropriate behavior in the area for tourists in order to create a clear understanding before entering places, with agreement at a high level and the mean at 3.80, followed by 2) meetings or discussions with communities concerned with the guidelines of the development to improve the skills of agro-safety tourism tour guides that have the needs to promote tourism that has quality, with agreement at a high level and the mean at 3.69 and 3) awareness of the arrangement of convenient transportation services leading to agro-safety tourism destinations by the people in communities, with agreement at a high level and the mean at 3.65.

**4) Regarding the attractions of agro-safety tourism destinations**, it was found that the overall agreement was at a high level with the overall mean at 3.62. Each issue is presented:

**4.1 Regarding agro-safety tourism destinations**, it was found that the overall agreement was at a high level with the overall mean at 3.65. Classified by item in order from the highest to the least, there were 1) provide opportunities to engage in activities involving walking/biking/others in communities such as admiring views and fruit orchards/admiring agricultural gardens/admiring the agricultural ways/admiring the culture of farmers that have been interestingly arranged, with agreement at a high level and the mean at 3.82, followed by 2) provide opportunities to be able to walk, admire and go shopping for goods in local markets/markets displaying agricultural goods/fruit markets/points displaying goods of

communities in order to allow tourists to shop for goods and souvenirs, namely OTOP agricultural goods or processed agricultural products or souvenirs, etc., with agreement at a high level and the mean at 3.79, and 3) see the link of agro-safety tourism with other nearby tourist destinations, with agreement at a high level and the mean at 3.70.

**4.2 Regarding natural tourist attractions**, it was found that in general, Thai tourists enjoy the awareness of the beauty and attractiveness, with agreement at a high level with the overall mean at 3.63. Classified by item in order from the highest to the least, there were 1) parks, national parks, wildlife sanctuaries, botanical gardens, and other biologically diverse areas, such as Doi Luang National Park, Doi Phu Nang National Park, Phu Lanka Forest Park, Mae Phum National Forest Park, Phu Sang National Park, etc., with agreement at a high level and the mean at 3.72, followed in order by 2) local endangered animals such as peacocks, with agreement at a high level with the mean at 3.65 and 3) rivers, streams, lakes, waterfalls, hot springs, caves, and mountains such as Kwan Phayao Lake, Nong Leng Sai Wetlands, Huai Chomphu-Pha Thewada Reservoir, Phu Sang Waterfall, Than Sawan Waterfall, etc., with agreement at a high level and the mean at 3.63.

**4.3 Regarding historical tourist attractions**, it was found that overall agreement was at a high level with the overall mean at 3.58. Classified by item in order from the highest to the least, there were 1) historical parks, archaeological sites, and ruins such as Wiang Lo archaeological site with agreement at a high level and the mean at 3.66, followed in order by 2) important temples, palaces, and museums such as Wat Si Khom Kham, Wat Tilokaram, the Cultural Exhibition Hall, Wat Sri Ping Mueang, Wat Nataram, Wat Phra Nang Din etc., with agreement at a high level and the mean at 3.55 and 3) paintings, sculpture, architecture and fine arts, with agreement at a high level and the mean at 3.54.

**4.4 Regarding cultural tourist attractions traditions, music, sports, festivals, and important events**, it was found that the overall agreement was at a high level with the overall mean at 3.66. Classified by item in order from the highest to the least, there were clothing, language, food, construction of houses, with agreement at a high level and the mean at 3.99, followed by 2) Songkran traditions or Thai New Year traditions (April) and Hmong New Year traditions, with agreement at a high level and the mean at 3.82, and 3) Chinese New Year festivities, and the Winter Season festival, with agreement at a high level and the mean at 3.71.

**4.5 Regarding tourism activities**, it was found that the overall agreement was at a high level with the overall mean at 3.58. Classified by item in order from the highest to the least, there were 1) biking for health, with agreement at a high level with the mean at 3.74, followed by 2) learning activities about the sufficiency economy such as at Rai Ruen Rom Organic Farm in Thoeng district, Chiang Rai province, with agreement at a high level and the mean at 3.67, and 3) harvesting activities such as Mae Dam Market (Mae Thing Kham Market) in the municipal

district of Phayao province, Nam Ing Market in Thoeng district, Chiang Rai province, etc., with agreement at a high level with the mean at 3.60.

**Part 3:** To study the Behavioral Characteristics of Agro-Safety Tourism Development for Value Added to Economy along the Route of Ing River Basin.

From the results of the study of the behavioral characteristics of tourists regarding the development of agro-safety tourism in order to add value to economy along the route of the Ing River Basin, Phayao province, it was found that for the majority of Thai tourists that answered the questionnaire, the highest objective in their travels was to relax (36.00 percent), followed in order by meetings, training, seminars, work observation and official business (20.00 percent), visiting Buddhist temples and other holy places (16.50 percent), to contact a business (13.00 percent), visit friends/relatives (11.50 percent) and others (3.00 percent).

In terms of the motivation for tourism in Phayao/Chiang Rai expressed by the respondents, the majority want value in their experience of agro-safety tourism/resource conservation (30.00 percent), followed by wanting to study the local culture (29.00 percent), to experience the ways of life, existence and the ways of agro-safety of the people in communities (14.00 percent) and others, namely wanting to experience enjoyment (7.00 percent). With respect to style of travel, the majority of respondents were traveling with friends from work/close friends (29.00 percent), followed by traveling with family/relatives (25.00 percent), traveling alone (17.00 percent), with a tour group (15.00 percent), with a romantic partner (13.00 percent) and others (1.00 percent).

Experience of tourism in Phayao/Chiang Rai provinces this time, for the majority was the first time (36.00 percent), followed by visiting the second time (26.00 percent), visiting the third time (20.00 percent), and visiting more than three times (18.00 percent).

The source of information in traveling this time for the majority was searching from the internet (45.00 percent), followed in order by relatives and siblings/friends (25.50 percent), Facebook (16.00 percent), others, namely information from the Tourism Authority of Thailand and other media (7.00 percent), and Line (6.00 percent).

The number of people traveling for tourism in this time for the majority was traveling with more than 3 people (38.00 percent), followed in order by the number of 2 people (26.00 percent), the number of 3 people (21.00 percent), and the number of 1 person (15.00 percent).

The majority of vehicles used in travels were personal motor vehicle (47.00 percent), followed in order by public vehicle/bus (19.00 percent), tour bus (15.00 percent), van/rental car, (13.00 percent), bicycle/motorcycle (4.00 percent), and other vehicles, (2.00 percent).

Regarding accommodation services for tourism in Phayao/Chiang Rai, the majority chose to stay in a hotel (37.00 percent), followed in order by homestay (21.00 percent), relative's

house/friend's house (19.00 percent), resort/guesthouse (16.00 percent), hospice (6.00 percent), and others (1.00 percent).

For the length of time for tourism in this time, the majority spent a total of 3 days (42.00 percent), followed by a total of 2 days (39.00 percent), a total of more than 3 days (15.00 percent), and a total of 1 day (4.00 percent).

Expenditures in tourism this time for the majority were expenditures between 1,000 – 5,000 baht (51.00 percent), followed in order by 5,001 - 10,000 baht (32.00 percent), more than 10,000 baht (15.00 percent), and less than 1,000 baht (2.00 percent). For the highest expenditures for tourism this time, the majority were travel expenses/fuel (gas/petrol), (32.00 percent), followed in order by accommodation costs (24.00 percent), food costs, (23.00 percent) and shopping for souvenirs (20.00 percent) and others, namely buying snack food and other necessities during their travels (1.00 percent).

**Part 4:** To study Demands of Tourists to Agro-Safety Tourism Development for Value Added to Economy in the Route of the Ing River Basin.

The results of the study of the demands of the tourists toward agro-safety tourism in order to add value to economy in in the route of the Ing River Basin were divided into four areas (the 4 A's) as follows:

**1) Regarding accessibility of agro-safety tourism destinations,** it was found that overall agreement was at a high level with the overall mean at 3.72. If considered individually in order from the highest to the least, the first 3 rankings were 1) the condition of the routes in visiting tourist attractions and various signs showing the way that are not clear should be improved, with agreement at a high level and the mean at 3.83, followed by 2) there should the arrangement of accommodation services in communities in order to provide services for tourists such as homestays, guesthouses, camping in tents, etc., with agreement at a high level and the mean at 3.77, and 3) there should be specification of the times that are appropriate for traveling for tourism at viewpoints/learning points in communities with agreement at a high level and the mean at 3.72.

**2) Regarding administration of agro-safety tourism destinations,** it was found that overall agreement was at a high level with the overall mean at 3.78. If considered individually in order from the highest to the least, there were 1) communities should have group activities in the area in order to create acceptance and the mangement of agro-safety tourism that includes participation, with agreement at a high level and the mean at 3.94, followed by 2) communities should develop the public relations media of agro-safety tourism of which there are many, such as Facebook, Line, Instagram, social networks and others, with agreement at a high level and the mean at 3.90, and 3) communities should develop the readiness of the people in their communities in order to support agro-safety tourism with training to provide knowledge

concerned with services involved with how to tell stories that create an understanding of the positive and negative impacts, etc., with agreement at a high level and the mean at 3.80.

**4) Regarding tourism amenities of agro-safety tourism destinations**, it was found that overall agreement was at a high level with the overall mean at 3.77. If considered individually in order from the highest to the least there were 1) communities should arrange souvenir shops in communities that have agro-safety products available for tourists such as OTOP agricultural goods, processed agricultural products, and souvenirs, etc., with agreement at a high level and the mean at 3.91, followed by 2) communities should arrange for tour guides for agro-safety tourism who are the people from the communities, with agreement at a high level and the mean at 3.80, and 3) communities should arrange learning points in order to try cooking food together with communities concerned with cooking food from grains, vegetables and fruit that are safe as well as offer healthy food menu items for tourists, with agreement at a high level and the mean at 3.79. **4) Regarding the attractions of agro-safety tourism destinations**, it was found that overall agreement was at a high level with the overall mean at 3.75. The issues identified were as follows.

**4.1) Regarding agro-safety tourism destinations**, it was found that overall agreement was at a high level with the overall mean at 3.83. Considering each item individually in order from the highest to the least, there were 1) there should be routes arranged for tourists to be able to walk and visit to admire the hilltribe villages of minority groups and the ways of life of the local people, with agreement at a high level and the mean at 4.00, followed by 2) there should be presentations of new knowledge regarding agro-safety from the stories told by local farmers for tourists, with agreement at a high level and the mean at 3.97, and 3) there should be arranged activities for tourists to have opportunities to do tourism activities in the evenings, with agreement at a high level and the mean at 3.92.

**4.2) Regarding natural tourist attractions**, it was found that overall agreement was at a high level with the overall mean at 3.71. When classified by item in order from the highest to the least, there were 1) there should be routes arranged to link tourism parks, national parks, wildlife sanctuaries, botanical gardens, and biologically diverse areas, such as as Doi Luang National Park, Doi Phu Nang National Park, Phu Lanka Forest Park, Mae Phum National Forest Park, Phu Sang National Park etc., with agreement at a high level and the mean at 3.77, followed by 2) there should be routes arranged to link tourists to view local endangered animals such as peacocks, with agreement at a high level and the mean at 3.71, and 3) there should be routes arranged to link tourists to rivers, streams, lakes, waterfalls, hot springs, caves, and mountains such as Kwan Phayao Lake, Nong Leng Sai Wetlands, Huai Chomphu-Pha Thewada Reservoir, Phu Sang Waterfall, Than Sawan Waterfall, etc., with agreement at a high level and the mean at 3.69.

**4.3 Regarding historical tourist attractions,** it was found that overall agreement was at a high level with the overall mean at 3.74. When classified by item in order from the highest to the least, the results were 1) there should be routes arranged to link tourists to paintings, sculpture, architecture and fine arts, with agreement at a high level and the mean at 3.88, followed in order by 2) there should be routes arranged to link tourism to historical parks and archaeological sites, with agreement at a high level and the mean at 3.69, and 3) there should be routes arranged to link tourism to important temples, palaces and museums, such as Wat Si Khom Kham, Wat Tilokaram, the Cultural Exhibition Hall, Wat Sri Ping Mueang, Wat Nataram, Wat Phra Nang Din, etc., with agreement at a high level and the mean at 3.65.

**4.4 Regarding cultural tourist attractions, traditions, music, sports, festivals, and important events,** it was found that the overall agreement was at a high level with the overall mean at 3.71. Classified by item in order from the highest to the least, there were 1) activities on important days and important Buddhist ceremonies should be presented, such as Visaka Bucha Day, Ork Phansa Day, and Alms Giving Ceremonies of Two Lands, with agreement at a high level and the mean at 3.81, followed by 2) traditional activities should be presented, such as Songkran or Thai New Year traditions (in April) and Hmong New Year traditions, agreement was at a high level and the mean at 3.78, and 3) communities should offer activities involving clothing, language, food, and construction of houses for tourists, agreement was at a high level and the mean at 3.75.

**4.5 Regarding tourism activities,** it was found that the overall agreement was at a high level with the overall mean at 3.74. Classified by item in order from the highest to the least, the results were: 1) communities should provide opportunities for tourists to participate in activities of visiting litchi orchards in Mae Chai district, Phayao province, with agreement at a high level and the mean at 3.92, followed by 2) communities should create opportunities for tourists to participate in activities of roadside fruit markets with cantaloupe, strawberries, lamyai, or seasonal fruits, etc., with agreement at a high level and the mean at 3.80 and 3) opportunities should be provided for tourists to participate in travel activities to the border town of Ban Huak in Phu Sang district, Chiang Rai province, with agreement at a high level and the mean at 3.79.

### Summary of the hypothesis testing

#### Hypothesis

$H_0$ : There is no significant difference with regard to gender, age, education level, occupation, income and domicile affecting the demands of Thai tourists toward Agro-Safety Tourism for Value Added to Economy in the Route of the Ing River Basin.

$H_A$ : There is significant difference with regard to gender, age, education level, occupation, income and domicile affecting the demands of Thai tourists toward Agro-Safety Tourism for Value Added to Economy in the Route of the Ing River Basin.

In order to comparatively analyze the differences between the demographic information and the tourist demand in agro-safety tourism and create economic value in the case of the Ing River Basin, t-test and one-way analysis of variance (ANOVA) were conducted. The results of the research revealed that 1) considering the **accessibility of agro-safety tourism destinations**, the hypothesis testing finds that there were significant differences of 0.05 in age, occupation and income, 2) considering the **administration of agro-safety tourism destinations**, the hypothesis testing found that there were significant differences of 0.05 in gender, education, occupation and income, 3) considering the **tourism amenities of agro-safety tourism destinations**, the hypothesis testing found that there were significant differences of 0.05 in education and income and 4) considering the **attractions of agro-safety tourism destinations**, the hypothesis testing found that there were significant differences of 0.05 in age, education, occupation, income and domicile.

According to Manothamraksa, (2016), the hypothesis testing found that the differences of the demographic characteristics such as age, education and income, except gender and status, affected the motivation of Thai tourists' behavior when visiting the Ayutthaya floating market at a statistically significant level of 0.05. The different demographic characteristics such as age, education, status, occupation and income, but not gender, affected the satisfaction of Thai tourists' behavior when visiting the Ayutthaya floating market at a statistically significant level of 0.05 and the differences of demographic characteristics such as age, education, status and income, excepting gender and occupation, affected the behavior of Thai tourists when visiting the Ayutthaya floating market at a statistically significant level of 0.05.

## **Discussion**

Regarding the behavioral characteristics and demands of Thai tourists perceptions about agro-safety tourism along the route of the Ing River Basin, the study results are, listed in order from the highest to least: 1) accessibility of agro-safety tourism destinations, 2) tourism amenities of agro-safety tourism destinations, 3) administration of agro-safety tourism destinations and 4) attractions of agro-safety tourism destinations. These findings are consistent with those of Muhammad Sabbir Rahman (2012), who studied Exploring Tourists' Perception: The Case of Bangladesh. The results of his study showed that most of the tourists perceived selection of a destination as highly dependent on destination brand image and internet adoption followed by customer satisfaction.

This research will assist the operators of the tourism industry in Bangladesh to understand the influential factors on tourist perceptions, as similar to the results of Hirankitti and et al., (2014). In addition, there are the contrasting findings of Kunasekaran and et al., (2011), who studied the Development of Farmers' Perception Scale on Agro-Tourism in the Cameron Highlands,

Malaysia and found awareness and entrepreneurial knowledge would be beneficial in an investigation of the general local community perceptions on tourism. These factors however, were not found in the literature, because most studies concentrated only on the impacts of tourism. Further, the factor of land issues has made a unique contribution, which examines the applicability of matters, such as ownership of land and farms and directly influences the perception of farmers.

The results of this study of behavioral characteristics of tourists regarding the development agro-safety tourism in order to add value to economy along the route of the Ing River Basin, Phayao province found that Thai tourist respondents stated that (1) regarding objectives in traveling, the majority chose in order to relax (36.00 percent), (2) regarding motivation for their traveling in Phayao/Chiang Rai, the majority want value in their experience of agro-safety tourism/resource conservation (30.00 percent), (3) the style of tourism of the majority is traveling with friends from work/close friends (29.00 percent), (4) experience of tourism in Phayao/Chiang Rai provinces, for the majority was the first time (36.00 percent), (5) the source of information in traveling this time for the majority was by searching f the internet (45.00 percent), (6) the number of people traveling for tourism in this time was for the majority a group of more than 3 people, (7) the majority of vehicles used in traveling were personal motor vehicles )47.00 percent), (8) for accommodation services in tourism in Phayao/Chiang Rai, the majority choose to stay in a hotel )37.00 percent), (9) the length of time for tourism was for the majority a total of 3 days (42.00 percent) and (10) as to expenditures in tourism: (10.1) the majority had expenditures between 1,000 – 5,000 baht, and (10.2) the majority of the expenditure was traveling/fuel (gas/petrol) )32.00 percent).

According to Tourism of World (2018) ; Kim and Chalip (2004) ; Cohen (1972) ; Mo, Howard and Havitz (1993) and Pimonsompong (2007), it can be concluded that “tourist behaviors” are expressed as demands and desires that arise from the motivations, perceptions, or expectations experienced from the environment or the environmental factors and tourist attractions, (Phumila, (2009) and Jittangwattana, 2006). Therefore, the decision to choose to travel by tourists is not caused by the state or the image of tourist attractions, but rather that the tourists selects attractions and activities that match their tourism demands. Thus, in conclusion, the details are as follows: 1) Tourism Purpose, 2) Tourism Motivations, 3) Style of traveling for tourism, 4) Tourism Experience, 5) Tourism Information, 6) Number of people traveling for tourism, 7) Vehicle, 8) Accommodation, 9) Length of Stay, and 10) Tourism Expenditures and these findings are similar to the results of Hirankitti, P. et al., (2014).

Additionally the contrasting different findings of Nootayasakul, C. and Pasunon, P. (2016), were that the behavior of tourists was divided into 4 groups: 1) Those emphasizing values, living patterns and safety in tourism, 2) Those focusing on safety, tourist attractions and particularly on information, 3) Those being interested in tourist sights, the prices of

merchandise, values and lifestyles and 4) Those interested in tourist sites, safety values and lifestyle and particularly, the facilities located in those sites. In addition, Chaiphan's (2016) study identified trends within the agro-tourism industry which are (1) Experiential learning of agriculture, (2) Getting back to nature and (3) Eating organic food and making recommendations on how to respond to these trends.

The results of this study of the perceptions of Thai tourists regarding the development of agro-safety tourism in order to add value to economy along the route of the Ing River Basin can be categorized into 4 areas: accessibility of agro-safety tourism destinations, administration of agro-safety tourism destinations, tourism amenities of agro-safety tourism destinations and attractions of agro-safety tourism destinations and overall, the opinions were at a high level with the overall mean at 3.75.

From highest to least the items are thus ordered: 1) administration of agro-safety tourism destinations had the opinions at a high level and the mean at 3.78, 2) tourism amenities of agro-safety tourism destinations had opinions at a high level and the mean at 3.77, 3) attractions of agro-safety tourism had topinions at a high level and the mean at 3.75 and 4) accessibility of agro-safety tourism destinations had opinions at a high level with the overall mean at 3.72.

Maslow's Hierarchy of Needs Theory (Maslow, 1943), the Travel-career Ladder Theory mentioned in Parasakul, (2015), (cited in Goeldner and Ritchie (2006) in accordance with Turner and Reisinger (2001)) and Timothy and Butler (1995), it was posed that demands and needs in shopping can motivate tourists to travel and thus create tourists activity alongside the condition of the surroundings and whether they are attractive and motivate travel and this is similar to the results of Hirankitti and et al., (2014). In addition, satisfaction regarding agro-tourism on the aspect of motivation includes the environmental conditions, conservation, the nature of the tourist attraction areas, beauty and the suitability of the condition of the scenery in the tourist attraction areas. Moreover, according to Tachochalalai and Romprasert, (2019), the Thai government should initiate some policies that support arrival of Chinese tourists. Furthermore, the government should impose a price-control policy so that goods and services in the market cannot be priced too highly and are worth buying.

## **Acknowledgements**

This research article derives from the first author's "Agro-Safety Tourism Management for Value Added to Economy in the Ing River Basin (Phayao and Chiang Rai) Phase 1", funded by the Upper Northern Research Administration Network and Office of the Higher Education Commission, 2019.



## REFERENCES

- Bank of Thailand (2018). **Business Summary of the Northern Region in the 4<sup>th</sup> quarter of 2017 and 1st quarter trends of 2018**. Retrieved on 15 April 2018, Available at [https://www.bot.or.th/Thai/MonetaryPolicy/Northern/DocLib/BLP/2017\\_Q4\\_Mo-BLP\\_NRO.pdf](https://www.bot.or.th/Thai/MonetaryPolicy/Northern/DocLib/BLP/2017_Q4_Mo-BLP_NRO.pdf)
- Bartholme, R. H. and Melewar, T. C. (2009). Adding new dimensions to corporate identity management and corporate communication: Exploring the sensory perspective. **The Marketing Review**, 9(2). pp.155-169.
- Bartholme, R. H. and Melewar, T. C. (2011). Remodelling the corporate visual identity construct: A reference to the sensory and auditory dimension. *Corporate Communications: An International Journal*, 16(1). pp. 53 – 64.
- Chaiphphan, N. (2016) **Study of Agrotourism in Northern Thailand: Key Success Factors and the Future of the Industry**. Master of Science Program in Marketing, Faculty of Commerce and Accountancy, Thammasat University.
- Cohen, E. (1972). Towards a sociology of international tourism. **Social Research**, 39(1), pp. 164-182.
- Goeldner, C.R., & Ritchie, B. (2006) **Tourism Principles, Practice, Philosophies** (10<sup>th</sup> ed.).
- Hirankitti, P., Sayapunt, U., Yaibuakrin, K., Inkeaw, S., Hirankitti, S. (2014) Agro-Tourism Behavior of Thai Tourists. **Suthiparithat**. Volume 28 Number 88 October - December 2014. pp. 362-384.
- International Economic Information Service Center Department of International Economic Affairs Ministry of Foreign Affairs (2018). **National Tourism Roadmap to Lay the Foundations for the 20-Year strategy**. Retrieved on 3 March 2018 Available at <http://www.thansettakij.com/2016/08/08/79408>
- Jermstittiparsert, K, Sriyakul, T., & Rodoonsong, S. 2013. “Power(lessness) of the State in the Globalization Era: Empirical Proposals on Determination of Domestic Paddy Price in Thailand.” **Asian Social Science** 9 (17): 218-225.
- Jittangwattana, B. (2005) **The Tourism Industry**. Bangkok: Press and Design.
- Jittangwattana, B. (2006). **Development and Conservation of Tourist Attractions**. Bangkok.



- Kannasoot, A. & Ongkrutraksa, W. (2013) Delineate the sensory perception of Singaporean customers of Thai restaurants in Singapore. **Journal of Public Relations and Advertising**, Vol. 6, No. 1, pp. 65-82.
- Kim, N-S. & Chalip, L. (2004). Why travel to the FIFA World Cup?. **Tourism Management**.
- Kontoljinda, C. (2014) **Feeling Towards Animal Instincts**. Bangkok: Master of Fine Arts Program in Visual Arts, Faculty of Architecture, King Mongkut's Institute of Technology Ladkrabang.
- Kotler, P. 2003. **Marketing Management**, 11<sup>th</sup> ed. Upper Saddle River, NJ: Pearson Education.
- Kunasekaran, P., Ramachandran, S., Yacob, M.R. & Shuib, A. (2011) Development of Farmers' Perception Scale on Agro Tourism in Cameron Highlands, Malaysia. **World Applied Sciences Journal 12 (Special Issue of Tourism & Hospitality)**: pp.10-18.
- Manothamraksa, K. (2016) **A Study of Motivation and Satisfaction Affecting to Thai Tourists' Behavior: A Case Study of Ayothaya Floating Market**. M.A. (Hospitality and Tourism Industry Management) Graduate School, Bangkok University.
- Manowalulou, N. and .et al (2015). **Behavior and Demands of Tourists toward Creative Tourist Attractions in Trat province**. Retrieved on 3 March 2018, Available at [https://elibrary.trf.or.th/project\\_content.asp?PJID=RDG5750134](https://elibrary.trf.or.th/project_content.asp?PJID=RDG5750134)
- Maslow, A. H. (1943). A Theory of Human Motivation. **Psychological Review**, Vol 50(4), Jul 1943 pp. 370-396.
- Ministry of Tourism and Sports (2018) **Thailand Tourism Vision Report 2036**. Retrieved on 3 March 2018, Available at [https://secretary.mots.go.th/ewtadmin/ewt/policy/download/article/article\\_20170511133807.pdf](https://secretary.mots.go.th/ewtadmin/ewt/policy/download/article/article_20170511133807.pdf)
- Ministry of Tourism and Sports (2018). **Tourism Management**. Retrieved on 19 May 2018, Available at <http://www.tourism.go.th/assets/portals/1/files/TTS615-2558%20%282%29.pdf>
- Mo, C., Howard, D. R. & Havitz, M. E. (1993). Testing on International Tourist Role Typology. **Annals of Tourism Research**.
- Monnuanprang, P., Vanpetch, W., Sangngern, S., Maneechote, T., Chuaypanang, K., & Chodilok, S. 2019. "The Development of Elderly Care Management Model of Local Administration Organization in Nonthaburi, Thailand." **PSAKU International Journal of Interdisciplinary Research** 8 (1): 77-85.



- Morrison, A. M. 1989. **Hospitality and Travel Marketing**. New York: Delmar Publishers.
- Muhammad Sabbir Rahman. (2012) Exploring Tourists' Perception: The Case of Bangladesh. **Tourismos: An International Multidisciplinary Journal of Tourism**. Volume 7, Number 1, Spring-Summer 2012, pp. 81-98.
- National Statistics Office, (2018). **Statistics of tourism and sports**. Retrieved on 15 March 2018, Available at <http://statbbi.nso.go.th/staticreport/page/sector/th/17.aspx>
- Nootayasakul, C. & Pasunon, P. (2016) Factors of Decision Making of Thai Tourists' Traveling to Lampraya Market. **Dusit Thani College Journal**. Vol. 10, No.,1 January-June 2016, pp. 132-150.
- Office of the National Economic and Social Development Board (2018). **The 12th National and Social Development Plan (2017-2021), Office of the Prime Minister**. Bangkok Retrieved on 15 April 2018, Available at [http://www.nesdb.go.th/ewt\\_dl\\_link.php?nid=6422](http://www.nesdb.go.th/ewt_dl_link.php?nid=6422)
- Parasakul, L. (2015) **The Motivations and Attitudes Affecting the Satisfaction Level of Chinese Tourists Visiting Thailand**. Bangkok: Dhurakij Pundit University Retrieved on 3 March 2018. Available on [http://www.dpu.ac.th/dpurc/assets/uploads/public/bosn62\\_ukr74skks0gk.pdf](http://www.dpu.ac.th/dpurc/assets/uploads/public/bosn62_ukr74skks0gk.pdf)
- Phumila, S. (2009). **A Study of the Behavior and Satisfaction of Thai and Western Tourists Relating the Elephant Round-up in Surin Province, Thailand**. Master of Arts Thesis Program, Hotel and Tourism Management Department. Phitsanulok: Naresuan University.
- Pimonsompong, C. (2007). **Planning and Development of Tourism**. Bangkok: Kasetsart University Press.
- Serirat, S. and .et al (2003). **Modern Marketing Management**. Bangkok: Thira Film and Seitex Co., Ltd.
- Sirarungrotkanok, P. (2016). **Behavior and Satisfaction of Thai tourists toward the Management of Tourism Logistics: The case study of the Amphawa Floating Market, Samut Songkhram province**. Retrieved on 3 March 2018, Available at [http://digital\\_collect.lib.buu.ac.th/dcms/files/56920256.pdf](http://digital_collect.lib.buu.ac.th/dcms/files/56920256.pdf)
- Strategies of the group of Upper Northern Provinces (Lanna Group) (2018). **Strategies of the group of Upper Northern Provinces** Retrieved on 3 March 2018, Available at <http://www.osmnorth-n1.moi.go.th/admin/st/25.pdf>



- Tachochalalai, S. & Romprasert, S. (2019) Macroeconomic Perspective - Chinese President Era Affecting Chinese Tourist Demand: the Case of Thailand. **Asian Administration and Management Review**. Volume 2 Number 1 (January-June) pp.63-75.
- Tairuekham, S. (2009). **Research Methods for Humanities and Social Sciences**. Mahasarakham: Faculty of Education, Mahasarakham University.
- Timothy, D., & Butler, R. (1995). Cross-Border shopping: A North American perspective. **Annals of Tourism Research**. 22 (1), pp.16–34.
- Tourism of World (2018) **Tourism Behavior**. Retrieved on 3 March 2018 Available on <https://tourismatbuu.wordpress.com>
- Turner, W. L. & Reisinger, Y. (2001). Shopping satisfaction for domestic tourists. **Journal of Retailing and Consumer Services**, 8: pp. 15-27.
- Whangmahaporn, P. 2019. “The Development of Operational Achievements in the Elderly Quality of Life Development and Career Promotion Centers of Thailand.” **PSAKU International Journal of Interdisciplinary Research** 8 (1): 62-76.
- Yamane, Taro. (1973). **Statistics: An Introductory Analysis** (3<sup>rd</sup> ed.). New York: Harper and Row Publication.