

## **Tourist Satisfaction in Nakhon Si Thammarat Province, Thailand: A Comparative Study**

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### **Abstract**

The purpose of this study was to examine the difference in tourist satisfaction based on demographic characteristics among tourists who visited Nakhon Si Thammarat, a second-tier province in Thailand. A quantitative method was employed in which data were collected from 356 tourists using convenience sampling. Online-based self-administered questionnaires were distributed through social media platforms. Independent samples t-test and one-way ANOVA were used to evaluate hypotheses. There were significant differences in tourist satisfaction based on age, gender, educational level, and occupation. The findings imply that local business owners should serve tourists with appropriate attributes across various demographic groups. The study also provides important insights for researchers to further understand the differences in tourist satisfaction based on demographic variables. Particularly, government agencies and policy makers should recognize that there are differences in tourist satisfaction based on demographic characteristics. This study also contributes to the current literature as it extends the expectancy disconfirmation theory. Finally, this study highlights some limitations that open up avenues for future research.

**Keywords:** Tourist satisfaction, Demographic characteristics, Thailand, Thai tourists, Nakhon Si Thammarat

### **Introduction**

Presently, the tourism industry has been recognized as a vital source of national income for many countries in the world. It plays an important role in fostering economic growth, creating jobs, improving social development, and promoting peace in host countries (Sofronov, 2018; World Bank Group, 2017). The industry is considered a competent driver of development in an emerging economy, where a 1% increase in tourism significantly yields an increase in the gross domestic product (GDP) by 0.051% and a decrease in poverty by 0.51% in the long run (Khan et al., 2020). In Thailand, the tourism industry has been acknowledged by the Thai

government as an important sector for income generation (Chulaphan & Barahona, 2018). The industrial sector contributed 17.64% of the total GDP and 11.74% of the total employment in the country in 2019 (Ministry of Tourism and Sports, 2020a). More importantly, the contribution of the GDP from this sector declined to 12.91% in the first quarter of year 2020 as a result of the Covid-19 pandemic and the subsequent restrictions on all travel (Ministry of Tourism and Sports, 2020a).

Since the Thai government implemented the state of emergency during March and April 2020 in order to combat the Covid-19 outbreak in the country, including restrictions on people's movements (Royal Thai Government, 2020), the number of foreigners visiting Thailand has decreased. According to the Ministry of Tourism and Sports (2020b), the number of foreign tourists that visited Thailand during January and August 2020 has dropped by 76.81%, whereas the number of local tourists has fallen by 52.63% when compared with the previous year. Local tourists nowadays are a viable segment in boosting the domestic tourism industry in Thailand. The campaign of visiting "secondary-tier provinces" has been promoted by the government to contribute to domestic tourism (National News Bureau of Thailand, 2018a). The Department of Tourism (2020) proclaims that there are 55 second-tier provinces, including Nakhon Si Thammarat which is the second largest province in Southern Thailand. In 2018, this province was the most visited destination among second-tier provinces and earned the highest income at approximately THB 2,121 million (USD 69.304 million)<sup>1</sup> with an estimated 142,445 local tourist arrivals (National News Bureau of Thailand, 2020b).

At present, the tourism industry in Nakhon Si Thammarat has been promoted to visitors due to the richness of registered tourist sites including natural, cultural, historical, and religious sites (Sasithornwetchakul & Choibamroong, 2019). Some examples include the main Buddhist temple in Nakhon Si Thammarat Province named Wat Phra Mahathat Woramaha Wihan, Ban Khiriwong village, Namtok Yong National Park, and Khao Kha Archaeological Site (Tourism Authority of Thailand, 2017). Although the province can be considered as a potential tourist destination, the total number of local tourist arrivals in 2020 declined by 49.92% and the earnings dropped by 63.84% when compared with the previous year (Ministry of Tourism and Sports, 2020b). Thongsamak et al. (2019) argue that the province has not yet been a popular tourist destination and potential remedies need to be implemented. Tourist satisfaction is viewed as the key to being successful in the tourism industry since it influences tourists' decisions on selecting particular tourist destinations to visit, as well as repeating their visit (Aliman et al., 2016).

Understanding tourist satisfaction is considered important for the tourism industry in order to help increase tourism destination competitiveness due to satisfaction, which is the basis for tourist loyalty (Pavlic et al., 2011; Silaban et al., 2019). Despite the fact that tourist satisfaction is one of the most often studied topics in the stream of literature for this sector, very few studies have focused on tourist satisfaction in Thailand (Baguisi et al., 2015). In

<sup>1</sup> The exchange rate THB 33.235 = USD 1 from the Bank of Thailand as of July 26, 2018.

addition, there has been a lack of study towards tourist behavior and needs in Nakhon Si Thammarat (Kokkhangplu & Kaewnuch, 2017). Therefore, a detailed study on the satisfaction of their visit to this province should be conducted. Based on the above mentioned, this study aims to examine the differences in tourist satisfaction based on the demographic characteristics of tourists who visited Nakhon Si Thammarat. In doing so, this paper is structured into five sections. Following this introduction, the second section presents the most relevant literature on demographic variables, tourist satisfaction, and the expectancy disconfirmation theory. Section three further explains the research methodology, which contains data analysis and results. The fourth and final sections provide discussion and conclusion.

## **Literature review**

### **Tourist satisfaction**

Tourist satisfaction has been considered as a potential factor since it is able to determine the long-term success of the tourism business (Asmelash & Kumar, 2019). Khan, Haque, and Rahman (2013) define tourist satisfaction as the pleasure of the tourists after visiting any tourist destinations. Sawangpol (2019) further explains that tourist satisfaction concerns the outcome of the comparison between expectations and experiences of the tourists. According to Aliman (2016), if the tourists' expectations are met or exceeded, they will be satisfied with their journey experience. Herle (2018) claims that there have been several studies revealing that satisfaction has an impact on the future intentions of tourists. It can be interpreted that tourist satisfaction affects the tourists' choice of a destination and their revisit intention (Durie & Kebede, 2017). Hence, it is necessary to understand tourist satisfaction in order to improve the destination's attributes so that the tourists' expectations will be met (Sapari et al., 2013).

### **Demographic characteristics and tourist satisfaction**

In the tourism literature, the demographic characteristics of the tourists are some of the crucial factors that have been used for assessing tourist satisfaction (Ghanbri et al., 2019; Zeinali et al., 2014). Although numerous empirical studies have found a link between the characteristics of tourists and their satisfaction (Che Leh et al., 2020; Ma et al., 2018; Monteiro & Borges, 2015; Salim & Mohamed, 2014), there seems to be little research on comparative form. According to prior studies, six aspects of demographic characteristics were selected for this study.

### ***Age and tourist satisfaction***

Generally, tourist satisfaction varies across demographic characteristics, where age is one of the demographic variables that play a main role in the tourist travel experience (Birdir, 2015). A study was conducted by Li et al. (2017) to investigate the influences of different age groups on the relationship between the destination image and tourist satisfaction, and the study found that age difference had a significant impact on the relationship. Also, Tomic et al. (2019) examined the influence of the age of tourists on the activity preferences in a tourist destination in Vojvodina. The study revealed that there was a significant difference between the age of

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tourists and the choices of activity in a tourist destination. Since these past studies have disclosed that tourist satisfaction varies across differences in age, the first hypothesis is stated as follows:

Hypothesis 1: There is a significant difference in tourist satisfaction based on age.

#### ***Gender and tourist satisfaction***

Among various demographic characteristics that are known as determinants of tourist behavior, gender is presented as a personal characteristic that influences tourist satisfaction (Kwok et al., 2016). The study of Shahriari (2016) was conducted in areas of the province of Semnan to compare tourist satisfaction in quality of services between male and female tourists, and they found that men had more satisfaction in response to service quality when compared to women. Likewise, a study also was conducted by Deri et al. (2017) to compare satisfaction between genders, and they found that there was a significant difference between men and women on satisfaction. Based on these prior studies, the second hypothesis is formulated as follows:

Hypothesis 2: There is a significant difference in tourist satisfaction based on gender.

#### ***Marital status and tourist satisfaction***

Marital status is also considered as an influential factor of tourist satisfaction. Gargano and Grasso (2016) revealed that single people were slightly more satisfied with the use of services and facilities than married people. Viet et al. (2020) examined the moderating effect of marital status on the link between destination attractiveness and tourist satisfaction among international tourists. The study found that the magnitude of the relation was higher for single tourists. It can be interpreted that single tourists seem to be more satisfied with destination attractiveness than married tourists. Thus, the third hypothesis is formulated as follows:

Hypothesis 3: There is a significant difference in tourist satisfaction based on marital status.

#### ***Educational level and tourist satisfaction***

Education is another demographic variable to understand tourist behavior, and various studies have revealed differences in tourist satisfaction across educational levels. Zhang et al. (2016) conducted a study on tourist satisfaction and found that tourists who have a college educational level showed the highest satisfaction, whereas those with less than a high school diploma showed the lowest satisfaction. Similarly, Suansri (2016) studied the satisfaction of tourists and found that different levels of education resulted in different satisfaction. In contrast, Huete-Alcocer et al. (2019) found that the level of education had no effect on tourist satisfaction. They also argued that there have been no such studies investigating the influence of educational level towards satisfaction. Based on these past studies, the fourth hypothesis is

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specified as follows:

Hypothesis 4: There is a significant difference in tourist satisfaction based on educational level.

#### ***Occupation and tourist satisfaction***

Researchers have mentioned that occupation is an influential factor of tourist behavior (Wang et al., 2017). A study was conducted by Hui-Chuan and Hua (2014), which found that differences in occupation had a significant effect on satisfaction. Baguisi et al. (2015) also found differences in the level of satisfaction across occupations. By contrast, Shahrivar (2012) studied the factors influencing the satisfaction of tourists and revealed that there was no significant difference in satisfaction according to their occupation. Similarly, the study conducted by Alananzeh et al. (2018) also found that there was no significant difference in the impact on tourist satisfaction based on occupation. Based on these prior studies, the fifth hypothesis is formulated as follows:

Hypothesis 5: There is a significant difference in tourist satisfaction based on occupation.

#### ***Place of residence and tourist satisfaction***

Place of residence is another indicator to understand tourist behavior. Hamed and Elmoghazy (2018) conducted a study to investigate the influence of place of residence among Muslim tourists on their tourist destination choice. The findings revealed that the place of residence had a significant effect on destination choice, as Muslims residing in Muslim countries are more satisfied with Muslim-friendly attributes than Muslims residing in non-Muslim countries. Also, a study was conducted by Brida et al. (2013) to examine the factors influencing visitor satisfaction. The results found that the overall satisfaction of tourists was related to their place of residence. Therefore, the sixth hypothesis is formulated as follows:

Hypothesis 6: There is a significant difference in tourist satisfaction based on place of residence.

#### ***Expectancy disconfirmation theory***

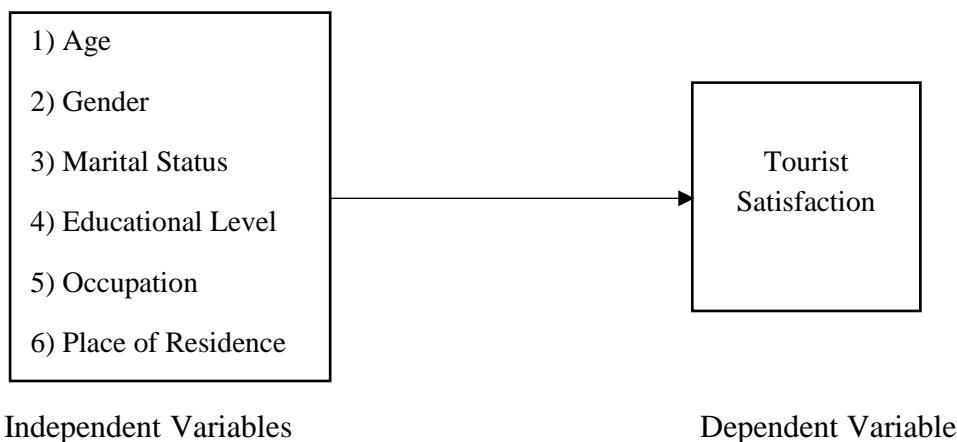
The expectancy disconfirmation theory (EDT) can be traced back to a cognitive model of the causes and effects of satisfaction cognitions that was developed as a means to understand consumer satisfaction (Oliver, 1980). The EDT has become one of the most important and influential models widely used by researchers in various fields of studies to determine customer satisfaction, particularly in hospitality and tourism research, since it is considered as a valid and reliable framework (Yuksel & Yuksel, 2001). The EDT posits that the satisfaction of customers can be viewed as a function of the differences between the pre-purchase expectations and the perceived performance of the products and services so-called disconfirmation (Tang,

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Lin et al., 2017). In other words, if the performance matches the expectations, satisfaction occurs (Grimmelikhuijsen & Porumbescu, 2017). Since the EDT has been proven to have a strong ability in explaining customer satisfaction, the EDT was applied in this study to understand tourist satisfaction.

### Research framework

Based on the literature review and suggestions of several studies, this study developed a research framework to investigate the differences in tourist satisfaction based on the demographic characteristics of the tourists who visited Nakhon Si Thammarat, Thailand. The framework has six independent variables represented by age, gender, marital status, educational level, occupation, and place of residence; whereas tourist satisfaction was the dependent variable (see Figure 1).



**Figure 1** Research Framework

### Research methodology

The pilot study was conducted and finished within four weeks (July 15, 2020 to August 15, 2020) using an online-based self-administered questionnaire. The measurement instrument with eight indicators measuring tourist satisfaction was adapted from Asmelash and Kumar (2019). All items were measured on a five-point Likert scale ranging from 1 (strongly dissatisfied) to 5 (strongly satisfied). The mean range of the Likert scale was categorized into five different classes with the range of 0.8 (see Table 1). A total of 220 questionnaires were responded by tourists, where 10 of them had not been properly filled; thus, 210 were used for analysis in the pilot study. Crocker and Algina (2008, p. 83) posit that items developed for commercial use should be conducted with samples as large as 100 to 200. The Cronbach's alpha value based on standardized items was 0.920, which is considered as excellent internal consistency in interpreting all items and reliable in measuring tourist satisfaction. According to Israel (1992), 400 respondents are required to represent the population of more than 100,000 at a 95% confidence level and 5% precision. Consequently, data collection was further

conducted through online surveys from August 15, 2020 to October 15, 2020 using the convenience sampling technique. A total of 384 questionnaires were answered, of which 12 were incompletely filled, making a final 372 questionnaires usable for data analysis and accounting for a 93% valid response rate. IBM SPSS software Version 25 was used in this study for data analysis.

**Table 1** The mean range of the Likert scale

Description	Scale	Mean Range	Interpretation
Strongly Satisfied	5	4.20-5.00	Very High
Satisfied	4	3.40-4.19	High
Neutral	3	2.60-3.39	Moderate
Dissatisfied	2	1.80-2.59	Low
Strongly Dissatisfied	1	1.00-1.79	Very Low

## Data analysis

### Preliminary analysis

After the data collection was completed, purifying data was subsequently performed in order to reduce extreme scores before analysis (Osborne, 2010). Since missing values were not included in the data file, internal consistency was tested again and the Cronbach's alpha value was found to be 0.922, indicating that all eight indicators possessed very good reliability. The normality of residuals was tested in this study using the Shapiro-Wilk test and Kurtosis test, which found non-normal distribution of data (see Table 2). The assessment of outliers also was tested using the Mahalanobis distance, which found the critical value of Chi-Squares at  $p = 0.001$  for six degrees of freedom was 22.46; thus, 16 outliers were removed from this study. Furthermore, the common method bias test was conducted using Harman's single-factor test, which found that there was no issue of common method bias in this study (see Table 3). Finally, the multicollinearity test was performed using the variance inflation factor (VIF) and tolerance values, which reported that the issue of multicollinearity was not found in this study (see Table 4). Based on these results, it can be concluded that the data was suitable to be subjected to further analysis, particularly the F-test (ANOVA), although normality was not met (Blanca et al., 2017).

**Table 2** Tests of normality

	Kolgomorov-Smirnov			Shapiro-Wilk		
	Statistic	df	Sig.	Statistic	df	Sig.
Unstandardized Residual	0.106	372	0.000	0.931	372	0.000
Standardized Residual	0.106	372	0.000	0.931	372	0.000

**Table 3** Total variance explained

Initial Eigenvalues			Extraction Sums of Squared Loadings		
Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	5.337	38.121	5.337	38.121	38.121

**Table 4** Tolerance and VIF values

	Tolerance	VIF
Age	0.316	3.165
Gender	0.917	1.091
Marital Status	0.588	1.702
Place of Residence	0.989	1.011
Educational Level	0.751	1.332
Occupation	0.339	2.948

## Results

### Demographic profiles of respondents

The demographic characteristics of the tourists were investigated with the aim of describing samples using the statistical values of frequency and percentage based on age, gender, marital status, place of residence, educational level, and occupation (see Table 5). In terms of age, most respondents were less than 25 years old (81.2%), followed by 15.2% who were in the range of 25-40 years and 3.7% in the range of 41-60 years, while no respondents were more than 60 years old. With regards to gender, over half of the respondents were males (53.7%) and 46.3% were females. In terms of marital status, the majority of the respondents were single, where there were 327 single respondents (91.9%) and 29 married respondents (8.1%). For the place of residence, the majority of the respondents were from Southern Thailand (97.2%). Furthermore, in terms of educational level, most respondents achieved a bachelor's degree (59.8%), while 32.6% completed less than a bachelor's degree and 7.6% had a postgraduate degree. Finally, with regards to occupation, the majority of the respondents were students (77.5%), followed by government officials (10.7%), employees and trade/self-business (4.2%), other (2.2%), and farmers and general contractors (0.6%).

**Table 5** Demographic profiles of respondents (N = 356)

Demographic Variable	Item	Frequency	Percentage
Age	Less than 25 years	289	81.20
	25-40 years	54	15.20
	41-60 years	13	3.70
	More than 60 years	0	0.00
Gender	Male	191	53.70

<b>Demographic Variable</b>	<b>Item</b>	<b>Frequency</b>	<b>Percentage</b>
Marital Status	Female	165	46.30
	Single	327	91.90
	Married	29	8.10
Place of Residence	East Thailand	1	0.30
	North-East Thailand	4	1.10
	South Thailand	346	97.20
	North Thailand	5	1.40
Educational Level	Less than Bachelor's Degree	116	32.60
	Bachelor's Degree	213	59.80
	Graduate Degree	27	7.60
Occupation	Student	276	77.50
	Farmer	2	0.60
	General contractor	2	0.60
	Trade/Self-business	15	4.20
	Employee	15	4.20
	Government official	38	10.70
	Other	8	2.20

### Descriptive statistics of tourist satisfaction

Descriptive analysis of the variable “tourist satisfaction” was conducted in this study in order to describe the satisfaction of the respondents with their trips using the statistical values of mean and standard deviation. The results of these statistical values were calculated on a five-point Likert scale (see Table 6). The results showed that the mean values for any measurement items were not distinguishably different. Overall, tourist satisfaction ( $M = 4.27$ ) was at a very high level.

**Table 6** Descriptive statistics of tourist satisfaction

<b>Item</b>	<b>M</b>	<b>SD</b>	<b>Level</b>
Accessibility of the destination (in terms of physical distance, price, information)	4.33	0.644	Very High
Accommodation (quality of food and drinks, customer handling, price fairness) in service sectors	4.17	0.667	High
Reasonability of entrance fee to attraction sites	4.22	0.677	Very High
Safety and security of the destination	4.30	0.674	Very High
Attractiveness of the destination	4.21	0.730	Very High
Tourism staff treatment of tourists and local residents	4.23	0.697	Very High
Hospitality of the local residents	4.37	0.668	Very High
Quality of information offered at attraction sites	4.31	0.700	Very High
Overall tourist satisfaction	4.27	0.552	Very High

### Test of hypothesis 1

A one-way ANOVA was conducted to determine whether tourist satisfaction differs among age groups. The results (see Table 7) indicated that there was a significant difference in

tourist satisfaction across age groups ( $F(2,353) = 3.270$ ,  $p < 0.05$ ), supporting H1. The post hoc using Tukey was applied to examine mean differences between pairs of age groups. The post hoc results (see Table 8) indicated that there was no significant difference in tourist satisfaction between age groups less than 25 years and 25-40 years ( $p > 0.05$ , CI = -0.033 to 0.349). The post hoc results reported further that there was no significant difference in tourist satisfaction between age groups less than 25 years and 41-60 years ( $p > 0.05$ , CI = -0.083 to 0.648), as well as no significant difference in tourist satisfaction between age groups 25-40 years and 41-60 years ( $p > 0.05$ , CI = -0.274 to 0.523).

**Table 7** One-Way ANOVA of tourist satisfaction by age

	<b>Sum of Squares</b>	<b>df</b>	<b>Mean Square</b>	<b>F</b>	<b>Sig.</b>
Between Groups	1.965	2	0.982	3.270	0.039
Within Groups	106.039	353	0.300		
Total	108.004	355			

**Table 8** Post Hoc of tourist satisfaction by age

<b>(I) Age</b>	<b>(J) Age</b>	<b>Mean Difference (I-J)</b>	<b>Std. Error</b>	<b>Sig.</b>	<b>95% Confidence Interval</b>	
					<b>Lower Bound</b>	<b>Upper Bound</b>
Less than 25 years	25-40 years	0.1580	0.0813	0.128	-0.033	0.349
	41-60 years	0.2822	0.1554	0.166	-0.083	0.648
25-40 years	Less than 25 years	-0.1580	0.0813	0.128	-0.349	0.033
	41-60 years	0.1243	0.1693	0.743	-0.274	0.523
41-60 years	Less than 25 years	-0.2822	0.1554	0.166	-0.648	0.083
	25-40 years	-0.1243	0.1693	0.743	-0.523	0.274

### Test of hypothesis 2

An independent samples t-test was applied to determine whether tourist satisfaction differs between gender groups. The Levene's test was conducted to see whether there was equal variance in the data set. The results in Table 9 and Table 10 showed that there was a significant difference in tourist satisfaction between male and female tourists ( $F = 5.575$ ,  $p < 0.05$ ,  $t = -0.154$ ,  $df = 348.894$ ). Based on these results, H2 was supported.

**Table 9** Group statistics of tourist satisfaction by gender

	<b>Gender</b>	<b>N</b>	<b>Mean</b>	<b>Std. Deviation</b>	<b>Std. Error Mean</b>
SAT	Male	191	4.263	0.6149	0.0445
	Female	165	4.272	0.4695	0.0366

*Note:* SAT = Tourist Satisfaction

**Table 10** Independent samples test of tourist satisfaction by gender

		<b>Levene's Test for Equality of Variances</b>		<b>t-test for Equality of Means</b>		
		<b>F</b>	<b>Sig.</b>	<b>t</b>	<b>df</b>	<b>Sig. (2-tailed)</b>
SAT	Equal variance assumed	5.575	0.019	-0.151	354	0.880
	Equal variance not assumed			-0.154	348.894	0.878

*Note:* SAT = Tourist Satisfaction

### Test of hypothesis 3

In this section, an independent samples t-test was applied to test the difference in tourist satisfaction based on marital status. The Levene's test for equality of variances was conducted. The results in Table 11 and Table 12 reported that there was no significant difference in tourist satisfaction between single and married tourists ( $F = 1.176$ ,  $p > 0.05$ ,  $t = 1.850$ ,  $df = 354$ ). Thus, H3 was not supported.

**Table 11** Group statistics of tourist satisfaction by marital status

	<b>Marital Status</b>	<b>N</b>	<b>Mean</b>	<b>Std. Deviation</b>	<b>Std. Error Mean</b>
SAT	Single	327	4.283	0.5567	0.0308
	Married	29	4.086	0.4606	0.0855

*Note:* SAT = Tourist Satisfaction

**Table 12** Independent samples test of tourist satisfaction by marital status

		<b>Levene's Test for Equality of Variances</b>		<b>t-test for Equality of Means</b>		
		<b>F</b>	<b>Sig.</b>	<b>t</b>	<b>df</b>	<b>Sig. (2-tailed)</b>
SAT	Equal variance assumed	1.176	0.279	1.850	354	0.065
	Equal variance not assumed			2.168	35.673	0.037

*Note:* SAT = Tourist Satisfaction

### Test of hypothesis 4

The one-way ANOVA results in Table 13 showed that there was a significant difference in tourist satisfaction across educational level groups ( $F(2,353) = 4.519, p < 0.05$ ). The post hoc results in Table 14 indicated that there was a significant difference in tourist satisfaction between those with less than a bachelor's degree and those with a graduate degree ( $p < 0.05, CI = 0.029$  to  $0.579$ ). In addition, there was a significant difference in tourist satisfaction between those with a bachelor's degree and those with a graduate degree ( $p < 0.05, CI = 0.073$  to  $0.598$ ). The overall results showed that H4 was supported.

**Table 13** One-Way ANOVA of tourist satisfaction by educational level

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	2.696	2	1.348	4.519	0.012
Within Groups	105.308	353	0.298		
Total	108.004	355			

**Table 14** Post Hoc of tourist satisfaction by educational level

(I) Educational Level	(J) Educational Level	Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval	
					Lower Bound	Upper Bound
Less than Bachelor's Degree	Bachelor's Degree	-0.0313	0.0630	0.873	-0.180	0.117
	Graduate Degree	0.3040*	0.1167	0.026	0.029	0.579
Bachelor's Degree	Less than Bachelor's Degree	0.0313	0.0630	0.873	-0.117	0.180
	Graduate Degree	0.3352*	0.1116	0.008	0.073	0.598
Graduate Degree	Less than Bachelor's Degree	-0.3040*	0.1167	0.026	-0.579	-0.029
	Bachelor's Degree	-0.3352*	0.1116	0.008	-0.598	-0.073

\* $p < 0.05$ , two-tailed

### Test of hypothesis 5

A one-way ANOVA was performed to determine whether tourist satisfaction differs across occupation groups. In Table 15, the results showed that there was a significant difference in tourist satisfaction based on occupation ( $F(6,349) = 2.533, p < 0.05$ ). Thus, H5 was supported. The post hoc results in Table 16 revealed further that there was a significant difference in tourist satisfaction between students and government officials ( $p < 0.05, CI = 0.007$  to  $0.566$ ).

**Table 15** One-Way ANOVA of tourist satisfaction by occupation

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	4.507	6	0.751	2.533	0.021
Within Groups	103.497	349	0.297		
Total	108.004	355			

**Table 16** Post Hoc of tourist satisfaction by occupation

(I) Occupation	(J) Occupation	Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval	
					Lower Bound	Upper Bound
Student	Farmer	0.4973	0.3865	0.858	-0.649	1.643
	General Contractor	-0.0652	0.3865	1.000	-1.211	1.081
	Trade/Self-business	0.3014	0.1444	0.362	-0.127	0.730
	Employee	-0.0986	0.1444	0.993	-0.527	0.330
	Government Official	0.2868*	0.0942	0.040	0.007	0.566
	Other	0.0442	0.1953	1.000	-0.535	0.623

\* $p < 0.05$ , two-tailed

### Test of Hypothesis 6

A one-way ANOVA was used in this section to examine whether tourist satisfaction differs across places of residence. The results (see Table 17) indicated that there was no significant difference in tourist satisfaction based on the place of residence of the tourists ( $F(3,352) = 1.008, p > 0.05$ ). Thus, H6 was not supported. Since tourists from East Thailand had fewer than two cases, the post hoc analysis was not possible for this variable. In other words, due to limited data, the post hoc tests were not performed in this section

**Table 17** One-Way ANOVA of tourist satisfaction by place of residence

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	0.920	3	0.307	1.008	0.389
Within Groups	107.084	352	0.304		
Total	108.004	355			

### Effect size

Effect size was conducted in this study to estimate the magnitude of effect between two variables (Ferguson, 2009). The eta squared formula ( $\eta^2 = t^2/t^2+df$ ) thus was applied to estimate the effect size for independent samples t-test (Warner, 2008, p. 197), where  $\eta^2 = SS_{between}/SS_{total}$  was used for one-way ANOVA (Warner, 2008, p. 234). According to Allen (2017, p. 408), the  $\eta^2$  values of 0.01, 0.06, and 0.14 represent small, medium, and large effect sizes, respectively. The results showed that small effect sizes were found for the difference in tourist satisfaction based on age, marital status, educational level, occupation, and place of residence; while the difference in tourist satisfaction based on gender was considered to be of no effect (see Table 18).

**Table 18** Effect Size ( $\eta^2$ )

Hypothesis	$\eta^2$	Effect Size
H1	0.018	Small

Hypothesis	$\eta^2$	Effect Size
H2	0.000	No Effect
H3	0.010	Small
H4	0.025	Small
H5	0.042	Small
H6	0.009	Small

## Discussions

The primary objective of the study was to examine the statistical difference in tourist satisfaction based on the demographic characteristics of tourists who visited Nakhon Si Thammarat Province. Six hypotheses were formulated and examined, and only four hypotheses were supported. In order to obtain the objective of this study, H1 was evaluated, which stated that there is a significant difference in tourist satisfaction based on age. The ANOVA results indicated that there was a significant difference in tourist satisfaction based on age with a small effect size. More importantly, there were no differences found in tourist satisfaction between pairs of age groups as revealed by the post hoc results. This can be interpreted that young tourists were more satisfied than middle-aged and old tourists, and middle-aged tourists were more satisfied than old tourists. This is consistent with a previous study which found that there was a significant difference in satisfaction among visitors of different age groups, but the actual difference was small (Salim & Mohamed, 2014). It can be explained further that since young tourists are associated with lower financial capabilities (Lee & Phau, 2018), they are satisfied with the basic attributes of the destination.

Secondly, H2 was tested, which stated that there is a significant difference in tourist satisfaction based on gender. The results using Levene's test revealed that there was a significant difference in tourist satisfaction between gender groups with no effect size. The results of the group statistics further indicated that female tourists were slightly more satisfied with their journey compared to male tourists. This result is consistent with a previous study which disclosed that the satisfaction level of female tourists was greater than male tourists (Phosikham et al., 2015). A possible explanation for this result could be that female tourists were more concerned about the safety and security of the destination and the hospitality of the local residents than male tourists, which is consistent with the study of Meng and Uysal (2008).

Thirdly, H3 was examined, which stated that there is a significant difference in tourist satisfaction based on marital status. The findings revealed that there was no significant difference in tourist satisfaction based on marital status. A possible explanation for this result is that married tourists and single tourists are satisfied at the same level in regards to the attributes of the destination. By contrast, the present result is not consistent with a prior study which found that married tourists were more concerned about cost than single tourists, whereas single tourists were more attracted to different cultural experiences than married tourists (Htun et al., 2015).

In addition, H4 was examined, which stated that there is a significant difference in tourist satisfaction based on educational level. The results revealed that there was a significant difference in tourist satisfaction based on educational level. This result is consistent with a prior

study that found a significant difference in satisfaction between non-degree holder tourists and degree holder tourists (Baguisi et al., 2015). The results of this study suggest that higher educated tourists seem less satisfied than lower educated tourists. It can be interpreted that more highly educated people earn higher incomes (Wolla & Sullivan, 2017), and in turn, have more expectations for their trip to Nakhon Si Thammarat Province.

Moreover, H5 was evaluated, which stated that there is a significant difference in tourist satisfaction based on occupation. The findings revealed that there was a significant difference in tourist satisfaction based on occupation. This suggests that students are more satisfied with the destination attributes when compared to government officials. The present result is consistent with a prior study which found that students were more satisfied with prices of hotels or guesthouses when compared to those who were retired, unemployed, or housewives (Baguisi et al., 2015). It can be interpreted that students are young tourists who have relatively low financial capability when compared to older people (Zakaria & Sabri, 2013). Therefore, they are satisfied with the basic attributes.

Finally, H6 was evaluated, which stated that there is a significant difference in tourist satisfaction based on place of residence. The outcomes disclosed that there was no significant difference in tourist satisfaction based on place of residence. It can be possibly explained that tourists of all origins are satisfied with the destination attributes according to the campaign which the government launched to utilize personal income tax returns for tourism spending in second-tier provinces (Tourism Council of Thailand, 2019). The result is consistent with a previous study that found no difference in tourist satisfaction among Thai tourists across different places of residence (Keereepheth et al., 2018).

## Conclusions

This study attempted to test the differences in tourist satisfaction based on demographic characteristics including age, gender, marital status, educational level, occupation, and place of residence. A total of 400 tourists were required for data collection, and after data collection a total of 372 usable responses were received. The hypotheses, which relied on the expectancy disconfirmation theory (EDT), were examined using IBM SPSS Statistics software Version 25. The findings indicated that there were significant differences in tourist satisfaction based on age, gender, educational level, and occupation. This study provides theoretical and practical implications. Firstly, the results of this study support that the EDT persists when initial expectations and actual performance are matched or exceeded, which means that, a tourist is satisfied. Secondly, evaluating the differences in tourist satisfaction based on demographic characteristics as conducted in specific areas of Thailand, such as Nakhon Si Thammarat Province, has significant implications to the body of knowledge on tourism. Thirdly, the findings of this study can help local business owners to provide tourists with appropriate attributes across various demographic groups, particularly for students, middle-aged tourists, and female tourists. For instance, female tourists are more concerned about the safety and security of the destination, whereas more highly educated tourists have greater expectations for their trip. Finally, the outcomes suggest that government agencies and policy makers should

recognize the differences in tourist satisfaction based on age, gender, educational level, and occupation.

There were several limitations for this study. Firstly, the scope of this study was limited to Nakhon Si Thammarat Province in Thailand, and the findings cannot be generalized for the whole country. Secondly, this study used convenience sampling, which is a type of nonprobability sampling where it is likely to be biased. Therefore, future research should focus on factors affecting tourist satisfaction using probability sampling strategies.

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