

Agro-Tourism Service Enhancement in Nakhon Pathom Province, Thailand: on Capability Increasing of the Hospitality of Agriculturists

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Abstract—This research aims to study the knowledge used for Hospitality of Agriculturists for Agro-tourism (HAAT) and Tourism Service Enhancement (TSE), to create a hospitality model for agriculturists in Nakhon Pathom province, Thailand, and to study the effect of using the model on TSE. A mixed method was the research methodology. The data was collected from 800 samples selected from the population of 920,030 people in Nakhon Pathom province to ensure the data reliability and accuracy in the Structural Equation Modeling (SEM). The results found that 1) The Hospitality of Agriculturists for Agro Tourism (HAAT) has a positive direct effect on Tourism Service Enhancement (TSE), with the highest TSE in Word of Mouth/Repeat Travel (WM/RT), 2) Hospitality with Service Mind (HSM) has a positive direct and indirect effects on HAAT, and has a positive direct effect on TSE and Physical Hospitality (PH), and 3) HP has a positive indirect effect on HAAT, but has a positive direct effect on TSE and HSM. The agriculturists can use these findings for tourist hospitality with the same standard to improve the services so as to support in Impression Increase (II), Word of Mouth, and Revenue Increase (RI). It will help agriculturists to have a better life aside from relying only on income from the sale of agricultural products.

Keywords: *Hospitality, Agro-tourism, Agriculturists, Nakhon Pathom Province, Thailand*

1. Introduction

Tourism is an activity in which people travel and reside in other outside places outside that has unfamiliar environment for relaxation, errands, and other purposes[1]. Tourism is an important service industry. It is a source of income since it brings money from foreign tourists into the country or stimulates spending of domestic tourists for creating income distribution and currency circulation in the Thailand economy system[2].

The tourism can be classified into 5 categories, comprising agrotourism, ecotourism, cultural tourism, health tourism, and business tourism[3]. However, agro-tourism in the past has received little attention from both foreign and Thai tourists because it does not have a promotion from government agencies. Thus, foreign tourists travelling to Thailand popularly prefer cultural tourism by visiting important cultural sites, such as the temple of the Emerald Buddha, Bangkok's city pillar shrine. Some tourists prefer to visit the mountains that have beautiful views and cool weather in Chiang Mai, Chiang Rai, and Pai district, Mae Hong Son province, including the places that have beautiful emerald sea, such as Phi Phi Island, Krabi and Phang Nga provinces, Promthep Cape, Phuket province, Samui Island, Surat Thani province. Moreover, some tourists prefer enjoying nightlife in Pattaya, Chonburi province or a quiet sea for sunbathing - not far from Bangkok - such as Hua Hin, Phetchaburi province, as well as the unseen location. Thai tourists, whereas, are hardly interested in agricultural tourism because Thailand is an agricultural country. Thais have been familiar with agriculture so that agricultural tourism may not be something new for domestic tourists. Most Thais have middle and high incomes and have often traveled abroad. Japan is a popular country for Thai tourists. However, at present, agro-tourism is the tourism in the agricultural community[3], such as Thai herb garden, rice farming, vegetable cultivation, vegetable garden, orchard, etc.

Therefore, agro-tourism is a service sector that helps to distribute income to rural communities[4]. There are agricultural tourism in 22 provinces in central region of Thailand: 1) Bangkok, 2) Nonthaburi, 3) Nakhon Pathom, 4) Ratchaburi, 5) Kanchanaburi, 6) Pathum Thani, 7) Nakhon Nayok, 8) Samut Prakan, 9) Chachoengsao, 10) Prachin Buri, 11) Sa Kaeo, 12) Samut Sakhon, 13) Samut Songkhram, 14) Phetchaburi, 15) Prachuap Khiri Khan, 16) Ayutthaya, 17) Ang Thong, 18) Suphan Buri, 19) Lop Buri, 20) Saraburi, 21) Sing Buri, and 22) Chai Nat[5]. Each province is connected and has a short distance, so it does not take long from Bangkok, the capital city of Thailand.

By the way, agro-tourism in Nakhon Pathom province is interesting because most of the population has an agricultural career. Nakhon Pathom is a lowland province

with good soil fertility. There is a water system from irrigation canals. This is suitable for cultivation throughout the year. This province is located only 50 kilometers from Bangkok - convenient tourism – and has a growth due to the city expansion from Bangkok to Nakhon Pathom. Currently, there are the constructions of motorway and airport, plus important agricultural attractions, including orchid garden, grapefruit garden, lemon garden, mulberry garden, golden banana garden, coconut garden, mixed garden and garden ditching, okra garden exports, organic vegetable garden, paddy fields with shops hanging legs, lotus fields, and floating market.

Currently, agro-tourism in Nakhon Pathom province has significant problem on the hospitality of agriculturists because the local planters lack a high level of education and tourist service knowledge, including the shortage of good hospitality approaches. This problem has an effect on service performance[6] and causes agro-tourism to be a sluggish situation.

From this problem, the study and suitable model development of the hospitality of agriculturists for agro-tourism in Nakhon Pathom province, Thailand, will help

to cope with agriculturist's problems and tourism service enhancement. In addition, this model can be applied to agriculturists of hospitality for agro-tourism in other provinces in Thailand.

2. Agro-Tourism Service Enhancement and Measurement

2.1 Tourism in Nakhon Pathom Province, Thailand

Thailand has outstanding tourism potential. There are a variety of tourism resources. Nakhon Pathom province, moreover, has a beautiful civilization, culture, and long history[7].

It is located near Bangkok and convenient to travel. Statically, in 2018 there were of 374,540 tourists visiting Nakhon Pathom, as shown in Table 1[8], and 38,178,194 international tourists visiting Thailand classified into 25,974,407 East-Asians, 6,759,855 Europeans, 1,599,004 Americas, 1,982,212 South-Asians, 739,487 Middle-East tourists, and 201,470 Africans[9].

Table 1. Information of Thai and foreign tourists visiting Nakhon Pathom

Type	Type (Person)			Average Expenditure (Baht/Person/Day)		
	Total (Person)	Thai (Person)	Foreigners (Person)	Total (Baht)	Thai (Baht)	Foreigners (Baht)
Visitor	817,903	780,614	37,289	1,072.27	1,067.95	1,170.90
Tourist	350,895	343,097	7,798	1,201.53	1,194.50	1,474.62
Excursionist	467,008	437,517	29,491	910.90	903.54	1,020.18
Revenue (Million Baht)	Million Baht	Thai (MB)	Foreigners (MB)			
	1,127.33	1,075.64	51.69			

Source: Economic Tourism and Sports Division (2019)[9]

The foreign tourists visiting Nakhon Pathom comprise Malaysians, Filipinos, Singaporeans, Chinese, Hong Kong tourists, Japanese, Koreans, Taiwanese, Austrians, Belgians, Danish, Finland, French, Germans, Italians, Dutch, Norwegians, Russians, Spanish, Swedish, Switzerland, UK tourists, East Europeans, Canadians, US tourists, Indians, Australians, New Zealanders, Israel, Africans, Vietnamese, and others. However, Vietnamese was found once and never came back again. For spending money while traveling in Nakhon Pathom province, it found that Thai and foreign tourists will spend expenses with 1) accommodation, 2) food and beverage, 3) purchase of goods and souvenirs, 4) entertainment, 5) tourism services, 6) transportation, and 7) others. The average costs of Thai tourists, travelers, and visitors were 1,194.50, 903.54, 1,067.95 baht/person/day, respectively. Otherwise, the average costs of foreign tourists, travelers, and visitors were 1,474.62, 1,020.18, and 1,170.90 baht/person/day, in turn.

In addition, Nakhon Pathom province is safe for tourists and provides electronic information services on the provincial tourism website, which can be accessed at <https://nakhonpathom.mots.go.th>, and the ministry of tourism and sports website, which can be accessed at <https://www.mots.go.th>. This province, furthermore, has provided community base tourism and local food services, clean and safe foods, tourist information services, tour guide, and tourist attractions. However, the number of tourists, tourist spending, and incomes from tourism in Nakhon Pathom province are lower than those in Bangkok.

2.2 Agro-tourism

Agro-tourism means tourism in an agricultural community[3] such as Thai herb garden, rice farming, growing vegetables, vegetable garden, orchards, and etc. Important agricultural attractions in Nakhon Pathom

province include orchid gardens, grapefruit gardens, lemon gardens, and mulberry gardens, golden banana gardens, coconut gardens, mixed garden, exported green okra garden, organic vegetable gardens, rice fields and shops hanging legs, lotus fields, and floating market.

For example, Mahasawat Canal is the historical canal of the province. It is important to the ways of life of the riverfront community. Tourism Authority of Thailand joined with the department of agricultural extension organize boat's agro-tourism on Mahasawat Canal. This boat trip has 4 park views, including lotus fields, orchid gardens, processed products of the farmer's housewife group, and orchards - rice fields. This community had received an award for the Thai tourism industry in 2007 and has attracted the attention of many tourists. However, for the tourists' behavior, the factor mostly influencing on the decision making to travel was physical evidence. It is an unnatural orchard and water traffic conditions. However, agro-tourism has 7 things, based on Service Marketing Mix: 7P's, which must be developed as follows:

1. Product: tourist sites should be developed to be convenient, such as a convenient way to get in and out of a boat.
2. Price: fruit orchards sell fruits that were more expensive than the market price.
3. Place: signposts, such as Suwannaram Temple signposts should be improved to be clear.
4. Promotion: public relations of tourist sites should be labeled with Thai-English descriptions.
5. People: the ways of villagers in Mahasawat Canal should be preserved as well as there should be the hospitality in each tourist site and improvements for faster services.
6. Physical Evidence: The city has expanded to Mahasawat Canal, destroying nature of orchards changed to a housing estate. The waterway obstacles, especially water hyacinths in Mahasawat Canal made trouble for boat traveling sometimes.
7. Process: Effective English in communication should be available in each tourist site to explain to tourists. In addition, should be aware of safety of tour boats, sailors, and boat drivers by preparing life jackets[10].

In addition, organizing agro-tourism activities by boat trip along the Mahasawat Canal, Nakhon Pathom, found that tourists, who joined boat trip along the Mahasawat Canal for the first time, came with a family in a private car to see the ways of life of farmers. They were searched for agro-tourism information on websites and social media. They impressed with the lotus field activities, plus visiting the orchid gardens, fruit orchards, and mixed farming, and returned again, including recommendations to another. Cruise along the Mahasawat Canal make tourists enjoyable with the beautiful scenery along the canal. The tourists, furthermore, get knowledge about agriculture, ways of life, culture, and Interesting traditions. Boat trip service point is at Suwannaram Temple. It is a small 5-6 seat boat travelling to 4 tourist sites:

1. Lotus fields: boating activity to watch and collect lotus flowers on an area of 20 rai, including learning how to make lotus fields and fold lotus petals, etc.
2. Mahasawat Canal Agricultural housewife group: visiting One Tambon One Product (OTOP) distribution center community, watching the processing of agricultural products such as Iodized extra-salted eggs, rice cracker from coarse rice with flossy pork – grains, flavored dried fruit, and dried bananas, etc.
3. Orchid gardens: seeing the orchid garden for export on an area of 12 rai. There are many varieties of orchids. There are demonstration-cuttings, orchid's storage, and sale.
4. Fruit gardens: visiting integrated orchard such as grapefruit, mango, Jackfruit, coconut, and santol, etc. on an area of approximately 80 rai, including tasting fresh fruits from the garden.

In addition, agro-tourism also helps to raise awareness to love of nature, create a cherished feeling, support nature conservation, distribute income to farmers, and add value to agricultural products by encouraging communities to participate in tourism management[11].

2.3 Hospitality

Hospitality is an expression of welcoming tourists or visitors to that place. It is considered a type of service to respond to service recipients and lead to satisfaction or impression. As a result, hospitality service is both physical and mental appearances. In order for the effective reception, the service providers must have a service mind or desire to make others happy, enthusiasm, readiness, realized value of service, cleanliness, endurance, and smile[12].

In summary, the hospitality is the means to welcome tourists, visitors, or guests. Facilitation, service mind, readiness, cleanliness, and responsiveness lead to tourists' satisfaction and impression. However, good reception and services have an effect on tourists' positive attitudes, such as appreciation in service providers, popularity in tourist sites, good memory, word of mouth, impression, tourist attraction loyalty, and noble recommendations about service providers and tourist locations[12].

For hospitality of agro-tourism in Nakhon Pathom province, receptionists are the agriculturists such as Mahasawat Canal Villagers. They should preserve their ways of life in each tourist site. Besides, there should be improvements for these receptionists to provide faster services[10].

Communication is an important factor in hospitality because the reception requires communication between tourists and guests. The communication, furthermore, plays a role in information dissemination and public relations. In tourism of the Luang Ang Khang Agricultural Station, there is the communication used to promote tourism and welcome tourists and visitors in which the station is the first research station of the Royal Project

which was established in 1969 according to the King's speech that "Let the hill tribes help themselves". They are suggested to stop growing opium and mobile plantation, as well as have good career and a better life. Hill tribes are encouraged to turn to plant industrial crops, conserve watershed and forests. Career development and promotion in agriculture is a factor causing local tourism and educational trips from government agencies and educational institutions. Nowadays, Luang Ang Khang Agricultural Station can develop itself into the potential agricultural tourist attractions and steps up to be the most popular agricultural tourist attraction among all 38 tourist sites of the royal project[13]. The two primary components of hospitality are:

1. Hospitality with service mind

Hospitality with a service mind is a welcome with willingness to provide tourists with happiness, impression, and good services. Expression of service by heart includes friendly communication, enthusiastic service, polite manner, understanding of the people nature, good listener, tolerance to other people's complaints, correct greetings, readiness to answer questions, intelligence to solve problems, providing information when tourists ask, performing the duties as requested, assistance to inform tourists when there is a problem, and creating a popular tourist attraction[12].

2. Physical Hospitality

Physical hospitality is a welcome that can be seen and is tangible such as drinks, foods, location, services, activities, and facilities to make tourists happy, comfortable, and impressive. Physical hospitality characteristics include good personality, trustworthy, reliability, healthiness, clean dress, providing convenient services, and so on[12].

2.4 Service Enhancement

Good service will bring impression and satisfaction from customers and help the company to retain customers as well as to cause repeat purchases and word-of-mouth. Currently, the idea of agility has been applied to respond customers' needs quickly under situations in which customers change their behavior and requirement. In addition, Customer Relationship Management (CRM) is also a method used in business to build and maintain customer relationships. Its goal is to make customers repeat services and cause brand loyalty. Thus, many organizations attempt to improve service levels under the cost worthiness.

The services consist of 5 components: 1) customer, 2) system, 3) staff, 4) environment, and 5) facility. For service quality, the high-level service has a lot of costs that exchange for high-level satisfaction. In addition, services are classified into 2 levels: 1) The level of physical service, and 2) the level of electronic services (e-services) - providing information or interactive services via electronic systems, allowing customers to make

transactions via electronic systems. Service enhancement with physical and mental improvements, including e-services, can be specified as a customer service policy based on 7 principles: 1) honesty, 2) agility, 3) willingness, 4) expertise, 5) reliability (for example, transaction security, confidence in data privacy, evidence and certification, and trustworthiness), 6) convenience and easiness, and 7) stability of technology introduced to service.

2.5 Performance Measurement

For measuring operational efficiency, the organization can specify suitable KPIs, such as "Disruptions". It is one indicator used to measure the organizational performance. In addition, the performance can be measured using the following methods;

Balanced Scorecard (BSC) consists of 4 indicators: 1) financial perspective, 2) customer perspective, 3) internal process perspective, and 4) learning and growth perspective[14]. It is used to measure the performance widely in business organizations.

Customer Service Measurement are customer satisfaction evaluation after using services by questionnaire or interview forms. The indicators comprises average response time, percentage of customer satisfaction, credibility, convenience and easiness, the stability of technology, availability of e-Service, punctuality, etc.

Supply Chain Performance can be measured by 1) cost, 2) time, 3) quality, 4) flexibility, 5) innovativeness and service, 6) delivery, 7) durability, and 8) tangible and intangible expenses (these two indicators are dependent and may result in error measurement of supply chain performance)[15]. However, the measurement in terms of time and quality indicators will reflect the ability to provide customer service. While the measurement in flexibility and innovativeness indicators will reflect the ability to cope with rapid changes in demand[16].

Performance Improvement can be measured by 1) higher average sales growth, 2) lower costs, 3) lower inventories, and 4) customers value. These will indicate satisfaction in the company's operational level when compared to competitors. The satisfaction comes from product delivery, warranties/expenses in return process, and response to customer's specifications[17].

Business Performance can be measured by 1) profitable growth, 2) market products, 3) return to shareholders or value of shareholders/value of ownership, 4) working capital efficiency, 5) fixed capital efficiency, 6) tax minimization, and 7) cost minimization (for example, net sales of client accounts compared with cost of service). However, performance measurements should be measured from the overall picture such as sustainability, competitiveness, and financial assessments for strategic decisions. Measuring daily operations would be better if using non-monetary measurements[18]. There should use

indicators that cover finance, environment, flexibility, innovation, integration, and operation[19].

Logistics Scorecard can be measured by (better) service quality, (faster) time, (cheaper) costs, and (closer) customer relationship[20].

3. Methodology

A mixed-method experimental research design was used in this study. For quantitative research, a questionnaire distribution method was used to collect data by a large amount in a short time with all areas. For qualitative research in-depth interviews was used to collect information. For experimental research, besides, training program was held to transfer knowledge about using a model of “The Hospitality of Agriculturists for Agro-tourism (HAAT in Nakhon Pathom Province, Thailand” to sample agriculturists in order to bring the research results into practice.

3.1 Population and Sample

The total population was 920,030 agricultural tourism agriculturists[21] who are service providers in 7 districts of Nakhon Pathom province as follows: 1) Muang, 2) Nakhon Chai Si, 3) Phutthamonthon, 4) Sam Phran, 5) Kamphaeng Saen, 6) Don Tum, and 7) Bang Len. The sample size was 800 people arisen from ten times the numbers of research variables[22]. The sample was selected by a multi-stage random sampling method in order for the suitable sample.

3.2 Data Collection

1. Quantitative method: questionnaires were collected from agro-tourism agriculturists who are service providers in 7 districts of Nakhon Pathom province. The proportion

was 114-115 people or 14.29% per district. Data were collected from 38 districts, with 3 people in each district.

2. Qualitative method: The 14 respondents in 7 districts (2 respondents or 14.29% in each district), arisen from purposive sampling, attended in-depth interview.

3. Experimental method: The researcher tried out the model with 4 districts, representing 57.14% of all districts.

3.3 Research Instruments

Questionnaires, interview forms, and research model passed the examination from 5 experts (2 academic experts and 3 business experts in tourism and hospitality). They checked the content validity and index of Item objective congruence (IOC) of the questionnaires. The IOC was 1.00 for every question, including considering the consistency between interview forms and questionnaires.

3.4 Data Analysis

1. Quantitative data were analyzed using Confirmatory Factor Analysis (CFA) to consider Construct Reliability, Average Variance Extracted (AVE), Path Analysis, and Structural Equation Modeling (SEM)

2. Qualitative data were recorded in the table. The content validity form interviews was checked and then compared with statistical data in order to consider the similarities and differences of results.

3. Experimental data were recorded in the table and then analyzed together with statistical and interview data.

5. Results

5.1 Quantitative Results

For 2nd order CFA, all 3 sub-models were analyzed to test the model fit as shown in table 2.

Table 2. Standard values of the second order sub-constructs

Constructs	Sub-constructs	Standardized Estimate	t-value
The Hospitality of Agriculturists for Agro Tourism (HAAT)			
Hospitality with Service Mind (HSM)	Smile And Friendly (SF)	0.97	21.99
	Attention and Willingness (AF)	0.91	18.88
	Endurance and Restraint (ER)	0.95	12.05
Physical Hospitality (PH)	Cleanliness (CL)	1.00	30.78
	Art and Design (AD)	0.98	28.95
	Beverage, Food, and places (BFP)	0.76	14.16
Tourism Service Enhancement (TSE)	Impression Increase (II)	1.02	17.93
	Word of Mouth/ Repeat Travel (WM/RT)	0.93	18.42
	Tourists Increase (TI)	0.78	16.93
	Revenue Increase (RI)	0.93	9.32

From Table 2, all the sub-constructs have different values from zero with statistical significance at the level of .01 which can be explained as follows:

1. Hospitality with Service Mind (HSM). The most important variable is Smile and Friendly (SF) with the 0.97 standardized factor loading, followed by Endurance and Restraint (ER) with 0.95, and Attention and Willingness (AF) with 0.91, respectively.
2. Hospitality with Physical (HP). The most important variable is Cleanliness (CL) with the 1.00 standardized factor loading, followed by Art and Design (AD) with 0.98, and Beverage, Food and places (BFP) with 0.76, respectively.

3. Tourism Services Enhancement (TSE). The most important variable is Impression Increase (II) has the 1.02 standardized factor loading, followed by Word of Mouth/ Repeat Travel (WM/RT) and Revenue Increase (RI) with 0.93, and Tourists Increase (TI) with 0.78, respectively.

Model Fit indexes of the second order constructs were shown in Table 3.

Table 3. Model fit indexes of the second order constructs

Constructs	χ^2/df	P-Value	GFI	CFI	NNFI	SRMR
The Hospitality of Agriculturists for Agro Tourism (HAAT)						
Hospitality with Service Mind (HSM)	1.13	0.12	0.99	1.00	1.00	0.019
Physical Hospitality (PH)	0.91	0.52	1.00	1.00	1.00	0.004
Tourism Service Enhancement (TSE)	1.18	0.13	0.99	1.00	1.00	0.018

From Table 3, analysis results of Hospitality with Service Mind (HSM) Model were $\chi^2/df = 1.13$, P-Value = 0.12, GFI = 0.99, CFI = 1.00, NNFI=1.00, SRMR=0.019. In addition, analysis results of Physical Hospitality (PH) Model was $\chi^2/df = 0.91$, P-Value = 0.52, GFI = 1.00, CFI = 1.00, NNFI=1.00, SRMR=0.004. Besides, analysis results of Tourism Services Enhancement (TSE) Model

was $\chi^2/df = 1.18$, P-Value = 0.13, GFI = 0.99, CFI = 1.00, NNFI=1.00, SRMR=0.018. As results, it showed that the measurement models of Hospitality with Service Mind (HSM), Physical Hospitality (PH), and Tourism Services Enhancement (TSE) was consistent with empirical data. The results of Structural Equation Model (SEM) analysis were shown in Figure 1.

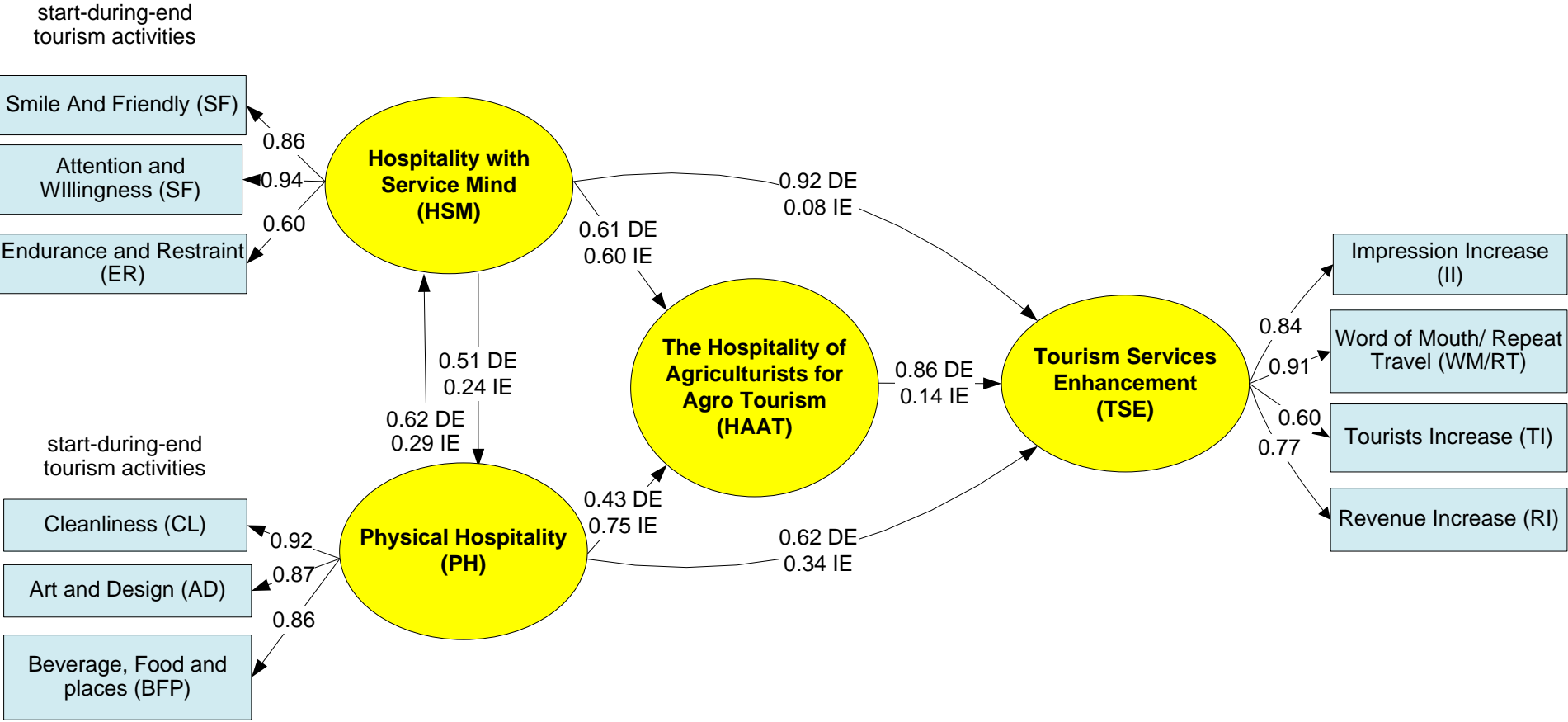


Figure 1. The Structural Equation Model (SEM) analysis

For confirming model, Structural Equation Model (SEM) analysis results were approved by agro-tourism service providers in Nakhon Pathom province, Thailand, in 4 districts. The agriculturists confirmed

and believed that the model found was suitable for practical implications in agricultural tourist hospitality. The results of path analysis were shown in table 4.

Table 4. Path analysis results of the research model

Path	Total Effect		Direct Effect		Indirect Effect	
	Std. Estimate	t-value	Std. Estimate	t-value	Std. Estimate	t-value
PH→HSM	0.91	18.94	0.62	-	0.29	6.00
PH→HAAT	1.18	20.22	0.43	8.80	0.75	11.53
PH→TSE	0.76	17.42	0.62	-	0.34	7.00
HSM→PH	0.75	6.00	0.51	8.78	0.24	3.56
HSM→HAAT	1.21	11.53	0.61	11.47	0.60	6.46
HSM→TSE	1.10	9.66	0.92	9.24	0.08	7.00
HAAT→TSE	1.02	17.20	0.86	7.30	0.14	4.26

5.2 Qualitative Results

The Hospitality of Agriculturists for Agro Tourism (HAAT).

The study found that there were differences between welcoming local and foreign tourists, for example, at the lotus fields, the agriculturists will welcome the foreign tourists by the water, but they offer self-services to local tourists. The hospitality should be the same standard. In addition, if the foreign tourists are English speakers, the agriculturists will act as an English translator. There were no other national tourists, such as Japan, China, South Korea, and Vietnam. It also found that containers for water and foods were clean but not focused on design. Besides, free foods were not available. HAAT has 2 sub-components as follows:

1. Hospitality with Service Mind (HSM)

For Smile and Friendly (SF), it was found that the agriculturists were very cheerful and friendly, but rarely raised hands to pay respect. In most Thai society, adults do not raise their hands to pay respect to those who are younger. Therefore, older receptionists do not raise their hands to pay respect to younger tourists. This affected to hospitality. However, on Monday-Friday the number of tourists is not large, while on the holidays or Saturday-Sunday the number of tourists are more and the atmosphere was jolly. There were 3 types of Thai-style hospitality: 1) saying "hello or Sawasdee ka/ Sawasdee krab", 2) smiling, and 3) raising hands to pay respect, the unique of Thais. There are some foreign tourists who come with their Thai wives. Since most of the receptionists are able to speak English for initial communication, foreign tourists' Thai wives will describe deep details or act as guides.

For Attention and Willingness (SF), it was found that the agriculturists will be interested in large group tourists rather than small group tourists or individual tourist. Some agro-tourism sites can be visited in the

specific season, for example many tourists will visit the pomelo gardens in fruitful season, while there were few tourists in other periods. In addition, Boat trip along the canal to see the garden also has to face environmental problems, such as the unstable water level in the canal, polluted water, and obstructions - water hyacinth, and duckweed. Sometimes they cannot travel. Municipalities or sub-district administration organizations should supervise these issues.

For Endurance and Restraint (ER), it was found that the agriculturists could control their expression and have Emotional Quotient (EQ). Although the tourists sometimes were upset due to more than 37 degrees Celsius weather, the receptionists will soothed them and also provide them with cold water or refreshing drinks. Furthermore, the tourists were invited to sit and relax in the shade of the trees.

2. Physical Hospitality (PH)

For Cleanliness (CL), it was found that the agriculturists dressed clean clothes. A glass of water, food containers, and foodstuffs were also clean. They had dry tissue paper available, but no wet tissue paper. However, it found dirt from littering on the walkways by preceding tourists. Although there were bins near the walkways, some tourists lacked good conscience and were lazy. Therefore the tourists left tissue paper, candy shells, glasses of water, and food containers while walked. Other junks have been well handled. They were used to make compost, but some leaves were burned.

For Art and Design (AD), it was found that hospitality methods, water glass, plates, and bowls had no design and were focused on the traditional ways of the villagers. This was very different from

the art and design of Japanese since they were punctilious in hospitality ware decoration.

For Beverage, Food, and Places (BFP), it was found that the agriculturists provided good and delicious foods, mostly snacks such as rice cracker and Miang Bua served on a banana leaf or lotus leaf. The place, however, was quite dilapidated and there was peeling paint on plates and stands. This made the place looked old. In addition, the locations for selling products were still in the wrong location, for example, the Mahasawat Canal Market were publicized as floating market but the goods were sold on land. This disappointed tourists. Moreover, the rice cracker, a local snack, was advised from tourists to develop other shapes to look strange, but the development of new and unusual products may incur additional costs. Obaid et al. (2019)[23] said that the cost strategy should be applied to local products. When local products have additional costs and the quality of products decreases, accounting techniques and strategic management should be used to upgrade such local goods and to create the competitive advantage.

4. Tourism Service Enhancement (TSE)

For Impression Increase (II), it was found that the agriculturists made tourists feel impressive since they were friendly and not arrogant.

For Word of Mouth/ Repeat Travel (WM/RT), it was found that there was the word of mouth in some

points of the travel route such as, the path along Mahasawat Canal, lotus fields, and rice cracker village. The other points, however, were indifferent when compared to other places. Furthermore, although there was the word of mouth, the tourists did not come back repeatedly, because there was no attraction or motivation to come back again. Most of tourists are newcomer.

For Tourists Increase (TI), it was found that the numbers of tourists stayed the same - not increase and not decrease. Most of tourists were aware of the news from tourism promotions, travel packages, signboards, and Facebook. Large tour groups rarely were found. Most of the tourists were family and a small group of friends traveling by their own car for joining the boat trip. The boat could carry only 6-10 persons. The passengers were shapely - not overweight. The boats were quite old but had life jackets.

For Revenue Increase (RI), it was found that apart from gardening and selling agricultural products, agro-tourism helped agriculturists to have additional income. Nonetheless, it was not always continuous, for instance, Monday-Friday were quite, while Saturday-Sunday were be a little livelier.

Some examples of agro-tourism attractions and the hospitality of agriculturists in Nakhon Pathom province were shown in Figure 2.



Figure 2. Agro-tourism attractions and hospitality of agriculturists in Nakhon Pathom province

5.3 Experimental Results

Experimental results of model “The Hospitality of Agriculturists for Agro-tourism (HAAT) in Nakhon Pathom Province, Thailand”, found that agriculturists hospitality for agro-tourism was more standard than before. Both local and foreign tourists were treated in the same hospitality standard. Although this may not help to increase income or number of tourists coming back, it helped to improve the service level and generate word of mouth to new tourists. The current tourists shared stories via website, Facebook, and

Timeline on Line application which were effective channels for publicizing so that new tourists were easier to decide to travel.

6. Discussion and Conclusions

From Figure 2, the SEM analysis results can be concluded together with the qualitative and experimental results. The results can be discussed as follows.

1. *The Hospitality of Agriculturists for Agro Tourism (HAAT)* has no indirect effect on Tourism Service Enhancement (TSE) but HAAT has a positive direct effect on TSE, by the direct effect size of 0.86. The variable that has the most effect is Word of Mouth/ Repeat Travel (WM/RT), with the factor loading of 0.91. This matches with the interviews which found that the hospitality of agriculturists make tourists tell others in a good way but tourists will not come back repeatedly because there is no more attractive or motive attraction. This finding is different from Chairit Thongrawd (2018)[11] that depicts re-tourism.

2. *All Hospitality with Service Mind (HSM) variables* have the effect on The Hospitality of Agriculturists for Agro Tourism (HAAT) and the variable that has the most effect is Attention and Willingness (SF), with the factor loading of 0.94. Furthermore, HSM has positive direct and indirect effects on HAAT by the effect sizes of 0.61 and 0.60, respectively. In addition, HSM has a positive direct effect on TSE by the effect size of 0.92 but has no indirect effect on TSE. Moreover, HSM has a positive direct effect on Physical Hospitality (PH) by the effect size of 0.51 but has no an indirect effect on PH. This in line with the interview results which found that Endurance and Restraint (ER) are important for hospitality because agriculturists have to encounter situations the tourists are irritable due to hot weather. Therefore, the receptionists must have a patience and tolerance to the tourists' expression and sooth tourists to make them feel cooler. This finding corresponds to Ngoni Courage Shereni (2019)[24] which found that hospitality is important to the homestay business and accommodation service providers. Besides, hospitality is a factor enhancing business sustainability. While the issue of Endurance and Restraint (ER) of service providers is a new finding that is sensitive and not yet studied by other researchers.

3. *All Physical Hospitality (PH) variables* have an effect on The Hospitality of Agriculturists for Agro Tourism (HAAT) and the variable that has the most effect is Cleanliness (CL), with the factor loading of 0.92. In addition, PH has no positive direct effect on HAAT but PH has an indirect effect on HAAT by the effect size of 0.75. Furthermore, PH has a positive direct effect on Tourism Service Enhancement (TSE) by the effect size of 0.62 but PH has no indirect effect on TSE. Moreover, PH has a positive direct effect on Hospitality with Service Mind (HSM) by the effect size of 0.62 but PH has no indirect effect on HSM. This is in agreement with the interview results which found that Cleanliness (CL) of the walkways in the gardens is

important and needed to pay attention because tourists throw garbage on the walkways. Following tourists, seeing the garbage on such walkways, are uncomfortable to see. Therefore, knowledge should be provided by informing tourists about their practices while visiting the garden so as to raise awareness of good tourism. Tourism service providers, besides, must be a conscious, ethical, and responsible to bring a good environment to the locality[25].

4. *The HAAT model adoption* has no indirect effect on TSE, but it has a positive direct effect on TSE, with the effect size of 0.86, by affecting all TSE variables, comprising Word of Mouth/ Repeat Travel (WM/RT), Impression Increase (II), Revenue Increase (RI), and Tourists Increase (TI), with the factor loadings of 0.91, 0.84, 0.77, and 0.60, respectively. This is consistent with the interview results which found that the tourists have Impression increase (II) in the hospitality of Thais with smile and friendliness. Tourists have Word of Mouth (WM), but they will not come back or Repeat Travel (RT). This word of mouth, however, will support new Tourists Increase (TI). The agriculturists, therefore, have more incomes or Revenue Increase (RI). Nevertheless, agro-tourism is an additional or main income those agriculturists apart from the income from the sale of seasonal agricultural products.

7. Contributions

1. For suggestions in using research results in short-term operation (less than 1 year), agriculturists should use the same standard of hospitality in welcoming local and foreign tourists. They should improve the locations to get the standard and also the packaging design by changing from plastic bag to paper box designs. They, moreover, should promote tourism through efficient and effective channels. There should have representatives of agriculturists, who are in coordination with the municipality or sub-district administrative organization to improve the canals' cleanliness since smelly polluted water spoils tourism atmosphere and water hyacinth obstructs the waterways of the tour boats.

2. For suggestions in applying research outcomes to medium-term strategy (2-3 years), agriculturists should develop their own gardens, which are agro-tourism attractions. For example, some pomelo gardens, transferring from father to child generations, have been improved in both business and hospitality perspectives. This is a transformation from the agricultural era to the knowledge era. The agriculturists have changed from selling pomelo in the gardens only to tourism in the pomelo gardens, study trips, and providing agricultural knowledge, including the method of select pomelo types, seeding, garden maintenance and management,

plus upgrading to a café in a pomelo gardens. This causes employment in hospitality industry to provide all tourists or visitors with services.

3. For suggestions in using research results in the long-term strategy (more than 3 years), "Meetings, Incentive Travel, Conventions, Exhibitions (MICE)" method should be implemented as a strategy for new agro-tourism since Thai government currently promotes and arranges interesting tourism routes in Nakhon Pathom province by opening the agro-tourism routes in 5 districts[26]. The one of the interesting routes is "Mahasawat Canal Cruise" in Salaya subdistrict, Phutthamonthon District, Nakhon Pathom province. It starts with getting off the boat at Suwannaram temple and then touches the ways of life of villagers on both sides of the Canal, including watching rice farming and processing methods, lotus planting, agricultural product processing, and orchid gardens, as well as learning to do rice cracker, seasonal fruit tasting, making rice wrapped in lotus leaves, and riding farm truck to see the gardens. Therefore, MICE can be linked with both educational institutions and government agencies. Furthermore, it can be collaborated with national and international conference organizers, especially international conferences held in Bangkok with many foreigners attending. After the conference, participants would travel from Bangkok to nearby provinces, such as Nakhon Pathom. It is able to take one-day trip and takes about 1 hour from Bangkok.

8. Future research direction

Further research should focus on the MICE issue. The international conferences on agricultural research, especially agricultural tourism in the central Thailand, should be organized in order to enhance agro-tourism promotion and also provide knowledge to the conference participants.

Reference

- [1] World Economic Forum. (2012), "*The ASEAN Travel & Tourism Competitiveness Report 201*", http://www3.weforum.org/docs/WEF_TTCR_ASEAN_Report_2012.pdf, Last access: March 20, 2019
- [2] Kasikorn Research Center. (2018), "*Inbound tourism expected to earn THB2-trillion income in 2018*", Kasikorn Research Center Company Limited, No. 2895, pp. 1-4.
- [3] Takerngsak Chaichan. (2012), "*Tourism Logistics Management for Wang Nam Kiew district in Nakhon Ratchasima Province*", Suranaree University of Technology, pp. 1-252.
- [4] Natpatsaya Setthachotsombut and Gritsada Suaiam. (2020), "*Tourism value chain management and tourism logistics in Ubon Ratchathani Province, northeast Thailand*", African Journal of Hospitality, Tourism and Leisure, Vol 9, No. 1, pp. 1-11.
- [5] Legal Execution Department. (2019), "*Map of central region of Thailand*", http://asset.led.go.th/newbid-old/asset_search_map.asp?search_part=center, Last access: January 1, 2019.
- [6] Nicolaides, A. (2008), "*Service quality, empowerment and ethics in the South African hospitality and tourism industry and the road ahead using ISO9000/1*", Faculty of Commerce in fulfillment of the requirements for the Doctor of Commerce degree at the University of Zululand, South Africa.
- [7] Nakhon Pathom Provincial Office. (2018), "*Nakhon Pathom Province Development Plan Year 2018-2021*", www.nakhonpathom.go.th/news_develop_plan, Last access: February 20, 2018.
- [8] Ministry of Tourism and Sports. (2018), "*Tourism statistics year 2018*", www.mots.go.th/more_news.php?cid=509&filename=index, Last access: February 20, 2018.
- [9] Economic Tourism and Sports Division. (2019), "*Internal tourism in Nakhon Prathom. Ministry of Tourism & Sports*", https://www.mots.go.th/more_news_new.php?cid=411, Last access: January 1, 2019.
- [10] Prisana Mulpao. (2016), "*Agrotourism Decision Making Behavior: A Case Study of Manhasawascanal in Kakornpatom Province*", Journal of Humanities and Social Sciences Thonburi University, Vol 10, No. 22, pp. 104-110.
- [11] Chairit Thongrawd. (2018), "*Agro-tourism Management Cruise along the Garden, Khlong Mahasawat, Phutthamonthon District, Nakhonpathom Province*", Dusit thani college Journal, Vol 12, No. 2, pp.115-131.
- [12] Surangkana Pipatchockchaiyo. (2017), "*Hospitality and Communication Arts in Hospitality*", Suansunandha Rajabhat University, www.elfms.ssru.ac.th, Last access: January 1, 2019.
- [13] Pornrat Thonglert and Parichat Sathapitanon. (2013), "*Communication in Tourism Management of Angkhang Royal Agricultural Station*", Journal of Public Relations and Advertising, Vol. 6, No. 2, pp. 72-77.
- [14] Kaplan, R.S. and Norton, D.P. (1992), "*The Balanced Scorecard: Measures that Drive Performance*", Harvard Business Review, (January-February), pp. 71-79.
- [15] Chen, I.J. and Paulraj, A. (2004), "*Towards a theory of supply chain management: the constructs and measurements*", Journal of Operations Management, Vol 22, No. 2, pp. 119-150.
- [16] Morgan, C. (2004), "*Structure, speed and salience: performance measurement in the supply chain*", Business Process Management Journal, Vol 10, No. 5, pp. 522-236.
- [17] Kroes, J.R. and Ghosh, S. (2010), "*Outsourcing*

- congruence with competitive priorities: impact on supply chain and firm performance*", Journal of Operations Management, Vol 28, No. 2, pp. 124-143.
- [18] Martin, R. and Patterson, J.W. (2009), "*On measuring company performance within a Supply chain*", International Journal of Production Research, Vol 47, No. 9, pp. 2449-2460.
- [19] Carvalho, H., Duarte, S. & Cruz Machado, V. (2011), "*Lean, agile, resilient and green: divergencies and synergies*", International Journal of Lean Six Sigma, Vol 2, No. 2, pp. 151-179.
- [20] Martin, C. (2016), "*Logistics and Supply Chain Management: Creating Value-Adding Networks 4ED*", FT Prentice Hall, UK.
- [21] Official Statistics Registration Systems. (2016), "*Population and house statistics - Population by age*", http://stat.dopa.go.th/stat/statnew/upstat_age.php, Last access: January 1, 2019.
- [22] Schumacker, R.E. and Lomax, R.G. (1996), "*A Beginner's Guide to Structural Equation Modeling*", Lawrence Erlbaum Associates, Mahwah, NJ.
- [23] Obaid, M.A, AL-Abbas Al Dulamy, A.J & Muter, J.K. (2019), "*The impact of integration of quality costs and targeted cost in achieving a competitive advantage: a perspective from hospitality*", African Journal of Hospitality, Tourism and Leisure, Vol 8, No. 5, pp. 1-12.
- [25] Picciotto, L. (2019), "*Ethical and responsible tourism: a tool for promoting values and social justice. Two case studies of Sicily, Italy*", African Journal of Hospitality, Tourism and Leisure, Vol 8, No. 5, pp. 1-10.
- [24] Ngoni Courage Shereni. (2019), "*The tourism sharing economy and sustainability in developing countries: Contribution to SDGs in the hospitality sector*", African Journal of Hospitality, Tourism and Leisure, Vol 8, No. 5, pp. 1-13.
- [26] Kaoded. (2018), "*Nakhon Pathom Province Agriculture Open agricultural tourism route 5 districts*", kaoded newspaper, www.77.kaoded.com, Last access: January 1, 2019.