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295 Nakhon Ratchasima Road, Dusit, Bangkok, Thailand 10300
Phone: +662 244 5801-2 Fax: +662 668 7460

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Phone: +662 244 5080-2 Fax: +662 243 9113

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Gastronomy Tourism in Ayutthaya World Heritage from Tourist's Perspective

Pannee Suanpang^{a*}, Jiranuch Sopa, Apiradee Arnmanee^c & Jatupon Dongjit^d

^a Faculty of Science & Technology, Suan Dusit University, 10700 Thailand

^b School of Tourism and Hospitality Management, Suan Dusit University, 10300 Thailand

^c Architecture School, Arsomsilp Institute of the Arts, 10150 Thailand

^d School of Law and Politics, Suan Dusit University, 10300 Thailand

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Abstract

Gastronomy tourism is typically characterized as the pursuit of a unique experience of eating and drinking in the originality of a dish and is indigenous to a place, region, or country, covers the basic themes of local dishes. The gastronomy tourism in Ayutthaya, Thailand has high potential especially in the many activities that link to World Heritage site, therefore it requires a study of the tourist 'perception and motivation for travel. The aim of this study consist of the following: (1) study tourist's motivation for gastronomy tourism in Ayutthaya World Heritage and (2) Conduct a factor analysis of the tourist's motivation for gastronomy tourism in Ayutthaya World Heritage. A quantitative research approach was conducted by collecting data from 385 questionnaires. The results found that (1) tourist's motivation to visit Ayutthaya was to make merit and pay respect to the Buddha followed by gastronomy tourism and their search for food information from food review pages. The gastronomy activities that tourists are interested in consisted of eating by the rivers site and visiting historical sites. Factors affecting the decision to travel to Ayutthaya for gastronomy tourism is a restaurant with good atmosphere and average food cost per meal of 1,000-1,500 baht. (2) The factor affecting motivation in gastronomy tourism in Ayutthaya World Heritage consisted of 1 latent variable and 7 observable variables. The relationship was in the range [0.223, 0.490] and the CFA affecting gastronomy tourism motivation showed that the gastronomy tourism product aspect was the factor affecting motivation has a maximum component weight followed by physical appearance and price, 77.30%, 75.40% and 61.70%, respectively.

Introduction

Tourism is becoming a significant industry, which is a crucial component of the social and economic driving forces in countries globally, as it generates job

opening and business opportunity worldwide (Suanpang, Netwong & Chunhapatrarekul, 2021). This leads to the tourism industry contributing to the high economic growth and has been pragmatic in several countries,

* Corresponding Author
e-mail: pannee_sua@dusit.ac.th

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especially in Thailand (Jermitsittiparsert & Chankoson, 2019; Suanpang & Jamjuntr, 2021). Thailand is one of the top tourist countries in the world having historical and high-value hospitality services (Suanpang & Jamjuntr, 2021; Suanpang, Sopha, Jakjarus, Leethong-in, Tahanklae, Panyavacharawongse, Phopun, & Prasertsut, 2021a; Suanpang, Songma, Chunhaparagul, Niamsorn, Netwong, & Panyavachara-wongse, 2021b). The tourism industry is successful and one of the major economic contributors in Thailand, estimated to directly contribute 5.56 percent of GDP before the crisis of the COVID-19 epidemic (Suanpang & Jamjuntr, 2021; Suanpang, Sopha, Jakjarus, Leethong-in, Tahanklae, Panyavacharawongse, Phopun, & Prasertsut, 2021a; Suanpang, Songma, Chunhaparagul, Niamsorn, Netwong, & Panyavachara-wongse, 2021b). Due to the COVID-19 pandemic in Thailand, the tourism industry has been in a downturn. The Thai government has prohibited international arrivals and implemented a lockdown where people had to stay at home (Suanpang & Jamjuntr, 2021; Suanpang, Sopha, Jakjarus, Leethong-in, Tahanklae, Panyavacharawongse, Phopun, & Prasertsut, 2021a; Suanpang, Songma, Chunhaparagul, Niamsorn, Netwong, & Panyavachara-wongse, 2021b). This circumstance has a direct effect on the tourism industry and business sector who want to develop safety, trust and build confidence among tourists. The tourists are concerned about their health and safety, thus creating a new normal way (Suanpang & Jamjuntr, 2021; Suanpang, Sopha, Jakjarus, Leethong-in, Tahanklae, Panyavacharawongse, Phopun, & Prasertsut, 2021a; Suanpang, Songma, Chunhaparagul, Niamsorn, Netwong, & Panyavachara-wongse, 2021b). In addition, the Tourism Authority of Thailand has indicated that from the COVID-19 situation to promote 'Gastronomy Tourism' to stimulate the tourism industry (Suanpang, Sopha, Jaiann, Thanyakit, Chuamsompong, Dongjit, Rotprasoet, Webb, Netwong, Niamsorn, Chunhaparagul, & Arnmanee, 2021c)

Phra Nakhon Si Ayutthaya Province or Ayutthaya is outstanding in terms of its asset for cultural tourism due to the presence of a historical park that has been registered as a UNESCO World Heritage Site. Ayutthaya Historical Park is a place full of various ancient sites built since the Ayutthaya period (Chairatana & Supanyo, 2021). Ayutthaya Kingdom has a long history and has created a valuable civilization. Ayutthaya Historical Park is known to be one of the world's most famous tourist destinations and is popular in the world, this has allowed

the tourism industry of Ayutthaya Historical Park to expand significantly and gain the highest growth rate within the country, as well as within the region (Thanvisithpon, 2016).

"Gastronomy" is defined as the art of eating and drinking and the gastronomy paradigm is an interdisciplinary branch of art and science that is directly related to chemistry, literature, biology, geology, history, music, philosophy, psychology, sociology, medicine, nutrition, and agriculture (Kivela & Crotts, 2006). Gastronomy includes the science of nutrition such as the sense of taste and physiology, the production of wine, nutritional functions in the human body, food selection properties, development of production processes according to hygiene standards (Shenoy, 2005). However, gastronomy purpose is to preserve human health with the best possible nutrition and to ensure the enjoyment of life and food (Pavlidis & Markantonatou, 2020).

Gastronomy Tourism is defined in principled term and used in the literature such as 'culinary tourism', 'gastro-tourism', 'wine tourism', 'food tourism' and 'gourmet tourism', the widely used term 'gastronomic tourism' is typically defined as the pursuit of a unique experience of eating and drinking. Gastronomic tourism, refers to the originality of a dish and is indigenous to a place, region, or country, covers the basic themes of local dishes and wines (Green & Dougherty, 2008; Groves, 2001; Hall & Mitchell, 2007; Pavlidis & Markantonatou, 2020). Sharples & Hall (2004) define gastronomic tourism as a travel experience in an area with distinct gastronomy, with recreational purposes that include visits to primary or secondary food producers, gastronomic events, rural markets, culinary events, and quality tastings, and generally any kind of food-related activity. Moreover, prior literature defines that gastronomy tourism is related to cultural tourism, viewing food as a manifestation of the cultural of a destination (Hjalager & Corigliano, 2000; Van Westering, 1999). Gastronomy tourism activities include visits to food producers, participation in gastronomy festivals, visits to restaurants and special places related to special local food, tasting special dishes, observing production and preparation processes, tasting special dishes by famous chefs, as well as exploring how a particular dish is prepared (Hall & Mitchell, 2007; Mitchel Hall, Sharples, Mitchel, Macionis, & Cambourne, 2003). In addition, gastronomy tourism also includes tourist trips in seek of personal experience in local food and drink,

in addition to the classic visit to restaurants. The gastronomy tourism industry, which is not only comprised of food guides, covers all types of culinary experiences, including cooking schools, cookbooks, culinary travel agencies and guides, related TV programs, magazines and activities, wineries, vineyards, breweries, distilleries, and agricultural producers.

The literature search found that gastronomy tourist experience is influenced by many aspects related to more trivial eating practices, such as those offered by cafes and other types of graphic or charming cafes and restaurants. However, gastronomy journey experience of tasting local and authentic food, attending events, festivals, and food festivals, and tasting local and international cuisine (Sharples & Hall, 2004; Pavlidis & Markantonatou, 2020). Gastronomy tourists are classified into different groups according to the importance of food in their journey, from those who do not care about local food to those who travel exclusively to try local and unique cuisines (Andersson & Mossberg, 2017; Boyne, Williams & Hall, 2002; McKercher, Okumus & Okumus, 2008). Studies have found that most travelers recognize local cuisine as a major factor influencing destination choice, travel experience and decision to re-visit the same destination (Karim & Chi, 2010; Silkes, Cai & Lehto, 2013). Moreover, the factors influencing the intention to travel that includes local food has social, psychological, cultural, and experiential meanings (Bell & Valentine, 1997; Caplan, 1997). According to Frochot (2003), by eating local food, tourists can satisfy their needs related to relaxation, excitement, escape, social status, education, and lifestyle. While the reasons for eating local and international food may vary such as satisfying hunger, tasting local culture, social interaction, the availability of local and international food can affect the visitor's travel experiences and their intention to return (Henderson, 2009). The experience of local food can be a cultural experience and a form of entertainment (Fields, 2002; Quan & Wang, 2004; Ryu & Jang, 2006; Sparks, Bowen & Klag, 2003). Place-specific food and nutrition can attract more tourists when integrated into a strategic promotion plan that includes periodic events, festivals, or social media platforms (Viljoen, Kruger & Saayman, 2017). While some food lovers may not believe that they have the qualities of a taster, they may find local food an important factor in their decision to visit and re-visit the destination. Therefore, the sector of gastronomic tourism should aim at a much broader target than a limited elite (Boniface, 2017; McKercher, Okumus & Okumus, 2008).

Gastronomy tourism in Ayutthaya is state-of-the-art and is at the very early stage of the research study because most of the tourist travel for cultural tourism. However, the gastronomy tourism in Ayutthaya has high potential especially in many activities that link to World Heritage Site, therefore it requires a study on the tourist perception and motivation for gastronomy travel.

Objectives

The research objectives consist of the following:

1. Study tourist's perspective and motivation for gastronomy tourism in Ayutthaya World Heritage.
2. Conduct a factor analysis of tourist's motivation for gastronomy tourism in Ayutthaya World Heritage.

Conceptual framework

The conceptual framework is presented in Figure 1, which comprise of variables of 7P's marketing mix including gastronomy product, price, place, promotion, people, process and physical appearance.

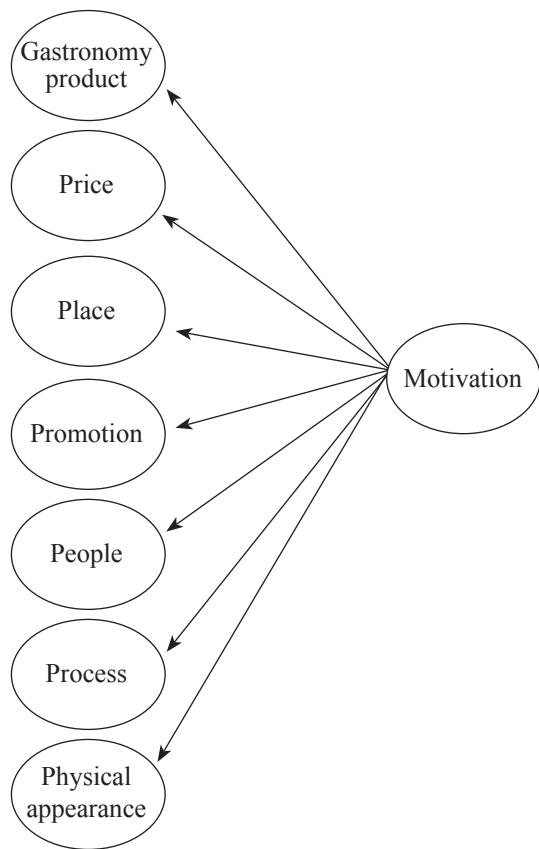


Figure 1 Conceptual framework

Research methodology

1. Population and samples

The population of the study was tourist that travel to Ayutthaya World Heritage consisting of 3,272,237 people in year 2019. The non-probability sampling technique like convenience was used. The sample size was more than 385 sample based on based on Cochran (1977) with a confidence level of 95% ($\alpha = 0.05$).

2. Research instrument

Based on the research conceptual framework and the literature review, 5 closed questions that related to the demographic of the sample were used. The second section of the questionnaire referenced tourist behavior and had 6 closed questions. The third section focused on factors that influenced gastronomy tourism and had 31 closed questions. The answer options used the Likert 5 scale, ranging from 5 = strongly agree, 4 = agree, 3 = moderate, 2 = disagree, 1 = strongly disagree. The reliability of the measures was tested using Cronbach's alpha = 0.95.

3. Collection of data

The data was collected using a convenience sampling method by using online assessment form. The questionnaire was available online between April - July 2021. A total of 385 respondents completed the questionnaire.

4. Data analysis

The data were analyzed using SPSS for descriptive statistics. The Confirmatory Factory Analysis (CFA) were run by using LISREL 9.0. The questionnaires were collected using an online assessment and 385 sample size was selected and was enough to analyze the impact of variables.

Result

The demographic results from the questionnaire are presented in Table 1 below. Table 1 shows the number and percentage of demographic data of 385 tourists who had traveled to Phra Nakhon Si Ayutthaya Province. It was found that 339 tourists were female, representing 88.05%, 46 were male, representing 11.95%. Most respondents were aged 35 – 44 years, representing 37.92%, working as employees of companies/state enterprises, representing 28.83%, having a bachelor's degree, representing 48.57%. The average monthly income was low with the highest percentage of 26.49% earning 15,000 baht.

Table 1 Demographic of the respondent

Dedemographic	Frequency	Percent
1. Gender		
Male	46	11.95
Female	339	88.05
Total	385	100.00
2. Age		
> 15 year	0	0.00
15-24 year	73	18.96
25-34 year	84	21.82
35-44 year	146	37.92
45-59 year	69	17.92
60 year	13	3.38
Total	385	100.00
3. Occupation		
Student	45	11.69
Employee	111	28.83
Business owner	58	15.06
Government officer	77	20.00
House keeper	42	10.91
Other	52	13.51
Total	385	100.00
4. Education		
Under bachelor degree	82	21.30
Bachelor degree	187	48.57
Master degree/Ph.D.	116	30.13
Total	385	100.00
5. Income		
> 15,000 Baht	102	26.49
15,001-20,000 Baht	78	20.26
20,001-25,000 Baht	23	5.97
25,001-30,000 Baht	34	8.83
30,001-35,000 Baht	20	5.19
35,001-40,000 Baht	35	9.09
< 40,000 Baht	85	22.08
Other	8	2.08
Total	385	100.00

Table 2 shows the number and percentage of travel behavior of 385 tourists. It was found that most of the respondents purpose of traveling to Ayutthaya was to make merit and pay respect to the Buddha image accounted for 28.74%, followed by food tourism. In regards to searching information, 30.39% preferred to search for food information to plan a trip from food review pages and 29.35% preferred general websites. Ayutthaya gastronomy tourism activities that tourists were interested in include; eating by the riverside, see historical sites accounting for 37.91%, followed by historical boat rides and meals on board for 29.19%. Factors affecting the decision to travel to Ayutthaya

gastronomy tourism was a restaurant with good atmosphere accounting for 26.23%, followed by inexpensive restaurants for 15.67%. The average spending per meal of tourists is 1,000 – 1,500 baht, representing 42.86%, followed by less than 1,000 baht, accounting for 31.95%. It was found that tourists when traveling to the same city. Tourists choose to eat both old and new restaurants for 84.42 percent, respectively.

Table 2 Tourist behavior

Tourist behavior	Frequency	Percent
Objective of travel		
Make merit	332	28.74
Study	23	1.99
Historical & cultural	162	14.03
Unseen experience	88	7.62
Family activity	172	14.89
Community based tourism	74	6.41
Food tourism	217	18.79
Photographic food	77	6.67
Other	10	0.87
Total	1,155	100.00
Information searching for travel planning		
Friends' recommendation	79	20.52
From people in local community	13	3.38
Page review	117	30.39
Website	113	29.35
YouTube	63	16.36
Total	385	100.00
Gastronomy activity		
Dinner cruise	221	29.19
Dinner at river and seeing world heritage	287	37.91
Pick up raw material for cooking	47	6.21
Shopping raw material for cooking at the local market	55	7.27
Cooking Thai dessert	147	19.42
Total	757	100.00
Factor influencing restaurant		
Good atmosphere	298	26.23
Local food	128	11.27
Not expensive	178	15.67
Easy to access	153	13.47
Promotion	56	4.93
Locate near river	177	15.58
Locate in the community	146	12.85
Total	1136	100.00
Average food spending/ day		
> 1,000 Bath	123	31.95
1,000 – 1,500 Bath	165	42.86
1,501 – 2,000 Bath	59	15.32
2,001 – 2,500 Bath	21	5.45
< 2,501 Bath	17	4.42
Total	385	100.00
Intention of restaurant Revisiting		
Same restaurant	21	5.45
Seeking new restaurant	39	10.13
Both	325	84.42
Total	385	100.00

Table 3 Factors influencing gastronomy tourism

Issue	Mean	S.D.
Product		
Thailand has the potential to be a global gastronomy tourism city	4.54	0.60
Phra Nakhon Si Ayutthaya Province is suitable for the development of gastronomy tourism programs	4.52	0.67
Gastronomy tourism in Phra Nakhon Si Ayutthaya province encourage tourists to visit Phra Nakhon Si Ayutthaya	4.53	0.63
The attractiveness of trying the Royal Thai Cuisine	4.52	0.68
The attractiveness of trying Ayutthaya wisdom food	4.59	0.64
Attractiveness of tourist attractions that produce food and raw materials for food	4.38	0.81
The interest of learning historical stories of the past	4.73	0.56
The attractiveness of community tourism	4.48	0.71
The attractiveness of the tourism program in a novel style	4.57	0.67
The attractiveness of food cultural tourism activities that present a tourism model that creates value and new experiences	4.52	0.66
Average	4.54	0.66
Price		
Food prices/tour programs are appropriate for the type of activities	4.46	0.66
Food prices/tour programs are appropriate for the service	4.46	0.72
Tourists can set food prices/tour programs	4.32	0.76
Average	4.41	0.71
Place		
Emphasis on promotion of tourism programs through online media such as Line and Facebook	4.58	0.62
Emphasis on promotion of tourism programs through famous people	4.12	0.93
Emphasis on promotion of tourism programs through review pages or YouTube	4.61	0.65
Average	4.44	0.74
Promotion		
Able to adjust the travel program according to the needs of customers	4.45	0.77
Souvenirs are distributed for tourists to take home	4.28	0.85
There is a discount for old customers	4.25	0.93
Average	4.33	0.85
People		
Service providers pay attention to details of customers	4.66	0.55
The service provider has expertise in food/history	4.56	0.65
The service provider can respond quickly to the needs of customers	4.58	0.67
Average	4.60	0.62
Process		
Service providers pay attention to details of customers	3.89	1.09
The service provider has expertise in food/history	4.43	0.83
The service provider can respond quickly to the needs of customers	4.52	0.71
Average	4.28	0.88
Physical appearance		
The dining atmosphere is in retro Thai style, such as eating by hand, a deck placed on top of a toke	4.14	0.91
Contemporary Thai dining atmosphere, such as sitting at international tables decorated in Thai style	4.41	0.77

Table 3 (continue)

Issue	Mean	S.D.
Local eating atmosphere, seeing rice fields, using local vegetables	4.44	0.71
The dining atmosphere is arranged in a royal style	4.27	0.83
Visit the floating market there is a boat selling food and shops on the raft	4.49	0.76
Visit a flea market and sell specialty items or clearly divided into zones	4.48	0.74
Cooking activities with an ancient kitchen, using a wood stove to defeat the earthenware	4.32	0.92
Cooking activities with a contemporary Thai kitchen	4.39	0.82
Modern equipment but decorated in antique style		
Average	4.37	0.81

Table 3 shows the mean and standard deviation of factors affecting motivation in gastronomy tourism in Ayutthaya. Tourists find it interesting to learn historical stories from the past. It was at the highest level (Mean = 4.73, S.D. = 0.56). In terms of price, food prices/tourism programs were appropriate for activities. At the highest level (Mean = 4.46, S.D. = 0.66). Distribution channel for promotional emphasis tourism program via review page or YouTube was at the highest level (Mean = 4.61, S.D. = 0.65). The travel program can be adjusted according to the needs of customers was at the highest level (Mean = 4.45, S.D. = 0.77). In terms of personnel, service providers pay attention to details of customers, was at the highest level (Mean = 4.66, S.D. = 0.55) on the process side. The satisfaction of tourists after using the service was at the highest level (Mean = 4.52, S.D. = 0.71) in terms of physical characteristics. Visit the floating market where a boat selling food and shops are on the raft was at the highest level (Mean = 4.49, S.D. = 0.76), respectively.

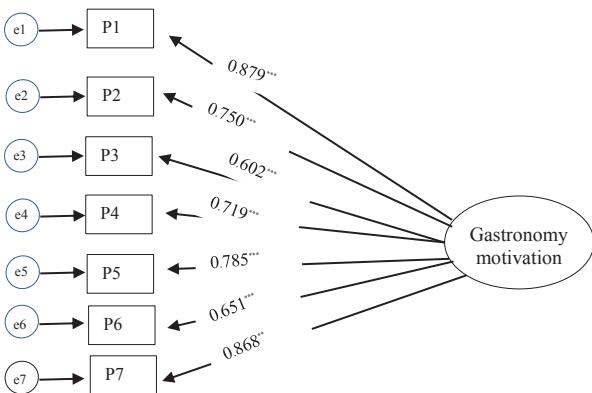
The confirmation component analysis of factors affecting motivation in gastronomy tourism in Ayutthaya World Heritage (7 Ps) consisted of 1 latent variable and 7 observable variables. The relationship was in the range [0.223, 0.490] details are shown in Table 4.

Table 4 Matrix of correlation

Variable	P1	p2	p3	p4	p5	p6	p7
P1	1						
p2	.375**	1					
p3	.328**	.452**	1				
p4	.349**	.386**	.278**	1			
p5	.329**	.365**	.424**	.338**	1		
p6	.353**	.281**	.223**	.340**	.374**	1	
p7	.326**	.435**	.332**	.412**	.405**	.490**	1

** p-value<.001

The results of the confirmation component analysis of factors affecting food gastronomy motivation in Ayutthaya World Heritage showed that the gastronomy tourism product aspect was the factor affecting decision-making and motivation in gastronomy tourism in Ayutthaya, the World Heritage has a maximum component weight followed by physical characteristics and price, respectively. All three aspects could explain the variation of factors affecting motivation in gastronomy tourism in Ayutthaya World Heritage by 77.30%, 75.40% and 61.70%, respectively.

**Figure 2** Confirmation factor analysis

P1 Product, P2 Price, P3 Place, P4 Promotion, P5 People, P6 Process, P7 Physical appearance

Table 5 Conformity Index (Model Fit)

	b	SE	t	R ²
P1	0.879	-	-	0.7730
P2	0.750	0.060	15.601***	0.6170
P3	0.602	0.068	12.068***	0.3620
P4	0.719	0.067	15.127***	0.5170
P5	0.785	0.072	14.933***	0.5260
P6	0.651	0.083	12.677***	0.4240
P7	0.868	0.061	17.492***	0.7540

Statistical $\chi^2 = 12.500$, df = 7, p_value = 0.085, GFI = 0.990, AGFI = 0.962 CFI = 0.997, NNFI = 0.990, NFI = 0.993, RMSEA = 0.045, RMR = 0.007

*** p-value<.001

Model Conformity Index Validation Results pointed out that /df = 1.786 (less than 2) p-value = 0.085, Goodness of Fit Index (GFI) = 0.990, Adjusted Goodness of Fit Index (AGFI) = 0.962, Comparative Fit Index (CFI) = 0.997, Non-Normed Fit Index (NNFI) = 0.990, Normed Fit Index (NFI) = 0.993 (greater than 0.95) and Root Mean Square Residual (RMR) = 0.007, Root Mean Square Error Approximations (RMSEA) = 0.045 (less than 0.05). The index is appropriate (Schumacker & Lomax, 2004).

Table 6 Goodness of fit index

Goodness of fit test	Criteria	Value	Result
χ^2/df	> 2.00	1.786	Pass
p-value	< .05	0.085	Pass
GFI	< .95	0.990	Pass
AGFI	< .95	0.962	Pass
CFI	< .95	0.997	Pass
NNFI	< .95	0.990	Pass
NFI	< .95	0.993	Pass
RMR	> .05	0.007	Pass
RMSEA	> .05	0.045	Pass

Discussion

The results from the study concluded that the majority of the tourists had the purpose of traveling to Ayutthaya to make merit and pay respect to the Buddha followed by gastronomy tourism and the search for food information to plan a trip was obtained from food review pages. The gastronomy activities that tourists were interested in was eating by the water and visiting historical sites. Factors affecting the decision to travel to Ayutthaya food cultural tourism was a restaurant with good atmosphere and average food cost per meal at 1,000-1,500 baht. This related to the study of Kim, Park, & Lamb (2019) who found that gastronomy tourism motivation have a significant influence on consumption because, in spite of not being the only variable which influences behavior, it also related to the gastronomic experience which understands to be the result of trying food, considering aspects such as the price, the establishment's atmosphere, the professionalism of the service received, etc. and motivates the tourist to travel to seek gastronomic practices in a specific place (Berbel-Pineda, Palacios-Florencio, Ramírez-Hurtado, & Santos-Roldán, 2019).

Moreover, the confirmation component analysis of factors affecting motivation in gastronomy tourism in Ayutthaya World Heritage (7 Ps) consisted of 1 latent variable and 7 observable variables. The relationship was in the range [0.223, 0.490] and the CFA affecting gastronomy tourism motivation to travel to Ayutthaya World Heritage showed that the gastronomy tourism product aspect was the factor affecting motivation in gastronomy tourism in Ayutthaya World Heritage has a maximum component weight followed by physical appearance and price, respectively. All three aspects could explain the variation of factors affecting motivation in gastronomy tourism in Ayutthaya World Heritage by 77.30%, 75.40% and 61.70%, respectively. This related to the study of Kim, Park, & Lamb (2019) who found that gastronomy itself being a motivation, there is a series

of motives, subjective according to each tourist, which lead to wanting to experience a specific destination's gastronomy. Dann (1981) classifies the tourist's motivation in the choice of a destination into two major strengths: the need to escape and the need to seek. The visitors either travel because they are pushed by motives or internal variables or else due to being attracted by the attributes of the places (Berbel-Pineda, Palacios-Florencio, Ramírez-Hurtado, & Santos-Roldán, 2019).

Suggestion

This research has limitations. The study only focuses on one location, Ayutthaya World Heritage and caution is therefore advised when generalizing the results to other settings. The particular antecedents and outcomes in this model constitutes a limitation to the generalization of the results to other models. This study offers useful findings for the professionals of the hospitality industry.

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Strategies for Sexual-Language Translation in British Television Series: Sex Education

Suttipong Permpoon^{a*} & Adithee Kaewkwan^b

^a Faculty of Liberal Arts, Ubon Ratchathani University, 34000 Thailand

^b Graduate Student of English and Communication, Ubon Ratchathani University, 34000 Thailand

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Abstract

The research examined translation strategies from English to Thai of sexual language in British TV series' subtitles: *Sex Education* (2019). The data was collected from all 8 episodes of Netflix's *Sex Education*'s season 1. It focuses primarily on the exploration of the strategies used to deal with non-equivalent translation at the word level. The research recognized translation strategies from English into Thai based on Mona Baker's framework (Baker, 2018) and employed qualitative methods to filter and analyse the data. The results revealed that the most frequently used strategy was the translation by using loan words (36.20%), followed by translation by a more neutral/less expressive word (27.62%), translation by cultural substitution (19.04%), translation by paraphrase using a related word (6.66%), translation by paraphrase using unrelated words (4.76%), translation by omission (2.86%) and translation by a more general word (2.86%), respectively. However, translation by illustration was not found in this research. The discussions also present insights regarding the use of sexual language in different contexts and suggestions on how and when to use it. The research provides a major contribution to translators who are interested in sex-related language translation, and it is also beneficial for Thai people and others enjoying watching the *Sex Education* series and need to rely on the subtitles translated from English into Thai.

Introduction

In this 21th century, the translation industry has widened its scope, and as an academic pursuit, it has been witnessing a massive and continuous expansion (Doherty, 2017). Because communication is an aspect of human civilization, without second-language learning or translation, humans would not be able to communicate across cultures. Nowadays, the role of translation has developed in a wider range of text types, such as movie

dubbing and subtitling, songs, novels, technology, or even in tourism. With such trends, professional translators need to possess excellent translating skills to advance and perfect their translation work. Beneficially, translation has been able to enliven and provide new lease of life and has also been acquiring new perspectives in the process. Based on Bassnet (2002), translation is the rendering of a source language into another language which provides a meaning that is relatable to the context

* Corresponding Author
e-mail: suttipong.p@ubu.ac.th

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in the target language. Generally, translation produces equivalent and non-equivalent meanings, defined by similarity or equality of the meanings in the two languages that operate. If the meaning in the target language is similar or equal to the source language, it is defined as "equivalent". In contrast, if the meaning lacks similarity or equality to the source language, the translation then produces a non-equivalent meaning.

Now that new forms of media and more advanced channels of information and texts are circulated on different social sites, new faces of translated works besides their original written form are presented. Chiaro (2013) refers to "Audiovisual Translation" (AVT) as a transfer of the verbal components contained in audiovisual works and products from one language to another, correlated to both seeing and hearing." Audiovisual translation is divided into 2 major sub-sections including dubbing and subtitling. As the translation of subtitles is the shift from spoken into written text, it has been defined as a major sub-section of audiovisual translation (AVT) which imposes a lot of difficulties and restrictions upon a translator. The subtitle, one of the translation practices, normally appears in the lower part of a movie screen which endeavors to convey the speakers' original dialogue, as well as other elements that discursively appear in a movie, such as letters, inserts, graffiti, inscriptions, and placards. Extensively, subtitles are also used for providing an explanation of the information contained on the soundtrack (Cintas, 2009). There are a number of relevant studies discussing different issues of subtitle translation. Some studies highlight the problems of AVT that conveys the meaning of cultural-specific concepts whereas some studies discuss translation strategy models in movie subtitling, proposed by different researchers (Malenova, 2015). These are essential tools, references, and resources for professional translators and language scholars to improve the quality of AVT and other related new media translation.

Examples of great classic translated audio-visual translations can be found from various sources. Some are dealt with by common daily language; some are challenged by the difficulties of translating jargons or language of specific groups of people. This research, however, tries to showcase a case of translating sexual language circulated among people of different genders. Sexual language or sex-related language, as defined by several scholars, refers to words or expressions which are used to refer to genders, sexual acts, and sexual objects as well as to cause sexual and emotional arousal (Sisko,

2004). Translation of sexual language in movie subtitles from English into Thai has been very problematic in our country as it requires some strategies and cultural filters to produce a proper meaning in the target language text. For instance, to deal with sexual language translation, a translator has to modify the meaning of a text being translated by generalizing, neutralizing, reducing, changing, or even deleting the translation units. The use of euphemism sometimes leads to censorship and the loss of original meanings from the source text (Assawongkasem, 2018). Therefore, sexual language translation sometimes produces non-equivalent meanings which are not relevant to the source language text. This supports Armstrong's (2005) idea. According to Armstrong, due to the cultural difference between the source text and the target text, the concepts of appropriateness in these two languages might be different as it is said "what is appropriate in the source text might be inappropriate or even taboo in the target text" (Armstrong, 2005).

The fact that the series *Sex Education* Season 1 (2019) has been observed to be rich in sexual content and the sexual topics for teenagers are discussed very openly, particularly in conservative social settings, making it an interesting audiovisual work worth investigating for the benefits of film producers and professional translators in terms of the translation strategies of sexual language in the series' subtitles from English into Thai. Netflix, an online streaming database is chosen as the data source because the entire series can be legally accessed anytime at convenience for registered members.

When it comes to sexual language translation, English and Thai might have different concepts of appropriateness. Considering the different concepts of appropriateness between Thai and English, the meaning of a text being translated can be modified, correlatedly with Thai social and cultural context. Therefore, the study of translation strategies of sexual language in *Sex Education*'s Season 1's subtitles is expected to provide a profound understanding of cross-cultural translation from English into Thai. To gain the utmost benefit, the research may be further distributed to translators who have a serious decision to make when they are required to deal with the translation of sex-related language.

Sex education, the series

Sex education Season 1 was premiered on January 11, 2019, on Netflix. The popularity of this series grew in prominence as it was announced by Netflix that the

first season of Sex Education was streamed by over 40 million subscribers within the first month of release (Porter, 2019). In Thailand, Sex Education after the first-month release was widely criticized. Even though the series has received positive reviews from critics and general audiences worldwide, some Thai conservatives complained that the show's contents are inappropriate (Mahavongtrakul, 2019). In contemporary Thai society, however, most Thai teenagers have not learned the topic correctly since some teachers and adults believe that exposing teens to sex education lessons directly can cause certain deviant sexual behaviors. In fact, having inadequate knowledge or getting no access to sex education can lead them to other social problems. As a consequence, the presence of the Sex Education series has played a vital role in Thai society as it led to the discussion of sex, which might be regarded as a sensitive topic for many Thai conservatives.

The selection of Sex Education series (2019), a Netflix-original British comedy-drama series created by Laurie Nunn, can be generally deemed and regarded suitable as it is an example of such language use. Though the series is rated MA (for a mature audience), which may be suitable for people over the age of 18, it contains critical sexual content and controversial stories that directly address extensive issues for adolescents, regarding growth, puberty, self-development, family, school, and teenage relationship. Netflix has released 2 seasons of Sex Education, and each season contains 8 episodes. Loved among British viewers and international audiences alike, this British teen comedy-drama centers on a 16-year-old boy named Otis whose mother works as a sex therapist (Zahn, 2020). Despite being a boy who is inexperienced in sex and lovemaking, Otis's advice on sexual problems works very effectively for his friends. The series starts with the sex-therapy clinic that is secretly operated at school, where the teenage problems are presented throughout the story. Otis starts the clinic with his partner in crime, Maeve. They make money, and it goes very successful at the beginning.

The popularity of Sex Education grew in prominence as it was announced by Netflix that the first season of Sex Education was streamed by over 40 million subscribers within the first month of release (Porter, 2019). Sex Education has played a vital role in Thai society as it led different groups of Thais to the discussion of sex, which is a sensitive topic for Thai conservatives. Some people have said that the series' contents may not be suitable for Thai culture, and children would be

incited to improper behaviors after watching it. On the other hand, people, through the eyes of a younger generation, express different opinions on the issue. Sex education is a big step up for Thai society since it enables Thai students of diverse political, economic, socio-cultural levels and educational backgrounds to openly learn about sex at an early age. Sex is a topic that should not be sealed off any longer and learning about sex at an early age should not be considered wrong. However, in Thailand, most recently, according to Boonmongkon, Shrestha, Samoh, Kanchawee, Peerawaranun, Promnart, Ojanen, & Guadamuz (2019), gaps recognised in comprehensive sexuality education in Thailand reflect the challenges of providing sexuality education in school settings where society's political and sociocultural norms are imposed and traditional pedagogical ways have remained dominant. The researchers also suggested that strategies must be created to address implementation shortcomings to make sexuality education more comprehensive in Thailand.

Sex-related language

Sex, according to the Canadian Institutes of Health Research (2017), means a variety of biological attributes in humans and animals. Basically, it is associated with physical and psychological features, ranging from chromosomes, gene expression, hormone levels, and function to sexual anatomy. Usually, sex is classified as male and female, but sexuality today is considered various, depending on an individual's biological attribute that compromises sex and how those attributes are expressed.

Sisko (2004) refers to the sexual language or sex-related language as words or expressions which are used to refer to genders, sexual acts, and sexual objects as well as to cause sexual and emotional arousal. Sex can also be generally defined as a term that simply refers to a few things, such as sexual desire and sexuality (Yu, 2010). Basically, sex can be simply defined as sexual desire, people's perspective on sex tends to be pessimistic. For instance, some people consider sex as a dangerous, indecent, and embarrassing topic that should be privately discussed. In some cultures, sex to some extent is equated to taboo, which means it is religiously and socially prohibited as a subject to discuss the matter. In addition, sex in another aspect is associated with the sexuality of an individual, influenced by culture, psychological and biological features, attitudes, beliefs (Pongsapich, 2010).

Taboo, in relation to sexual references, on the one

hand, is a cultural or religious custom that forbids people to do, touch, use or talk about a certain sexual account. “Taboo words are the words that are often considered offensive, shocking or rude, e.g. because they refer to sex, death, the body or race” (Wehmeier, McIntosh, Turnbull, & Ashby, 2005). For example, in some English-speaking countries, it is profane and tabooed to use words related to sex, and the Christian religion. In some African tribes, women are not allowed to mention their husband, father, and father-in-law directly by their name. In terms of language, taboo, on the other hand, is usually attached to words (e.g., fuck and cunt) and taboo topics (e.g., abortion and death). Taboo has existed for a long time in our world, and it continues to develop in a dynamic way all the time (Gao, 2008).

In Thailand, the central Thai language also has taboo words for sex and stuff associated with it. For various reasons in Thailand, discussions of this topic are quite frequently encountered. At a higher well-mannered level, Thai people have to deal with sex-related taboo by avoiding vulgar words that directly refer to males' and females' private parts. For example, just like the ‘f**’ words or the words ‘pussy’ or ‘dick’, similar ideas apply to the Thai culture since the words ‘ค**’ and ‘ห**’ are tabooed, even in a conversation with people or family members in general, and ခားသာမေး (awaiyawa phet chai) – male sex organ and ခားသာမေးရိုး (awaiyawa phet ying) – female sex organ are the terms mostly used on account of politeness. Adding that along to the word for “male” and “female”, you can safely talk about the various sex organs of the body, and scientifically, these terms in reference to males' and females' reproductive organs are also utilized. When talking about people of the night, which refers to ‘prostitution’, the use of euphemisms is also produced in Thai. The term การค้าประเวณี (kan khapraweni) is made up of the words การค้า (kan kha) – “business”; and ประเวณี (praweni) a word that means “customary” or “traditional”. The most straight-forward and least euphemistic of these is โสเภณี (sopheni). Yet, this topic is ripe for euphemisms, as in ผู้หญิงหา กิน (phuying hakin) “a girl looking for something to eat (doing a certain kind of job)”; ผู้หญิงหาเงิน (phuying ha-ngoen) “ a girl looking for money” or ผู้หญิงบาร์ (phuying ba) – “a bar girl”. Consequently, according to Leong (2014), sex-related taboo words in Thai are mostly produced to avoid conflict with conservatism that has been labeled in society.

Translation of sexual language

Translation for sexual language poses various

challenges across cultures as sexual words can be considered ‘taboo’ in a language being translated. Facing taboo terms in the source language, the translator may be unable to deliver the exact meaning with its shades and connotative associations in the original language to the target language. To render the meaning of a text from one language into another language, understanding the target culture is necessary. A translator needs to apply several studies and investigations on the cultures of both source and target languages and must be familiar enough to know if the expression is considered ‘taboo’ in the two languages that operate. In the case of translation for taboo, according to Davoodi (2009), there are three possibilities; a) the taboo term in L1 is not taboo in L2, so the translator will translate it directly, b) The taboo term in L1 is taboo in L2 too, and, c) The term which is not taboo in L1 is considered as taboo in L2. Davoodi further suggests some choices to render if not exact but similar and acceptable meaning and feeling of the word into the second language.

1. Censorship: it is the first and the simplest choice in translation. Censoring the taboo, the translator ignores the term easily, but it is not a proper and acceptable way because the taboo term on some occasions is a key term in the source text, and its meaning can be distorted by the omission.

Example from *Translation for Taboo Language in Fifty Shades of Grey* (Assawongkasem, 2018)

ST: His long fingers reach around to gently massage my clitoris, circling slowly.

TT: นิวเรียวยาของเข้าขับไปรอบ หมุนวนเป็นวงกลม ช้า ๆ อ่อนโยน

(nio riao yao khong khao khayap pai rop mun won pen wongklok cha cha onyon)

2. Substitution: the other way to translate a taboo term is by substituting the term with another term in L2, but it often certainly distorts the meaning.

Example from *Translation for Taboo Language in Fifty Shades of Grey* (Assawongkasem, 2018)

ST: His lips close around my nipple, and when he tugs, I nearly convulse.

TT: ริมฝีปากเข้าครอบครองยอดทรวงอีกข้างของฉัน และเมื่อเข้าดึง ฉันก็เกือบสั่นสะท้านไปทั่วร่าง

(rimfipak khao khropkrong yot suang ik khang khong chan lae muea khao dueng chan ko kueap san sathan pai thua rang)

3. Taboo for taboo: although the translator knows the expressions are not acceptable to target people and society, they can sometimes prefer to translate them into

taboo.

Example from *Netflix*

ST: Why don't you stop being an ignorant shot for brains thundercunt?

TT: คุณเลิกทำตัวรี่-เงาเสนองขี้เลือย สันดานหนังหนังที่สักพีดีไหม

(khun loek thamtua ngi ngao se mong khi lueai sandan nang nang hi sak thi dai mai)

4. Applying euphemism: “Euphemism derives from Greek words “eu” well + “phem” speaking, and it means “right silence” in ancient Greek” (Shoebottom, 2001). In other words, euphemism is the substitution of an agreeable or inoffensive expression to replace one that offends or suggests something unpleasant (down toning).

Example from *Translation for Taboo Language in Fifty Shades of Grey* (Assawongkasem, 2018)

ST: How do you make yourself cum? I want to see it.

TT: คุณทำให้ตัวเองถึงจุดสุดยอดได้อย่างไร ผ่านอย่างไร

(khun thamhai tua-eng thueng chut sutyot dai yangrai phom yak hen)

The role of cross-cultural translation is inevitable. To translate taboo terms by censorship, substitution, taboo for taboo, or the use of euphemisms, cultural observation of both source and target languages is a very important and delicate process. Taking into account accuracy and complete knowledge, a translator needs to be assisted and supported by a lot of studies and investigations on cultural context in the source and target languages. A typical instance of censorship in Latin America, for instance, according to Scandura (2004) is the usual habit of forcing translators to tone down language, i.e. substituting vulgar words for neutral ones (for example, using “penis” or “making love” instead of other slang expressions with the same meaning).

Transcultural-sexual translation

To date, several studies have investigated translation in various text types and the strategies used for dealing with different styles of translation. Some of the major findings by researchers and scholars in related fields are noted below:

The study of Warachananan & Roongrattanakool (2015), for instance, was conducted on translation strategies of non-equivalent translation at the word level of song lyrics from English into Thai in Walt Disney's animated feature films. Thai translation versions of 27 songs from Walt Disney's animated feature films released between 2003 and 2013 were chosen as the data

source. Employing Mona Baker's framework, the result showed that the most frequently used strategy was the translation by omission (76.79%), followed by translation by paraphrase using unrelated words (7.14%), translation by using a loan word (5.36%), translation by paraphrase using a related word (4.64%), translation by a more general word (superordinate) (2.50%), translation by a more neutral/less expressive word and translation by cultural substitution was at the same frequency (1.79%). However, translation by illustration was not found in this study. The study disclosed that subject and object pronouns were mostly omitted in the translation of song lyrics. One of several factors that results in the omission of subject and object pronouns was the limited space in a song phrase. It is also stated that this omission could be done when it causes no confusion to the target audiences.

The study conducted on translation strategies of songs is beneficial for people who enjoy listening to English songs and their translated versions as it will enable those groups of audience to appreciate the aesthetic values of the songs. Since the theoretical framework employed in this study was the translation strategies proposed by Mona Baker (2018), it draws the researchers' interest to carry out a further study concentrating on translation strategies in another text type, which is movie subtitles by employing Mona Baker (2018) as the theoretical framework. The study aims to provide a finding that will show how the strategies proposed by Baker are employed in the context of translation for movie subtitles from English into Thai in an even more challenging linguistic setting—sexual language.

Another study carried out by Assawongkasem (2018) was conducted on the translation of taboo language in *Fifty Shades of Grey* by E. L. James. The descriptive study of translation in the cultural studies approach, aims to find out the ideological factors and the power of agents influencing translations under the assumption that translating processes are controlled by the power of agencies and the regulation of morals and norms in translation. The consequence of resolving the problems in translation reflects the ideologies affecting any utterances in the translation and leads to the mechanism of censorship under the strategies of translation, especially in the sex-related issue, which is one of the most sensitive issues in our society. Selected excerpts from the English source text of *Fifty Shades of Grey*, written by E. L. James, and the translated text,

translated by Pillay (2017), were then analyzed along with reference to the interview of translators. The result of the study shows that the strategies of censorship of sex-related taboo languages seen in the translation of Fifty Shades of Grey are omission, partial translation, substitution, addition, and down toning, or the use of euphemisms. The causes of these censorships are the internal and external translation constraints of translation, especially the power of agents in the publishing industry, such as the laws, publishers, and editors which are external translation constraints. The practices of these power could demonstrate the main ideology in Thai society that is influenced by Buddhism which is the religious principles of Thai society.

According to the study of translation for taboo language in Fifty Shades of Grey by E. L. James, Thai society is very strict with the religious principles and certain concepts drawn from conservatism. As Fifty Shades of Grey contains many overt sexual content, such as sexual taboo words and taboo topics in Thailand, the translation strategies needed for dealing with such problems are omission, partial translation, substitution, addition, and down toning, or the use of euphemisms. The study shows that it requires strategies to translate taboo language from English into Thai correlatedly with the social and cultural context. Under discussion, Fifty Shades of Grey, an American erotic romantic film that is rated NC-17, meaning 'no children under 17 admitted'. Some Thai conservatives may consider this film inappropriate for Thai children and adolescents. Further studies should investigate translation strategies in similar audiovisual work. Therefore, the researchers have chosen Netflix's Sex Education Season 1 as the data source to investigate the translation strategies used in the subtitles from English into Thai. Sex Education is an audiovisual work similar to Fifty Shades of Grey because it is a western TV series that discusses a lot of teenage sex-related issues. However, Sex Education is more likely to target younger audiences, so the study will show different ways of being exposed to the media between western teenagers and Thai teenagers.

Similar to Assawongkasem's work, Zahn's research (Assawongkasem, 2018). focused on the translation of the Netflix TV series Sex Education from its original spoken English version to the German dubbed and subtitled version. The main research question is "to what extent does the German synchronization of the TV series Sex Education apply cultural filters?" and a sub-question is "does the original meaning get lost in the

translation when a cultural filter is applied?". The study was approached through a data collection in which the original English version, the German audio version, and the German subtitled version were transcribed and then analyzed regarding the first and fifth dimensions of cross-cultural differences by Juliane House and Netflix's German Timed Text Style Guide. The results of the research showed that especially in the German dubbed version, the application of cultural filters occurs, and in the German translation, more direct formulations and more ad-hoc formulations occurred compared to the original English version. The differences between the German dubbed version and subtitled version are explained to some extent with regards to Netflix' Timed Text Style Guidelines (TTNG) regulations. Some instances of borrowing and code-switching highlight the influence of the English language on German. The sub-question "does the original meaning get lost in the translation when a cultural filter is applied?" can be answered by stating that the originally intended meaning in some instances changes but does not get lost (Zahn, 2020).

Based on the studies aforementioned, cross-cultural translation is the translating process that reflects the ideologies of different cultures between the source and the target language. The study shows that the meaning of the original English text does not get lost when applying the cultural filters in translation into German. However, this study focused on translation across culture from English into German, so there should be another study further conducted on translation strategies applied in Sex Education from the original English into another different language. Furthermore, there is still an inadequate number of studies on the translation of taboos and certain cultural-specific items in Asian culture. Thus, the present research will analyze the specific case of cross-cultural analysis in the translation from English to Thai of Netflix's Sex Education, which has not been thoroughly explored before. It will only pay attention to the sexual language or sexual taboo language contained in the subtitles of the series, but other critical comments concerning the issues of sex education will also be glimpsed.

Objectives

The research aimed to explore the strategies employed in the non-equivalent translation at the word level of sexual language in Sex Education Season 1's subtitles, based on the framework proposed by Baker

(2018). Apart from exploring the strategies employed in the subtitle translation—answering the research's primary question “To what extent are the strategies employed in the translation of sexual language in *Sex Education* Season 1's subtitles from English into Thai?”, the researchers will also analyze the application of them in order to reflect the considerable ideologies and dig deep into the cultural filters which are applied in the translation of sexual language. The research also aims to develop its useful findings to provide practical guidelines or advice for translators who are particularly interested in sexual-language translation from English into Thai. Furthermore, they will be able to understand and apply these strategies appropriately to the Thai social and cultural context when it comes to subtitle translation of an audiovisual work that contains sexual content.

Conceptual framework

The translation strategies proposed by Mona Baker (2018) will be utilized as the main conceptual framework of the research as they are applied in various themes or genres of translation (the translation of humors, jokes, news, jargons, pidgins, statical remarks and, particularly, culture-specific language, to name a few) (Treetrapetch, Tipayasuparat, & Webb, 2017). Baker suggests a systematic approach to translators in training and provides an explicit syllabus that reflects some intricacies in transition from one language into another. It also explores relevant key areas of modern linguistic theory for guidance and information. The theory in addition provides insights from current research ranging from lexical studies, text linguistics, and pragmatics to retain a constant relationship between language, translation, and the social and cultural environment in which both language and translation operate. Eight translation strategies used by professional translators for dealing with non-equivalence at the word level according to Baker, include (1) translation by a more general word (superordinate), (2) translation by a more neutral/less expressive word, (3) translation by cultural substitution, (4) translation by using a loan word or loan word plus explanation, (5) translation by paraphrase using a related word, (6) translation by paraphrase using unrelated words, (7) translation by omission, and (8) translation by illustration. According to Baker, translation by a more general word (superordinate) is one of the commonest strategies for dealing with many types of nonequivalence, particularly in the area of propositional meaning. It works equally well in most, if not all, languages, since the

hierarchical structure of semantic fields is not language-specific. Unlike the first strategy, translation by a more neutral/less expressive word is the use of euphemism as the meaning in the target text will be toned down. The third strategy, translation by cultural substitution involves replacing a culture-specific item or expression with a target-language item which does not have the same propositional meaning but is likely to have a similar impact on the target reader. Next, translation using a loan word or loan word plus explanation refers to the method dealing with culture-specific items, modern concepts, and buzz words, and once explained, the loan word can then be used on its own; the reader can understand it and is not distracted by further lengthy explanations. Translation by paraphrase using a related word, the fifth strategy, tends to be used when the concept expressed by the source item is lexicalized in the target language but in a different form, and when the frequency with which a certain form is used in the source text is significantly higher than would be natural in the target language. Contrary to the fifth strategy, translation by paraphrase using unrelated words can be applied when the concept expressed by the source item is not lexicalized at all in the target language. Here, instead of a related word, the paraphrase may be based on modifying a superordinate or simply on unpacking the meaning of the source item, particularly if the item in question is semantically complex.

Translation by omission, to Baker, should be exercised if the meaning conveyed by a particular item or expression is not vital enough to the development of the text to justify distracting the reader with lengthy explanations. As for the last strategy, translation by illustration, a physical entity which can be illustrated, can be employed if there are restrictions on space and if the text has to remain short, concise, and to the point (Baker, 2018).

As the research aims to examine non-equivalent translation at the word level that produces no direct or equal meanings to the target language, this framework appears to be appropriate for the present research. Moreover, Baker's framework has been widely adopted as a translation model in many related studies. Indeed, its popularity really ensures that the present research will be feasible and acceptable at the academic level.

Research methodology

The data were collected from the subtitles in *Sex Education* Season 1 on Netflix, translated from English

into Thai. As for data collection, the researcher selects the entire series containing 8 episodes to create a chance of data being equally selected without any biases. The data were filtered and analyzed by qualitative method, based on the framework of Baker (2018) for 8 translation strategies applied by professional translators for dealing with non-equivalence at the word level.

The research employed thematic analysis to synthesize and conclude the findings and indicate how the translation strategies employed in this TV series' subtitles reflect the considerable ideologies of cross-cultural translation from English into Thai.

According to the researchers' observation and preliminary study, Sex education's series subtitles contain many sexual words that mostly fit into these categories. So, the research focused only on sexual language that is relevant to these classifications. In this research, the researchers classified sexual language into 5 subcategories, including: 1) sexual acts (excluding intercourse) (e.g. อมนกษา, สแลต์หนอน [om nokkha, salai non]), 2) male organs (e.g. ไอ้จ้อน, เ้าโลก [ai chon, chao lok]), 3) female organs (e.g. จิม [chim]), 4) orgasm (e.g. พนนำกาม, แตก [phon namkam, taek]), and 5) Intercourse (e.g. ชั่ม [sam]).

Only sexual references in the forms of words, slangs, expressions appearing in the dialogues, or conversations throughout the series were considered to be included in the thematic analysis. No special codes were created, marked or applied as the research deals primarily with the translation of words, slangs and expressions from English source language into Thai target language.

The researchers applied the principle of romanization by transcription method as proposed by the Royal Institute discussed and revisited by Kanchanawan (2006) to provide an equivalent pronunciation guideline for the ease of reading and information tracking for

further studies.

Results

The data presented 105 instances of sexual language found in the subtitles of Sex Education Season 1 translated from English into Thai. The strategies used in the subtitle translation for sex-related language are various in Sex Education Season 1. To answer the major research question, "To what extent are the strategies employed in the translation of sexual language in Sex Education Season 1's subtitles from English into Thai?", the result of the research indicates that there were seven strategies employed in the subtitle translation for sexual language in Sex Education Season 1. The most frequently used strategy is the translation by using a loan word (36.20%), followed by translation by a more neutral/less expressive word (27.62%), translation by cultural substitution (19.04%), translation by paraphrase using a related word (6.66%), translation by paraphrase using unrelated words (4.76%), translation by omission (2.86%) and translation by a more general word (2.86%). However, translation by illustration was not found here, as shown in Table 1.

Table 1 Frequency and percentage of each translation strategy at the word level found in Sex Education Season 1

Translation strategy	Frequency	Percentage
Translation by using a loan word or loan word plus explanation	38	36.20
Translation by a more neutral/less expressive word	29	27.62
Translation by cultural substitution	20	19.04
Translation by paraphrase using a related word	7	6.66
Translation by paraphrase using unrelated words	5	4.76
Translation by omission	3	2.86
Translation by a more general word (superordinate)	3	2.86
Translation by illustration	-	-

Examples of collected, categorized and analysed data can be found in Table 2 below.

Table 2 Data samples from Sex Education Season 1 (episode 1-8) categorised by translation strategy

Translation strategy	Scene/ Context	Source language text	Target language text	Sexual language type
Translation by using a loan word or loan word plus explanation	E2E: Otis talks to his client, Olivia at the school sex therapy clinic. (10:19 mins.)	Did you know that humans are not the only species to perform fellatio?	เคยรู้เรื่องเปร้าวัณฑุ์บีนได้เป็นสายพันธุ์เดียวที่ทำอ็อก (khoei ru rue plao wa manut mai dai pen sai phan diao thi tham oran)	Sexual act
Translation by a more neutral/less expressive word	E3J: Lily at Eric's home tries to make a move on him. (31:14)	We could wank each other off.	เราใช้ตือกันนี้ได้ (rao chai mue kan kodai)	Sexual act
Translation by cultural substitution	E1D: Eris speaks to Otis on the way to school. (5.49)	Can you even get a hard-on?	นกเขนากอยขันได้หรือเปล่า (nokkha nai khan dai rue plao)	Sexual act

Table 2 (Continue)

Translation strategy	Scene/ Context	Source language text	Target language text	Sexual language type
Translation by paraphrase using a related word	E2V: Maeve plans to expand the customer base for the sex therapy clinic is working, and there are more fellow students who need help. (45:14)	Is it weird that I always think about Queen when I cum ?	แปลกรือเปล่าที่ฉันคิดถึงพระราชนี ตอนน้ำตก (plaek rue plao thi chan khithueng phrachini ton nam taek)	Orgasm
Translation by paraphrase using unrelated words	E1G: Eris talks to Otis at school in the morning. (7:48)	You can't even jack your beanstalk.	แต่นายยังไม่กล้าใส่กันตอนนี้เลย (tae nai yang mai kla salai non loei)	Sexual act
Translation by omission	E2J: Maeve gossips about Anwar at the night party arranged at Aimee's house. (19.36)	I heard that his ex broke up with him because he wouldn't finger his bumhole .	ได้ยินมาว่าเพนกว์เลิกกันของเพรา เขาไม่ยอม ana พยักกันให้ (daiyin ma wa faen kao loek kap khao phro khao mai yom ao nio yae kon hai)	Male/ female organ (body parts)
Translation by a more general word (superordinate)	E3P: Eris explains the gay porn that he is watching with Lily. (36.41)	It's called rimming .	เรียกว่าการเสียกัน (riakwa kan lia kon)	Sexual act
Translation by illustration	-	-	-	-

As presented in Table 1 and Table 2, when it comes to intercourse, “sex” is a loan word that is the most frequently used. Applying the translation by loan words, “sex” is predominantly translated into “เซ็กซ์” (sek). Likewise, another word for sex is “shag”, a British slang, which is translated into “ชั่ม” (sam), a word which refers to having sex, understood by a group of Thai people. “ชั่ม” is a loan word in case it is derived from “orgasm” which Thai people, especially teenagers, use to talk about sex. “Fellatio” with its equivalence “ออรัล” (oral) is also a translation employing the loan word strategy found in the subtitle translation. Please note that the English equivalent back-translated words or phrases used in this section are mostly literal translations by means of gloss translation (Nida, 2004), rendered primarily for the ease of a data tracking process.

In regard to the translation by a more neutral/less expressive word, the sexual words are toned down and severally translated. For example, words in terms of orgasm are mostly translated into “เซ็จ” (set) and “จุดสุดยอด” (chut sutyot) from the words “cum”, “jizz”, “spunk” in the source language. In addition, words in terms of male/female organs are toned down as can be seen in words, such as จุ๊, เจ้าโลก, ไอ้จ้อน, จิ๊ม, จิ๊ม (chu, chao lok, ai chon, chim, chi mi) generally translated from “dick”, “cock” and “vagina”. Regarding sexual words in the classification of intercourse, the words applying the translation by a more neutral/less expressive word are “เสียตัว” (siatua) and “อึบ” (uep), which are translated from “sex” and “fuck” for the most part. To be more specific, “เสียตัว” is used to refer to the loss of virginity whereas “อึบ” is a less expressive word for sex, spoken

among Thai adolescents. In the classification of sexual acts, ใช้มือ (chai mue) or wank is also considered as the translated word applying the translation by a more neutral/less expressive word.

With respect to translation by cultural substitution, what stands out from the finding is the words used in terms of masturbation, like “wank”, “hand job”, and “touch oneself” which are translated into “ชักว่าว” (chak wao), and “ตกเบ็ด” (tokbet), correlatedly with Thai cultural context. In Thai cultural context, ชักว่าว (flying a kite) is a term used to refer to male masturbation while ตกเบ็ด (fishing) is a term for female masturbation. Apart from masturbation, another sexual act frequently found in the subtitles was oral sex as can be seen in the words, such as blowjobs (BJS), fellatio, and hard (get hard). With their non-equivalence, these words are translated into อมนกขา (om nokkhao) or suck a dove, เป่าปี (pao pi) or bubbler, and นกขาขัน (nokkhao khan) or a dove crow, in English.

As for the translation by paraphrase using related words, น้ำตก (nam taek) or splashing water is the most seen in the target texts with its translation from ejaculation, orgasm and dick sneeze. Interestingly, dick sneeze would be literally translated into “กระเจิญจาม” (kra chiao cham), which does not make sense to Thai people. In this case, it can also be marked as a cultural-specific item as dick sneeze is a British metaphor for semen, which does not exist or is not understandable in Thai. This metaphor is thus translated, applying the strategy of translation by paraphrase using related words, น้ำตก (splashing water). For a further example of translation by paraphrase using related words is blowjob

(BJS) which is translated into ดูดดู้น (suck a chump). The related words in this item are ดูด (dut) suck and ดู้น (dun) chump, which illustrates the shape of a male reproductive organ. In the classification of intercourse, เรื่องบนเตียง (rueang bon tiang) bedding affairs translated from sex also applies translation by paraphrase using related words because เรื่องบนเตียง (bedding affairs) connotes sex and a place where sex is supposed to happen. Another interesting word is the word ดูນ. In the literal meanings of dick and penis, it would possibly have been translated into จุ่น, ไอจ้อน, เจ้าโลก, อัณฑะ (chu, ai chon, chao lok, antha), etc. Yet, dick and penis under this context are translated into ดูນ (dun) or chump regarded as a descriptive word for a shape of a male reproductive organ. In Thai, the word ดูນ (dun), though is strictly used as a noun referring to an object in a stick-like shape, grammatically, it is frequently used as a classifier indicating both number of nouns and their appearance. Therefore, the transfer from the noun to classifier or a nounlike pronoun reference can be regarded as translation by using related words.

In accordance with translation by paraphrase using unrelated words, masturbate in the majority of cases is translated into ช่วยตัวเอง (chuai tua-eng) or to help one's self. As can be seen, the unrelated words of this instance are ช่วย (help) and ตัวเอง (one's self) which are considered irrelevant to the word masturbate. Another word for masturbation found in the target text is jack with its non-equivalent translation, สไลด์หนอน (salai non) slide a worm. Considering this instance, สไลด์ (slide) and หนอน (worm) are the words unrelated to the original and target text since สไลด์ (slide) is a loan word in English meaning to move without interruption over a surface (Cambridge University Press, n.d.) whereas หนอน (worm) is a Thai word referring to a small animal with long, narrow, soft body without arms, legs and bones, and it is used as a metaphor for a male reproductive organ in this context (Cambridge University Press, n.d.) Therefore, สไลด์หนอน which refers to masturbation is the translated text applying the translation strategy by paraphrase using unrelated words.

The disappearance of literal meanings is considered as a translation by omission. Bumhole with its non-equivalence, ก้น (kon), is also regarded as a translation by omission. Since bumhole could be literally translated into รูก้น (ru kon), the missing word รู is omitted as can be seen. Therefore, this instance is also sorted into translation by omission.

In the translation by a more general word, there

are very few instances found, for example, fuck and hump are rendered into เด้า (dao) which means to move the bottom up and down in many Thai dialects, according to Longdo Dictionary (n.d.). The word เด้า is regarded as a more general word as it is generally used in a speaking context among Thai people, and to some people, this word can be vulgar, depending on personal attitudes. The word rimming rendered into เลียกัน (lia kon) is also sorted into translation by a more general word. Rimming means sucking, kissing, or licking an anus (Harper Collins, 2019), but the word กัน (kon) in this context is a word mostly used in reference to a bum, not the anus. The translator might have to choose a word with the closest meaning to the anus to establish the translation of the word rimming, thus the word กัน was selected in this case. Now, in terms of the frequency of sexual word

Table 3 Frequency of sexual words in each category found in the subtitles of Sex Education Season 1

Sexual language category	Number of instances	Percentage
intercourse	45	42.86%
sexual acts	27	25.71%
male organs	13	12.38%
orgasm	11	10.48%
female organs	9	8.57%
Total Number	105	100.00%

use, please consult Table 3 on the next page.

Table 3 compares the summary statistics for sexual language at the word level in the subtitles of Sex Education Season 1, translated from English into Thai. The result shows that the classification of intercourse is in the first rank, comprising 42.86%, and followed by sexual acts and male organs which are 25.71% and 12.38%, respectively. The other categories of sexual language, including orgasm and female organs are ranked in the bottom two with 10.48% and 8.57%, sequentially. Sexual language in terms of intercourse is mostly dominated by the nouns and verbs such as sex, fuck, hump, shag, etc., with the words translated into Thai such as เเซกซ์, เสียตัว, อีบ, เด้า, ซัม (sek, siatua, uep, dao, sam). The words in accordance with the classification of sexual acts include wank, masturbate, jack, hand job, rimming, fellate, fellatio, blowjobs (BJS), oral, etc., which are predominantly translated into ชักวัว, ช่วยตัวเอง, ตกเบ็ด, อมนกขา, เปาปี, ออร์ล (chak wao, chuai tua-eng, tokbet, om nokkhao, pao pi, oran). It is very apparent from the findings that male organs are dominated with nouns such as dick, penis and cock with their translation in Thai such as ไอจ้อน (ai chon), เจ้าโลก (chao lok), and

นกเข้า (nokkhao) whereas female organs are words involving female reproductive system, for example, vagina and minge which are translated into ชีมี (chi mi) and จิม (chim) for most of the subtitles. The classification of orgasm is severally seen as words like cum, finish, spunk, jizz, ejaculation, orgasm and etc., with the words translated into Thai; น้ำแตก, เสร็จ, พ่นน้ำยา, จุดสุดยอด (nam taek , set , phon namya , chut sutyot).

Discussion

The results of the present research were consistent with several studies. As mentioned in the literature review, the study of Warachananan & Roongrattanakool (2015) on translation strategies of songs in Walt Disney's animated feature films from English into Thai, when comparing the findings to the present research, it reconfirms that the strategies used in translation can be various, depending on the text types or genre (e.g. songs, subtitles). As can be seen in the findings, translation by omission was the most frequently used in the translation of Disney Songs whereas the translation by a loan word was the most frequently used in the translation for sexual language in Sex Education Season 1's subtitles. As stated in Warachananan & Roongrattanakool (2015), what resulted in the omission of translation units was the limited space in a long phrase. Likewise, the limited space in a phrase or a sentence was also found in the subtitles. From our observation, the subtitles are not exactly the same as the voice dubbing in the dialogue form, which means what the translators hear from the speaker is different from what they see in the subtitles. Since subtitles are generally kept to a maximum of two lines' length and appear on the screen concurrently with the audio, it poses some restrictions for a translator as it has to be long enough for a viewer to be able to read them whilst it still takes in the picture. Thus, we can draw a hypothesis, and, thus, a conclusion that limited space in a phrase or sentence in both songs and subtitles has something to do with a translation strategy for these text types. Moreover, what seems to be the main difference between song and subtitle translations is the aesthetic values. In song translation, a translator has to deal with many sets of rhymical restrictions and rhythmic rules for songs or poems, or even a poetic license should be allowed. In other words, the purpose of song translation is not only to provide the meaning of a song in another language, but also to get the listeners to appreciate the song. On the other hand, it can be said that subtitle

translation can be easier, regardless of any rhymical restrictions. However, these two studies also share some similarities, for example, the strategy of translation by illustration was not found in the findings.

The findings of translation strategies for sexual language in Sex Education Season 1's subtitles also supported Assawongkasem (2018) on the translation of taboo language in Fifty Shades of Grey by E. L. James. There are similar strategies used for the taboo or sex-related language in Fifty Shades of Grey and Sex Education Season 1. Especially, the use of euphemism or down toning, as called in translation by a more neutral/less expressive word in Baker (2018), was also found in Sex Education Season 1. In addition, substitution is also a strategy utilized in the subtitle translation of Sex Education Season 1, but it is rendered in a more specific way. In this case, it is called cultural substitution which could be conducted to get Thai audiences engaged more in the social contexts. Addition and partial translation used in the previous study are also found in a form of translation by paraphrase using related and unrelated words in the present research. These strategies may be constrained by the ideology influenced by conservatism and religious principles of Thai society. It is somewhat surprising that omission was noted as the most frequently used strategy in the previous study whereas it was the least frequently used one in the present research. However, there's a difference between Fifty Shades of Grey and Sex Education that may result in different strategy choices. Fifty Shades of Grey is a movie with a R rating which means those under 17 years old can watch it if accompanied by an adult while Sex Education is rated MA (mature audiences), meaning it may be suitable for audiences from age 18 onwards. Moreover, despite the similarity of sexual content contained in these two-audiovisual works, Sex Education whose ages range from 18 onwards tends to target more adolescents than Fifty Shades of Grey, as it suggests the adolescent and family issues for teenagers arising in society. Taking into account that Sex Education Season 1 has more specific target viewers than Fifty Shades of Grey, it may be said that the strategies unutilized for the subtitle translation can be more varied. Other external factors such as censorship and movie distributors may play a vital role in the translator's decisions and impact the translator's choices of translation strategies. In addition, the fact that Fifty Shades of Grey was first released in cinema whereas Sex Education was released on Netflix may also result in the differences in the translation strategies.

Politically correct language, when used appropriately, can greatly benefit the speakers (users) and listeners (language receivers), but at some extent, it may decrease the beauty of raw, simple or plain utterances and lower appreciation of certain conceptual metaphors from some groups of audience.

Not only are there varieties in terms of translation techniques presented in the subtitle translation of Sex Education Series, but several controversial issues are discussed in the series parallel to the real-world events since the series was first premiered. Aside from the study of most frequently used translation strategies, results from the content analysis revealed that critical sex education topics highly presented throughout the series. One of them, circulated nationwide in Thailand, has been conservatism and certain nationalistic ideologies and the concept of the appropriateness of sexual talks in Thailand. In this country, Sex Education after the first-month release was severely criticized by some Thai conservatives complaining that the show's contents were inappropriate. Interestingly, a 2019 Bangkok Post article reported Ponlamuang Thai Political Party's disapproval of Netflix's Sex Education. Because of the uncensored sex scenes, abusive behavior, homophobia, bad swear words and many things in between, the series was likely to challenge Thai culture, and underage children would be incited to improper behaviors. In reference to the document given to the Office of the National Broadcasting and Telecommunications Commission (NBTC), "Sex Education may suit Western society where teens get to learn about sex education both from home and at school. In Thai society, however, they haven't learned the topic correctly, which may lead to other social problems.", explained the party. In contrast, people through the eyes of the younger generation express different opinions on the issue with the thought that sex education is a big step-up for Thai society since it enables Thai students to openly learn about sex at an early age. Because sex education in classes is taught mostly in the form of lectures, and sex education taught in a form of demonstration (e.g., how to put on a condom) is not widely operated. Thai schools should more practically promote sexuality in the curricula and make it more discussable for students to become critical. "Sex education is not just about having sex. And I'd want kids today to learn about gender, sexuality, diversity, fluidity, and that everyone regardless of differences can coexist in society.", said Dithianon, 21, head of corporate communication at the Thai Network of Youth Living with

HIV, and editor-in-chief of Songsue.co (Bangkok Post, 2019). The excerpt is in concord with the need for sex education reformation across the world proposed by UNESCO (2015) and the need for educational institutions to increase support mechanisms and resources for providing comprehensive sexuality education in Thailand in a more systematic way (Ministry of Education, 2016).

Taking into consideration the above-related issues emerging in Sex Education Season 1, the evidence in the finding is more likely to support the argument for the existence of the series. To further elaborate, there are very few swear words under inappropriate context found in the case of subtitle translation. It is very apparent from the finding that the strategies frequently used to deal with the sex-related language are translation by loan words, translation by a more neutral/less expressive word, and translation by cultural substitution, respectively. To the researcher, these strategies ranked in the top 3 do not cause any rudeness or impropriety in translation. Even though the series content are in the matter of sex, the series itself does not involve much eroticism and is not very sexually provocative. The purpose of the series is to educate adolescent viewers on various teen-themed issues which are arising in society and worth learning in the contemporary world, such as teenage sexual development, unintended pregnancy, LGBTQ+, and gender fluidity to name a few. In addition, its dynamism is also associated with adolescent relationships, different forms of love, family and domestic affairs, races, and senior sexual desires and preferences. With its educational purpose and dynamism involving the surrounding subjects in the series, it is evident enough to debunk the biased thinkers that the Sex Education Series is not intended for incitement to inappropriate behaviors in adolescents and viewers age 18 onwards.

To conclude, the present research was undertaken to examine the translation strategies employed in the subtitle translation of Sex Education Season 1. The finding has identified the strategies proposed by Baker (2018) for dealing with the non-equivalent translation at the word level. All of the strategies except translation by illustration were utilized in the subtitle translation from English into Thai. The research provides a major contribution to the understanding of translation for sex-related language. The finding also suggests that Sex Education is a series that portrays coming-of-age, LGBTQ+, family, and teen-themed issues emerging in British society, and the world today. In addition to its educational purposes and entertainment merits, the series

itself is not regarded and should not be realized as sexually provocative, as its primary purpose is to educate teenage viewers on useful matters and practical daily affairs with easy-to-understand language and captivating content.

Suggestion

1. Considerably, more work will need to be conducted to determine what other translators think about the subtitle translation of Sex Education Season 1. It could be done in a form of in-depth interviews by both the producers and translators or even better in a form of participatory observation where researchers can take part in the translation processes performed by professional translators. Future researchers may show the data instances to translators and ask for their insightful comments or advice. Thus, such further studies may be able to suggest whether Sex Education Season 1's subtitles are well-rendered according to translators' perspectives or among translators, experts, and scholars.

2. One of our many questions raised by the findings and discussion of the present research worth investigating is "What are Thai adolescents' perspectives on the translation of Sex Education Season 1's subtitles?" As Sex Education is a series intended to educate adolescents on various teen and coming of age themed issues, the research should be repeated using a survey to find out what Thai adolescents think about the subtitle translation of Sex Education Season 1. Therefore, the finding of the further study would help us to establish whether the strategies employed in this subtitle translation is effective, according to Thai adolescents' perspectives, both in terms of translator's validity, quality and assessment. Other relevant critical results may yield fruits related to other sciences, dimensions, or sectors, and they may shed light on some phenomenon or trends among Thai teens.

3. It would be a fruitful area for further work to investigate the subtitle translation in Season 2 or the upcoming season of Sex Education. To a greater degree on this matter, we would get to see how the subtitle translation has evolved and whether the strategies are employed in any similar or different ways (similar and different translators, Netflix translation projects, and, Thai film and its translation on Netflix or their new media platforms, for example).

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Motivation-Based Segmentation and Online Behaviors of Tourists Participating in Community-Based Tourism: A Case Study of Thailand

Jutamas Phengkona^{a*} & Paithoon Monpanthong^b

^a Department of Integrated Tourism Maejo University at Chumphon, Maejo University, 86170 Thailand

^b The Graduate School of Tourism Management, National Institute of Development Administration, 10240 Thailand

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Abstract

The primary purpose of this study is to classify domestic tourists visiting community-based tourism destinations in Thailand according to their travel motivation. This study employed quantitative research as a main research method to achieve the purpose. An online self-administered survey was conducted on 384 tourists and the primary data was analyzed using the cluster analysis method. The study found three tourists' clusters include 'learning tourists,' 'leisure tourists,' and 'want-it-all tourists.' These clusters were distinct from each other regarding travel motivation, socio-demographic profile, and online behavior. This knowledge contributed notable implications for academics and practitioners, allowing them to understand the differences among the tourists and to develop more appropriate marketing strategies for community-based tourism destinations and each segment. In addition, there are significant differences among the three clusters in terms of age and gender; hence, segmenting CBT tourists using age and gender should be researched in the future.

Introduction

CBT has been a key component of domestic tourism in Thailand during the last decades (Kontogeorgopoulos, Churyen, & Duangsaeng, 2014). It has been constantly developed and there are a number of CBT destinations in every region of the country. With strong support from government agencies and private organizations, CBT concept is widely acceptable and CBT destinations are recognized among domestic tourists. Moreover, tourism consumption has changed

over the past forty years and varies from time to time (Wiltshier, 2017). Tourists seek more diverse and unique experience to truly immerse in tourism rather than be passive observers (Edgell, 2016; Lane & Kastenholz, 2015). Besides the new tourists' preferences, one of the most rapidly changing of tourist behavior is how the tourists use internet for travel purposes. The internet has become an important instrument for the tourists in planning their trips whether searching for information, booking accommodation, arranging transportation,

* Corresponding Author
e-mail: jphengkona@gmail.com

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reserving seats at a restaurant or purchasing a ticket (Bhatiasevi & Yoopetch, 2015). This leads to the rising number of Free Individual Traveler (FIT) in Thailand. This intensive internet usage of tourists compels tourism businesses to change the way they interact with target tourists. CBT practitioners, as local tourism entrepreneurs, must adapt and follow this circumstance in order to successfully supply their CBT products and services to the right target tourists and accomplish their CBT development goals.

Previously, most CBT practitioners, particularly in developing countries, including Thailand, preferred to welcome international tourists rather than domestic tourists to their CBT destinations (Robinson & Murray, 2017). However, the COVID-19 pandemic has significantly impacted the tourism industry globally, causing a decrease in international tourist arrivals by 22% in the first quarter of 2020 (World Tourism Organization, 2020). Therefore, it is high time for the CBT practitioners to reconsider and pay close attention to domestic tourists who will finally turn out to be an important target market for CBT destinations in the future.

In Thailand, the majority of tourists travelling to CBT destinations are mainly tourists who work for government agencies and educational institutes, and they are mostly domestic tourists (Boonratana, 2011). These tourists are paid to travel by their organizations that often visit CBT destinations as part of their jobs. One of the key issues that tourists visiting CBT destinations are not the tourists visiting CBT destinations for their own purposes is that CBT practitioners are unable to create effective marketing strategies and reach the right target tourists (Chamnanpon, Boonkoum, & Sungragsa, 2016; Naka, Promsuwon, Wongmontha, & Thanapattarakul, 2017). This is due to a lack of marketing expertise and experience of CBT practitioners (Boontasorn, Mana, & Poltecha, 2014; Jaisamrarn & Thongdee, 2018). Hence, it is interesting to broaden the knowledge of tourists who are truly motivated to participate in CBT by understanding its real value. Besides, these tourists' characteristics and behavior, including needs and interests, are also seldomly recognized (Lane & Kastenholz, 2015). Even though CBT is a niche market, it has distinctive characteristics (Park & Yoon, 2009; Pesonen & Tuohino, 2017). Due to the differences among the tourists, market segmentation is an essential instrument that can help assemble tourists into groups by identifying common interests. (Horner & Swarbrooke,

2016).

Several CBT-related studies in Thailand have dealt with the supply side, especially CBT development and management and local participation in CBT rather than the demand side resulting in a lack of knowledge of tourist behavior and demand (Charoensit & Emphandhu, 2018; Kampangsirichai & Saiyasopon, 2019; Thuncharoean, 2017). Many empirical studies in various countries show that travel motivation, including tourist profile, behavior, and preferred tourism activity, is diverse among tourists visiting CBT destinations (Park & Yoon, 2009; Pesonen, 2015; Rid, Ezeuduji, & Pröbstl-Haider, 2014). However, there is still a lack of studies providing knowledge on identifying tourists based on travel motivation in the context of CBT in Thailand.

Therefore, this study attempts to segment domestic tourists participating in CBT. The domestic CBT tourists will be clustered into various distinct groups and each group will be clearly explained in regards of tourist motivation to visit CBT destinations including tourist socio-demographics and online behavior based on travel decision-making process which includes pre-, during- and post-trip. These will provide academics and CBT practitioners with a better understanding on the diversity of the tourists so that the academics can further broaden this knowledge and CBT practitioners can develop effective marketing strategies for each group. Notably, this market knowledge can help the CBT practitioners selecting the right target markets and manage tourist demands. By having the right target markets, negative impacts can be prevented and sustainability can contribute to the CBT destinations (Kastenholz, Eusébio, & Carneiro, 2018).

Motivation-based segmentation in community-based tourism

Community-based tourism (CBT) serves as alternative tourism to mass tourism to reduce the negative impacts caused by tourism (Dolezal, 2015; Giampiccoli & Saayman, 2016). CBT is developed on the basis of sustainable principles to contribute sustainability to the environment and socio-culture while enhancing a viable local economy, empowering local communities, and creating learning environment for visitors (Asker, Boronyak, Carrard, & Paddon, 2010; Dodds, Ali, & Galaski, 2018; Stone & Stone, 2011). It has emerged as a form of tourism that is organized, developed, implemented and managed by local people for the benefit of entire communities (Asker, Boronyak, Carrard,

& Paddon, 2010; Giampiccoli & Saayman, 2016). In the context of developed countries, scholars often use the term 'rural tourism' interchangeably with CBT as it has a common basis (Zielinski, Jeong, Kim, & B Milanés, 2020).

CBT is one of various types of tourism that meets the current needs of tourists (CBT, 2013). Tourist preferences have currently shifted from passive to be more active. Tourists prefer travelling to places where they can gain new knowledge, meet new people, experience different cultures as well as find new inspiration (Kutschera, 2018; Shabada, 2018). Even though tourists participate in the same type of tourism, CBT, but they can be different in regards to characteristic, preference, and travel motivation to participate in CBT (Almeida, Correia, & Pimpão, 2014; Kastenholz, Eusébio, & Carneiro, 2018; Pesonen, 2012; Rid, Ezeuduji, & Pröbstl-Haider, 2014).

To understand the differences among the tourists, market segmentation is an essential instrument that can help categorizing the heterogeneous market into homogenous groups. As a result of segmentation, members of each group are similar to each other, while members of different groups are dissimilar as much as possible (Horner & Swarbrooke, 2016; Kotler & Keller, 2016; McDonald & Dunbar, 2010). Market segmentation helps a business define potential markets and design proper market functions (Kuo, Akbaria, & Subroto, 2012). In tourism, the market segmentation is used when developing and marketing new products for particular tourism markets, including CBT (Oh & Schuett, 2010; Pesonen, 2015; Polo Peña, Frijas Jamilena, Rodríguez Molina, & Rey Pino, 2016; Rid, Ezeuduji, & Pröbstl-Haider, 2014).

In the literature relevant to CBT, market segmentation has been studied in many countries using a number of variables, including socio-demographic (Rid, Ezeuduji, & Pröbstl-Haider, 2014; Xie, Costa, & Morais, 2008), geographic (Cai & Li, 2009; Cai, Liu, & Huang, 2008), benefit sought (Almeida, Correia, & Pimpão, 2014; Wu, Ho, Lam, Ip, Choy, & Tse, 2016), and tourist behavior (Eusébio, Carneiro, Kastenholz, Figueiredo, & Soares Da Silva, 2017; Kastenholz, Eusébio, & Carneiro, 2018; Pesonen & Tuohino, 2017). Travel motivation has also been used in some studies, such as the study of Dong, Wang, Morais, & Brooks (2013), Pesonen (2012), Park & Yoon (2009); Rid, Ezeuduji, & Pröbstl-Haider, (2014). Travel motivation is a predictor of tourist behavior and a key variable

affecting travel decision-making (Yoo, Yoon, & Park, 2018). It directly impacts tourists' choices of travel activities and destinations as the choices are the results of initial motivations (Yun, Hennessy, & Courtney, 2016).

Park & Yoon (2009) identified tourists in Korean rural tourism using push motivation and found four distinct segments: family togetherness seekers, passive tourists, want-it-all seekers, and learning and excitement seekers. Family togetherness seekers focus on relaxation with family. Passive tourists prefer to relax in rural villages and experience leisure activities. Want-it-all seekers are highly motivated by all motivations. Learning and excitement seekers travel to rural areas to socialize with others, learn the local way of life, and experience exciting activities. Pesonen (2012) classified tourists participating in rural tourism in Finland based on push and pull motivation into four segments: social travellers, wellbeing travellers, home region travellers, and family travellers. Social travellers are tourists who value people around them and enjoy interacting with others. Wellbeing travellers love to treat themselves well, especially psychological and physical rest. Home region travellers are highly motivated to visit places where they are originated. Family travellers enjoy spending time with their families.

Similarly, Rid, Ezeuduji, & Pröbstl-Haider (2014) categorized tourists in rural tourism of The Gambia using travel motivation, interpreted as expected experience and the importance of tourism activities, into four segments: heritage and nature seekers, multi-experiences seekers, multi-experiences and beach seekers, and sun and beach seekers. Heritage and nature seekers crave for exploring natural and cultural sites. Multi-experiences seekers value the chance to experience distinct characteristics of The Gambia. Multi-experiences and beach seekers desire sun and beach, and nature activities. Sun and beach seekers interest in activities related to sun and beach. Dong, Wang, Morais, & Brooks (2013) conducted a study in Potter County, Pennsylvania, in the United States. They found three rural tourist segments including experiential travellers (tourists with interests in exploring the local way of life and spending time with family), rural explorers (tourists who have a passion for experiencing rural life and meeting new people), and indifferent travellers (tourists who want to experience rural tourism without any expected benefit).

These studies demonstrate that heterogeneity among tourists and travel motivation is an important

factor in rural tourism segmentation. It also confirms that tourists with different travel motivations have different characteristics, behaviors, and activity preferences that are essential in defining tourism activities suited to tourist demands and preferences. However, these studies are difficult to compare as each study is conducted with different motivation factors, samples, and methodologies in diverse contexts. Extending the study on motivation-based segmentation of tourists participating in CBT, especially in developing countries such as Thailand, can possibly build intensive knowledge in this area of study.

Online behaviors of tourists

Tourist online behavior refers to how tourists use the internet for travel decision-making process; pre-, during- and post-trip. According to Laudon & Traver (2016), the stages of the consumer decision-making process are generally the same whether the customers are using traditional or online channels.

The first stage is pre-trip. In this stage, tourists realize that they need to travel, look for information and evaluate the alternatives. Chaffey & Ellis-Chadwick (2016) mentioned that reviews of actual tourists, recommendations as well as various online PR and viral marketing campaigns can influenced tourists' travel needs. After seeking all required information from numerous sources, tourists will gather more information to help them in planning their trips. The internet is an important tool for tourists to acquire travel information nowadays (Think with Google, 2014). Tourists actively seek travel information from various online channels, such as destination websites, social media websites, and blogs (No & Kim, 2015). When tourists have sufficient information, they will compare and evaluate all of the possibilities to ensure that they receive accurate information and a great value (Ho, Lin, & Chen, 2012). After all, tourists will select the options that best suit their needs and benefit them the most (Martins, Salazar, & Inversini, 2015).

The second stage is during-trip, it is the stage that tourists start to travel. Tourists frequently share their current locations and activities, and look for more reviews and recommendations related to places, activities, restaurants and so on in the area near their current locations on social media sites (Amaro, Duarte, & Henriques, 2016; Pike, 2016; Preoțiuc-Pietro & Cohn, 2013). Moreover, information including real time traffic congestion, weather reports and time status of

transportations is also one of the information that tourists obtain while traveling (Cook, Hsu, & Taylor, 2018; Eklund, Thom, Wray, & Dou, 2013). Besides, tourists also review their travel experience both positive and negative to others (Pike, 2016).

The last stage is post-trip. It is the stage that tourists evaluation their travel experiences (Ayeh, Leung, Au, & Law, 2012). When tourists return home from their trips, they frequently share their experiences, write reviews, and submit ratings on websites and social media sites (Pike, 2016; Wang & Pizam, 2011). Travel review and recommendation based on tourist personal experience, word-of-mouth (WOM), is an essential travel information source that can influence others to travel. However, tourists are more likely to consume others' content than contributing their own content, and the frequency of travel experience sharing varies by individual since individuals behave differently (Amaro, Duarte, & Henriques, 2016).

Due to the characteristics of CBT products that are intangible and risky, CBT practitioners should understand that tourists need sufficient travel related information in making decision. As a result, CBT practitioners must be aware of the online channels that tourists use, the information that tourists require, the approaches they search for information, online factors that influence them to travel and the ways they evaluate all information and decide to visit a destination. After deciding where to visit, tourist may also search for further information and share their travel experiences. Travel experience sharing is continued to the point where tourists are returning to their original destinations. E-WOM is extremely important to the destinations as it has a major impact on tourists' intention to visit, trust, and attitude toward a location. Therefore, it is essential to investigate online behavior of tourists throughout their travel decision-making process. However, to better understand online behavior of tourists, market segmentation helps to have deep understanding of tourists which will be thoroughly investigated.

Objective

The main objective of this study is to classify homogenous segments of Thai domestic tourists visiting community-based tourism destinations in Thailand in regards of travel motivation.

Conceptual Framework

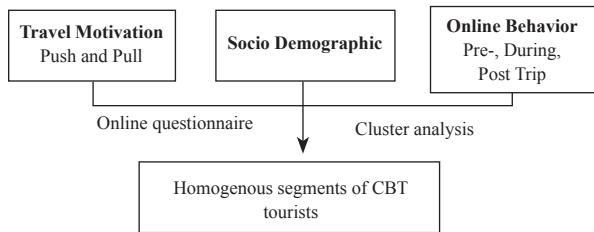


Figure 1 Conceptual framework

Research methodology

1. Population and samples

Domestic tourists were selected as the target population for this study as the Thai government has attempted to encourage domestic tourists to travel around the country to distribute income to local communities and improve the quality of life of local people. It could be assumed that the population is unknown and considered to be an infinite population; hence, the Cochran's equation (Cochran, 1977) was applied to assure that the sample can represent the entire population at a 95% confidence level and 5% precision. A total of 384 samples was determined from the equation, which was adequate for this study (Tabachnick & Fidell, 2019). The samples were selected by a purposive sampling method to seek out samples characterized as a Free Individual Traveller (FIT) who had been visited CBT destinations in Thailand and used online mediums for travel purposes. Then, the convenient sampling method was applied to help the researcher conveniently collecting the data.

2. Research instrument

An online questionnaire was used as the main research instrument for this study. The questionnaire was thoroughly developed based on previous literature (Dong, Wang, Morais, & Brooks, 2013; Park & Yoon, 2009; Pesonen, 2015; Rid, Ezeuduji, & Pröbstl-Haider, 2014; Tsephe & Obono, 2013; Yun, Hennessy, & Courtney, 2016). There were 3 sections in the questionnaire which were travel motivation, online behavior, and socio-demographic profile of respondents. The questionnaire was created using Google Forms allowing the study to conveniently design the questionnaire, collect data, and facilitate the data analysis. Sixteen items were used to measure the travel motivation of tourists to visit CBT destinations. These items were tested validity and reliability to confirm that they are valid. The Index of Item-Objective Congruence (IOC) was used to indicate

validity. According to the experts' suggestions, the researcher made some adjustments to the items and two items were eliminated. In addition, the items were tested reliability by conducting a pilot test with 30 respondents. The results demonstrated that the items were reliable as the value of Cronbach's alpha was 0.890 (Hair, Black, Babin, & Anderson, 2019). Respondents were asked to rate the importance of travel motivation on a 7-point Likert-type scale (from 1 'extremely demotivated' to 7 'extremely motivated'). The questionnaire included questions on respondents' online behavior and their socio-demographic profile. Measurement items on the online behavior were adapted according to the three main travel decision-making stages including the pre-trip stage, the during-trip stage, and the post-trip stage. Questions on socio-demographic profile comprised of gender, age, origin, monthly income, education, occupation, travel group, and spending per visit to a CBT destination.

3. Collection of data

The data collection was conducted during March and April, 2020. The online questionnaire survey was a key data collection method. The online survey link was shared with potential respondents through various social media sites and online discussion platforms. Prior to the completion of the questionnaire, respondents were required to specify CBT destinations in Thailand that they have visited in order to determine suitability for the study. During the data collection period, the study provided respondents with a chance to win gift vouchers to visit CBT destinations in Thailand as an appreciation for their participation in the data collection. A total of 419 filled questionnaires were obtained and 384 questionnaires were usable for further analysis.

4. Data analysis

The data analysis was performed in three stages. First, the exploratory factor analysis (EFA) was applied to explore motivation factors using the principal component analysis (PCA) with varimax rotation. The data were tested for adequacy with the Kaiser-Meyer-Olkin (KMO) and Bartlett's test of sphericity prior to the EFA (Kaiser, 1960). The following criteria were used to identify the factors: (1) communality level ≥ 0.60 , (2) factor loading ≥ 0.50 , (3) eigenvalues ≥ 1.00 , and (4) the total variances $\geq 61.20\%$ (Hair, Black, Babin, & Anderson, 2019). The Cronbach's alpha (α) was computed to test the reliability of each motivation factor. Second, respondents were segmented into homogenous clusters using two clustering methods: hierarchical cluster analysis and k-means cluster analysis. The

hierarchical cluster analysis using an agglomerative method (Ward's method) with squared Euclidean distance was used to determine the number of clusters. The k-means cluster analysis was applied to segment the respondents regarding the motivation factors into homogenous clusters. The clusters were compared with ANOVA to test the differences among clusters. The clusters were then tested to assure validity using discriminant analysis (Hair, Black, Babin, & Anderson, 2019). Lastly, chi-square and ANOVA tests were used to delineate cluster characteristics and analyze differences among the clusters according to respondents' socio-demographic profiles and their online behaviors.

Results

1. Sample profile

An overall socio-demographic profile of the tourists is shown in Table 1. Most tourists were female (68.49%) and between 26 to 40 years of age (53.39%). They lived in southern Thailand (49.74%), followed by central Thailand (28.91%) and northern Thailand (10.42%). Their annual income ranged from US\$ 6,000 to US\$ 10,000 (31.77%), followed by more than US\$ 18,000 (20.83%) and from US\$ 10,000 to US\$ 14,000 (20.05%). They were well educated, with 47.66% of them obtaining a bachelor's degree and 39.84% of them receiving a degree higher than a bachelor's degree. Most of the tourists worked as a government official (29.69%), a private employee (22.92%) and a business owner (25.00%). Their spending per visit to a CBT destination was quite high, as most of them were willing to spend between US\$ 84 and US\$ 117 (23.18%), followed by US\$ 50 to US\$ 83 (20.57%) and more than US\$ 183 (19.28%).

2. Identification of motivation factors

The exploratory factor analysis (EFA) using the principal components analysis (PCA) with varimax rotation was applied to identify motivation factors based on 16 items describing travel motivation of the Thai domestic tourists to visit a CBT destination. The Kaiser-Meyer-Olkin measure (KMO) value was 0.866, and the Bartlett's Test of Sphericity was significant ($p < 0.05$) indicating that the data set was adequate to perform the EFA (Kaiser, 1960). Table 2 presents the results of the EFA. One item was removed as the item's communality was below 0.60. A total of four motivation factors were identified. These factors had eigenvalues greater than 1.00 and explained 69.332% of the total variance. The Cronbach's alpha (α) of all items was 0.881

Table 1 Socio-demographic profile of the samples (N = 384)

	Frequency (%)		Frequency (%)
Gender		Occupation	
Female	263 (68.49%)	Government official	114 (29.69%)
Male	121 (31.51%)	Business owner	96 (25.00%)
Age		Private employee	88 (22.92%)
Below 26 years	44 (11.46%)	Student	43 (11.20%)
26 – 40 years	205 (53.39%)	Temporary worker	25 (6.51%)
41 – 56 years	109 (28.39%)	Housewife	8 (2.08%)
Over 56 years	26 (6.76%)	Retiree	4 (1.04%)
Origin		Others	4 (1.04%)
South	191 (49.74%)	Unemployed	2 (0.52%)
Central	111 (28.91%)	Travel group	
North	40 (10.42%)	Friend/Colleague	185 (48.18%)
North-eastern	29 (7.55%)	Family	120 (31.25%)
East	9 (2.34%)	Couple	53 (13.80%)
West	4 (1.04%)	Alone	24 (6.25%)
Annual income (US\$)		Others	2 (0.52%)
Less than 6,000	39 (10.16%)	Spending per visit (US\$)	
6,000 – 10,000	122 (31.77%)	Less than 50	33 (8.59%)
10,001 – 14,000	77 (20.05%)	50 – 83	79 (20.57%)
14,001 – 18,000	48 (12.50%)	84 – 117	89 (23.18%)
More than 18,000	80 (20.83%)	118 – 150	58 (15.10%)
No income	18 (4.69%)	151 – 183	51 (13.28%)
Education		More than 183	74 (19.28%)
Below bachelor's degree	48 (12.50%)		
Bachelor's degree	183 (47.66%)		
Above bachelor's degree	153 (39.84%)		

Notes: US\$ 1 is equivalent to 30 Thai baht.

and the factor loadings for all items were higher than 0.50.

Factor 1 described 22.492% of the variance and was named 'learning.' It consisted of four items related to travel motivation, indicating that tourists liked to learn local culture and exchange experience with locals. Factor 2 accounted for 15.761% of the variance and involved three items related to a firm creation of friends and family relationships and a recall of childhood memories; hence, it was called 'family.' Factor 3 explained about 15.581% of the variance and was labelled 'nature' consisting of three items related to natural enjoyment. Furthermore, factor 4 described 15.498% of the variance and was named 'explorer' as it contained five items that reflected tourist interests in finding new inspiration and experience as well as escaping from regular life. The Cronbach's alpha of all four factors ranged from 0.810 to 0.841.

3. Segmenting thai domestic tourists for CBT

Segments of thai domestic tourists were identified using a cluster analysis based on the composite motivation factors. Since the number of clusters was unknown, hierarchy cluster analysis was conducted, and a three-cluster solution was developed

Table 2 Exploratory factor analysis (EFA) of travel motivation of Thai domestic tourists

Motivation factors	Mean	S.D.	Factor Loading	Eigenvalue	Variance explained	α
Learning	5.48	1.088		3.599	22.492%	0.832
Learn local culture, tradition and way of life	5.78	1.251	0.785			
Exchange experience with the local	5.59	1.326	0.736			
Learn how to cook local food	5.36	1.405	0.748			
Learn how to make local products (Ex. agricultural and fishery products)	5.20	1.350	0.801			
Family	4.99	1.402		2.522	15.761%	0.841
Spend time with family	5.41	1.446	0.788			
Recall childhood memories	4.92	1.657	0.854			
Visit friends and family	4.66	1.715	0.835			
Nature	6.30	0.814		2.493	15.581%	0.818
Observe the scenic beauty of the nature and landscape in the local area	6.40	0.906	0.841			
Experience local nice weather and atmosphere	6.38	0.895	0.829			
Experience local natural activities	6.11	1.045	0.654			
Explorer	5.93	0.891		2.480	15.498%	0.810
Gain new experience	6.26	0.966	0.552			
Relax and release some tension	6.11	1.104	0.552			
Find new inspirations	5.89	1.220	0.734			
Escape from boring and busy life	5.82	1.340	0.687			
Create self-worth by being part of the local	5.60	1.242	0.614			
Total variance extracted					69.332%	
Cronbach's alpha of all items						0.881

Note: All items were measured on a 7-point Likert-type scale (1 = extremely demotivated and 7 = extremely motivated). KMO = 0.866, Bartlett's Test of Sphericity (χ^2) = 3274.651, p = 0.000.

with the criterion of the relative increase of the agglomeration coefficient. The k-means cluster analysis was then performed to segment domestic tourists into three homogeneous clusters based on motivation factors that best identified them. The ANOVA results demonstrated that the three clusters were significantly different ($p < 0.05$). Regarding the motivational factor means, the three clusters were named the 'learning tourists,' 'leisure tourists,' and 'want-it-all tourists' (Table 3).

Table 3 Mean values of motivational factor clusters and ANOVA results

Motivational factors	Mean value of the clusters			Total mean (\pm S.D.)	<i>F</i>	Sig.
	Learning (n=78/ 20.32%)	Leisure (n=105/ 27.34%)	Want-it-all (n=201/ 52.34%)			
Learning	5.77H	4.10M	6.03H	5.48 (\pm 1.088)	220.146	0.000
Family	2.91L	4.67M	5.76H	4.99 (\pm 1.402)	286.783	0.000
Nature	6.14H	5.61H	6.66H	6.30 (\pm 0.814)	98.986	0.000
Explorer	5.47H	5.11M	6.45H	5.93 (\pm 0.891)	147.658	0.000

Note: Mean value of each motivational factor for each cluster is a combined mean. 'H', 'M' and 'L' indicate high, medium and low level of combined means for each cluster.

To assure that these three clusters were adequate, discriminant analysis was conducted. The results of the Wilk's lambda test and F-test indicated that all motivational factors contributed to the statistically significant

differences ($p < 0.05$) among the clusters (Table 4). The discriminant analysis results in Table 5 demonstrate that the derived discriminant functions were statistically significant, explaining that there was a significant relationship between the functions and clusters. The classification results (Table 6) show that the clusters were correctly classified by about 96.90% of all respondents, suggesting that the three clusters were relatively stable. In particular, learning (96.15%), leisure (97.14%), and want-it-all (97.01%) were correctly classified.

Table 4 Wilk's lambda and F test for motivational factors

Factors	Wilks' lambda	F	Sig.
Learning	0.464	220.146	0.000
Family	0.399	286.783	0.000
Nature	0.658	98.986	0.000
Explorer	0.563	147.658	0.000

Table 5 Results of discriminant analysis

Function	Eigenvalue	Variance explained	Canonical correlation	Wilks' lambda	Chi-square	Sig.
1	1.853	56.089	0.806	0.143	737.903	0.000
2	1.450	43.911	0.769	0.408	340.111	0.000
Discriminant loading			Function 1	Function 2		
Learning			0.762	-0.236		
Family			0.641	0.097		
Nature			0.529	0.014		
Explorer			0.476	0.865		

Table 6 Results of classification

Cluster cases	Predicted group membership			Total
	Learning	Leisure	Want-it-all	
Learning	75 (96.15%)	0 (0.00%)	3 (3.85%)	78 (100.00%)
Leisure	0 (0.00%)	102 (97.14%)	3 (2.86%)	105 (100.00%)
Want-it-all	2 (1.00%)	4 (1.99%)	195 (97.01%)	201 (100.00%)

Note: 96.90% of original grouped cases correctly classified; 96.40% of cross-validated grouped cases were correctly classified.

All clusters were further characterized using the chi-square and ANOVA tests with the respondents' socio-demographic profile and online behavior. The results indicated that all clusters were significantly different according to respondents' socio-demographic profiles and online behaviors (Tables 7 and 8).

3.1 Learning tourists

The 'learning tourists' cluster was the smallest cluster comprising of 20.32% of the sample. Tourists in this cluster showed high motivation in all factors except the 'family' factor. They desired to participate in CBT for the prospect that they could gain new experience, especially observing scenic beauty and nice weather in local areas, learning local culture, and sharing the experience with locals. The majority were predominantly female and aged 26 to 40 years (the same gender and age group as the 'leisure tourists' and 'want-it-all tourists' clusters). This cluster presented the highest percentage of tourists in this age group among the three clusters. Most of the tourists lived in central Thailand and worked as a private employee. They were wealthier (i.e., with annual income higher than US\$ 18,000), had higher education (i.e., possessing higher education than a bachelor's degree), and contributed higher spending per visit (i.e., more than US\$ 183) than tourists in other clusters. This cluster also showed the largest proportion of tourists preferring to travel with friends or colleagues.

Regarding the online behavior of tourists, during a trip planning process, most tourists read travel reviews from discussion boards and social media, and searched for travel information via destination websites and search engines. They also checked the location, weather or traffic status, contacted service providers, and reserve tourism products and services. This cluster had the largest proportion of tourists performing most of these online activities among all the clusters. While taking a trip, the tourists posted travel experience on social media and searched for more information about tourism products and services in the nearby locations, checked-in

at destinations, and reserved more tourism products and services. After returning home from a trip, they continued sharing their travel experience on social media, but they were not interested in writing travel reviews. Tourists in this cluster tended to be more active in preparing a trip using information from online sources; however, they were less involved in using online mediums than tourists in other clusters, especially in writing travel reviews while travelling and after a trip.

3.2 Leisure tourists

The 'leisure tourists' cluster (27.34% of the sample) exhibited high motivation on the 'nature' factor. Tourists in this cluster were interested in enjoying the scenic beauty and pleasant weather in local areas, experiencing local natural activities as well as gaining new experience and relaxing. Most tourists were female and aged 26 to 40 years with a bachelor's degree and annual income of US\$6,000 – 10,000. This cluster had the largest number of young tourists, as 18.10% of the clusters were under 26 years old. Government officials and business owners were the main occupations in this cluster. Travelling with friends and colleagues was preferable by most tourists; however, travelling with family was also crucial for this cluster as it has the highest share among all clusters. A quarter of the cluster spent about US\$ 84 – 117 per visit at a CBT destination.

Before taking a trip, most tourists preferred to read travel reviews from social media and discussion boards. Interestingly, reading travel reviews from blogs and review websites were only found in this cluster even though there were just a small proportion of tourists presented. Nearly half of the cluster searched for travel information from search engines, and 28.57% used destination websites. After deciding where to visit, the tourists contacted service providers for more information and reserved tourism products and services. While travelling, most tourists posted travel experience on social media, checked-in at destinations as well as searched for more travel information in the nearby locations. After returning home from travelling, they also endured to share travel experience on social media, and they were less likely to write travel reviews. Tourists in this cluster were the least active online users among the three clusters.

3.3 Want-it-all tourists

The 'want-it-all tourists' cluster was the largest (52.34% of the sample) among all clusters. Tourists valued high motivation in all motivational factors showing an interest in exploring nature while

gaining new experience, learning the culture and tradition of others, and building a strong family relationship. In terms of socio-demographic profile, the majority were quite similar to the tourists in the 'leisure tourists' cluster, except for the occupation. They mainly worked for government agencies. Remarkably, this cluster showed the largest share of female tourists and tourists aged above 56 years old.

When planning a trip, most tourists preferred to read travel reviews from social media, which was the highest proportion of tourists compared to other clusters. Discussion boards were also used as sources for travel reviews of tourists in this cluster. They received travel information and promotion through e-mails more than other clusters. They mainly searched for travel information via destination websites and search engines. Contacting service providers, reserving tourism products

and services as well as checking the status of location, weather, or traffic through websites were other online activities performed by the tourists before taking a trip. While travelling, they shared travel experience on social media, checked-in at destinations, live broadcasted showing their experience, and searched for more travel information in the nearby locations. After the trip, tourists also continued posting travel experience on social media and sharing a video clip on YouTube. It was notable that the tourists in this cluster were interested in writing travel reviews on destination websites, blogs, review websites, and discussion boards more than other clusters. These showed that most tourists in this cluster were more active in using online while travelling and after returning home from a trip than those tourists of other clusters Table 8.

Table 7 Respondents' socio-demographic profiles of each cluster

Profile	Learning (n=78/20.32%)	Leisure (n=105/27.34%)	Want-it-all (n=201/52.34%)	Total (n=384/100%)	χ^2	Sig.
Gender					7.710	0.021
Female	50 (64.10%)	63 (60.00%)	150 (74.63%)	263 (68.49%)		
Male	28 (35.90%)	42 (40.00%)	51 (25.37%)	121 (31.51%)		
Age					16.166	0.013
Below 26 years	3 (3.85%)	19 (18.10%)	22 (10.95%)	44 (11.46%)		
26 – 40 years	47 (60.26%)	46 (43.81%)	112 (55.72%)	205 (53.39%)		
41 – 56 years	25 (32.05%)	35 (33.33%)	49 (24.38%)	109 (28.39%)		
Over 56 years	3 (3.84%)	5 (4.76%)	18 (8.95%)	26 (6.76%)		
Origin					41.350	0.000
South	20 (25.64%)	69 (65.72%)	102 (50.73%)	191 (49.74%)		
Central	34 (43.60%)	24 (22.86%)	53 (26.37%)	111 (28.91%)		
North	7 (8.97%)	8 (7.62%)	25 (12.44%)	40 (10.42%)		
North-eastern	14 (17.95%)	1 (0.95%)	14 (6.97%)	29 (7.55%)		
East	2 (2.56%)	2 (1.90%)	5 (2.49%)	9 (2.34%)		
West	1 (1.28%)	1 (0.95%)	2 (1.00%)	4 (1.04%)		
Annual income (US\$)					21.763	0.016
Less than 6,000	3 (3.85%)	10 (9.52%)	26 (12.94%)	39 (10.16%)		
6,000 – 10,000	16 (20.51%)	36 (34.29%)	70 (34.83%)	122 (31.77%)		
10,001 – 14,000	15 (19.23%)	21 (20.00%)	41 (20.40%)	77 (20.05%)		
14,001 – 18,000	13 (16.67%)	15 (14.29%)	20 (9.95%)	48 (12.50%)		
More than 18,000	27 (34.62%)	16 (15.24%)	37 (18.41%)	80 (20.83%)		
No income	4 (5.12%)	7 (6.66%)	7 (3.47%)	18 (4.69%)		
Education					25.327	0.000
Below bachelor's degree	2 (2.56%)	22 (20.95%)	24 (11.94%)	48 (12.50%)		
Bachelor's degree	30 (38.46%)	44 (41.90%)	109 (54.23%)	183 (47.66%)		
Above bachelor's degree	46 (58.98%)	39 (37.15%)	68 (33.83%)	153 (39.84%)		
Occupation					28.637	0.027
Government official	23 (29.49%)	29 (27.62%)	62 (30.85%)	114 (29.69%)		
Business owner	21 (26.92%)	29 (27.62%)	46 (22.89%)	96 (25.00%)		
Private employee	26 (33.33%)	21 (20.00%)	41 (20.40%)	88 (22.92%)		
Student	4 (5.13%)	19 (18.10%)	20 (9.95%)	43 (11.20%)		
Temporary worker	4 (5.13%)	5 (4.76%)	16 (7.96%)	25 (6.51%)		
Housewife	0 (0.00%)	0 (0.00%)	8 (3.98%)	8 (2.08%)		
Retiree	0 (0.00%)	2 (1.90%)	2 (1.00%)	4 (1.04%)		

Table 7 (Continue)

Profile	Learning (n=78/20.32%)	Leisure (n=105/27.34%)	Want-it-all (n=201/52.34%)	Total (n=384/100%)	χ^2	Sig.
Others	0 (0.00%)	0 (0.00%)	4 (1.97%)	4 (1.04%)		
Unemployed	0 (0.00%)	0 (0.00%)	2 (1.00%)	2 (0.52%)		
Travel group					12.420	0.133
Friend/Colleague	43 (55.13%)	48 (45.71%)	94 (46.77%)	185 (48.18%)		
Family	14 (17.95%)	38 (36.19%)	68 (33.83%)	120 (31.25%)		
Couple	13 (16.67%)	12 (11.43%)	28 (13.93%)	53 (13.80%)		
Alone	8 (10.25%)	7 (6.67%)	9 (4.48%)	24 (6.25%)		
Others	0 (0.00%)	0 (0.00%)	2 (0.99%)	2 (0.52%)		
Spending per visit (US\$)					20.599	0.024
Less than 50	4 (5.13%)	15 (14.29%)	14 (6.97%)	33 (8.59%)		
50 – 83	11 (14.10%)	25 (23.81%)	43 (21.39%)	79 (20.57%)		
84 – 117	18 (23.08%)	27 (25.71%)	44 (21.89%)	89 (23.18%)		
118 – 150	15 (19.23%)	10 (9.52%)	33 (16.42%)	58 (15.10%)		
151 – 183	7 (8.97%)	16 (15.24%)	28 (13.93%)	51 (13.28%)		
More than 183	23 (29.49%)	12 (11.43%)	39 (19.40%)	74 (19.28%)		

Notes: US\$ 1 is equivalent to 30 Thai baht.

Table 8 Respondents' online behaviors of each cluster

Online behavior	Learning n=78 (20.32%)	Leisure n=105 (27.34%)	Want-it-all n=201 (52.34%)	Total n=384 (100%)	χ^2	Sig.
What online activities do you perform before taking a trip?						
Read travel reviews from social media	44 (56.41%)	69 (65.71%)	156 (77.61%)	269 (70.05%)	13.337	0.001
Read travel reviews from discussion boards	50 (64.10%)	45 (42.86%)	96 (47.76%)	191 (49.74%)	8.741	0.013
Search for travel information from destination websites	42 (53.85%)	30 (28.57%)	101 (50.25%)	173 (45.05%)	16.150	0.000
Search for travel information from search engine	36 (46.15%)	48 (45.71%)	80 (39.80%)	164 (42.71%)	1.461	0.482
Contact service providers	36 (46.15%)	27 (25.71%)	94 (46.77%)	157 (40.89%)	13.771	0.001
Reserve tourism products and services	40 (51.28%)	30 (28.57%)	61 (30.35%)	131 (34.11%)	12.932	0.002
Check location/weather/traffic from websites	31 (39.74%)	21 (20.00%)	49 (27.38%)	101 (26.30%)	9.805	0.007
Search for travel information from travel agents' website	19 (24.36%)	14 (13.33%)	36 (17.91%)	69 (17.97%)	3.692	0.158
Receive travel information and promotions via e-mail	2 (2.56%)	6 (5.71%)	27 (13.43%)	35 (9.11%)	10.030	0.007
Create a topic about tourism on discussion boards	8 (10.26%)	6 (5.71%)	20 (9.95%)	34 (8.85%)	1.772	0.412
Read travel reviews from blogs	0 (0.00%)	3 (2.86%)	0 (0.00%)	3 (0.78%)	8.034	0.018
Read travel reviews from review websites	0 (0.00%)	1 (0.95%)	0 (0.00%)	1 (0.26%)	2.664	0.264
What online activities do you perform while taking a trip?						
Post information/image/video on social media	63 (80.77%)	79 (75.24%)	172 (85.57%)	314 (81.77%)	5.007	0.082
Check-in at destinations	53 (67.95%)	74 (70.48%)	163 (81.09%)	290 (75.52%)	7.242	0.027
Search for tourism products and services in the nearby location	58 (74.36%)	54 (51.43%)	130 (64.68%)	242 (63.02%)	10.594	0.005
Reserve tourism products and services	27 (34.62%)	23 (21.90%)	79 (39.30%)	129 (33.59%)	9.405	0.009
Live broadcast about tourism products and services	12 (15.38%)	12 (11.43%)	46 (22.89%)	70 (18.23%)	6.605	0.037
Check location/weather/traffic from websites	0 (0.00%)	1 (0.95%)	0 (0.00%)	1 (0.26%)	2.664	0.264
What online activities do you perform after taking a trip?						
Post information/image/video on social media	74 (94.87%)	94 (89.52%)	197 (98.01%)	365 (95.05%)	10.568	0.005
Write travel reviews sharing on destination websites	9 (11.54%)	6 (5.71%)	37 (18.41%)	52 (13.54%)	9.828	0.007
Make a short video clip and share via YouTube	11 (14.10%)	13 (12.38%)	25 (12.44%)	49 (12.76%)	0.159	0.924
Write travel reviews sharing on review websites	4 (5.13%)	15 (14.29%)	27 (13.43%)	46 (11.98%)	4.405	0.111
Write travel reviews sharing on blogs	7 (8.97%)	4 (3.81%)	34 (16.92%)	45 (11.72%)	12.164	0.002
Write travel reviews sharing on discussion boards	3 (3.85%)	10 (9.52%)	17 (8.46%)	30 (7.81%)	2.247	0.325

Discussion

This study identifies domestic tourists participating in CBT in Thailand and shows that travel motivation can be used as a measurement to segment the tourists into

homogenous clusters supporting the study of Park & Yoon (2009); Pesonen (2012); Rid, Ezeuduji, & Pröbstl-Haider, (2014). The tourists are well motivated to visit a CBT destination by the 'nature' factor and are less

likely to be motivated by the 'family' factor, which are consistent with the study of Almeida, Correia, & Pimpão, (2014) in Portugal, Park & Yoon (2009) in Korea, Pesonen (2012) in Finland, and Yun, Hennessy, & Courtney, (2016) in Canada. Although the primary purposes of visiting a CBT destination are to experience different cultures, gain new knowledge and experience, and obtain new inspiration (Kutschera, 2018; Shabada, 2018), but natural enjoyment also remains a key travel motivation for the tourists.

In this study, the tourists can be classified into three clusters according to travel motivation: 'learning tourists,' 'leisure tourists,' and 'want-it-all tourists.' The 'want-it-all tourists' cluster presents as the largest cluster comprising more than half of the sample, while the 'learning tourists' cluster is the smallest. Among the three clusters, they are significantly different in terms of travel motivation and socio-demographic profile, and slightly different regarding online behavior.

The 'want-it-all tourists' are motivated by all motivation factors, whether enjoying nature, obtaining new experience, learning local culture, or creating a healthy family relationship. The socio-demographic profiles of the tourists are very similar to the 'leisure tourists.' This cluster has a higher number of female tourists than the others, and it has the largest proportion of elderly tourists (above 56 years old). Similarly, Pesonen (2012) revealed that the majority of CBT tourists in Finland are relatively old (above 45 years old). Besides, they are more active in using online while travelling and after returning home from a trip than those tourists of other clusters, especially on sharing travel experience. For the 'leisure tourists,' the majority of the tourists score low on most of the motivation factors and are mainly motivated by natural enjoyment, local natural activities, and relaxation. This cluster has the largest proportion of the youngest tourists (below 26 years old). Likewise, Rid, Ezeuduji, & Pröbstl-Haider (2014) reported that most of the tourists travelling to CBT destinations in Gambia are relatively young (below 25 years old). Moreover, they are the least active online users among the three clusters, whether pre-, during-, or post-trip. It is interesting to note that the age groups of CBT tourists are vary among countries.

Besides the "learning tourists," the majority of the tourists have a high interest in learning local culture and exchanging experience with the locals as well as appreciating local nature and beautiful scenic. The 'learning tourists' are significantly different from the

other two clusters on the socio-demographic profile. They have a higher education level, annual income, and more spending per visit at a CBT destination than the other two clusters. Comparably, Park & Yoon (2009) also stated that tourists who visit rural destinations to learn are generally well educated. In addition, they are also very active in planning their trips to places more than the tourists in other clusters. They search for necessary information through various online channels, especially destination websites, and they also read travel reviews to see how the actual tourists experience the destinations.

Suggestion

As previously mentioned, CBT has developed tremendously in every region of the country, but CBT practitioners are still unable to attract the right target tourists to visit their destinations due to a lack of marketing knowledge and experience. Therefore, understanding that even though tourists prefer to visit CBT destinations, they may have different motivations to visit the destinations, as well as socio-demographic and online behavior. Besides, CBT destinations are vary depending upon tourism resources of each location. It is clear that tourism resources of CBT destinations in Northern Thailand differ from those in Southern Thailand. For instance, Northern Thailand is well-known for its cultural resources; Lanna culture and hill tribe ethnic groups' way of life. Whereas Southern Thailand is famous for its natural resources such as beautiful beaches and islands. Therefore, it is important to understand that these two regions can possibly attract different groups of target tourists.

As the study shows that there are three segments and that each segment presents its niche profile and online behavior, these results can be applied to develop marketing strategies that suitable for the CBT and each segment. Suppose a CBT destination is rich with natural resources and various activities. In that case, the 'want-it-all tourists' can be the primary target market as the tourists are well motivated to visit a CBT destination by all motivations. They are very active in sharing their travel experience online; therefore, they can be an essential electronic word-of-mouth source for CBT destinations. Their reviews will have significant effects on other tourists' decision-makings. A CBT destination with abundant natural resources and beautiful scenic views with limited engaging tourism activities will be desirable for the 'leisure tourists.' The tourists travel to a CBT destination to relax in beautiful nature rather than

gain insights from the locals. Hence, these two groups are suitable with the characteristics of CBT destinations in Southern Thailand. On the other hand, in a CBT destination where learning activities are the key outstanding products, the 'learning tourists' who primarily visit a CBT destination to experience the locals and relax in beautiful nature. CBT destinations, especially in Northern Thailand, with valuable cultural resources will be the most suitable destinations for this group. Since the 'learning tourists' are mainly live in central Thailand, they might not be familiar with CBT. Therefore, they have to be well prepared by carefully searching for destination-related information and reading travel reviews before taking a trip. This will help in making sure that they choose the right destinations, especially when planning to visit unfamiliar destinations. Hence, accurate destination-related information and positive travel reviews should be available for the tourists on various online sources. Preferably, the study suggests that the most suitable target market for the CBT is the 'learning tourists.' To encourage the 'learning tourists' to visit a CBT destination according to their socio-demographic profile, the tourists would appreciate the CBT's true value and understand how to participate in the CBT appropriately. They are less likely to create negative impacts, which will potentially lead to the sustainability of the CBT destinations.

Identifying tourists' motivational factors in CBT allows practitioners and relevant sectors to understand tourists' needs better. Although they are interested in the same type of tourism, their characteristics are unique and different. The practitioners must clearly understand the tourists and select target markets to suitably deliver products and services as well as design effective marketing strategies.

Further study is recommended to identify the tourists according to other variables such as psychology, lifestyle, and level of participation in CBT. Besides, it will be beneficial to study methods on how to evaluate and select target markets. The methods that can help target the right segment and provide favorable results in CBT. This would further support the production of more appropriate CBT products, services, and successful marketing strategies.

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Development of Home Economics Entrepreneur Indicators for Undergraduate Students

Parichat Pitisutti^{a*} & Thanthip Kaewjaroen^b

^a Faculty of Home Economics Technology, Rajamangala University of Technology Krungthep, Bangkok, 10120 Thailand

^b Faculty of Technical Education, Rajamangala University of Technology Krungthep, Bangkok, 10120 Thailand

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Abstract

Entrepreneurship is a competency that is crucial for students of any field whose nature is different according to the context. Therefore, the current research develops Home Economics entrepreneurship and tools to be used in the analysis of Home Economics entrepreneurship for undergraduate students. The data was collected from 404 undergraduates from Faculty of Home Economics Technology of Rajamangala University of Technology Krungthep, academic year 2021 by Stratified sampling. The study was divided into two phases. Phase 1 dealt with qualitative data analysis by studying relevant documents and previous research studies as well as interviewing experts in the field, to develop Home Economics entrepreneurship indicators. After that, confirmatory factor analysis was adopted. Phase 2 was quantitative data analysis, implemented by collecting data from 304 undergraduate students by using ANOVA. The results of Phase 1 qualitative research revealed that the Home Economics entrepreneurship potential consisted of 6 components including seeking business opportunities, innovative thinking, risk taking, management, entrepreneurial intentions, and networking. The results of testing the construct validity of Home Economics entrepreneurship potential showed that the model had a comparative fit with the empirical data. Furthermore, the results of Phase 2 quantitative research revealed that students who trained in Home Economics skills for more than 21 hours per week obtained a higher average for the Home Economics entrepreneurship potentials than others with the statistical significance of .05. Those who received Home Economics awards acquired a higher average for the Home Economics entrepreneurship potentials than others with the statistical significance of .05. Students who performed Home Economics-related jobs acquired a higher average for the Home Economics entrepreneurship potentials than those who did not perform any part-time jobs or performed non-related jobs with the statistical significance of .05. Lastly, students with the genuine entrepreneurial intentions had a higher average for the Home Economics entrepreneurship potentials than those who did not with the statistical significance of .05.

* Corresponding Author

e-mail: parichat.p@mail.rmutk.ac.th

Development of Home Economics Entrepreneur Indicators
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Introduction

Small and medium enterprises (SMEs) play a significant role in Thailand's development, especially in the socioeconomic aspect since there has been a constantly higher marketing potential, which renders the companies to have competitive advantages and success (Ahmad, Suseno, Seet, Susomrith, & Rashid, 2018; Tripopsakul & Choochatchpong, 2014). This aligns with the 20-year national strategic plan (2018-2037), which encourages a new generation of SMEs entrepreneurs to develop awareness and understanding of the Thailand 4.0 business model (Office of the National Economics and Social Development Council, 2018). The aforementioned policies have provoked Thai universities to seek ways to develop the educational quality to create graduates with thorough and appropriate knowledge and awareness of being an entrepreneur. They strive to cultivate and maximize students' potentials of being entrepreneurs who contribute to the society, both economically and socially.

Currently, there have been improvements in the curriculum of Home Economics, in order to produce quality university graduates who can fulfill national requirements as well as consistent with the current situations. There are various curriculums and courses in which good morality and ethics are embedded, and computer and information technology are reinforced. Home Economics core courses emphasize on family-related matters, family resource management and community management, while specialized courses focus on career specialization. (Pornthadawit & Ananwaraphong, 2008) However, most curriculum development plans do not include actual specialists, whereas the curriculum development directions should be geared toward professions in private businesses and different industries (Edokpolar, & Somorin, 2017), in order for future graduates from Home Economics to possess pleasant personalities, develop self-awareness, profound academic and specialized knowledge. Moreover, they should have knowledge in other areas including resources management, creative and systematic ways of thinking, far-sighted visions, and 21st Century skills, preparing them to be effective future entrepreneurs.

The Faculty of Home Economics of Technology, Rajamangala University of Technology Krungthep is one of the universities which perceive the importance of supporting young entrepreneurs. The courses and instructions aim to produce graduates who can step into

the professional world to perform diverse types of careers, including manufacturing, service businesses, and private businesses. All of these are pivotal to the development of the tourism industry and the national economy as a whole (Rajamangala University of Technology Krungthep, 2014). Faculty of Home Economics Technology focuses on conducting theoretical learning along with practical learning for students to have knowledge and skill in the field of Home Economics, equipment usage, designing, product development, food operation practice, flower arrangement, tailoring including home economic management and service. However, most of the learning focuses on enriching experience in home economics to cultivate love in home economics, but the learning activities that would allow students to experience real situations or simulation of being entrepreneurs is not enough for students to become entrepreneurs or own a business. For that reason, there must be entrepreneur potential development added to prepare students to become entrepreneurs after graduation and that potential must be developed in both behavior and attitude according to Theory of Planned Behavior (TPB). TPB was developed by Ajzen (1991, referenced in Sánchez, 2011) which is a theory that explains one's decision to behave, created from the existing data combined with the belief of consequences, references and control factor. These beliefs affect behavior through attitude toward behavior. The success of action depends on behavioral intention and the perception of the ability to control behavior and the theory is applied in the entrepreneur program (Sánchez, 2011; Karimi, Biemans, Lans, Mulder, & Chizari, 2012; Phancharak 2019;; Pommi & Naksai, 2020). The current research focuses on developing the entrepreneur potential indicator for students of the Faculty of Home Economics.

Objectives

1. To develop Home Economics entrepreneur indicators for students of the Faculty of Home Economics.
2. To analyze entrepreneurship potentials of students of the Faculty of Home Economics.

Conceptual framework

The review of relevant documents and previous research with regards to Home Economics entrepreneurship competency aspect discovered that each research aimed to study a different aspect of Home Economics entrepreneurship based on their objectives. In addition, a majority of research focused on the entrepreneurship

potential among business students (Hasan, Guampe, & Maruf, 2019; Vashararangsi, 2017). The entrepreneurship potential is significant in all educational principles (Edokpolor, & Somorin, 2017), including Home Economics in which most students eventually become Home Economics entrepreneurs (Chibuzor, 2014).

For this reason, the current research developed a conceptual framework for the components of the Home Economics entrepreneurship potential. After looking into related studies and interviewing experts, coupled with the confirmatory factor analysis, it was found that the Home Economics entrepreneurship potential consisted of 6 aspects, including seeking business opportunities, innovative thinking, risk taking, management, entrepreneurial intentions, and networking. This led to the development of Home Economics entrepreneur indicators for Home Economics students. In Figure 1 below, the research conceptual framework is shown.

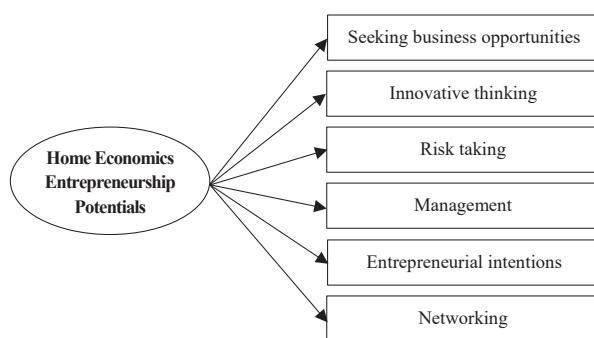


Figure 1 Conceptual framework

Research methodology

The current research endeavor adopted a descriptive research method in order to develop Home Economics entrepreneur indicators for students of the Faculty of Home Economics. The research study was divided into two phases. The first phase dealt with the development of Home Economics entrepreneur indicators and tools, followed by the second phase which involved the analysis of the entrepreneurship potential of students of the Faculty of Home Economics. The steps implemented in the current study are as follows:

Phase 1 The development of home economics entrepreneur indicators and tools

The first phase was conducted in two steps. The first step was the study of Home Economics entrepreneurship elements, while the second step was

the development of Home Economics entrepreneur indicators for students of the Faculty of Home Economics. The details are as follows:

Step 1 The study of Home Economics entrepreneurship elements

Literature and documents relevant to Home Economics entrepreneurship were reviewed in order to define the elements, indicators, and operational definitions, which were further taken to develop a structured interview for 5 Home Economics entrepreneurship experts and/or Home Economics teachers.. The objective of the interview was to investigate the Home Economics entrepreneur indicators and operational definitions, by means of content analysis, the results were adopted in the development of the Home Economics entrepreneur indicators.

Step 2 The development of Home Economics entrepreneur indicators

The elements obtained in Step 1 were implemented in the development of the Home Economics entrepreneur indicators for students in the Faculty of Home Economics. The developed indicators consisted of questions with a 5-point Likert scale. , The content validity, testified by using the IOC, revealed that all questions had IOC > 0.05, which ranged between 0.60 to 1.00 (Kanjanawasee, 2005). The questionnaire was adjusted according to the experts' advice. The construct validity of the Home Economics entrepreneur indicators was analyzed using the confirmatory factor analysis. The Home Economics indicators were used to collect data from 100 undergraduates in the Faculty of Home Economics, academic year of 2021, using stratified sampling. The internal consistency was analyzed using Cronbach's alpha coefficient, which was based on the validity measured by the results of each aspect of the variables, which ranged from 0.69-0.81 Nunnally (1978, referenced in Peterson, 1994).

Phase 2 The analysis of the entrepreneurship potential of students of the faculty of home economics

1. Population and samples

The population adopted in phase 2 was 1,307 undergraduates from the Faculty of Home Economics of Technology, Rajamangala University of Technology Krungthep, academic year of 2021.

The samples comprised of undergraduates from the Faculty of Home Economics, academic year of 2021, using one-way ANOVA by G*power program, with a significance of 0.05, and a confidence level of 95%. There were 3 sample groups, with the influence level of 0.25.

The sample should be composed of at least 252 people (Cohen, 1988) in order to compensate for 40% of the response rate. Therefore, the number of questionnaires was increased to 353. However, 304 questionnaires were returned, accounting for 86.12%, using the stratified sampling.

2. Research instrument

The research instrument used in phase 2 was Home Economics entrepreneur indicators developed from the synthesis of documents, interviews, and instrument quality check in phase 1. The data collected from the students was by google form following the assigned sampling plan and sample size.

3. Data analysis

The fundamental analysis was conducted by using percentage, average, standard deviation, and the analysis of the Home Economics entrepreneurship potential of students of the Faculty of Home Economics, used ANOVA.

Results

The detailed results of the development of Home

Economics entrepreneur indicators used to analyze the Home Economics entrepreneurship potential of students in the Faculty of Home Economics Technology of Rajamangala University of Technology Krungthep, are as follows:

The development of Home Economics entrepreneurship indicators

The findings of the qualitative data analysis revealed that the Home Economics entrepreneurship potential refers to the ability to seek opportunities to develop, improve, and enhance Home Economics work, processes, and services, by adopting creative thinking in terms of planning, resources allocation, and implementation. The ability to work with others as a team and elicit cooperation is of significant importance. A good entrepreneur should be ready to take risks, which stems from the true entrepreneurial intentions. The Home Economics indicators can be divided into 6 aspects, including seeking business opportunities, innovative thinking, risk taking, management, entrepreneurial intentions, and networking. The details are shown below in Table 1.

Table 1 Home economics entrepreneurship indicators

The home economics entrepreneurship potential aspects	Details and examples from experts
1. Seeking business opportunities	<p>This refers to actively seeking business opportunities to develop, improve, and enhance Home Economics work, processes, and services, and making the best of the opportunities to advance and prosper in the future Home Economics business.</p> <p>“I give importance to seeking opportunities because it gives me competitive advantages, to develop the works that satisfy customers’ demands.” (Expert no. 2)</p>
2. Innovative thinking	<p>It refers to the initiation, improvement, and development of Home Economics work, processes, and services, in order to make it unprecedently excellent to respond to people’s demands, paving the way to Home Economics innovations.</p> <p>“It should be emphasized that following popular trends and adopting them to develop the work are not the same as copying other people’s originality” (Expert no. 1)</p>
3. Risk taking	<p>It refers to the acceptance of the result or possible damage occurring from the uncertainty of the development, improvement, and enhancement of Home Economics work, processes, and services.</p> <p>“In terms of risk taking, risks from uncontrollable external factors such as the Covid-19 situation, which has affected businesses in many branches including Home Economics business, should be taken into consideration.” (Expert no. 5)</p>
4. Management	<p>It refers to the planning, management, control, and follow-up by the internal and external processes of resources management, to achieve the goals to develop, improve, and enhance Home Economics work, processes, and services.</p> <p>“To achieve the optimal efficiency and productivity, students must also be able to control the quality to be satisfactory for customers.” (Expert no. 4)</p>
5. Entrepreneurial intentions	<p>It refers to the intentions to achieve the goals to develop, improve, and enhance Home Economics work, processes, and services, with the commitment and burning ambitions to overcome difficulties during the journey of becoming a business entrepreneur.</p> <p>“To be a business entrepreneur, we must put our heart and soul, and all that we have into solving daily problems, as well as allocate time to develop ourselves in order to catch up with the world.” (Expert no. 5)</p>
6. Networking	<p>It refers to contacting, co-operating, engaging, and convincing people from the opportunities in hands to develop Home Economics work conveniently and smoothly.</p> <p>“Networking facilitates smooth business cooperation. Once we have a direct connection with resources suppliers, we gain better opportunities to receive quality products with cheaper prices.” (Expert no. 3)</p>

The results of the analysis of the construct validity of the Home Economics entrepreneurship indicators by using confirmatory factor analysis, revealed that the correlation metrics with item means and standard deviations were 3.27-3.69 and 0.76-0.87, respectively. Indicators were positively related with statistical significance. The relation was at medium to high levels ($r=0.64-0.77$) The pair with the highest relation was risk taking and management at 77%, signifying the indicative behavior had enough correlation to analyze the components. The details are shown in Table 2.

Table 2 Mean, and S.D. for home economics entrepreneur

	SEEK	INNO	RISK	MANAGE	INT	NETW
Seeking business opportunities	1					
Innovative thinking	0.74*	1				
Risk taking	0.71*	0.64*	1			
Management	0.74*	0.72*	0.77*	1		
Entrepreneurial intentions	0.73*	0.67*	0.67*	0.74*	1	
Networking	0.75*	0.73*	0.68*	0.70*	0.70*	1
M	3.69	3.27	3.52	3.46	3.59	3.49
S.D.	0.86	0.84	0.76	0.78	0.87	0.85

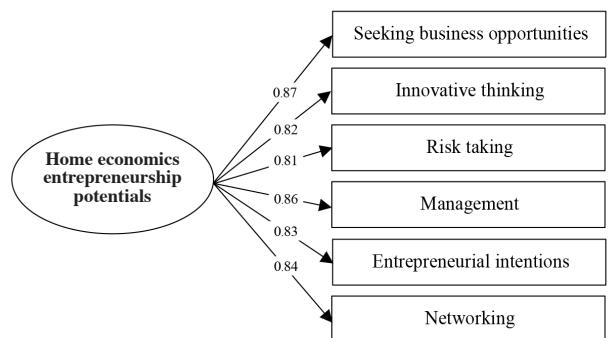
* p<0.01 (Correlation is significant at the 0.01 level (2-tailed))

The results obviously showed the construction validity of Home Economics Entrepreneur and that the model has a comparative fit with the empirical data, ($\text{Chi-Square} = 18.82$, $df = 11$, $P = 0.06$, $\text{RMSEA} = 0.06$, $\text{CFI} = 0.99$) based on Criteria: $P > 0.05$, $\text{RMSEA} < 0.05$, $\text{CFI} \geq 0.95$. After analyzing the standardised factor loading of the observed variable, it was discovered that the total standardised factor loading was positive but each of the 0.81-0.87 had the statistical significance of .001 ($p < 0.001$) and an R-Squared that could be explained by 67% of the components of Home Economics entrepreneurship to 76% of the standardised factor loading. This proved to be the most significant, such as seeking business opportunities ($B = 0.87$), followed by management ($B = 0.86$) networking ($B = 0.84$) entrepreneurial intentions ($B = 0.83$) innovative thinking ($B = 0.82$) risk taking ($B = 0.81$), respectively. The information is shown below in Table 3.

The results of the analysis of entrepreneurship potentials of students of the Faculty of Home Economics using ANOVA revealed that the faculty ($F = 2.03$, $P = 0.13$) and year ($F = 1.20$, $P = 0.31$) had different average values of Home Economics entrepreneurship potentials without statistical significance of .05. The study of the extra time spent on practicing and training Home

Table 3 Results of testing the construction validity of home economics entrepreneur

Indicative behavior	Factor loading		t	R^2
	b(SE)	B		
Seeking business opportunities	1.00 (0.00)	0.87	41.07	0.76
Innovative thinking	0.93 (0.06)	0.82	29.99	0.67
Risk taking	0.82 (0.06)	0.81	28.62	0.66
Management	0.88 (0.06)	0.86	38.32	0.74
Entrepreneurial intentions	0.99 (0.07)	0.83	43.28	0.68
Networking	0.95 (0.06)	0.84	47.19	0.73
Chi-square = 18.82	df = 11		p= 0.06	
CFI = 0.99	TLI= 0.98		SRMR= 0.02	RMSEA= 0.06



$\text{Chi-Square} = 18.82$, $df = 11$, $p = .06$, $\text{RMSEA} = 0.06$

Figure 2 The home economics entrepreneurship model

Economics skills weekly apart from studying, showed that students who spent more than 21 hours per week had a higher average of Home Economics entrepreneurship potential than those who spent only 11-20 hours per week, and those who spent lower than 10 hours per week, with statistical significance of .05 ($F = 12.84$, $P = 0.00$). Moreover, those who received Home Economics awards obtained a higher average of Home Economics entrepreneurship potential than those who did not with statistical significance of .05 ($t = 4.97$, $P = 0.00$). Students who performed Home Economics part-time jobs had a higher average of Home Economics entrepreneurship potential than those who did not, while those who performed Home Economics part-time jobs had a higher average of Home Economics entrepreneurship potential than those who performed non-related jobs with statistical significance of .05 ($F = 16.07$, $P = 0.00$). Besides, students who had the entrepreneurial intentions had a higher average of Home Economics entrepreneurship potential than those who did not with statistical significance of .05 ($t = 6.01$, $P = 0.00$). The details are shown in Table 4.

Table 4 The analysis of average of Home Economics entrepreneur potential

Variable	M (S.D.)	F/T	P	I
Field of study				
Food technology and nutrition	3.48 (0.59)			
Fashion design	3.52 (0.49)	2.03	0.13	NS
Home economics technology and inventions	3.65 (0.64)			
Level of education				
Year 1	3.61 (0.60)			
Year 2	3.48 (0.59)	1.20	0.31	NS
Year 3	3.44 (0.54)			
Year 4	3.50 (0.61)			
Extra time for practicing and training Home Economics skills per week (apart from studying)				
Lower than 10 hours per week	3.41 (0.59)	12.84	0.00	3>2>1
11-20 hours per week	3.68 (0.51)			
More than 21 hours per week	3.92 (0.63)			
Having received Home Economics awards				
Yes	3.75 (0.53)	4.97	0.00	1>2
No	3.41 (0.59)			
Performing a part-time job after school				
No	3.41 (0.55)			
Doing home economics-related jobs	3.78 (0.55)	16.07	0.00	2>1 2>3
Doing non-related jobs	3.36 (0.60)			
Having the entrepreneurial intentions				
Yes	3.59 (0.55)	6.01	0.00	1>2
No	3.01 (0.61)			

Discussion

The results of the development of the Home Economics entrepreneurship indicators by testing the construct validity of Home Economics entrepreneur found that the model had a comparative fit with the empirical data. After considering the weight of the components in the form of the standard scores of the model, it was found that seeking business opportunities obtained the highest standard score, since it was the foundation that leads to the analysis of external factors and circumstances, to turn novelties into opportunities to achieve creativity and innovations. This is in accordance with studies by Baron (2006); Wathanakom (2020), which stated that business entrepreneurs should possess the ability to perceive and actively seek business

opportunities under the influence of external factors, as well as incorporate those factors into enhancing the opportunities. This is a crucial quality for a successful entrepreneur. The second highest standard score belonged to the management aspect. This is possibly because planning is an initiative process that deals with resources allocation, assignment of responsibilities, and the design of an optimally effective working procedure. Besides, an entrepreneur that possesses good planning and analytical skills tends to make good decisions because he/she has systematic thinking and logical problem-solving methods to accomplish his/her goals (Ahmad, Suseno, Seet, Susomrith, & Rashid, 2018), which was consistent with a study by Chibuzor (2014), which studied strategies enhancing creativity in entrepreneurship through Home Economics education in Nigeria, suggesting making a course to teach how to seek business opportunities in the global market, plan business, analyze the market and manage risks. This is believed to help develop Home Economics entrepreneurship potentials for students.

Prior studies found that psychological characteristics and people behavior in managing skill and entrepreneur technics is the most important factor of potential and success of the medium-size and small-size entrepreneurs (Rasmussen, Mosey, & Wright, 2011; Man, Lau, & Snape, 2008; Man, Lau, & Chan, 2002).

The results of the current study revealed that students' experiences should be enhanced in terms of conducting Home Economics-related activities, in order to accumulate the Home Economics entrepreneurship potentials. This is due to a finding in which students who received Home Economics-related awards, those who performed Home Economics-related part-time jobs, and those who trained in Home Economics skills for more than 21 hours per week, increased Home Economics entrepreneurship potentials than their counterparts. This aligns with studies conducted by Hasan, Guampe, & Maruf (2019); Van Gelderen, Kautonen, & Fink (2015), which found that past experiences play a vital role in developing entrepreneurship skills, which could be acquired by on-hand experiences, trainings, and activities that allow students to be involved in planning and preparing business projects, which was the best method. This was achieved by using solutions for past problems as the basis for starting a new business and increasing self-esteem among potential Home Economics entrepreneurs.

In addition, the results further demonstrated that students who possessed true entrepreneurial intentions to be Home Economics entrepreneurs obtained a higher average for the Home Economics entrepreneurship potentials than those who did not. This corresponds to a study by González-López, Pérez-López, & Rodríguez-Ariza (2021), which investigated issues from potential to early nascent entrepreneurship, by using senior students as the sample. The results found that entrepreneurial intentions and the ability to plan and manage the organization, had a direct impact on new entrepreneurship's behaviors. Moreover, having self-efficacy in being future Home Economics entrepreneurs could stimulate actions to achieve the imposed goals. Also, the research of Cruz Ros, Garzon, & Mas Tur (2017) found that the intention to be entrepreneur is an important component of entrepreneur potential because intention motivates the creation of marketing innovation. It is also in line with the Theory of Planned Behavior: TPB which is the social psychology theory about the connection between attitude and behavior according to the belief that people's behavior is influenced by the intention. However, the intention to behave can explain that those who have ability to control their behavior at a high level will have the opportunity to behave in high level as well.

Suggestion

The current research results personnel in higher education and vocational education intuitions that play a part in setting visions of the graduates in the field of Home Economics used to enhance Home Economics entrepreneurship potentials for students in 6 aspects including seeking business opportunities, innovative thinking, risk taking, management, entrepreneurial intentions, and networking. Also, the Home Economics entrepreneurship indicators can be used to assess students' potentials, in order to find ways to support and develop their Home Economics entrepreneurship potentials.

Future research studies should adopt the findings from the analysis of the Home Economics entrepreneurship potential to create learning activities for students, by designing Challenge-based Learning (CBL) activities to increase the awareness of the Home Economics entrepreneurship potential and enhance students' opportunities to conduct business in different contexts.

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A Study of Ideal and Perceived Images of Thailand Based on Inbound Tourists Perception

Nuchrueedee Rooymai*

Faculty of Management Science, Suan Dusit University, Bangkok, 10300 Thailand

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Abstract

This research had two aims, (1) to determine information sources influencing inbound tourist's perception on the ideal image of Thailand (images of Thailand before visiting) and (2) to compare between ideal and perceived images (images of Thailand after travelling). Data was gathered from 400 inbound tourists who had experiences in travelling in Thailand. Selection of respondents of inbound tourists, by accidental sampling at Suvannabhumi Airport 250 respondents and at Don Muang Airport 150 respondents. The research tools used in the study were structured questionnaires. The statistics for test the hypothesis "The ideal and perceived image of Thailand is significantly different" is a t-test. The study findings are as follows 1. The majority of respondents were mostly female, single and aged under 30 years old. Most respondents had Bachelor Degree in Education, were professional employees and earned income less than 20,000 US\$ per year. The dominant characteristics are western (England, Germany, Russia, Sweden, Norway and Australia, respectively), spending from 10 to 20 days in Thailand, travelling alone, and their visit was mainly influenced by the nature and climate. Furthermore, most of them claimed the significant sources of Thailand information were their friends and social media, respectively. The social media they accessed regarding Thailand information, they mainly mentioned websites i.e., www.lonelyplanet.com and www.tripadvisor.com, respectively. Travel public relations agencies most used personal media or word of mouth, followed by social media especially the website www.lonelyplanet.com and www.tripadvisor.com. (2) Most respondents positively perceived ideal images of Thailand and reported positive perceived images of Thailand with very good level in all aspects. Significantly, the various kinds of food was given the highest score of both ideal and perceived images of Thailand. (3) The comparison between ideal images and perceived images of Thailand reveals that after travelling the scores given to an aspect of various kinds of food decreased, while the highest scores were given to an aspect of natural resources and environment. (4) The hypothesis test showed the difference in ten aspects between ideal images and perceived images of Thailand including aspects of natural resources and environment, safety of places, various kinds of food, excellence of hotels, worthiness of shopping, reasonability of service prices, information for travel, residential information, discounts for travel, and information publication for tourists by agencies and/or government organizations.

* Corresponding Author

e-mail: ajarnsandy@hotmail.com

Introduction

Thailand's Inbound tourism is a major industry sector, which offers the country tremendous value for several consecutive years. This is increasing steadily, as seen by the increase in revenue from 1,172.498 billion baht in 2015 to 1,475.150 billion baht in 2016. (Tourism Authority of Thailand, 2015) As a result, the businesses of manufacturing products and services experienced expansion to accommodate tourists, including hotels and beverages manufacturing and trading of souvenirs, car rental services, parking facilities, etc. Such businesses generate employment and are an important factor in the distribution of income and prosperity to the region as well.

During the years 2002–2011, the number of inbound foreign tourists experienced a continuous rise. In 2010, more than 16,000 people voted around the world for Bangkok as the most attractive city in the world. The vote was organized by a well-known US magazine called Travel & Leisure. In 2010, Thailand had income from foreign tourists of 592,794.09 million baht, or 5.9% of the gross domestic product. (Tourism Authority of Thailand, 2012)

The source of residence of foreign tourists was found.; 55% came from the Asia- Pacific region, mainly Japan and Malaysia, while most Western tourists came from the UK, Australia, Germany, the US and Scandinavia. The number of tourists from the Middle East and Russia had also increased.

Thailand's tourism situation in 2017 is likely to improve. From visa fee waivers and the reduction of visa arrival fees for foreign tourists, that includes 21 countries. As well as having other foreign tourist markets to support the tourism sector in the first half of 2017, ASEAN and Europeans, especially Russian tourists market recovered from 2016.

Vietnam, Laos and Cambodia have opened their tourism sector to international tourism which has created increased competition for Thailand. Angkor Wat and Luang Prabang are now a competitor for Thailand. The competition is a new phenomenon since Thailand had a monopoly on tourism in the region. Thailand must target different and varies tourist markets. Tourists problems exist such as, the problem of insecurity of life and property, unsafe to travel, the problem of fraud that effects the image of tourism in Thailand. The data on media behavior of tourists, especially the Internet, where visitors spend the most. Recognizing the ideal and real images of inbound tourists to Thailand is an important

undertaking in order to be able to improve the services offered, to correct the negative image, strengthen the positive image of the inbound tourist as well as for sustainable tourism development and generate increase income for Thailand in the future.

Objectives

1. To determine the source of influence of inbound tourists in the ideal of Thailand before traveling.
2. To compare the ideal and perceived images of Thailand based on inbound tourists perceptions.

Conceptual framework

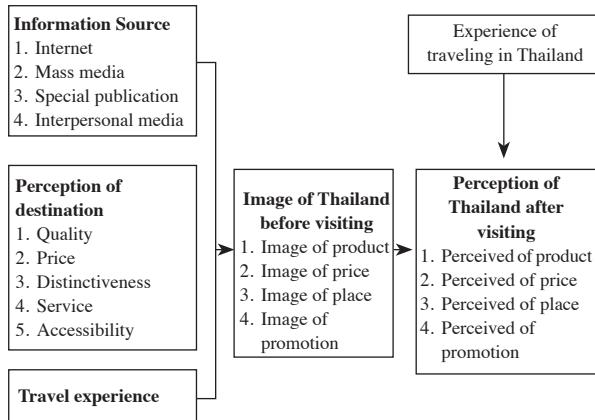


Figure 1 Conceptual framework

Research methodology

1. Population and samples

The population was inbound tourists to Thailand between December 2014-March 2015 .

The appropriate sample size of the inbound tourists was determined using Yamane's principles calculation and resulted in 400 people for this research.

Selection of samples of inbound tourists, by accidental sampling at Suvannabhumi Airport 250 samples and Don Muang Airport 150 samples.

2. Research instrument

The research tool used in the study were structured questionnaires. Questionnaire details are discussed below.

Questionnaire is divided into three parts.

1. General information on personal factors, including gender, age, marital status, education and occupation is characterized by checklists questions (1-11), media behavior by Likert Scale questions (12-14).

2. The reality and images of Thailand perceived by inbound tourists by Likert Scale questions.

In this study, the marketing mix was used primarily to create the following questions

Tourism products such as natural resource and environmentally, good service, safety places, clean city, various foods, excellent hotel.

Tourism price such as reasonable accommodations rates, value of shopping, reasonable price for food, reasonable price for services, reasonable price for travelling and low cost of living

Tourism place such as accommodation information, travel information, tourist crisis management, attraction's information, good travel agency and call centers for tourist.

Tourism promotion such as discount for accommodation, sales promotion, variety of adventure and family activities, discount for travelling, Thailand tourism advertising, Thailand tourism public relations and festivals.

3. Suggestion

After creating the questionnaire, the researcher took the questionnaire to test and find credibility with 30 foreign tourists who travel to Thailand At Khao San Road, a group similar to the real population, tested for ALPHA (Cronbach's Alpha), which was. 979.

3. Collection of data

The data collection consisted of the procedure as follows:

3.1 Collect questionnaire data from inbound tourists, 400 sample.

3.2 Collect data from interviews with 250 inbound tourists at Suvannabhumi Airport and at Don Muang Airport, 150 inbound tourists .

4. Data analysis

Analysis of data from questionnaires and interviews used software. After the field survey by questionnaire and then by voted code created by the user by parsing purposes. The statistics for testing the hypothesis "The ideal and perceived image of Thailand is significantly different" a T-test .

A questionnaire and interview, the procedure is as follows:

1. Review of documents and related research to serve as a guide to create questionnaires and interviews.

2. Create questionnaires and interviews, analysis by objective research to create questions.

3. Introduce draft questionnaires to the experts for review and conduct a content validity and try to gauge

sentiment survey.

4. Suggestions and comments from leading experts as well as analysis were used to improve questionnaires and interviews.

Results

1. The majority of respondents were female, single and aged under 30 years old. Most of the respondents had Bachelor Degree in Education, were professional employees and earned income less than 20,000US\$ per year. The dominant characteristics are Westerns (England, Germany, Russia, Sweden, Norway and Australia, respectively), spending from 10 to 20 days in Thailand, travelling alone, and their reasons for visiting is mainly influenced by the nature and climate. Furthermore, most respondents claimed the significant sources of Thailand information were their friends and social media, respectively. For the social media that they accessed for Thailand information, they mainly mentioned www.lonelyplanet.com and www.tripadvisor.com, respectively.

2. The study of the respondents (inbound tourists) about the their ideal and perceived images of Thailand conducted by the analysis of the mean and standard deviation. To present the ideal and perceived images of Thailand of inbound tourists in four aspects: product, price, place and promotion as shown in the following table.

Table 1 Mean score for influential media before visiting Thailand

Influential media before visiting thailand	Mean	S.D.	Level comments	rating
1. U-Tube	2.94	1.44	moderate	4
2. Social media	3.06	1.34	often	2
3. Tour agent	2.43	1.26	moderate	7
4. Travelling website	3.04	1.46	often	3
5. Blog	2.73	1.40	moderate	6
6. Guide book	2.77	1.36	moderate	5
7. Travelling magazine	2.22	1.20	moderate	8
8. Movie	1.92	1.25	Not often	9
9. Friends	4.32	1.08	Most often	1

Table 1 shows the results and found that the majority of influential media before visiting Thailand are friends, followed by Social media, Travelling Website, U-Tube and Guide book.

Table 2 Mean score for the image of Thailand before visiting

Image in four aspects	Mean	S.D.	Level comments	rating
Product				
1. Natural resource and environment	3.20	0.69	Very good	6
2. Good service	3.25	0.67	Very good	2
3. Safety places	2.92	0.77	good	16
4. Clean city	2.58	0.82	good	24
5. Various foods	3.30	0.69	Very good	1
6. Excellent hotel	3.09	0.70	Very good	11
Price				
1. Reasonable accommodations rates	3.21	0.65	Very good	4
2. Value of shopping	3.18	0.65	Very good	7
3. Reasonable price for foods	3.23	0.69	Very good	3
4. Reasonable price for services	3.10	0.66	Very good	8
5. Reasonable price for travelling	3.11	0.62	Very good	10
6. Low cost of living	3.20	0.67	Very good	5
Place				
1. Accommodation Information	3.15	0.63	Very good	9
2. Travel Information	3.08	0.64	Very good	12
3. Tourist crisis management	2.69	0.76	good	23
4. Attractions Information	3.07	0.62	Very good	13
5. Good travel agency	2.94	0.71	good	15
6. Call center for tourist	2.55	0.77	good	25
Promotion				
1. Discount for accommodation	2.87	0.72	good	19
2. Sales promotion	2.81	0.75	good	22
3. Variety of adventure and family activities	3.02	0.65	Very good	14
4. Discount for travelling	2.86	0.71	good	20
5. Thailand tourism advertising	2.89	0.62	good	17
6. Thailand tourism public relations	2.86	0.67	good	21
7. Many of festival	2.88	0.74	good	18

Table 2 shows the results and found that the majority of respondents had a positive image about Thailand at a very good level in almost every aspect, followed by an appearance at a good level. Image of various foods had the highest average, followed by the image of reasonable prices for food, good services, reasonable accommodation rates and low cost of living, respectively.

Table 2 Mean score for the perceived of Thailand after visiting

Perceived in four aspects	Mean	S.D.	Level comments	rating
Product				
1. Natural resource and environment	3.02	.75	Very good	15
2. Good service	3.22	.68	Very good	3
3. Safety places	3.07	.71	Very good	11
4. Clean city	2.53	.77	Very good	25
5. Various foods	3.56	.60	Very good	1
6. Excellent hotel	3.16	.66	Very good	7
Price				
1. Reasonable accommodations rates	3.19	.62	Very good	4
2. Value of shopping	3.06	.69	Very good	14
3. Reasonable price for foods	3.30	.65	Very good	2
4. Reasonable price for services	3.11	.67	Very good	9
5. Reasonable price for travelling	3.07	.68	Very good	12
6. Low cost of living	3.16	.68	Very good	8

Table 2 (

Perceived in four aspects	Mean	S.D.	Level comments	rating
Place				
1. Accommodation Information	3.11	.65	Very good	10
2. Travel Information	3.18	.70	Very good	5
3. Tourist crisis management	2.66	.84	good	23
4. Attractions Information	3.18	.68	Very good	6
5. Good travel agency	2.99	.73	good	16
6. Call center for tourist	2.61	.84	good	24
Promotion				
1. Discount for accommodation	2.80	.75	good	19
2. Sales promotion	2.73	.84	good	22
3. Variety of adventure and family activities	3.06	.75	Very good	13
4. Discount for travelling	2.79	.72	good	20
5. Thailand tourism advertising	2.83	.72	good	18
6. Thailand tourism public relations	2.78	.72	good	21
7. Many of festival	2.93	.79	good	17

Table 3 shows the results and found that the majority of respondents had a positive perception about Thailand at a very good level in almost every aspect. Followed by an appearance at a good level. Image of various foods had the highest average, followed by the image of reasonable prices for food, good services, reasonable accommodation rates and travel information, respectively.

Table 4 The difference between the mean and standard deviation of the image of Thailand before and after visiting to Thailand.

Perceived in four aspects	Mean	S.D.	Level comments	rating
Product				
1. Natural resource and environment	.16	.73	increase	1
2. Good service	.02	.79	increase	14
3. Safety places	-.13	.84	decrease	24
4. Clean city	.07	.87	increase	5
5. Various foods	-.27	.78	decrease	25
6. Excellent hotel	-.07	.70	decrease	21
Price				
1. Reasonable accommodations rates	.02	.73	increase	15
2. Value of shopping	.12	.72	increase	2
3. Reasonable price for foods	-.06	.77	decrease	20
4. Reasonable price for services	.07	.75	increase	4
5. Reasonable price for travelling	.03	.71	increase	13
6. Low cost of living	.05	.73	increase	9
Place				
1. Accommodation Information	.04	.73	increase	11
2. Travel Information	.10	.75	increase	22
3. Tourist crisis management	.03	.79	increase	12
4. Attractions Information	-.12	.73	decrease	23
5. Good travel agency	-.06	.69	decrease	19
6. Call center for tourist	-.04	.75	decrease	16
Promotion				
1. Discount for accommodation	.05	.71	increase	8
2. Sales promotion	.06	.80	increase	7
3. Variety of adventure and family activities	-.04	.78	decrease	17
4. Discount for travelling	.08	.73	increase	3
5. Thailand tourism advertising	.05	.70	increase	10
6. Thailand tourism public relations	.07	.71	increase	6
7. Many of festival	-.05	.76	decrease	18

Table 4 shows the results and found the perception of inbound tourist towards Thailand after visiting was lower from the ideal images before visiting in many ways such as, natural resource and environment had the highest decrease, the second was in safety places, attraction's information, travel information, and excellent hotel, respectively.

Table 5 Relationship test between the image before visiting and perception after visiting

Image and perceived about Thailand	Mean	S.D.	t	Sig. (2-tailed)
Product				
1. Natural resource and environment	.16	.73	4.23	.000*
2. Good service	.02	.79	.63	.524
3. Safety places	-.13	.84	-3.15	.002*
4. Clean city	.07	.87	1.74	.081
5. Various foods	-.27	.78	-6.79	.000*
6. Excellent hotel	-.07	.70	-2.09	.037*
Price				
1. Reasonable accommodations rates	.02	.73	.62	.530
2. Value of shopping	.12	.72	3.41	.001*
3. Reasonable price for foods	-.06	.77	-1.75	.079
4. Reasonable price for services	.07	.75	2.07	.039*
5. Reasonable price for travelling	.03	.71	.99	.320
6. Low cost of living	.05	.73	1.46	.145
Place				
1. Accommodation Information	.04	.73	1.24	.215
2. Travel Information	-.10	.75	-2.89	.004*
3. Tourist crisis management	.03	.79	.91	.363
4. Attractions Information	-.12	.73	-3.26	.001*
5. Good travel agency	-.06	.69	-1.70	.089
6. Call center for tourist	-.04	.75	-1.07	.283
Promotion				
1. Discount for accommodation	.05	.71	1.64	.101
2. Sales promotion	.06	.80	1.47	.140
3. Variety of adventure and family activities	-.04	.78	-1.10	.268
4. Discount for travelling	.08	.73	2.08	.038*
5. Thailand tourism advertising	.05	.70	1.53	.127
6. Thailand tourism public relations	.07	.71	2.07	.039*
7. Many of festival	-.05	.76	-1.30	.191

The perception of Thailand after visiting decreased from the images before visiting in many ways such as, various foods decreased the most, the second was value of shopping, discount for travelling, reasonable price for services and clean city, respectively.

The comparison showed that the relationship to the image and perception of inbound tourists visiting Thailand had 10 significantly differences such as natural resource and environment, the safety places, the various food, excellent hotel, value of shopping, reasonable price for services, travel information, attraction's information,

discount for travel and Thailand tourism agency public relations.

Discussion

Most inbound tourists have a positive image about Thailand before traveling and after traveling in a very good level in every category. The food variety has the highest average.

Comparing the image of Thailand before and after traveling the score for various food was reduced. While the score increased for natural resource and environment.

The hypothesis test showed the reality and images of Thailand as perceived by inbound tourists had 10 different significant aspects in four aspects as discussed below:

(1) Product , the ideal and real images of Thailand as perceived by inbound tourists had 4 different aspects significantly such as nature resource and environment, the safety places, the various food and excellent hotel.

(2) Price , the ideal and real images of Thailand as perceived by inbound tourists had 2 different aspects significantly such as value of shopping, reasonable price for service.

(3) Place , the ideal and real images of Thailand as perceived by inbound tourists had 2 different aspects significantly such as travel information, attraction's information.

(4) Promotion , the ideal and real images of Thailand as perceived by inbound tourists had 2 different aspects significantly such as discount for travel and Thailand tourism agency public relations.

The results of this research found that beautiful nature, food and safety is a factor that attracts foreign tourists which corresponds to Tourism Department, Faculty of Arts Rajamangala University of Technology (2018). In addition, the issue of the image of Thailand in the eyes of foreign tourists was found to be consistent with Hathaiwaleewong (2016), that the average image of Koh Samui showed that the image of Koh Samui was mostly positive. Therefore, the quality of tourism services creates a good image. Because when tourists are impressed, they will create word of mouth. This is align and consistent with the work of Inthasang (2017), who found that foreign tourists perceived news from the personal media first, similar to this current research.

This research found that most tourists travel on their own. This is consistent with the research of Hiranrak (2007), "Report on the survey of foreign

tourists' attitudes" on travel issues Domestic travel of foreign tourists who travel outside of Bangkok Most of them travel by themselves. This may mean confidence in the travel safety of foreign tourists as well as having enough tourism information. The important information is the Internet. This is consistent with the research of Ruimai (2018), a study of information exposure behavior of foreign tourists. Traveling to Koh Phangan It was found that the most used medium was the Internet. An important source information before traveling is the Internet. Resources in The important country is the internet.

Suggestions

1. There should be a separate study of opinions about the different images between foreign tourists in each group, such as European tourists and Asian tourists because of the fundamentals of both personal factors different travel behaviors and preferences. This will cause different expectations about the image of Thailand.
2. Satisfaction should be assessed after continuing to travel to Thailand to compare the level of image and satisfaction and use the results of the study to improve on issues that have a bad image or less satisfied to improve.

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The Relationship between Innovation and Entrepreneurship Education Model with the Spirits of Shanxi Merchants: A Study at Higher Vocational Colleges in Shanxi Province, China

Jing Sun^{a*}, Yuehong Li^b, Jing Zhang^b, Yixin Zhang^c

^a *Ideological and Political Theory Teaching and Research Department, Taiyuan Institute of Technology, Taiyuan, 030008 China*

^b *Ideological and Political Theory Teaching and Research Department, Taiyuan Institute of Technology, Taiyuan, 030008 China*

^c *Students' Affairs Office, Technical and Electrical Engineering Department, JinCheng Institute of Technology, Jincheng, 048000 China*

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Abstract

This study focuses on the relationship between innovation and entrepreneurship education model in inland universities in China and the Jin Merchants' spirit. The method of qualitative and quantitative research is mainly adopted. The research targets and samples are vocational college students in Shanxi Province, China. After experts' selection and determination of the survey content, data were collected through online questionnaire system. In fact, 446 people took part in the survey. Through this demonstration, a dimensional scale was developed to measure the daily and professional education of innovation and entrepreneurship in higher vocational colleges in China. On this basis, it is proved that innovation and entrepreneurship education model plays a positive role in promoting the spirit inheritance of Shanxi Merchants. On the one hand, there is a close connection between the daily education of innovation and entrepreneurship and professional education. On the other hand, the correlation between daily education of innovation and entrepreneurship and Jin Merchants' spirit is higher than that between professional education of innovation and entrepreneurship and Jin Merchants' spirit. Therefore, it can be concluded that the inheritance and influence of the Spirit of Shanxi Merchants can be more easily realized in the daily innovation and entrepreneurship education.

Introduction

Innovation and entrepreneurship education can play a better role in inheriting and promoting Jin merchant culture through daily and professional cooperation.

Such a form not only enhances the accuracy of the dissemination of knowledge and spiritual values, but also provides the best effect of imperceptible education factors.

* Corresponding Author
e-mail: 543754514@qq.com

The Relationship between Innovation and Entrepreneurship Education Model with the Spirits of Shanxi Merchants: A Study at Higher Vocational Colleges in Shanxi Province, China

Culture is Closely Related to Innovation

Culture is a programming of the mind, determined by a learning process achieved through several factors: education, religion, language, historical evolution, political system, etc., being therefore significantly influenced by the national institutional architecture type and development (Brancu, Munteanu, & Gligor, 2012).

Innovation and culture are closely linked. The culture of socialism with Chinese characteristics is rich in connotation and forms, which can provide endless resources and spiritual power for national innovation and development. Innovation is the soul of culture, collaborative innovation ability is the core ability of cultural industry and improving collaborative innovation ability is the key to improve the international competitiveness of cultural industry (Yang, 2015).

According to the division of national administrative region, regional culture often has its own characteristics. The spiritual inheritance contained in culture depends on the attention and protection of the state and society, and colleges and universities are an effective channel for the transmission of spiritual culture to young people. Innovation and entrepreneurship education also adopts targeted cultivation strategies for spiritual level according to the change of objective environment.

Measuring spiritual culture is not always easy. With respect to regional culture, many dimensions are unquantifiable. Interview results revealed distinctive differences on the perceptions of regional culture by information technology entrepreneurs between Hamamatsu and Kyoto. In fact, the interview process itself was indicative of distinctive regional culture (Aoyama, 2009). In addition, some scholars point out the difficulty of cultural measurement from the perspective of sociology. The British scholar Mark J. Smith said that culture is one of the most challenging concepts in today's social science (Zhang, 2005; Smith, 1998). Both natural society and human society are very complicated. For the cognitive challenge of culture, factors should not only be limited to the development and change of human society, but also take into account the influence of complex factors such as natural environment and geographical location on its formation and development.

Higher vocational colleges are an important position to train successors to the cause of socialism with Chinese characteristics. Innovation and entrepreneurship education in China has its own characteristics. Innovation

and entrepreneurship education is not only deeply influenced by the excellent traditional Spiritual culture of China, but also influenced by the unique spiritual culture of different regions. The students trained will not only have the corresponding ability, but also reflect the rich spiritual value of their respective places.

There are different levels of entrepreneurship education organizations in the United States, such as national, state, and local levels. They carry out or support the development of entrepreneurial education teaching materials and methods, and exchange of teaching information (Shu, 2011). The success of innovation and entrepreneurship education in Singapore is deeply influenced by its unique cultural environment and geographical location.

The spirit of Shanxi Merchants should be integrated into the talent training mode. In such a manner as to pay attention to in the process of talent training and adult education, professional education and quality education, classroom teaching and extracurricular teaching, theory teaching and practice teaching, guided by basic training and innovation, improve together with the combination of personal development, which further reflects the characteristics of high-quality talent and strengthens the cultivation of talents (Yang, & Yuan, 2008).

It is possible to integrate excellent culture and innovation and entrepreneurship education in China. It is mainly reflected in that it is conducive to cultivating the innovation and entrepreneurship spirit of college students, constructing the innovation and entrepreneurship moral system of college students, and stimulating the social responsibility of college students in innovation and entrepreneurship (Zhang, He, & Chen, 2018).

During a visit to Shanxi Province, Li Keqiang said that Shanxi, "... needs to shift from over-dependence on natural resources to greater reliance on human resources, both in terms of coal and in terms of the inexhaustible wealth of Shanxi Merchants" (Li Keqiang Urges Shanxi to Dig Two 'Rich Mines', 2016).

Based on the scope of this study, Jin Merchant culture is the spiritual wealth created by Shanxi Merchants, including the whole system of commercial civilization, such as commercial organization system, commercial technology, elite art, urban and rural buildings, temples, monthly temple worship, commercial education, social customs (Yang, & Cheng, 2018). The basic characteristics of the culture of Jin Merchants

mainly include hardship and dedication, honesty and trustworthiness, using righteousness to restrict profit, self-cultivation, mutual help in businesses of the same trade, patriotism and saving the people (Xue, 2013). The culture of Shanxi Merchants can cultivate the consciousness of innovation and entrepreneurship and cultivate the quality of entrepreneurship of college students (Zhang, & Xu, 2019).

To a certain extent, the spirit of Jin Merchants is closely related to the culture of Jin Merchants. The most prominent feature of the Jin Merchants' culture was formed in the historical practice of trading activities, not only the economic achievements, but also the business ethics, system, organization, and civilization. The cultural connotation of the Jin Merchants is extremely rich, the success of the Jin Merchants is fundamentally due to its own spirit of the Jin Merchants (Cheng, 2019). Culture and spirit together constitute the second nature of human beings. Human beings are guided by spirit in cultural activities. It is precisely this spiritual guidance that makes human culture progress continuously. The inheritance and promotion of the entrepreneurial and innovative spirit of Jin Merchants in Ming and Qing Dynasties can also play such a role, enabling the development of human culture (Shang, & Wang, 2019).

First, the spirit of Shanxi Merchants is the barometer of cultivating innovative and entrepreneurial talents with good personal quality in higher vocational colleges of Shanxi Province. Second, the spirit of Shanxi Merchants is highly consistent with the operation rules of socialist market economy, which is an excellent teaching material to educate college students in higher vocational colleges in Shanxi Province as a method to understand the market operation. Third, there is a gap between the spirit of promoting innovation and cherishing talents and the development trend of modern enterprise culture, which provides rich ideological sources for local brands in Shanxi Province to shape enterprise culture. Finally, the spirit of Shanxi Merchants is a diversified source of campus culture construction (Zhang, 2020).

The spirit of Jin Merchants is not only rich in content, but also profound in thought. They have absorbed the nutrients of Chinese traditional culture, and formed the inherent distinctive characteristics, with the characteristics of inheritance, transcendence, and education (Han, 2020).

The spirit of Shanxi Merchants not only plays a positive role in promoting the current social and

economic development, but also has the value of the times, especially for the development of socialist market economy and the construction of a socialist harmonious society, offering a significant reference and inspiration role. First, honesty and trustworthiness is the essential requirement for a healthy development of market economy. Second, it can help guide positive innovation and entrepreneurship and deal with unemployment and other problems. Third, it facilitates the harmonious coexistence between different interest groups (Liu, 2016).

The development of Jin Merchants experienced the rise, development, prosperity and decline of several stages. Scholars pay more attention to the Ming and Qing Jin Merchants. For example, Jin Merchants in the Ming and Qing dynasties had countless individuals who started their own businesses. They opened the commanding heights of the business community on the road of innovation and defense. Their success is certainly based on historical background, but the Ming and Qing Dynasties and Jin Merchants left us countless commercial innovation models, allowing for today's higher vocational education to draw lessons from the valuable experience (Su, 2016).

Objectives

1. To analyze innovation and entrepreneurship education models. It can be divided into two types: daily education mode and professional education mode.
2. To prove that there is a close relationship between Jin Merchants' spirit and innovation and entrepreneurship education.
3. To construct a preliminary scale for measuring innovation and entrepreneurship education (professional model and daily model).

Conceptual framework

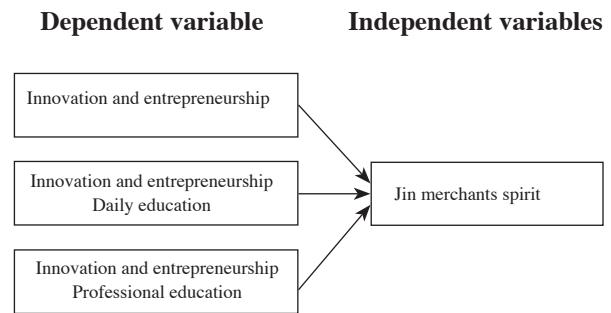


Figure1 Conceptual framework

Research methodology

1. Population and samples

The questionnaire was distributed through the network with the help of colleagues and friends and the development of teaching research. The sample of colleges and universities in this survey was based on the principle of simple random sampling, including three vocational colleges in Shanxi Province, China. There were 21,280 students studying in the three vocational colleges in 2021. This study included students from three universities as a sample, using the 5% sample size formula of Taro Yamane error and 95% reliability coefficient (Yamane, 1967) for calculating the sample size. Therefore, the sample size of this study was 393. Under the encouragement of the teacher, the students actively participated in the research online questionnaire. In fact, there were 446 survey participants.

2. Research instrument

Mixed research methods were used. Based on semi-structured interview and literature review, the initial scale was developed in combination with the researchers' academic research exploration direction. According to the content validity test given by experts and scholars (IOC), corresponding adjustments and modifications were made. SPSS.26 was used for data analysis.

3. Collection of data

Data were collected from April to July 2021. Before data collection, the informed consent of the participants and the permission of the university's personnel department management were obtained.

A five-step procedure was used: (a) to define innovation and entrepreneurship education and explore its connotation; (b) to form the initial dimensions and pool of items for the scale; (c) to revise and adjust the measurement items; (d) to analyze, verify, and validate the scale using collected data; and (e) to finalize the scale items (Niyomsilp & Sompong, 2019).

According to the design process of the questionnaire, the questionnaire survey was conducted consisting of three parts. The first part involved the demographic characteristics of the participants, and the second section was the innovation and entrepreneurship education. The third section was Jin Merchants' spirit.

The rating of each item was on a 5-point Likert-type scale, from Strongly Disagree = 1, Disagree = 2, Neutral = 3, Agree = 4, to Strongly Agree = 5.

4. Data analysis

4.1 Development and preliminary analysis of the scale

Table 1 Items and the dimensions of the innovation and entrepreneurship education scale

Dimensions	Number	Items
Innovation and entrepreneurship daily education	IEDE1	Teaching facilities for innovation and entrepreneurship in local universities are perfect.
	IEDE2	There are many types of innovation and entrepreneurship bases or parks in local universities.
	IEDE3	Local colleges and universities have rich forms of innovation and entrepreneurship activities.
	IEDE4	Local colleges and universities release timely information on government entrepreneurship at all levels.
	IEDE5	The policy and fund guarantee system of local colleges and universities are perfect.
	IEDE6	External innovation and entrepreneurship experts and our teachers have strong innovation ability.
	IEDE7	Besides innovation and entrepreneurship education, specialized courses and elective courses will involve innovation and entrepreneurship knowledge.
Innovation and entrepreneurship professional education	IEPE1	The use of classroom network provides convenience for students to obtain all kinds of fresh information.
	IEPE2	In the course teaching, the content of innovation and entrepreneurship displayed by teachers on the network platform is more attractive.
	IEPE3	The classroom teaching environment is closely related to The Times environment.
	IEPE4	The classroom atmosphere of the school and the construction of the campus environment can cultivate the students' consciousness of mass innovation, thinking and spirit.
	IEPE5	The practical teaching part of innovation and entrepreneurship specialty education can cultivate practical skills.
	IEPE6	Teachers will often use the network platform to publish related innovation and entrepreneurship content.
	IEPE7	In the practical teaching of innovation and entrepreneurship, teachers are very concerned about the cultivation of students' innovative thinking.

The above scale (Table 1) is a corresponding dimensional division of innovation and entrepreneurship in higher vocational colleges in China based on the research division of the main positions and channels of China's ideological and political education after a thorough literature review and expert consultation.

4.2 Factor and reliability analysis

Table 2 Reliability statistics

Reliability statistics	
Cronbach's Alpha	.964

Reliability analysis of all scale types in the questionnaire. The reliability of the scales (Table 2) was established using Cronbach's Alpha. If the reliability coefficient of any test or scale is above .8, the reliability of the test or scale is very good; it shows the problem of setting this dimension, and the reliability is very good. All alpha values are respectable or better, i.e. higher than .8. Therefore, the reliability of questionnaire is .964, which is over .8, hence, the result was accepted.

4.3 Factor and validity analysis

Table 3 KMO and Bartlett's Test

KMO and bartlett's test		
Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.951
Bartlett's Test of Sphericity	Approx. Chi-Square	8539.371
	df	91
	Sig.	.000

In the table of KMO and Bartlett's Test (Table 3), the KMO is .951 above .6 (Kaiser 1970, 1974) and Bartlett's test is $p = .000$ smaller than .05 (.000), which means the data set is appropriate for continuing with factor analysis.

Table 4 Exploratory factor

Component	Total variance explained									
	Initial Eigenvalues			Extraction Sums of Squared Loadings				Rotation Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %	
1	9.538	68.131	68.131	9.538	68.131	68.131	6.156	43.970	43.970	
2	2.343	16.735	84.867	2.343	16.735	84.867	5.726	40.897	84.867	
3	.360	2.569	87.436							
4	.256	1.831	89.267							
5	.242	1.728	90.995							
6	.232	1.659	92.654							
7	.208	1.486	94.141							
8	.166	1.187	95.328							
9	.150	1.068	96.396							
10	.128	.914	97.311							
11	.115	.819	98.130							
12	.108	.770	98.899							
13	.080	.572	99.471							
14	.074	.529	100.000							

Extraction Method: Principal Component Analysis.

Analyses in the principal component analysis, the total interpretation rate of cumulative variance reached 84.87%, and the extracted principal component covered most of the information on the variable, and had good explanatory ability (Table 4).

Table 5 Rotated component matrix^a

Rotated component matrix ^a	Component	
	1	2
IEDE1	.917	
IEDE2	.899	
IEDE3	.885	
IEDE4	.880	
IEDE5	.879	
IEDE6	.875	
IEDE7	.871	
IEPE1		.892
IEPE2		.883
IEPE3		.869
IEPE4		.865
IEPE5		.849
IEPE6		.848
IEPE7		.763

Extraction Method: Principal Component Analysis.

Rotation Method: Varimax with Kaiser Normalization.

a. Rotation converged in 3 iterations.

After orthogonal rotation, the factor loading matrix was obtained. Table 3 shows that the standardized factor loading coefficient of the measurement items lay between .76 and .92. In line with an accepted measurement standard greater than .60, and the scale had good structural validity (Table 5).

Results

Demographic analysis of the respondents

The data from 446 questionnaires were employed, which consisted of 212 female respondents (48%) and 234 male respondents (52%). The rate of females and males are nearly balanced and the age range was from 17 to 22 years old.

Sixteen experts were invited for the consultation (mean age 39.3, SD = 5.01). Men and women were equally represented, and they all had at least a master's degree. They had an average of more than 9 years of work experience. As a result, they have strong professional analytical skills.

Objective 1: To analyze innovation and entrepreneurship education model. It can be divided into two types: daily education model and professional education model.

Correlation between daily innovation and entrepreneurship education model and professional innovation and entrepreneurship model.

Table 6 Correlation between IEDE and IEPE

	IEDE	IEPE
IEDE	Pearson correlation	1
	Sig. (2-tailed)	.617**
	N	456
IEPE	Pearson correlation	.617**
	Sig. (2-tailed)	.000
	N	456

**. Correlation is significant at the 0.01 level (2-tailed).

The results shown in Table 6 indicate that there is significant relation between daily education and professional education of innovation and entrepreneurship, as the Sig. (2-tailed) value is under .05 (.000). According to the previously mentioned reference standard, and Pearson Correlation coefficient is .617.

Objective 2: To prove that there is a close relationship between Jin Merchants spirit and innovation and entrepreneurship education.

Correlation between daily innovation and entrepreneurship education model and The Spirit of Shanxi Merchants.

Table 7 Correlation between IEDE and Jin Merchants Spirit

	IEDE	Jin
IEDE	Pearson correlation	1
	Sig. (2-tailed)	.948**
	N	456
Jin	Pearson correlation	.948**
	Sig. (2-tailed)	.000
	N	456

**. Correlation is significant at the 0.01 level (2-tailed).

The results shown in Table 7 indicate that there is significant relation between innovation and entrepreneurship on daily education and Jin Merchants spirit, as the Sig. (2-tailed) value is under .05 (.000). According

to the previously mentioned reference standard, and Pearson Correlation coefficient is .948.

Analysis of variance between the spirit of Jin Merchants and daily innovation and entrepreneurship education model.

Table 8 Analysis of variance between the spirit of Jin Merchants and IEDE.

ANOVA ^a					
Model	Sum of Squares	df	Mean Square	F	Sig.
1 Regression	1921.175	1	1921.175	4025.640	.000 ^b
Residual	216.665	454	.477		
Total	2137.840	455			

a. Dependent Variable: Jin Merchants spirit

b. Predictors: (Constant), IEDE

In addition, according to the data in Table 8, the sig. in ANOVAa equals .000b, which is smaller than .05 (.000), suggesting a positively correlated between the measured concepts.

Correlation between professional innovation and entrepreneurship education model and The Spirit of Shanxi Merchants.

Table 9 Correlation between IEPE and Jin Merchants' Spirit

	Jin	IEPE
Jin	Pearson correlation	1
	Sig. (2-tailed)	.613**
	N	456
IEPE	Pearson correlation	.613**
	Sig. (2-tailed)	.000
	N	456

**. Correlation is significant at the 0.01 level (2-tailed).

The results shown in Table 9 indicate that there is significant relation between innovation and entrepreneurship on daily education and Jin Merchants' spirit, as the Sig. (2-tailed) value is under .05 (.000). According to the previously mentioned reference standard, and Pearson Correlation coefficient is .613.

Analysis of variance between the spirit of Jin Merchants and professional innovation and entrepreneurship education model.

Table 10 Analysis of variance between the spirit of Jin Merchants and IEPE.

ANOVA ^a					
Model	Sum of Squares	df	Mean Square	F	Sig.
1 Regression	802.226	1	802.226	272.692	.000 ^b
Residual	1335.613	454	2.942		
Total	2137.840	455			

a. Dependent Variable: Jin

b. Predictors: (Constant), IEPE

In addition, according to Table 10, the sig. in ANOVAa equals .000b, which is smaller than .05 (.000), suggesting a positively correlation between the measured concepts.

Through the above research and analysis, it can be concluded that the positive influence of the daily model of innovation and entrepreneurship education on the Spirit of Jin Merchants is higher than that of the professional model.

Objective 3: To construct a preliminary scale for measuring innovation and entrepreneurship education (professional model and daily model)

Table 11 Hypothesis verification results

No	Conclude
H1	acceptable
H2	acceptable
H3	acceptable

According to Table 1 to Table 10, a preliminary scale is constructed to measure the daily model and professional model of innovation and entrepreneurship education. Through SPSS 26.0 analysis and verification, according to Table 11, the results show "acceptable" regarding the three hypotheses proposed in the research.

Discussion

Cultural identity is the consciousness and mastery of cultural identity and status. A nation often shares and maintains its own cultural characteristics of ideals, beliefs, values, ideas, and memories. Its expression is the core of their collective consciousness and culture, and guides and standardizes the attitudes of people and countries in international affairs and language (Cheng, 2017).

In the new era, in the communication and competition between countries, the influence of culture on citizens is increasing day by day. In particular, the identity of culture is an important basis for the development of a nation. Values is the soul of the culture, the nature of the provisions of the culture and the development direction of cultural identity and cohesion of the fundamental depends on the value of the kernel, namely the cultural values. Therefore, cultural identity is multiple-level, multiple-structures, but the core of which is the identification of values. Any individual or group possessing strong basic skill performance as well as a reputation for good citizenship can achieve unusually high course grades (Farkas, Grobe, Sheehan,

& Shuan, 1990). Culture varies from region to region and exerts a differentiated influence on value recognition or individual development.

By attaching importance to the inheritance of the spirit of Jin Merchants and establishing the interactive model between innovation and entrepreneurship education and Jin Merchants culture, Chinese students can build up Chinese cultural confidence and the power of cultural self-consciousness.

From the perspective of improving the daily education of innovation and entrepreneurship, in order to effectively play the positive effect of the Spirit of Shanxi Merchants. The country, colleges and universities, the main body of knowledge professors have three angles to cooperate. At the national level, there is a need to do a good job of top-level construction, timely update and provide guiding and encouraging policies. At the university level, it is necessary not only to provide perfect practice and training facilities, but also to fully integrate and utilize these facilities and resources in daily teaching. At the main level of knowledge teaching, it is important to make full use of the spirit of Jin Merchants and carry the spiritual and cultural resources through and embody them in all kinds of courses.

From the aspect of improving the education of innovation and entrepreneurship, the use of network platform carrier in professional courses will inevitably be full of a variety of predictable and potential risks. At the same time, it will stimulate students' learning initiative and expand their knowledge range. In addition, teachers need to be good at using a variety of environments to cultivate students' innovative thinking and entrepreneurial enthusiasm and be able to pass on the value of Shanxi Merchants' spirit in teaching. At the same time, professional teachers should not only be able to meet the development needs of students, but also take the initiative to care about the inner and emotional changes of students, and guide and inspire students by virtue of a variety of lively and interesting spiritual and cultural cases.

In short, through the mutual coordination and cooperation between innovation and entrepreneurship education model and the Spirit of Shanxi Merchants, adhere to the principle of systematic, persistent and hierarchical cooperation, improve students' practical skills, theoretical basis, and inherit the social and economic value of the spirit of Shanxi Merchants.

Suggestion

As a typical northern regional culture, Shanxi Merchants' culture has its own unique advantages, and at the same time, there are certain limitations. Only by constantly excavating and utilizing resources and further exploring the value of innovation and entrepreneurship education in the cultural inheritance of Shanxi Merchants.

The preliminary study on the innovation and entrepreneurship education model and the Spirit of Shanxi Merchants can not only promote the sustainable development of local economy, but also strengthen the innovation and entrepreneurship ability of local college student sand strengthen their love for the local excellent spiritual culture. On this basis, we should attract knowledgeable and highly educated groups to make their own contributions to the future development of Shanxi Province and realize their own value.

The incorporation of the essence of Jin Merchants culture, which is conducive to economic development, into the curriculum system of entrepreneurship education for college students will not only help to cultivate the innovation and entrepreneurship quality of college students, but also achieve the purpose of carrying forward the traditional culture (Li, Shi, & Li, 2013).

Local higher vocational colleges in Shanxi Province should take measures in accordance with local conditions and effectively combine regional cultural characteristics, which not only conform to the local transformation and development, but also provide a guarantee for the orderly development of targeted, distinctive and implementable education.

The origin of college students determines their cultural background. Therefore, entrepreneurship education in colleges and universities will face students with different regional cultures as well as the culture of the region where the school is located. In this context, entrepreneurship teaching should not only consider the possible influence of local culture, but also consider the influence of students' own culture, and teach students in accordance with their aptitude and local conditions (Pan, 2018).

There are more than 80 colleges and universities in Shanxi Province, and each one has a different development orientation. The sample size may not be able to represent the true thoughts of all vocational college students, and the data collection and research are also limited to some extent. In future studies, it is necessary to further expand the source of samples and appropriately extend a certain period of research.

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The Study of Homestay Management: Key Factors Affecting Homestay Service Expectations in Phra Nakhon Si Ayutthaya Province

Jirat Chuanchom^{*a}, Yutthapong Leelakitpaisarn^b, Pornpen Traiphong^c, Sarid Sriyothin^b, Pimmada Wichasin^d, Nongluck Popichit^a, Tananyaphat Srinathiyawasin^b & Chayapon Chomchaiya^b

^a Faculty of Management Science, Suan Dusit University, Bangkok, 10300 Thailand

^b Faculty of Humanities and Social Sciences, Suan Dusit University, Bangkok, 10300 Thailand

^c Faculty of Social Sciences, Srinakharinwirot University, Bangkok, 10110 Thailand

^d School of Tourism and Hospitality Management, Suan Dusit University, Bangkok, 10300 Thailand

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Abstract

The objective of this research was to study homestay management in correlation with service expectations for homestays and to study the potential of homestay management and the affects to service expectations for homestays. The researcher conducted a random survey of tourist who visited homestays in Phra Nakhon Si Ayutthaya Province. The quantitative approach using semi-structured questionnaires to collect data from the sample group that consisted of 400 Thai tourists aged between 20-60 years. The statistical tools used in the data analysis included percentage, mean and standard deviation and Cronbach's Alpha was used to assess the reliability of the questionnaire at .996. Multiple regression analysis was also used to test the correlation among the variables. The findings showed relationships with the potential of homestay management were correlated with the expectation of service of homestays in accommodating tourists at a high level of .671, and the potential of homestays management of entrepreneurs that affect their service expectations for homestay with a 0.05 level of significance level. As a result, the prediction was presented in the Equation: $\hat{y} = .095 + (.345\text{Fin}) + (.072\text{Pro}) + (.269\text{Cus}) + (.811\text{Learn})$ means the value of Finance, Customer and Learning & Growth when it increases by 1 unit Y (service expectations for homestay), it increases to $.095 + (.345) + (.072) + (.269) + (.811) = 1.592$.

Introduction

Overview of the Tourism Situation and Trend; The World Tourism Organization defines tourism as “the activities of persons travelling to and staying in places outside their usual environment for not more than one

consecutive year for leisure, business and other purposes” (UNWTO, 1995). The people involved in such activities are known as tourists. Such movement of tourists can be within the country, which is known as domestic tourism, and outside the country. Tourism is

one of the largest industries in the world and is very important to Thailand's economy. The most recent figures indicate Thailand recorded 38.27 million foreign visitors in 2018, with domestic tourism revenue projected to reach 2.20 trillion Baht for all of 2019. In 2018, approximately 10.4 percent of Thailand's GDP was contributed by the tourism industry (WTTC, 2019). As global tourism is constantly changing, every tourism destination is seeking to offer unique, extraordinary, and memorable tourism experiences to attract tourists and maintain a sustainable competitive advantage (Vilic, & Dujakovic, 2016).

Government policy. Thailand has one of the most developed tourism markets in Asia. The 'Land of Smiles' is known for its hospitality, beautiful beaches, historical places and eco-attractions, its world-famous cuisine, good infrastructure and affordable accommodation. Thailand's tourism policy encourages more Thai tourism as well as the government encouraging secondary tourism. This is shown by tourism tax deductions in 55 secondary provinces, one of the 55 provinces promoted is Phra Nakhon Si Ayutthaya Province. Thailand's economic recovery during the period ahead remains highly uncertain and will depend largely on the recovery in foreign tourist arrivals.

This is because income from spending by foreign tourists accounts for 11 percent of GDP and tourism-related business accounts for 20 percent of total employment in Thailand. If the COVID-19 pandemic is prolonged further by additional waves of infections and virus mutations, the recovery in foreign tourist arrivals might be slower than expected. Due to the COVID-19 pandemic, Thailand has had a decrease in tourists, especially foreign tourists. This is in line with the disrupted global tourism situation that has contracted by 38-45 percent (Kasikornthai Research Center, 2020). COVID-19 has influenced the behavioral changes of tourists causing anxiety and personal sensitivity, resulting in a decrease in tourists and unsatisfactory travel.

Theoretical Framework on Key Factors Affecting Homestays in Phra Nakhon Si Ayutthaya Province. Phra Nakhon Si Ayutthaya Province is home to many important economic crops and agricultural tourism activities are organized to disseminate knowledge to tourists and interested parties. Agricultural activities include orchid garden, Mixed Farmland Sufficiency Economy Learning Center with a sightseeing center for agriculture, herb gardens and lush fields in the farming season with the freshness of nature. The maid group has

become a popular tourist attraction where visitors can browse the processed products. It's classified as Eco-tourism and is enjoyed by both domestic and international tourists. This form of tourism can create new tourism trends and grow the tourism industry rapidly and diversely. In Phra Nakhon Si Ayutthaya Province, people have managed accommodations focused on rural culture visitors. Tourists stay with local homeowners to learn about the culture and way of life. Homestay services are homestay excursions and are known as community-based tourism (CBT). CBT Visitors can exchange cultures, traditions, and learn about local lifestyles. According to preliminary data, Phra Nakhon Si Ayutthaya Province has become a global tourism hub. On the basis of community strength along the Sufficiency Economy line, Based on the expertise and potential available from opportunities and possibilities as a tourism hub, it has found ways to stimulate Phra Nakhon Si Ayutthaya Province's tourism industry. In the form of building security, confidence for tourists. Creating and controlling the quality of services for tourists to meet the standards of care and improving the quality of tourist attractions will promote the quality of services to accommodate both Thai and foreign visitors to Phra Nakhon Si Ayutthaya Province. As a result, other Phra Nakhon Si Ayutthaya Province tourist attractions will be developed.

Key Factors I: Since the 1970s, there has been abundant research on the definition and evaluation dimensions of service quality. As for the evaluation dimension of service quality, The BSC is a performance measurement system that allows organizations to look at a business from four crucial divergent perspectives, including Finance, Customer, The Internal Business Processes, and Learning & Growth (Kaplan & Norton, 1996). A wide range of organization has applied BSC to measure their performance, including the service sector and logistics businesses. (Chytas, Glykas, & Valiris, 2011). The four perspectives of performance measurement (1) The financial perspective: Financial measures remain an essential dimension, as financial performance measures indicate whether a company's strategy, implementation, and execution are contributing to bottom-line improvement. (2) The customer perspective: Since companies create value through customers, customers' perception toward the company values become a significant aspect of performance measurement. (3) The internal business process perspective: This perspective helps to identify the critical internal processes in which the organization must excel.

and (4) The learning & growth perspective: This perspective of the BSC identifies the required infrastructure for the development of long-term growth and improvement in the business. Learning & Growth come from three principal sources, namely people, systems, and organizational procedures (Tippong, 2020).

Key Factor II; Homestays are an impressive place to visit and can influence tourists to return to visit the homestay again. Homestays are the cornerstone of tourism development as well as maintaining continued leadership in tourism in Asia; to develop the potential of homestay management and to become an internationally standard tourist destination. The factors that affect tourist experiences are diverse, whether it is the quality of service, the environment of the tourist attraction, value for money, tourism activities, quality of accommodation, transportation, and, importantly, food and beverages (Prombrom & Kimphakorn, 2015). Tourism related to food has been known alternatively as food tourism, culinary tourism (Karim & Chi, 2010). Food related activities at a tourism destination are sometimes classified as a component of cultural tourism (Corigliano, 2002). The cultural aspects of food pertain to the visitor food culture and the prevailing food culture in the destination, such as cooking methods, food preparation and ways to eat the food (Athena H.N. Mak, Margaret Lumbres, Anita Eves, Richard C.Y. Chang, 2012)]. Furthermore, food is an integral part of tourism, and is considered as a tourism product provided at specific destinations (Satchapappichit, 2020). Tehran hotels have been researched by Sohrabi, Vanani, Tahmasebipur, & Fazli (2012) who attempted to identify a set of practical indicators that characterize the most significant hotel factors. In his study, the main hotel selection factors were Promenade and Comfort, Security and Protection. Wang (2007) concludes that homestay programs play the main role in cultural tourism and are the fastest growing segments of the tourism market. The idea of the homestay program is to accommodate tourists in a village with a local family, thus enabling the tourist to learn about local lifestyle, culture, nature, According to Yahaya (2004), homestay is a combination of tourism and recreation and has grown as a result of increasing demand for access to the countryside, better private mobility, more leisure time, and the demand for fresh air and active pastimes.

The COVID-19 pandemic, which began in December 2019, has significantly affected Thai tourism and the global tourism sectors. The pandemic has

disrupted international travel, as well as decreasing the number of foreign tourists entering Thailand. According to the latest data from the Division of Economics, Tourism and Sports, Ministry of Tourism and Sports, Thailand had 6.7 million foreign visitors between January and December 2020. This is down from the same period in 2019, which was approximately 39.9 million people, or contracted by about 83.2 percent. As a result, Thailand has experienced significant reduction of revenue from foreign tourists. In the period January to December 2020, revenue from international tourists was 332,013 million Baht. This was reduced from the same period in 2019, which was 1,911,808 million Baht (down 82.6 percent) (Division of Tourism and Sports Economy, Ministry of Tourism and Sports) Figure.1

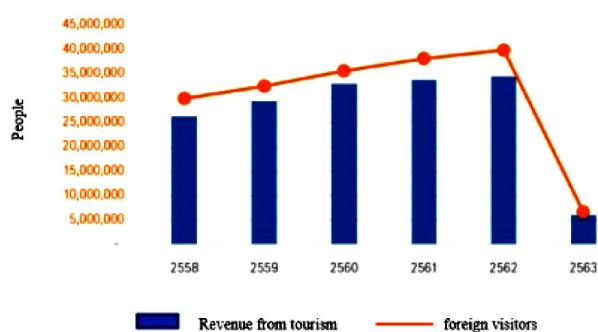


Figure 1 Number of foreign tourists and income from foreign tourists
Source: Tourism and Sports Economy Division, Ministry of Tourism and Sports (2021)

At present, from the report of Tourism and Sports Economy Division, Ministry of Tourism and Sports (2021), tourist in Phra Nakhon Si Ayutthaya Province, between January and December 2020, the number of tourists was approximately 3.5 million people and revenue from tourists was 6.1 million Baht. This was reduced from the same period in 2021, number of tourists decreased by 1.2 million persons (down 34.49 percent) and revenue from tourists was decreased 2.4 million Baht (down 39.30 percent). Homestay tourism in Phra Nakhon Si Ayutthaya Province has a famous homestay, making it easy for tourists to visit in a quiet and simple place. There are interesting activities by the community to welcome tourists in the form of cultural activities such as to give alms to the monks in the morning, learn to make Thai sweets, learn the experience of community life and Thai lifestyle, and cook with the homestay owners as well as practice and learn to package drinking

water. The organization of the activities is based on learning, performing activities, and food services and are cooperative with both the private and public sectors. The public sector and education agencies have become partners to assist the Homestays and to provide increased homestay management and support for tourists who will return in the future after the COVID-19 is over. Therefore, to prepare and encourage community tourism, in the form of a New Normal, it is worth studying. The potential of homestay management of entrepreneurs that affect their service expectations for homestay and want to improve their service quality. The outcome of the research will be an important way to develop homestay management to have the capacity to create economic value and be the cornerstone of tourism development.

Objectives

1. To study factors for the potential of homestay management of entrepreneurs in correlation to service expectations for homestay.
2. To study factors for the potential of homestay management of entrepreneurs and the affects to service expectations for homestay.

Conceptual framework

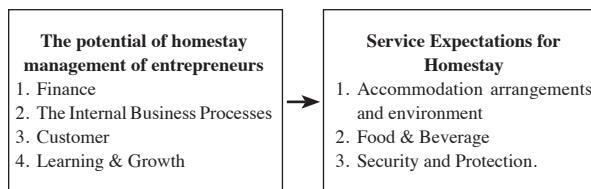


Figure 2 Conceptual framework

Research Methodology

This research was conducted using quantitative analysis by a survey research method. Data was collected by implementing a questionnaire.

1. Sample selection and data collection

The population of the study were Thai tourists.

The sample group consisted of 400 Thai tourists aged between 20 to 60 years old and a non-probability sampling technique such as convenience was used. The Confidence Level was 95 percent significance level of 0.05, to find the sample size using formulas of Cochran (1977). To prevent discrepancies, there were samples of 400 and adopted convenience sampling data collection method, research data storage period from December 2020 to April 2021.

2. Reliability

Quantitative Research: Data collection tool was a questionnaire with the reliability coefficient of 0.969 and was divided into 2 sections :

Section 1: The potential of homestay management of entrepreneurs. The 5-point rating scale questionnaire with 4 items was implemented to measure the reliability coefficient of this section at 0.955

Section 2: The service expectations for homestays. The 5-point rating scale questionnaire with 3 items was implemented to measure the reliability coefficient of this section at 0.924

3. Questionnaire

The questionnaire consisted of 2 parts. The first part was a five-point Likert scale, the potential of homestay management of entrepreneurs and the second part was a five-point Likert scale: service expectations for homestays.

4. Statistics used in data analysis

1. To test Hypothesis 1; Analysis of correlation between independent and dependent variables

2. To test Hypothesis 2; Multiple regression analysis was used to analyze factors influencing between the independent and dependent variables and used to predict the variables. The relationship equation of MRA (Multiple regression analysis) analysis are as below. $\hat{y} = a + b_1X_1 + b_2X_2 + b_3X_3 \dots + b_kX_k + e$

Table 1 Summary of Methodology

Variables	Research Instrument	Sampling	Data Collection Method	Statistics used in data analysis
The potential of homestay management of entrepreneurs in correlation to service expectations for homestays	Survey questionnaire	Survey questionnaires of 400 tourists	Quota sampling of data were collected: 200 tourists on weekday and 200 tourists on weekend	Correlation Coefficient
The potential of homestay management of entrepreneurs and the affects to service expectations for homestays				Multiple regression Analysis

Result

Research Objectives 1: To study factors for the potential of homestay management of entrepreneurs in correlation to service expectations for homestay

Analysis is based on independent analysis of the correlation values of two variables of Pearson Product

Moment Correlation Coefficient and the hypothesis test used a confidence level of 95% and rejected the main assumption (H_0) only if $Sig.$ (2 - Tailed) was less .05. The hypothesis results are as follows:

The potential of managing an entrepreneur's homestay business correlation with service expectations. $Sig.$ (2 - tailed) is equal to .000 less .05

Therefore, in conclusion, based on assumptions, The researchers will proceed to reject the main hypothesis (H_0) and accept the secondary assumption (H_1) This means that the potential for managing the homestay business of the operator correlation with the expectation of receiving quality service to tourists. Statistically significant at the level .05 by the correlation coefficient (r) is equal to .671. It has a high level of correlation and is in the same direction as shown in Table 2.

Table 2 Analyzing The potential of homestay management of entrepreneur's in correlation to service expectations for homestays.

Variables	homestay management	service expectations for homestays
homestay management	-	.671 (**) (.000)

** Statistical significance at the level of 0.05

Tables 2 Analyzing The potential of homestay management of entrepreneurs in correlation to service expectations for homestays. Fig. 3

The potential of homestay management of entrepreneurs correlation to service expectations for homestays.

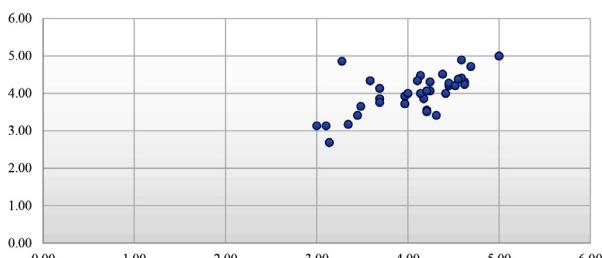


Figure 3 The potential of homestay management of entrepreneurs in correlation to service expectations for homestays

Research Objective 2: To study factors for the potential of homestay management of entrepreneurs and the affects to service expectations for homestays.

Statistics used in data analysis multiple regression analysis was conducted to investigate the effect of the potential of homestay management of entrepreneurs on

expectation of service to the basic elements of homestays in accommodating tourists. It was found that the potential of homestay management of entrepreneurs significantly effects service expectations for homestays ($F = 255.107$, $p < .05$) Table 3

Table 3 Regression model testing the effects of the potential of homestay management of entrepreneurs on service expectations for homestay

Model	Sum of Squares	df	Mean Square	F	Sig.
1	Regression	73.453	4	18.363	255.107
	Residual	28.433	395	.072	
	Total	101.886	399		

a. Predictors: (Constant), Fin, Pro, Cus, Learn

b. Dependent Variable: \hat{y} (service expectations for homestay)

Regression Analysis the potential homestay management of entrepreneurs and affects to service expectations for homestays

Based on the Regression Analysis of the potential of homestay management of entrepreneurs and the affects to service expectations for homestays, it was found that:

The coefficient of correlation (R) = .849 means the independent variables affect service expectations for homestays at a high level with P -value = .000 less than 0.05.

The Coefficient of Determination (R^2) = .721 means the influence of affect to service expectations for homestays at 72.10% and the remaining is influenced by other variables.

The Standard Error of the Estimate = .268 means the estimation relating to the potential of homestay management of entrepreneurs and the affects to service expectations for homestays with a deviation of 26.80% (meaning errors caused by the average condition). The details are shown in Table 4.

Table 4 Multiple regression equations of management variables that affect service expectations for homestays.

Model	R	R Square	Adjusted R	Std. Error of the Estimate
1	.849	.721	.718	.268

a. Predictors: (Constant), Fin, Pro, Cus, Learn

b. Dependent Variable: \hat{y} (service expectations for homestay)

Based on analyzing the factors related to the potential of homestay management of entrepreneurs, it was found that, of the 4 independent variables, there were 4 independent variables that influenced service expectations for homestays (P -value less than 0.05), which Finance, Customer, and Learning & Growth were in a positive way. In addition, the research team also

considered the appropriateness of the multiple regression of variables. When considering the beta coefficients of the regression analysis, it was found that each factor of service expectations for homestay, it was found that each factor of the potential of homestay management of entrepreneurs attractions positively and significantly contributes to expect service per basic element of a homestay with Finance (B = 0.345, p<.001) followed by The Internal Business Processes (B = 0.072, p<.001) Customer (B = 0.072, p<.001) and Learning & Growth (B = 0.811, p<.001), respectively. The details are shown in Table 5.

Table 5 Beta of regression model

The potential of homestay management of entrepreneurs	Unstandardized Coefficients		Standardized Coefficients		
	B	Std. Error	Beta (β)	t	P-value
	.095	.130		.733**	.000
1. Finance	.345	.047	.360	7.383**	.000
2. The Internal Business Processes	.072	.039	.071	1.835**	.047
3. Customer	.269	.049	.288	.5431**	.000
4. Learning and Growth	.811	.052	.752	15.726**	.000

F = 255.106, p < .000; R = 0.849, R² = 0.721, Adjusted R² = 0.718

** Statistical significance at the level of 0.05

Based on Table 5, the research team considered the appropriateness of the multiple regression of variables using the method. The independent variables with the potential of homestay management of entrepreneurs on service expectations for homestay included 4 variables: Finance, The Internal Business Processes, Customer, Learning & Growth.

The regression equation of the regression analysis $\hat{y} = .095 + (.345\text{Fin}) + (.072\text{Pro}) + (.269\text{Cus}) + (.811\text{Learn})$ while Fin (B) = .345, Pro (B) = .072, Cus (B) = .269, Learn (B) = .811 Where: Unstandardized Coefficient of Finance (B) = .345, The Internal Business Processes (B) = .072, Customer (B) = .269, Learning and Growth (B) = .811 means the value of Finance Customer and Learning When it increases by 1 unit Y (service expectations for homestay), it increases to $.095 + (.345) + (.072) + (.269) + (.811) = 1.592$

Therefore, in summary based on the hypothesis, the research team rejects the Null hypothesis (H_0) and accepts the Alternative hypothesis (H_1), which means the potential of homestay management of entrepreneurs on expectation of service to the basic elements of homestays in accommodating tourists. with statistical significance of 0.05.

Discussion

The research team used the information from the questionnaire to support the discussion of the research results, as well as the concept from academicians and various research studies to support the research data of expectation of service to the basic elements of homestays in accommodating tourists.

The findings confirmed the causal relationship between the potential of managing the homestay business of the operator in correlation to service expectations for homestay. It was found that the correlation was at a high level of .671. However, the roles of each of the potential of managing the homestay vary with regard to each of the service expectations for homestay.

Correlation analysis between the potential of managing the homestay business factor of the operator consists of finance, internal business processes, learning & growth and customer in correlation to the expectations of the service, the study of value for money, tourism activities, quality of accommodation, food & beverages (Prombrom & Kimphakorn, 2015) Nejati & Mohamed, 2015 observed three major aspects of a destination, which are the “quality”, “uniqueness” as well as distance and value and moreover the result is consistent with Canny I. U, 2013. This study attempted to investigate the relationship between the five dimensions of service quality on tourist satisfaction

Considering the factors that have different variables it was found that the finance factor increases the affect to service expectations for homestays in accordance with Soleyman, Sadegheh & Nahideh (2017). Soleyman found that it was upmost to improve customer satisfaction, product quality and the reduction of products and services delivery time, factor of the Internal Business Processes affect to Customer satisfaction increases favorable behavioral intention regarding the service providing (Zeithaml, Berry & Parasuraman, 1996), factor of customer affect improvements of customer perspective such as increasing customer numbers, customer satisfaction creates a positive result, due to the increase in sales and profitability. All objectives of all perspectives support of the company. the improvements of product quality, customer numbers, production, and sales amount is required for achieving the mission and vision of the company (Irem, 2019; Belas & Gabcova, 2014) the most core business processes, customer satisfaction is becoming the key for successful and Learning & Growth from tourist in accordance with (Olorunniwo and Hsu, 2006) feedback and make

recommendations (Gray, 2006), as for factors the potential of managing the homestay with the suggestion of the results showed a positive effect of each aspect of the expectations of the service, the factors relating to of the expectations of the service mean Finance (B) = .369, The Internal Business Processes (B) =.072, Customer (B) = .477, Learning (B) = .830 means the value of Finance Customer and Learning When it increases by 1 unit Y (Expect service per basic element of a homestay), it increases to $.095 + (.345) + (.072) + (.269) + (.811) = 1.592$ (level of significance 0.05). As for factors the potential of managing the homestay business of the operator with the suggestion of the results showed a positive effect of each aspect on the expectations of the service of the service, the study of value for money, tourism activities, quality of accommodation, food & beverages (Prombrom & Kimphakorn, 2015) some primary offer for certain destination the tourists are motivated for visiting that tourist destination (Al-Ababneh, Mukhles, 2013)

suggestions

Based on the research results the following recommendations to develop homestay management and improvement of homestay services include the following:

1. Finance affects service expectations for tourist so apply profit earned in adjustments allocating the proceeds from accommodation to prepare basic items such as pajamas, mattresses/pillows/sheets/blankets/nets) that are clean and standardized as well as repair and maintenance of toilet equipment to ensure perfect condition.

2. The Internal Business Processes affects service expectations for tourist so display homestay licenses, permits that have been issued by the Department of Tourism in order for tourists to recognize and trust the homestay as well as a variety of channels to communicate for customers.

3. Customer affects service expectations for tourist so convey the good culture of the local area to tourist. Ensure it is convenient to get to a homestay location, such as having a sign for travel or locating a place on a google map for easy access.

4. Learning & Growth affects service expectations for tourist so develop solutions to respond to customer needs quickly and conduct customer satisfaction surveys and receive feedback on homestay development based on the feedback of guests.

5. By collecting information from tourists

visiting, the tour includes programs that correspond to the reality of the community that has an effect on satisfaction and ensure it is interesting for tourist to visit.

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Factors Affecting Decision to Purchase Indo-Pacific Mackerels, Samut Sakhon Province: Consumer Case Study

Suchada Apiratana* & Methee Kaewnern

Faculty of Fisheries, Kasetsart University, Bangkok, 10900 Thailand

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Abstract

Presently, the quantities of Indo-Pacific mackerel resources have been depleting continuously. However, prices of Indo-Pacific mackerel have not increased proportionately in comparison to the past. As there have been ongoing demands for Indo-Pacific mackerel consumption, consumer behavior is an important indicator for formulation of production plans and marketing strategies of fishery products because consumers have the power to make purchasing decisions. The objectives of the research of factors affecting decision to purchase Indo-Pacific mackerels, Samut Sakhon Province: Consumer Case Study, were to study (1) basic personal information and Indo-Pacific mackerel purchasing behavior of consumers, (2) marketing factors affecting consumer satisfaction of Indo-Pacific mackerels and (3) factors affecting willingness to pay for Indo-Pacific mackerel consumption. The study was conducted in the area of Samut Sakhon province during October 2017 and March 2019 to investigate consumer's behavior and willingness to pay for mackerel consumption. The data were collected by conducting interviews with 400 mackerel buyers using questionnaires and analyzed by regression equations. It was found that recognitions on tastes of Indo-Pacific mackerels from Samut Sakhon Province was the most influential factor for buyers to purchase mackerels. Most consumers, 73.75 percent, were willing to pay for Indo-Pacific mackerel even if mackerel prices increase in the future. Consumers were willing to pay an increase of 6.543 baht/bamboo basket for steamed mackerels. At the same time, they were willing to pay an increase of 19.101 baht/kilogram for fresh mackerels. Factors, including gender, personal incomes, religion (Buddhism), occupation (civil service) of the sample group, have positive correlation with willingness to pay for increased prices at statistical significance level of $\alpha = 0.01$.

Introduction

Indo-Pacific mackerels have the highest economic value among pelagic fish and are aquatic animal that are important to the way of life and food

culture of Thailand. Indo-Pacific mackerels are mainly used for consumption in the forms of fresh mackerels, steamed mackerels and salted mackerels. In addition to delicious taste, Indo-Pacific mackerels are also

traditional dish that has been with Thai kitchens for a long time. Indo-Pacific mackerels are used as main ingredient in variety of Thai cuisine. Fresh mackerels and steamed mackerels are often found in traditional fresh markets in Thailand. It can be said that mackerels are symbol of fertility in food which reflects abundant natural resources of the country and the quality of life of Thai people. Indo-Pacific mackerels comprise many nutrients including linoleic acid, which control cholesterol level and triglycerides in the bloodstream and Docosahexaenoic acid (DHA), which is a key component of brain cells (Charumas et al., 2013). "Fishes are common form of food for people as they can be found anywhere and are rich sources of protein and minerals. Continuous population growth and awareness of the benefits of fish consumption increase the demand for fishes." (Claret, Guerrero, Ginés, Grau, Hernández, Aguirre, Peleteiro, Fernández-Pato, & Rodríguez-Rodríguez, 2014; Tomic, Lucevic, Tomljanovic & Matulic, 2017). Moreover, the Food and Agriculture Organization of the United Nations reported that the growth of the fishing sector contributed to the increase in national income in Southeast Asian countries by more than 1%, namely Philippines (2.9%), Vietnam (4.7%) and Thailand (2.8%) (FAO, 2014). This showed that, presently, Indo-Pacific mackerels are valuable aquatic animal and have great economic importance.

Currently, it was found that less quantity of mackerels could be caught. From the statistics of Indo-Pacific mackerel quantity at Fishing Port, Mueang District, Samut Sakhon Province, it was found that the amount has been significantly declined during 2010-2015. The reduction rate tended to be accelerated. The quantity of Indo-Pacific mackerels harvested in 2014 of 31,436 tons, worth 1,189,223 million baht, decreased to only 13,803 tons, worth 541,356 million baht in 2015, or decreased by 61% from the quantity of mackerels measured at Fishing Port, Mueang District, Samut Sakhon Province (statistics on the quantity and value of aquatic animals at saltwater fish ports during 2010-2015, Department of Fisheries, Ministry of Agriculture and Cooperatives).

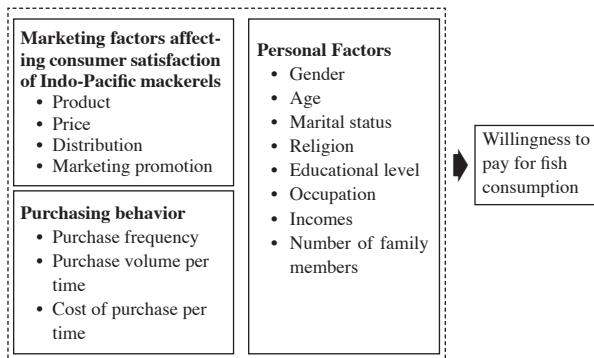
After comparison of prices of Indo-Pacific mackerels from the past to the present, it was found that the steamed mackerel price was 15 baht per bamboo basket in 2002 and 20 baht per bamboo basket in 2018, while fresh mackerel price was 90 baht per kilogram in 2010 and 100 baht per kilogram in 2018 (product price statistics for the year 2002-2018, Department of Internal

Trade, Ministry of Commerce). It can be observed that prices of both types of mackerels have been increased at decelerating rate in contrast to the quantity of Indo-Pacific mackerel being caught annually, which depleted in larger proportion. In practice, these changes are not under the control of agricultural sector, but strategies can be formulated to manage the changes in order to allow all sectors in society, producers, consumers and natural resources to survive under the changing circumstances and consumer behaviors. Therefore, modern agriculturist must learn requirements of consumers in order to gain as much market share as possible (Viwat & Monruedee, 2014). Most of studies in the past, would focus on the study of biological aspects of Indo-Pacific mackerels, including variations in size structure and dynamics of Indo-Pacific mackerel populations such as growth rates, mortality rates, breeding and reproduction. The studies also gave suggestions on approaches to reserve resources and control utilization of mackerels, such as to regulate fishing activities and net mesh size (Dudley & Brothers, 1992), and other fisheries-related data to determine preliminary management policies. Nonetheless, there are few researches on mackerel marketing aspects. Therefore, the study of marketing factors and personal factors affecting mackerel consumption behavior in Samut Sakhon Province would allow us to understand factors influencing the consumption behavior of mackerels. This will be beneficial to fishermen and entrepreneurs in Indo-Pacific mackerel industry. Moreover, the government sector can also apply the results of this study to initiate marketing plan and management of Indo-Pacific mackerel resources and marine resources in the future.

Objectives

To study the factors affecting decision to purchase Indo-Pacific mackerels in Samut Sakhon province based on demand factors of Indo-Pacific mackerels related to consumer behaviors and willingness to pay for mackerels in order to obtain basic personal information, mackerel buying behavior, level of consumer satisfaction of mackerels and factors affecting consumer's willingness to pay for mackerels.

Conceptual framework



Research methodology

This research is a survey-based research. The sample group consisted of general consumers who purchased Indo-Pacific mackerels in Ban Phaeo District, Krathum Baen District, and Mueang Samut Sakhon District, Samut Sakhon Province. As the population size was large and the exact number was unknown, the researcher therefore used infinite population criteria to determine the sample size. The tolerance was determined at the 0.05 level. The sample size was calculated using Cochran (1977). The sample group (n) equaled to 384. Nonetheless, in order to prevent errors due to consumers giving incomplete answers, the sample size used in the actual study was 400. The sample consumers were selected by purposive sampling and interviews were conducted with 400 consumers, which were selected from 5 locations that sell Indo-Pacific mackerels in Samut Sakhon Province, namely fresh markets, community markets, fish markets, provincial annual fairs and around the hawker stalls. Data collection was done by interviewing samples during October 2018-September 2019. The research tool was questionnaires with open-ended questions and closed-ended questions and consisted of the following questions: (1) basic personal information and mackerel purchasing behavior of consumers, (2) marketing factors affecting the consumption of mackerels, (3) willingness to pay per consumption of mackerels.

Data analysis for each research objective (1) Basic personal information and Indo-Pacific mackerel purchasing behavior of consumers adopted descriptive statistics, namely percentage, mean, and standard deviation. (2) Marketing factors affecting the consumption of Indo-Pacific mackerels adopted level of consumer satisfaction based on Likert's Scale scoring method. The

questions were scaled on five levels: 5, 4, 3, 2 and 1. The criteria could be interpreted as follows: 4.21-5.00 mean highest satisfaction, 3.41-4.20 mean high satisfaction, 2.61-3.40 mean moderately satisfaction, 1.81-2.60 mean low satisfaction, and 1.00-1.80 mean least satisfaction, respectively. (3) Willingness to pay per consumption of Indo-Pacific mackerels adopted inferential statistics, namely multiple regression, stepwise elimination to analyze the factors affecting the decision to purchase mackerels in Samut Sakhon Province according to the following model:

Multiple regression analysis of factors affecting decision making for purchasing Indo-Pacific mackerel

The analysis of factors affecting the decision to buy fresh mackerel can be simulated as following:

$$\begin{aligned}
 Wtp = & \alpha + \beta_1 SEX_i + \beta_2 AGE_i + \beta_3 EDU_i + \beta_4 OCP_i + \beta_5 STA_i \\
 & + \beta_6 REL_i + \beta_7 MEM_i + \beta_8 INP_i + \beta_9 INH_i + \beta_{10} Qua_i \\
 & + \beta_{11} EXP_i + \beta_{12} FRE_i + \beta_{13} PD_i + \beta_{14} PR_i + \beta_{15} PL_i \\
 & + \beta_{16} PM_i + \varepsilon_i
 \end{aligned}$$

Whereas:

Wtp	means	value of willingness to pay for mackerel consumption
α	means	constant value
β	means	coefficient of parameter estimates
ε	means	deviation
SEX	means	gender dummy variable, male equal to 1 and female equal to 0
AGE	means	Age (years old)
MEM	means	number of household members (persons)
INP	means	average personal income/month (1,000 baht)
INH	means	average household income/month (1,000 baht)

Dummy variable on education

EDU_{Un}	means	uneducated equal to 1 and other educational level equal to 0,
EDU_{pri}	means	elementary level equal to 1 and other educational level equal to 0,
EDU_{Sec}	means	secondary level equal to 1 and other educational level equal to 0,
EDU_{cer}	means	vocational/high vocational level equal to 1 and other educational level equal to 0,
EDU_{Bac}	means	bachelor's degree level equal to 1 and other educational level equal to 0,

EDU_{Mas} means master's degree level equal to 1 and other educational level equal to 0,

dummy variable on occupation

OPC_{Pe} means private company employee equal to 1 and other occupation equal to 0,

OPC_{Hi} means independent contractor equal to 1 and other occupation equal to 0,

OPC_{Bo} means own business equal to 1 and other occupation equal to 0,

OPC_{Hw} means housewife equal to 1 and other occupation equal to 0,

OPC_{Se} means state enterprise employee equal to 1 and other occupation equal to 0,

OPC_{Of} means civil servant equal to 1 and other occupation equal to 0,

dummy variable on marital status

STA means dummy variables on marital status by specifying

STA_{Sin} means single equal to 1 and other marital status equal to 0,

STA_{Mar} means married equal to 1 and other marital status equal to 0,

dummy variable on religion

REL_{Bud} means Buddhism equal to 1 and other religion equal to 0,

REL_{Chr} means Christianity equal to 1 and other religion equal to 0,

Variable on Purchasing behavior

QUA means purchase volume per time (kg, bamboo basket)

EXP means purchase amount per time (Baht)

FRE means purchase frequency per month (times)

Variable on Marketing factors

PD means product satisfaction rating scale consists of 6 sub-items

PR means price satisfaction rating scale consists of 6 sub-items

PL means distribution channel satisfaction rating consists of 7 sub-items

PM means promote marketing rating scale consists of 6 sub-items

Results

1. Characteristics of respondents

1.1 Basic personal information and Indo-Pacific mackerel purchasing behavior of consumers

Most of the respondents were female, aged between 18-35 years old, married, Buddhism, and

graduated in Bachelor's degree. Their occupations were private company employee and have income less than 25,000 baht. The research results were consistent with (Jarupa, 2008) which conducted study on marketing factors affecting the consumers' decisions to purchase Surimi processed seafood in Bangkok. The study found that most of the consumers in the sample group were female, aged between 26-33 years, graduated in Bachelor's degree, and worked as private company employees, with incomes between 15,001-20,000 baht. The study on consumers' purchasing behaviors of steamed mackerels in Mueang District, Chiang Mai Province, indicated that most consumers were female and married (Theerawat, 2007). The study results showed that most consumers prefer to purchase steamed mackerel 3-4 times per month and fresh mackerel 1-2 times per month. It was because steamed mackerels were sold in small quantities and could be bought at 2-3 mackerels per bamboo basket. Nonetheless, fresh mackerels were sold in kilograms which would consist of larger quantity. Thus, the purchase frequency would be lesser. Consumers preferred to purchase mackerels with smaller size. It was because consumers believe that small-sized mackerels are Thai mackerels and would be more delicious. Most of them would buy steamed mackerel for no more than 1-2 bamboo baskets at a time. The research's findings were aligned with Teerawat (2007) which studied the number of steamed mackerels purchased by consumers each time. For steamed mackerel, most consumers would purchase 1-2 mackerels per time. Most consumers in Mueang District, Chiang Mai Province, would buy fresh mackerels of no more than 2 kg at a time. The sample size could purchase mackerels conveniently because they were close to the mackerel distribution area. There was no need to buy mackerel in large quantity to keep in stock. The purpose of buying mackerels was for personal consumption, therefore they preferred to bought in a small quantity. From the observation, the researcher found that consumers would choose to purchase mackerels during 12.30-13.30 hrs. and 16.00-17.30 hrs. because data of large number of respondents were collected during the periods. In addition, the periods are convenient time because most of consumers would have free time during lunch breaks and after work in the evening. Meanwhile, on Saturday - Sunday and public holidays, most consumers would purchase mackerels between 9:00 -14.00 hrs. Nonetheless, seafood dealers would purchase mackerels before the aforementioned times. Family member was the person who had the

greatest influence on the purchasing decision of the sample group. Type of mackerels that most consumers preferred was steamed mackerels because their prices were cheaper than other seafood and could be preserved in refrigerator for many days. Mackerels could be prepared in several types of dishes easily. Mackerels have unique flavors. The average costs to buy steamed mackerels were less than 100 baht per time. The average costs to buy fresh steamed mackerels were mostly less than 200 baht per time. Substitutes in cases consumers could not afford to buy steamed mackerel were mostly catfish and tilapia. For fresh mackerels, consumers will buy snakehead fish and small seabass in case they could not find fresh mackerels because the prices were close to fresh mackerels. The fishes could substitute mackerels in cooking menu and were easy to buy. Alternatively, consumers may change food menu if they could not find mackerel. The most common problem in purchasing mackerels encountered by consumers was too few mackerel stores (26.25 percent). Meanwhile, 54.25 percent of consumers did not encounter any problems when buying mackerels. Most consumers, 73.75 percent, were willing to pay for mackerel even if mackerel prices increase in the future.

1.2 Level of consumers' satisfactions toward Indo-Pacific mackerels in Samut Sakhon Province

Consumers' satisfactions toward Indo-Pacific mackerels in Samut Sakhon Province were affected by the following factors:

1) Product factor

In an overall, product factor has the highest influence on the decision to purchase steamed mackerels of the sample group who preferred to consume steamed mackerels, with an average score of 4.22, which was the highest score. When considering in details, it was found that the sample group bought steamed mackerels based on the image and reputation of mackerel tastes of Samut Sakhon Province (average score of 4.52), followed by cleanliness of the mackerel (average score of 4.40), nutritional benefits (average score of 4.35), freshness of the mackerel (average score of 4.21) which were in the highest level of consumer satisfaction, variety of mackerel products such as fresh mackerels, steamed mackerels and various processed mackerels (average score of 4.06) and packaging of mackerels that are convenient for transportation (has the least average score of 3.76), which were at a high level of consumer satisfaction, respectively. Products have the highest influence over consumers' decision to purchase

mackerels.

Similarly, product factor also has the highest influence on the decision to purchase fresh mackerels of the sample group who preferred to consume fresh mackerels, with an average score of 4.27, which was the highest score. When considering in details, it was found that the sample group bought fresh mackerels based on the image and reputation of mackerel tastes of Samut Sakhon Province (average score of 4.57), followed by cleanliness of the mackerel (average score of 4.50), freshness of the mackerel (average score of 4.39), nutritional benefits (average score of 4.29), which were in the highest level of consumer satisfaction, variety of mackerel products such as fresh mackerels, steamed mackerels and various processed mackerels (average score of 4.10), and packaging of mackerels that are convenient for transportation (has the least average score of 3.74), which were at a high level of consumer satisfaction, respectively.

When considered each item, the item with the highest average score was image and reputation of the mackerels from Samut Sakhon Province. It was because whenever consumers wanted to buy mackerels from the central region, they will think of mackerels in Samut Sakhon. The item with the second highest scores was quality and freshness. Mackerel consumers place great emphasis on quality and freshness. Results of study conducted by Batsios, Angelidis, Moutopoulos, Anastasiadou, & Chrisopolitou (2003) on Consumer Attitude Towards Shellfish in The Greek Market: A Pilot Study, indicated that most of the respondents (94.3%) consider freshness as a very important factor. As Samut Sakhon is located near the Gulf of Thailand, consumers would come to buy seafood in the province because of freshness of the seafood product. In addition, the prices of mackerels in Samut Sakhon province were relatively lower than other provinces. Nonetheless, the prices were only slightly lower than other places, which was unexpected as the researcher initially thought that the selling price should be much lower than that of mackerels distributed outside Samut Sakhon. However, consumers still opined that the prices were reasonable when comparing with the quality and reputation of mackerels in Samut Sakhon province. Mackerels from Samut Sakhon are fresh because of its proximity to the Gulf of Thailand and would maintain their freshness after being purchased by consumers. This is consistent with study of (Chavalit et al., 2018) on marketing mix factors for consumers' decision to purchase seafood in

Mahachai Market, Samut Sakhon Province. The study results indicated that majority of consumers choose to purchase seafood at Mahachai market because of product quality/freshness. As Mahachai Market is located near the Gulf of Thailand, consumers would come to buy seafood in the province because of their freshness. Subsequently, consumers place emphasis on nutritional value. Mackerels are saltwater fish with high nutritional value and are cheaper than other types of fish. Consumers also consider other factors namely hygiene, variety of mackerel products and packaging. Supat, Pattana, & Chalermpphon (2017) studied factors affecting decision to purchase durians in Eastern Thailand: consumer case studies. The sample group of consumers decided to buy durian produced in eastern Thailand are Chanthaburi, Rayong and Trat provinces. Most of the samples were focused on with the most product marketing factors. Consumers will consider the quality of durian first before making a purchase decision.

2) Price factor

In an overall, price factor has high effect on the decision to purchase steamed mackerels of the sample group who preferred to consume steamed mackerels, with an average score of 3.94 which was at a high level. When considering in details, it was found that the sample group bought steamed mackerel by considering the most reasonable prices for the quantity of mackerel with average score of 4.43 which was the highest level. This followed by the most reasonable prices for the quality of the mackerels with average score of 4.31 which was the highest level, presentation of clear and accurate price tags for mackerels with average score of 3.99 which was at high level, stable prices of mackerels with average score of 3.66 which was at a high level, mackerels have many price levels to choose from with average score of 3.75 which was at high level and advance notice of changing the prices of mackerels had the least average score of 3.54, which was at high level, respectively.

Similarly, price factor also has the high effect on the decision to purchase fresh mackerels of the sample group who preferred to consume fresh mackerel, with an average score of 3.92 which was at high level. When considering in details, it was found that the sample group bought fresh mackerel by equally considering the most reasonable prices for the quantity of mackerel and the most reasonable prices for the quality of the mackerels with equal average scores of 4.38 which was the highest level. This followed by presentation of clear

and accurate price tags for mackerels with average score of 3.98 which was at high level, mackerels have many price levels to choose from with average score of 3.75 which was at high level, stable prices of mackerels with average score of 3.60 which was at high level and advance notice of changing the prices of mackerels had the least average score of 3.45 points, which was at high level, respectively.

Price factor: Consumers also give particular attention on the price factor. The prices of mackerels should be reasonable with the quantity and quality. These aspects are important consideration factors of consumers as well. Moreover, consumers expect that when they purchase products near the production source, the products should have good quality with low prices. These findings were consistent with marketing mix theory of Kotler (Kotler, 1997) quoted by (Jarupa, 2008), which stated that “Consumers will consider price as part of the evaluation of the quality and value of the products that are expected to be received.” and marketing mix theory of Etzel Walker and Stanton (Etzel, Walker, & Stanton, 2001) quoted by (Thitapa, 2012) which stated that “Consumers would compare the value of a product to its price. If the product is of higher quality than the price, the consumer will make a decision to buy the product.” In addition, the products have clear labels. There are several price levels to choose from. Mackerels are available in various price ranges. The prices of mackerels tend to have small degree of fluctuation and are subject to advance notice if there is any price change. Consumers place great emphasis on the price factor.

3) Place Factor

In an overall, place factor has high effect on the decision to purchase steamed mackerels of the sample group who preferred to consume steamed mackerels, with an average score of 3.75 which was at high level. When considering in details, it was found that the sample group bought steamed mackerel based on accessibility of the place that sells mackerels with average score of 4.43 which was the highest level, followed by the cleanliness of the place with an average score of 4.16 which was at high level, availability of convenient parking spaces with average score of 3.99 which was at high level, variety of mackerel selling shops to choose from with average score of 3.91, which was at high level, offering of mackerel delivery service to customers with an average score of 3.65 which was at high level, the place to buy mackerel is in an air-conditioned room with an average score of 3.48 which

was at high level, and products can be purchased via website or various internet channels had the least average score of 2.71 which was at moderate level, respectively.

Similarly, place factor also has the high effect on the decision to purchase fresh mackerels of the sample group who preferred to consume fresh mackerels, with an average score of 3.70 which was at a high level. When considering in details, it was found that the sample group bought fresh mackerels based on accessibility of the place that sells mackerel with average score of 4.28 which was the highest level, followed by the cleanliness of the place with an average score of 4.07 which was at high level, availability of convenient parking spaces with average score of 4.04 which was at high level, variety of mackerel selling shops to choose from with average score of 3.88, which was at high level, the place to buy mackerel is in an air-conditioned room with an average score of 3.58 which was at high level, offering of mackerel delivery service to customers with an average score of 3.39 which was at moderate level, and products can be purchased via website or various internet channels had the least average score of 2.68 which was at moderate level, respectively.

The study showed that consumers place high importance on distribution location when purchasing mackerels. When considered each item, the items with the highest average score were availability of convenient parking spaces and accessibility. In addition, consumers also place emphasis on the cleanliness of the distribution place of mackerels because mackerels are edible products. The results were consistent with the research results of (Batsios, Angelidis, Moutopoulos, Anastasiadou, & Chrisopoulou, 2003) which indicated that 67.2% of respondents consider the hygienic conditions of the fish stores were very important criteria. The item with the second highest scores was sufficient parking space as most consumers travel by cars and motorbikes and require spaces to park their vehicles when purchasing the products. The distribution locations offer variety of mackerel products and delivery services. Moreover, consumers also gave high consideration whether the distribution locations have air conditioning system when purchasing the products. Meanwhile, consumers gave moderate consideration whether the store offer online services or allow them to order mackerels via website or Internet. This was because mackerels were fresh products. Consumers may be more confident in the quality if they come to buy the product by themselves. As most of the respondents live in Samut Sakhon

Province which was close to the source of distribution, consumers gave only moderate attention on this factor.

4) Marketing Promotion Factor

In an overall, marketing promotion factor has high effect on the decision to purchase steamed mackerels of the sample group who preferred to consume steamed mackerels, with an average score of 3.57 which was at a high level. When considering in details, it was found that the sample group chose to buy steamed mackerel based on hospitality and services of mackerel sellers with an average score of 3.90 which was at high level. This followed by the seller's recommendations to buy mackerel with average score of 3.81 which was at high level, discounted mackerel prices for regular customers with average score of 3.55 which was at high level, sales promotion during festivals with average score of 3.45 which was at high level, offering of premiums when buying large quantities of mackerels with average score of 3.42 which was at high level, and skill of the mackerel seller in decorating the product had the least average score of 3.27 which was at moderate level, respectively.

Similarly, marketing promotion factor also has the high effect on the decision to purchase fresh mackerels of the sample group who preferred to consume fresh mackerels, with an average score of 3.82 which was at a high level. When considering in details, it was found that the sample group chose to buy steamed mackerel based on hospitality and services of mackerel sellers with an average score of 4.09 which was at high level. This followed by the seller's recommendations to buy mackerel with average score of 4.02 which was at high level, sales promotion during festivals with average score of 3.81 which was at high level, discounted mackerel prices for regular customers with average score of 3.80 which was at high level, offering of premiums when buying large quantities of mackerels with average score of 3.73 which was at high level, and skill of the mackerel seller in decorating the product had the least average score of 3.49 which was at moderate level, respectively.

The study results showed that the sample group place importance of marketing promotion at a high level, especially hospitality service of mackerel sellers and recommendations to purchase mackerel. The item was rated as the top priority in the marketing promotion category by consumers. It was because consumers were unable to evaluate quality and freshness of the products based on only visual observation

of the products being nicely displayed in the stores. In addition, consumers do not have sufficient knowledge and experience to choose the best quality products. Therefore, they have to rely on information and recommendations of the sellers when buying products in order to gain confidence in the repurchase of the products. Furthermore, consumers also pay attention to discount on mackerel prices for regular customers, sales promotion during the festival and premium when buying mackerels in large quantities. As most consumers in the

sample group have low to medium incomes, they will not decide to purchase the product immediately but will consider the price and value before making a decision. Discounts and premium may meet the needs of mackerel consumers. Meanwhile, consumers gave moderate emphasis on expertise of the sellers in cutting mackerels as consumers have to re-prepare steamed mackerels and fresh mackerels again when they take the products back to their home. Therefore, they do not pay attention to the cutting of mackerels.

Table 1 Mean and standard deviation of marketing factors affecting selection of steamed mackerels and fresh mackerels of the sample group (n = 400)

Various Factors	Steamed Mackerels			Fresh Mackerels		
	Average	Standard Deviation	Interpretation	Average	Standard Deviation	Interpretation
Product	4.22	0.462	Highest	4.27	0.417	Highest
1. Image and reputation of the mackerels from Samut Sakhon	4.52	0.746	Highest	4.57	0.497	Highest
2. Variety of mackerel products, such as fresh mackerels, steamed mackerels and various types of processed mackerels	4.06	0.704	High	4.10	0.705	High
3. Cleanliness of mackerels	4.40	0.724	Highest	4.50	0.502	Highest
4. Packaging of mackerels that are convenient for transportation	3.76	0.803	High	3.74	0.706	High
5. Freshness of mackerels	4.21	0.695	Highest	4.39	0.706	Highest
6. Nutritional benefits	4.35	0.706	Highest	4.29	0.620	Highest
Price	3.94	0.764	High	3.92	0.603	High
7. Clear and accurate price tags for mackerels	3.99	0.904	High	3.98	0.684	High
8. Mackerels have many price levels to choose from	3.75	0.895	High	3.75	0.800	High
9. Advance notice of changing the prices of mackerels	3.54	1.091	High	3.45	0.828	High
10. Prices are reasonable for the quality of mackerels	4.31	0.834	Highest	4.38	0.840	Highest
11. Prices are reasonable for the quantity of mackerels	4.43	0.743	Highest	4.38	0.692	Highest
12. Stable prices of mackerels	3.66	1.032	High	3.60	0.718	High
Place	3.75	0.560	High	3.70	0.680	High
13. Accessibility of the places that sell mackerel	4.43	0.805	Highest	4.28	0.921	Highest
14. Mackerel delivery service to customers	3.65	0.993	High	3.39	1.007	Moderate
15. Mackerel selling places are in an air-conditioned room	3.48	0.881	High	3.58	1.049	High
16. Availability of convenient parking spaces	3.99	0.896	High	4.04	0.902	High
17. Cleanliness of mackerel selling stores	4.16	0.922	Highest	4.07	0.985	High
18. Variety of mackerel selling stores to choose from	3.91	0.840	High	3.88	0.848	High
19. Products can be purchased via website or various internet channels	2.71	0.987	Moderate	2.68	0.930	Moderate
Promotion	3.57	0.741	High	3.82	0.658	High
20. Hospitality/service of mackerel sellers	3.90	0.811	High	4.09	0.696	High
21. Discount on mackerel prices for regular customers	3.55	0.948	High	3.80	0.916	High
22. Sales promotion during the festival	3.45	0.944	High	3.81	0.780	High
23. Premium when buying mackerels in large quantities	3.42	1.013	High	3.73	0.883	High
24. Expertise of the sellers in cutting mackerels	3.27	0.891	Moderate	3.49	1.037	High
25. Recommendation of sellers to buy mackerels	3.81	0.921	High	4.02	0.871	High

3. Factors affecting consumers' willingness to pay for Indo-Pacific mackerels

Before considering the multiple regression analysis, the suitability of the models, namely multicollinearity and correlation would be considered. It was found that the correlation value did not exceed 0.65 Burns & Grove, (1993) (cited in Supat, Pattana, & Chalerphon, 2017). It could be explained that all variables could be used as independent variables. It did not cause a linear relationship problem of independent variables. Moreover, it was also found that the Tolerance and Variance Inflation Factors (VIF) were found to be equal to 1. Thus, there was no Multicollinearity because $VIF < 10$ and $Tolerance > 0$. When considering autocorrelation from statistic of Durbin-Watson (D.W.), it was found that D.W. values were 1.973 (fresh mackerels) and 1.624 (steamed mackerels), which ranged from 1.5 to 2.5. This explained that the model did not have a correlation of variable error. Coefficient (r) means the relationship between independent variables and dependent variables. The results showed that 0.783 (fresh mackerels) and 0.789 (steamed mackerels) were equivalent to 78.3% (fresh mackerels) and 78.9 percent (steamed mackerels). This indicated that they have a good correlation and found that the Mean of Residual error is equal to 0.00 means the data is distributed asymmetrically. Heteroskedasticity, Coefficient of determination or R-squared (R²) indicated that reliability of this model for prediction on the samples. The results were 0.613 (fresh mackerels) and 0.622 (steamed mackerels). It showed that the model could predict the willingness to pay for mackerel by 61.3 percent (fresh mackerels) and 62.2 percent (steamed mackerels).

Multiple regression analysis results with dummy variables were selected by adding independent variables by multiple linear regression analysis model with dummy variables by stepwise regression, it was found that there were 5 factors affecting the willingness to pay for fresh mackerels, namely personal average incomes, Buddhism, employee occupation, housewife occupation, civil service occupation. The average purchase volume of fresh mackerels per time can be described as follows.

3.1 Coefficient of the average personal income variable (INP) was 0.010, meaning that, if other factors were constant, when the average income increased by 1000 baht/month, the willingness to pay for fresh mackerels would increase by 10 baht per kg with

statistical significance at the 0.05 level. It was because consumers have higher incomes resulting in high purchasing power as well, in line with the study of Adul (1998) (Supat, 2017).

3.2 Coefficient of civil servant occupation variables (OCP_{Op}) was 17.172, meaning that, if other factors were constant, if the sample groups were civil servants, they would be willing to pay an increase of 17.172 baht per kilogram for fresh mackerels. The findings were consistent with the study of Methee, Sommai, Polphisil, Pailin, Teeraphong, Rattanawadee, Warah, TWarantat, & Soranat Sirisuay (2017) which found that the sample group working in the civil service had an increase in the willingness to pay for fresh pufferfish meat consumption.

3.3 Coefficient of Buddhism variables (REL_{Bud}) was 19.101, meaning that, if other factors were constant, if the samples were Buddhist, they would be willing to pay an increase of 19.101 baht per kilogram for fresh mackerels.

3.4 Coefficient of behavioral variables for average quantity of mackerel purchase per time (QUA) was 12.051, meaning that, if other factors were constant, when consumers bought fresh mackerels with average quantity higher by 1 kg, they would be willing to pay an increase of 12.051 baht per kilogram for fresh mackerels. The study of Phusuda (2018) stated that factors influencing consumers' willingness to pay for riceberry in restaurants in Bangkok and expenditure on food consumption outside the home per day would likely to be increased to pay extra for riceberry consumption was higher than other samples.

3.5 Coefficient of housewife occupation variables (OCP_{Hw}) was -28.764, meaning that, if other factors were constant, if the sample groups were housewife, they would be willing to pay a decrease of 28.764 baht per kilogram for fresh mackerels.

3.6 Coefficient of independent contractor occupation variables (OCP_{Hi}) was -32.211, meaning that, if other factors were constant, if the sample groups were independent contractors, they would be willing to pay a decrease of 32.211 baht per kilogram for fresh mackerels.

Factors affecting willingness to pay for steamed mackerels consisted of three factors, namely male gender, bachelor's degree and average personal income which can be described as following

1. Coefficient of bachelor's degree variables (Bac) was 6.543, meaning that, if other factors were

Table 2 Statistic t-value coefficients on Willingness to Pay for Fresh mackerel as a dependent variable

Constant term	Coefficients	Std. Error	t-value	Prob.
	108.251	0.805	3.434	0.000
OCP _H	-32.211	0.610	-5.275	0.000
OCP _{Hw}	-28.764	0.592	-4.851	0.000
REL _{Bud}	19.101	0.583	3.276	0.001
QUA	12.051	3.327	3.623	0.000
OCP _{Or}	17.172	0.692	2.479	0.015
INP	0.001	0.000	3.981	0.000

R² = 0.613 F-statistics = 31.203 D.W.= 1.973

constant, when the price satisfaction score level increased by 1 point, the consumers would be willing to pay an increase of 6.543 baht per bamboo basket for steamed mackerels with statistical significance of 0.01.

2. The coefficient of the average personal income variable (INP) was 0.001, meaning that, if other factors were constant, when the average income increased by 1000 baht/month, the willingness to pay for steamed mackerels would increase by 1 baht per bamboo basket with statistical significance at the 0.05 level.

3. Coefficient of the male variables (SEX_M) was 5.543, meaning that, if other factors were constant, if the samples were male, they would be willing to pay an increase of 5.543 baht per bamboo basket for steamed mackerels.

Table 3 Statistic t-value coefficients on Willingness to Pay for steamed mackerel as a dependent variable

	Coefficients	Std. Error	t-value	Prob.
Constant term	13.905	1.868	7.444	0.000
SEX _{Male}	5.584	1.985	2.795	0.006
INP	0.001	0.010	9.798	0.000
EDU _{Bac}	6.543	1.755	3.729	0.000

R² = 0.622 F-statistics = 48.636 D.W.= 1.624

The results of study on factors affecting decision to purchase Indo-Pacific mackerels, Samut Sakhon Province: Consumer Case Study could be summarized that the sample group consisted of 400 respondents. Most of them were female, aged between 18-35 years old, graduated with bachelor's degree, worked as private company employee, married and is a Buddhist. Most of them have 2-3 family members and have income less than 25,000 baht. Most consumers preferred to purchase steamed mackerel 3-4 times per month and fresh mackerel 1-2 times per month. Consumers preferred to purchase mackerels with smaller size. Most of them would buy steamed

mackerel for no more than 1-2 bamboo baskets at a time. The average purchasing costs for steamed mackerels were less than 100 baht per time. The average purchasing costs for fresh steamed mackerels were mostly less than 200 baht per time. Substitutes in cases consumers could not afford to buy steamed mackerel were mostly catfish and tilapia. For fresh mackerels, consumers will buy snakehead fish and small seabass in case they could not find fresh mackerels. The most common problem in purchasing Indo-Pacific mackerels encountered by consumers was too few mackerel stores (26.25 percent). Meanwhile, 54.25 percent of consumers did not encounter any problems when buying mackerels. Regarding marketing factor, it was found that recognitions on tastes of Indo-Pacific mackerels from Samut Sakhon Province was the most influential factor for buyers to purchase Indo-Pacific mackerels. Most consumers, 73.75 percent, were willing to pay for mackerel even if mackerel prices increase in the future. Consumers were willing to pay an increase of 6.543 baht/bamboo basket for steamed mackerels. In addition, consumers were willing to pay an increase of 19.101 baht/kilogram for fresh mackerels. Factors, including gender, personal incomes, religion (Buddhism), occupation (civil service) of the sample group, have positive correlation with willingness to pay for increased prices at statistical significance level of $\alpha = 0.01$.

Discussion

Results of the study on number of willing consumers and value of consumers' willingness to pay for Indo-Pacific mackerel consumption clearly showed that Indo-Pacific mackerels can add value and have potential to grow in demand in Thailand. Therefore, fishermen, producers, middlemen and other stakeholders including related organizations such as Fish Marketing Organization should jointly develop action plans regarding the production, inventory management, marketing strategy and other aspects to utilize mackerel resources and the market value of mackerel that will eventually increase. The strategy that should be used is to educate consumers to realize benefits of Indo-Pacific mackerel as well as giving consumers an opportunity to experience consumption of Thai mackerels. This would stimulate consumers' decisions to purchase mackerels with positive attitude and not only perceiving that mackerels are food but are valuable natural resource that should be preserved. Promotional activities may be conducted under cooperation with the Department of

Fisheries, Department of Marine and Coastal Resources, Ministry of Natural Resources and Environment. The study of Consumers' Willingness to Pay for Sustainable Seafood Made in Europe (Zander & Feucht, 2018) indicates that good communication to educate consumers on the benefits that they will receive and the welfare of animals, including the importance of environmental sustainability will increase consumers' willingness to pay higher prices. Communication must emphasize on consumer benefits and conservation values in order to differentiate sustainable production from conventional production standards. Government and private agencies such as the Ministry of Commerce and Department of Internal Trade should organize mackerels trade fairs to educate consumers and stimulate consumption of Thai mackerels. These initiations will influence consumers to make purchase decisions and recognize unique value of Thai mackerels as well as support fishermen and ensure that Thai mackerel industry would be maintained sustainably. In addition, mackerels can be sold at higher prices to reflect the actual value and costs under standard label which guarantee quality and source of Indo-Pacific mackerel production. From the study of the market factors, image and reputation of Indo-Pacific mackerel tastes of Samut Sakhon Province was the most influential factor for buyers to purchase Indo-Pacific mackerels. Therefore, concrete label should be developed, which requires cooperation from government and private agencies, including standard creation related parties. Label standards would provide certification of specified origins, features and physical characteristics of Indo-Pacific mackerels. The study on Factors Affecting the Market Price of Fish in the Northern Part of Surigao Del Sur, Philippines Alapan, (Alapan, Arpilleda, Altizo, Frias, Ravelo, & Cuartero (2016) found that fish quality had an effect on the price structure of fish. Consumers were willing to pay for good quality fish. Certification from a reliable standard assessment source will increase consumer confidence when making the purchase. Providing knowledge on and proper utilization of Indo-Pacific mackerel resources are essential to enhance value of the resources. Important features of Indo-Pacific mackerels are sometimes overlooked by some consumers. Therefore, advertisements and public relations should be implemented to provide information on unique characteristics and tastes of Indo-Pacific mackerel that are different from other species of mackerel and distinctive production sources to allow consumers to perceive value and consume Thai

mackerels. The study found that females are more likely to be responsible for purchasing consumer goods and household consumption. However, female consumers are less likely to be willing to pay more for Indo-Pacific mackerels than males. Therefore, if the prices of mackerel increase in the future or adjust slightly, more mackerels would be imported from overseas. This situation should be prevented from occurring in the Thai fishing sector.

The problems of depleting Indo-Pacific mackerel resources can be solved by closing the bay and control of fishing tools. The Department of Fisheries has announced measures to manage aquatic resources during the spawning, spawning season and raising of young fish in the Gulf of Thailand or announcing the annual bay closure between February and May every year. Certain types of fishing gear that may affect the propagation of spawning and larvae in the Gulf of Thailand, especially Indo-Pacific mackerels, which are valuable and economically important aquatic animal of the country, were prohibited. Violation of these measures are subject to rigorous arrestment and prosecution. These measures aimed to control the supply of marine resources. Therefore, knowledge of the value of mackerels should be disseminated for campaigning proper and appropriate utilization of Indo-Pacific mackerel resources. Consumers should be educated on sustainable seafood consumption, purchase eco-friendly seafood, recognizing the importance of the marine environment through environmental label in order to improve consumer attitudes towards the marine environment (Winson, Choi, Hunter, & Ramsundar, 2022). As a result, the findings can be used to develop tangible consumer marketing strategy. Based on number of willing consumers and value of consumers' willingness to pay for mackerels, the research results evidently indicated that Thai mackerels can add value and are products that have potential to grow in Thailand. Therefore, fishermen, manufacturers, middlemen, stakeholders and related organizations should jointly develop plans related to production, inventory management, marketing strategies, etc. The strategies that should be adopted are to raise consumers' awareness on benefits of Thai mackerels and unique production source which enable mackerels to have outstanding tastes as well as allow consumers to have opportunity to experience in consumption of Thai mackerels. This will stimulate consumers to make purchase decisions for Thai mackerels with a positive attitude and not perceiving mackerels as merely food but

to think of Thai mackerels as unique natural resources that should be preserved. In order to achieve effective fishery resource management concepts, all the sector including people, communities, stakeholders and the government should jointly determine management approaches and develop policies in line with development of fishery resource management in the future

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Educational Institutions' Disclosure of Financial Report in the Form of Sustainability Report

Nopporn Peatrat^{a*}, Sirikorn Rochanasak^b, Niroumon Suwannasri^c & Wanrapa konginta^b

^a*La-orutis Demonstration School, Suan Dusit University, Bangkok, 10300 Thailand*

^b*Lampang Center, Suan Dusit University, Lampang, 52100 Thailand*

^c*Faculty of Education, Suan Dusit University, Bangkok, 10300 Thailand*

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Abstract

Disclosure of information accompanying financial report, especially information that represents the educational institutions' sustainability for stakeholders and users of financial reports to have confidence in the educational institution's learning management and its quality. Therefore, it is imperative that education administrators understand, respond to and meet the expectations and needs of stakeholders by disclosing financial reports information in accordance with sustainability reporting guidelines. Furthermore, the report can be served as an assessment tool when evaluating the institution's performance. Other than financial report, stakeholders and related parties can also access to other needed information. The report's important areas comprise of Environmental Dimension which applies to the impact of the organization have on living and non-living things, including ecosystems, soil, air and water; Social Dimension refers to the impact on social system caused by the organization's operation, and Governance and Economic Dimensions are the impact of the organization has on the overall economic system of stakeholders at the local, national and global levels.

Introduction

General financial report presents business information and industry overviews. It is relevant to the measurement of the value of business activities and is also used in business planning and decision making. Furthermore, the organization also displays additional information and other important information in addition to those already specified by various agencies. The disclosure of additional information is essential in terms of providing clarity and explanation related to fundamentals of business, operations, management, financial reporting figures, including information that displays social and environmental responsibility.

displays social and environmental responsibility.

For the administration of educational institutions, both government's educational institutions and agencies and private sector's institutions, the National Education Act of 1999 (Ministry of Education, 2003) has put strong emphasis on education reform by way of learners-centric and reforming the system by mobilizing resources for education benefits resulting in participation of stakeholders with educational institutions. Therefore, the disclosure of financial report, especially the sustainability of the educational institution to stakeholders and financial report's end-users in reflecting the quality and

confidence in the learning management of educational institutions. Hence, it is vital that school administrators understand and respond to the expectations and needs of stakeholders, which is comprehensively explained in the content of this article.

Sustainability reporting

Sustainability Reporting is a report that reflects the operational performance of the organization. Its operations could positively or negatively have an effect on the economy, society and environment. As well, technically, such reporting discloses our responsibilities towards customers, partners, employees and other related stakeholders relevant to the organization. Currently, the trend of sustainability reporting in various organizations has continued to increase. Consequently, such reports can have a direct impact on organization's image and reputation aspects, PR enhancement, confidence and competitiveness of the organization.

In Thailand, sustainability reporting is often known as Corporate Social Responsibility (CSR), which means conducting activities that benefit and contribute to society, the poor or the disadvantaged in meaningful ways.

The Global Reporting Initiative (GRI) has defined sustainability reporting as a method for evaluating, disclosure and enable to explain business performance that aims to foresee scenarios and future goals of the organization that would be sustainable to stakeholders, both inside and outside of the organization (Global Reporting Initiative, 2013) in accordance with The Commission of the European Communities (2001), which states that: sustainability reporting is a business concept that taken into account the integration of social and environmental facets, including voluntary and willingly respond to stakeholders' needs.

Based on the definition of sustainability reporting, which pinpointed and reflected the responsibility of a business organization has on the economy, society, community and environment, including relevant stakeholders of both inside and outside of the organization of which could have been affected by the production of goods and services in negative ways caused by the actions of such business, therefore, could potentially affect the achievement of the organization's goals. The components of the sustainability report can be summarized as shown in Figure 1 as follows:

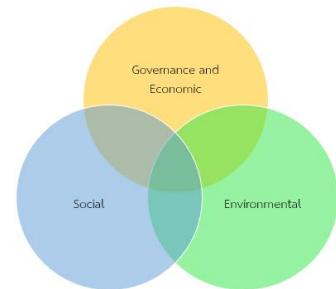


Figure 1 The components of sustainability report

Figure 1 shows the components of sustainability report consists of 3 key dimensions: (1) economic (2) social, and (3) environment. The aforementioned elements were initiated by International Institute of Sustainable Development (IISD), which provides fundamentals pertaining to corporate sustainability report on profitability, humans being, and the earth. Elkington (1998) had developed the concept and eventually become the Triple Bottom Line report, which includes a focus on the environment, society and relevant stakeholders by preparing a sustainability report consisting of the details from each dimension as described below:

1. Environmental dimension relates to organizational impact on living and non-living things in nature, including ecosystems, soil, air and water.
2. Social dimension relates to organizational impact on human society from the operation of the organization.
3. Governance and economic dimensions are organizational impact on the economic system of concerned stakeholders on the local, national and global levels.

By disclosing additional information in all 3 dimensions of the financial report, this would enable users to picture a wider view of the organization's operations beyond solely financial facet.

Reasons for performing Sustainability Reports

In Thailand, it is not compulsory by law to mandate business entities to perform the report as there are no regulations or rules specifically written for it. However, with the growing trend and demand of society that requires organizations to demonstrate their social responsibility and be accountable for their actions to community and environment. In addition, there are also external organizations, such as the UN, OECD, EU, etc., have begun to play a greater role and

put focus on good self-regulation i.e., corporate governance. Correspondingly, SET (The Stock Exchange of Thailand) annually produces its sustainability report which reflected and disclosed the institution's strong self-regulation, transparency and accountability to the public at large as a leading model. It is important to note that the value of sustainability reporting lies in its process creation rather than as a mere project with the aim to fulfil documentation obligation purposes. Given the report's significance, its benefits to the organization are listed as follow:

1. To strengthen the image pertaining to the quality of the organization's performance and transparency.

Sustainability reporting is an essential tool to inform the public regarding an entity's operations as well as to build understanding of the impact of an organization, which potentially could affect to the economy, society and environment. It is, by far the most effective and reliable channel for communication to the public on the social and environmental impact of an entity's operations, particularly the activity or the project which society and concerned stakeholders pay close attention to. Sustainability reporting also benefits the organization in terms of image building as well as credibility.

2. To develop stakeholders' participation and engagement.

The report represents a mechanism that demonstrates the response to stakeholders' expectations regarding sustainable development of an organization. Other key involvement includes stakeholders' input in setting guidelines for management on the customers' facet, procurement and loyalty building notion. Additionally, choosing the right strategy to develop can have a positive impact on related stakeholders, such as employees and investors in the long term. It is noteworthy that the aforementioned parties are the key people whom the organization needs to pay close attention to and build relationships in order to obtain their buy-ins for strategy setting, operation, auditing and evaluating the performance of the organization.

3. To increase opportunities for work quality and human resources development.

In order to have a sustainably productive report, compiling data and information

tracking and filing of organized activities and financial transactions for the entire year are of the essence. Such process requires advanced planning and to put into place a system for storing and recording data. Therefore, personnel responsible for the said activities need to have strong planning skills as well as systems setting and able to present information efficiently. Besides, all personnel within the organization are urged to be engaged in the planning and participated in activities related to society and the environment. This corresponds to Waddock and Graves (1997) who stressed the importance of sustainable development in line with social and environmental activities as an opportunity to change the organization both in terms of structure, overall process and initiation of developing employees to make quality products and safety concern.

4. To increase organization's competitive advantages.

Sustainability development activities offers an opportunity for the organization to explore while operational risks awareness is also developed as its immunity. The procedure includes risk management to reduce negative impact which may occur from the operation. Moreover, the report's preparation process also helps compare business performance, both internally and externally preventing loss of market share, supports funding access and maintaining relationships between raw material suppliers, customers and relevant third parties in accordance with Wagner (2007) who stated that integrating social and environmental activities into the core operations could potentially result in cost reductions, foster new product development, increase market share, and eventually result in the increase of profits.

5. To increase opportunities for organizational development.

Opportunities arise for organizational development through interest in and action plans to carry out activities in accordance with the sustainable development approach in which guidelines for operations are required to be benchmarked in line with the law, measures and principles of other external agencies in the ecosystem. Apart from the mentioned, organizations need to consider organizational risks that may affect society and

the environment. Thus, having awareness of such impacts would positively promote the development of innovations and new ways of working, and learning management within the organization. Correspondingly, Wagner (2007) emphasized that the strategy integration between organizational goals, social and environmental management is vital in influencing management quality for the agency, resulting in cost reduction, new product development, increasing market share, and consequently, increase in profit as well as improvement of overall work process whilst development of workplace accident and illnesses reduction are instilled.

Sustainability Reporting Standard Disclosures

Guidelines on sustainability reporting standards compliance involve: the content, quality and scope in promoting the quality of reporting, which also benefit the organizers users of information (The Stock Exchange of Thailand, 2022) are as follows:

Sustainability Reporting Principles

1. Materials/information to be disclosed: It is recommended that organizations disclose information on sustainability issues in accordance with corporate strategy and stakeholders' needs. The context should be concise, straight to the point, easily understood, and contains sufficient details to allow stakeholders to assess the performance of the organization.

2. Timely manners: The to-be-announced information should be current and up-to-date, and should indicate operational sustainability continuation.

3. Reliable: the information/data must be accurate, complete, without bias, and is verified and accepted in terms of quality and credibility.

4. Comparable: In the area of quantitative aspect and standards, data and information should be consistent and comparable i.e., changes from the past to the present and able to compare with other organizations in general.

Principles for Defining the content of the Report

There are 4 key elements regarding the format of the content in which organizations should put emphasis on (Global Reporting Initiative, 2013).

1. Stakeholders' inclusiveness: The agency's ability to clearly describe and underpin

the roles of stakeholders, and how it is able to reasonably meet their expectations and fulfill their interests.

2. Context sustainability: The final report should demonstrate the organization's performance, particularly in key economic and environmental aspects, society and the environment in the abstract of sustainability.

3. Materiality: It consists of 2 perspectives, (1) the agency's response to the economic impact, society and the environment, or (2) how sustainability can have an influence on the assessment, decision-making and thinking process of stakeholders

4. Completeness: The content presented must be substantial and must serve purposes (Materiality) and respect boundaries. Besides, it needs to be comprehensive in relation to the organization's impact to economy, society and environment. Plus, its content significance allows and enables stakeholders to evaluate the organization's performance.

A key point to keep in mind means having in depth understanding of the report's standard disclosures that enables educational institutions to use them as a central guideline/blue print for disclosing information which reflects the quality of consolidated information in the content.

Material Sustainability topics for Academic Institutions

Disclosure of information accompanying the financial report according to the report guidelines for educational institutions and the fundamental elements of disclosure include environmental related matters and issues, society and good governance as described and recommended below:

1. Environmental (E): Educational institutions are advised to disclose information on environmental policy and compliance standards, energy, waste and water management, as well as greenhouse gas and carbon emissions management.

Furthermore, information disclosure related to the education institutions 'environment, such as environmental arrangements and building improvements to reduce electricity consumption as well as reducing unpleasant noises which may interfere with students learning and personnel's well-being in addition to choosing environmentally friendly electrical appliances, surrounding arrangements for green areas to use as a park/rest area

and a source of and a venue for learning for students.

Reporting and disclosing the information on greenhouse gas emissions resulting from the use of refrigerants from air conditioners, use of cooking gas by educational institutions is considered essential. Equally important, organizations are urged to conduct learning activities that encourage students to realize the value of the environment, conservation and development of the environment, waste separation, and use of energy and resources appreciatively and efficiently. The mentioned key areas related to the environment should be disclosed publicly.

2. Social (S): It is advisable that educational institutions reveal information on human rights, fair labor practices, responsibility to students, parents and communities. Moreover, financial reports concerning social issues e.g., respect for human rights in regard to ones' dignity; maintaining an environment that is safe for students, parents and education personnel's lives and properties. Also, training and skills development for personnel are needed whilst educating parents, supporting health care and medical welfare, especially during the COVID-19 pandemic time, encouraging people to work from home for the benefit of their health. As well, providing services and participating in community activities and carrying out activities for the public benefits with the community.

In addition to the aforementioned, providing a safe and conducive learning environment for students, promoting and supporting the development of students with special needs and those with cultural differences; set up measures to protect them from violence and harassment.

3. Governance and Economic (G): Regarding governance and economic disclosure, educational institutions are urged to reveal the following areas namely policy, structure and governance system, sustainability policy, strategy, risk management, innovation development and anti-corruption policy. Regarding governance and economic issues, it is important that institutions apply good corporate governance approach to the operation by taking into account the quality of learning management, human resources development, and leveraging a balance between business profits and social contributions. Additionally, comprehensive and useful information on governance and economic issues, such as policies and guidelines for operating in accordance with ethical principles, integrity and transparency of the

organization should also be made known. As well, manual on ethics; communication channels with stakeholders; legal compliance; anti-corruption policy, and principles of participation with parents, community and stakeholders. Plus, giving parents the opportunity to express their opinions, share their perspective, propose guidelines for educational institutes' development, development of internal control measures/checks-and-balances system, and implement internal audit control to prevent fraud; setting up proper channels for complaints and responses.

For the disclosure of information based on the basic elements of information disclosure, in the event educational institutions have already established educational quality indicators related to environmental issues, society and governance, disclosure of such evaluation results mentioned are to ready to release and should be announced, consequently allowing partners access to additional information other than financial reports.

Summary

Sustainability report relates to evaluation method, disclosure, and also thoroughly describes the business performance with an aim to shed light on organization's sustainability's future goals to both internal and external stakeholders. It consists of several key areas, for instance, paying attention to the environment, society and people involved. Importantly, the report also needs to include the environmental dimension, which is related to the impact the organization has on living and non-living things, including ecosystems, soil, air and water. In addition, environmental policy and compliance standards, energy management, waste, water management, and greenhouse gas management, all need to be publicly revealed.

Last but not least, social dimension demonstrates the impact of the organization on the social system caused by the organization's operations. To correspond, human rights, fair labor practices, responsibility to students, parents and communities, and good governance, all these are necessary to be disclosed. As for the economic dimension aspect, it should represent the organizational effect on the economic system of stakeholders at the local national and global level. Therefore, policy, structure and governance system, sustainability policy and strategy, risk management, innovation development and anti-corruption policy, all are essential to be revealed.

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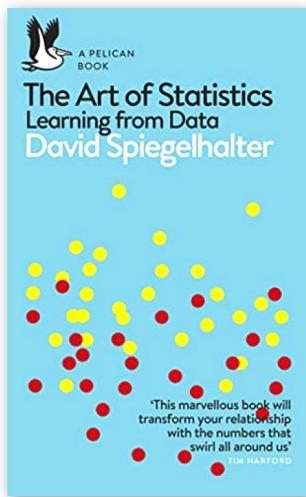
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Book Review: The Art of Statistics Learning from Data

Nattapan Tantikul & Wanvitu Soranarak



Book Title: The Art of Statistics Learning from Data
Author: David Spiegelhalter
Publication Date: February 2020 Publisher: Pelican (UK)
ISBN: 9780241258767

“Statistics is the grammar of Science”, a well-known quote by Karl Pearson who was a prominent British mathematician and statistician and was famously known for Pearson's r (Pearson correlation coefficient), Pearson distribution and Pearson's chi-squared test. Pearson emphasizes the importance of statistics which is the field of learning from data, and the important tool we use to convert raw data into reliable, relevant, and useful information. Due to the rapidly and tremendously increasing volume and complexity of data and information nowadays, the role of statistics in our lives becomes more crucial.

This book consists of fourteen chapters which provides knowledge on Statistics ranging from PPDAC (Problem, Plan, Data, Analysis and Conclusion) cycle, variables, sample and population distribution, central tendency, variability, correlation, deductive and inductive inference, internal and external validity, causation, statistical model and regression, classification and prediction, probability, relationship between probability and statistics, Poisson distribution, Binomial distribution and Normal distribution, Central Limit Theorem, estimates and intervals, hypothesis testing, statistical significance, Type I and Type II error, Bayes' theorem, likelihood ratio, reproducibility crisis, the problem with P-value to data ethics.

In sum, firstly, the author pointed out the importance of data science and data literacy which is the capability to read, apply, analyze, and communicate with data. Nowadays, in the big data era, it is hard to deny that the data literacy skill is one of the most essential skills, because it can empower everyone to build knowledge, make decisions, and communicate meanings to others. Besides, in tandem with the growing importance of data literacy, the way of teaching modern Statistics is

changing by moving its attention from mathematical theories and statistical techniques to problem-driven approach. PPDAC, a new data analysis cycle which is composed of problem, plan, data, analysis, and conclusion, is applied to teach students how to use data efficiently and morally to understand and solve real-world problems.

Secondly, the author described many types of variables such as binary, categorical, and continuous variables, how to choose appropriate descriptive statistics such as mean, median, mode, percentile, range, standard deviation, Pearson's correlation coefficient, and Spearman's rank correlation, and how to present descriptive results by using graph or infographic effectively. Although this part is relatively easy, it is good to make us aware of the inefficient usage of mean, the most frequently used measure of central tendency, when there are outliers or skewed distributions.

Thirdly, he explained the differences between deductive and inductive inference including any common bias within these approaches, the importance of internal and external validity, and the relationship between statistics and parameter. Fourthly, the distinctions between correlation and causation, and many ways to increase internal validity such as using random selection and random assignment, using control group, and adding extraneous variables were clarified. Fifthly, the author focused on regression analysis, one of the most famous statistical models, by explaining many things from least-square regression line, regression to the mean, response variable, explanatory variable, regression coefficient, multiple linear regression, and logistic regression.

Sixthly, he talked about algorithms that were used for classification and prediction. While classification is the process of finding a good model to predict the categorical class of objects, prediction is the process of finding a good model to predict continuous valued functions. Moreover, he also warned of overfitting problem, and algorithm challenges such as lack of robustness and implicit bias that we should concern. Seventhly, bootstrapping statistics was introduced to provide a way to derive the estimates of standard errors and confidence intervals when the population distribution was unknown. Eighthly, the author briefly described probability theory, how to use probability in Statistics, and how to calculate confidence interval.

Ninthly, hypothesis testing, null hypothesis, alternative hypothesis, p-value, statistical significance,

Type I and Type II error, as well as the misuses and misconceptions concerning p-values were discussed. In case of the p-value problems that might be called by p-hacking or data dredging, the author showed the six principles, announced by American Statistical Association (ASA) to provide recommendations for improving the proper use and interpretation of the p-value, and tried to elaborate on each principle by giving us some examples to make it easier to understand. The six principles by American Statistical Association (2016) are presented as follows:

- 1) P-values can indicate how incompatible the data are with a specified statistical model.
- 2) P-values do not measure the probability that the studied hypothesis is true, or the probability that the data were produced by random chance alone.
- 3) Scientific conclusions and business or policy decisions should not be based only on whether a p-value passes a specific threshold.
- 4) Proper inference requires full reporting and transparency.
- 5) A p-value, or statistical significance, does not measure the size of an effect or the importance of a result.
- 6) By itself, a p-value does not provide a good measure of evidence regarding a model or hypothesis."

This part makes us realize that incessant criticisms and arguments against p-value from statisticians around the world finally have received great response. While p-value is a valuable and useful tool to give the strength of evidence against the null hypothesis, at the present time, it is recognized as providing very limited information, and overreliance on the p-value to support broader hypotheses is too dangerous. Thus, when using p-value, we should be aware of its limitations and misconduct; for example, stopping collecting data once p-value less than 0.05, using covariates to get p-value less than 0.05, or transforming the data to get p-value less than 0.05. Moreover, if necessary, we had better find some suggestions on any other statistical approach to augment or replace the p-value.

Tenthly, the author introduced Bayesian statistics, Bayes' theorem, Bayesian inference and Bayes factor, which is one of those alternative analyses that can be used to augment or substitute the p-value. For many people who are not statisticians, I think this is the part that most of us might be unfamiliar with. Consequently, the content in this topic might not have enough details for us to clearly understand. To use it properly, additional knowledge is required.

Finally, the author provided some examples of the misuse and abuse of Statistics in plenty of quantitative research in many topics such as reproducibility crisis, choosing sampling methods with limited time and budget constraints, leading questions, too small sample size, ignoring extraneous variables, P-hacking, presenting a post hoc hypothesis (HARKing), and questionable interpretation and communication practice. In addition, he also suggested how to improve the quality of Statistical practice, how to develop communications in Statistics, and how to assess Statistical inferences efficiently by evaluating reliability of research design, source of data and interpretation.

Overall, the Art of Statistics Learning from Data provides the reader the basic statistical principles for how to obtain knowledge from data, introduces the fundamental topics in modern statistics such as data visualization and data-analytics, and gives some suggestions for approaching statistical problems to reduce the likelihood of misuse of statistics, misleading numbers, and misinterpreting data. By explaining with interesting present-day examples and studies, and avoiding using complex statistical formulas, this book is highly recommended for anyone who is endlessly interested in

statistics or other related fields and can be perfectly assigned as a supplementary material for undergrads with some basic statistical knowledge. It would provide students a greater understanding of statistics by presenting great examples with clear explanations. In addition, this book is unquestionably useful for skilled professionals as a revision or to brush up on modern statistics. It would not just help them to do statistics efficiently but also help them to interpret statistics appropriately. As academic professionals, this book reminds us that statistics is a powerful tool; therefore, we must present and communicate our statistical findings to the public honestly. Lastly, although there are some technical terms and hard stuff, this book is definitely enjoyable and you will be rewarded for getting to the end.

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Guidelines for Writing and Submitting Original Manuscripts for Publication in Journal of Multidisciplinary in Social Sciences

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Publication Process

1. The journal accepts original manuscripts for consideration, from January to December.
2. The editorial board adjourns to consider the merits or submitted manuscripts and the scope of the journal. During this phase the integrity and accuracy of the manuscripts content is assessed.
3. An editorial letter is issued to the author for manuscripts that the editorial board deems inappropriate for publication. If the editorial board approves the manuscripts, an editorial letter will be sent to the author and the article will be subjected to peer review.
4. Articles that are deemed appropriate for publication are subjected to peer review by a panel of three experts in the appropriate field. In order to be deemed appropriate for publication, an article must be by recommended two of the three experts.
5. The qualitative assessments of the expert panel returned by the manuscript's author. The author is expected to make the appropriate alterations indicated by the experts' feedback.
6. The author returns the edited document; the editorial staff examines the changes to make sure they are congruent with the experts' recommendations as well as the journal format.
7. The revised version is granted the University's recognition of "Accepted" for publication status with the Journal of Multidisciplinary in Social Sciences Stamp on every page. Information regarding publication status (Accepted) is located on the journal's website (<http://research.dusit.ac.th/new/e-Journal>)
8. The editorial team conducts an accuracy check for all articles before sending the manuscripts to the printer to create a draft journal issue.
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10. Upon approval by each author, the final version of the journal will be published as a online publication, accessible on website (<http://research.dusit.ac.th/new/e-Journal>).

Publication Criteria

1. The original manuscript is concise and interesting to the academic community.
2. The content of the manuscript represents quality and theory of the discipline and also possesses knowledge with practical applications.
3. The manuscript's content is consistent with the aim and scope of the journal.
4. Manuscripts submitted to Journal of Multidisciplinary in Social Sciences must not have been published previously in or actively involved in the publication process of another journal.
5. All content within the manuscript must be the product of the author himself. Any use of intellectual property within must be appropriately credited to its original authors.
6. The author must comply with the writing style established by Journal of Multidisciplinary in Social Sciences.

7. There are four levels of assessments given to reviewed manuscripts:
 - 7.1 Requires minor or no revisions prior to publication.
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 - 7.3 Requires intensive editing and revisions followed by a future evaluation.
 - 7.4 Unsuitable for publication

In order to be assigned the "Accepted" status, an article must be assessed as "Requires minor or no modification prior to publication" by two of the three experts from the peer review process.

Formatting Guidelines

It is the author's responsibility to format manuscripts to the standards of Journal of Multidisciplinary in Social Sciences. The details of format style are contained herein,

1. Format

1.1 Single page printing on A4 paper with a width of 19 cm and height of 26.5 cm. The vertical and horizontal spacing from the margins must be 3.5 cm and 2.5 cm, respectively.

1.2 Typefaces and layout: English must be typed using TH SarabunPSK using Microsoft word. Specific font format guidelines are as follows.

1.2.1 The header contains the page number, aligned on the right side, in 12 pt. font.

1.2.2 The title in English languages must be 16 pt. font, bolded, and center aligned. The title should not exceed two lines of text.

1.2.3 The author's name in English language must be typed 14.5 pt. font and centered below the title. Asterisks (*) should proceed the authors' names which is correspond to the appropriate author.

1.2.4 Affiliations should match each author with their appropriate affiliated institutions and organizations. In case of different affiliations, superscript numbers should follow the surname1 and affiliation1.

1.2.5 A footnote must be placed on the first page of the article with the text “*Corresponding Author”, the next line of text should contain “e-mail”, and the final line “**Affiliations” which specifies funding sources and agencies, for example “This research was supported by research grants from Suan Dusit University”.

1.2.6 “Abstract” in English must be 14.5 pt. font, bolded, left aligned, and placed below the Thai keywords section. Abstract text must be 14 pt. font, with 1 tab indentation from left and right margins.

1.2.7 “Keywords:” should appear in English language in 14.5 pt. font, placed beneath the English abstract text and be aligned with the left margin. English keywords must be 14 pt. font, and should not exceed four words. Each keyword should be separated by a comma (,) and space.

1.2.8 Regardless of language choice, the main text headings used throughout the paper must be 14.5 pt. font, bolded, and aligned with the left margin.

1.2.9 Bulleted items must appear as 14 pt. font, bolded, and be indented 1.5 tabs from the left margin.

1.2.10 Body text must appear as 14 pt. normal font, and be indented 1 tab from the left and right margins.

1.2.11 “References” must be 14.5 pt. font, bolded, and be aligned with the left margin. Individual entries must be 14 pt. font and should follow American Psychological Association (APA) formatting guidelines. Any lines of text for a single entry that exceed the first line should use a “hanging indent” of 1.5 tabs from the left margin.

1.2.12 Authors' names in Thai must be 14.5 pt. font, bolded and be aligned with the left margin. Name should contain Mr., Mrs. and academic title for each author. Affiliations should be below in both Thai and English as 14 pt. font. An address must be listed for each author.

1.3 An appropriate page length for publication in the Journal is approximately 15 pages.

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Should follow American Psychological Association (APA) formatting guidelines. Guidelines for references can be found on the journal's website: <http://research.dusit.ac.th/new/th/pr/>

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The written manuscript may contain only English. The content should be easy to understand and clear. If the author uses abbreviation, full word must appear before any abbreviation.

3.1 The title should be brief, the length should not exceed 100 characters.

3.2 The authors if there are more than six authors only the first author is listed, followed by "et al."

3.3 Affiliated entities associated with the author should appear in English languages.

3.4 The abstract must be written in English language. The abstract should briefly summarize the research and not exceed 250 words or 15 lines of text.

3.5 The "Keywords" section must contain no more than four keywords that allow for appropriate searching and selection based upon the article's topic.

3.6 The "Introduction" section should provide background information relevant to the research and provide information regarding the manuscript's content.

3.7 A statement of purpose should accompany the article to explicitly state the purpose of the study.

3.8 The framework clarifies the dependent and independent variables examined in the study.

3.9 The "Methodology" section delineates the procedures, how the research was conducted, sampling method (i.e. simple random samples) and population, and the creation and development of research tools used for data collection and analysis.

3.10 The "Results" section presents data obtained during the research and may be displayed as tables, graphs, illustrations, and accompanying explanations. Tables should be not have left and right borders and are normally black and white printed. No more than five tables should be present in the "Results" section. Pictures within the section should be clear and use simple black and white coloring with an accompanying caption, the author wishes to use colors for any item they may do so; however, the author will be responsible for the additional costs of color printing.

3.11 The "Discussion" section should include a summary of the findings and address whether or not the data support the research hypothesis and compare research findings to other similar research works.

3.12 The "Suggestions" section should provide recommendations for the application of the current work as well as potential areas for future research inquiries.

3.13 A final section should include contact information, address and e-mail, for each author. The list of authors should match the same order presented below the title on the title page.

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2. Send the manuscript via the R-System research database website <http://research.dusit.ac.th/r-system>.

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- The authors should follow the journal guidelines strictly.
- Any opinion or perspective made in the manuscript must be explicitly highlighted as "opinion" or "perspective"
- The authors must be aware that fraudulent information and omission of important information are unethical author behaviors.

- The authors must be able to provide research data if the Editor see needed.
- Authors must reference other works properly. Any work involved in the manuscript also must be well credited.
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