

# Food & Beverage Safety and Satisfaction: A Gender Effect

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## II. LITERATURE REVIEW

**Abstract**—There has been considerable growth in the issue of food & beverage safety in Thailand. This is important because the level of satisfaction in food & beverage safety has impacts on travel decision made by foreign tourists. Therefore, this paper was aimed to test if there is any significant gender effect in the level of satisfaction of food & beverage safety made by foreign tourists in Thailand. In addition, this paper utilized the Chi Square test of independent to test if there was an association between gender and sickness because of food and if there was an association between gender and the perception of food safety standard. During January to June, 2012, a total of 400 foreign tourist respondents, 200 male as well as 200 female foreign tourists, were interviewed at the departure lounge at Suvarnabhumi airport, Thailand. The findings revealed the astonishing result that there was no significant effect of gender. Also, there was no significant difference in the association between gender and being sick because of food as well as the association between gender and the perception on the standard of food safety during their trip in Thailand.

**Keywords**—Food & Beverage, Gender Effect, Safety Standard, Satisfaction.

## I. INTRODUCTION

FOOD & beverage is often considered as one of the main attractions for foreign tourists visiting Thailand. Wongleedee [1] found that foreign tourists had the highest level of satisfaction on Thai food and Thai services. Thailand is famous for its variety of food and its elaborate decoration of food as well as a high standard of service. The question is how importance is food satisfaction to foreign tourists' overall level of satisfaction. Tuu and Olsen [2] revealed in their study that a high level of satisfaction of food has a significantly positive effect on repurchase loyalty. Moreover, the perceived food risk has an indirect effect on repurchase loyalty through satisfaction. In other words, loyalty can be created by providing a high level of satisfaction to foreign tourists. The next question is if there is any gender factor affecting the relationship between the level of satisfaction and food & beverage safety. Do male and female foreign tourists have a distinguishable perception of food & beverage safety in Thailand?

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Peace, security, and safety are the primary conditions for normal tourism development and tourism destination growth. Safety, however, concerns not just physical safety from crime, terrorism, natural disaster, and violence, but also from food & beverage poisoning. One of the most important factors in predicting food safety and risk perception is gender. Several studies (Fagerli & Wandel; Williams & Hammitt) concluded that women tend to assess food safety and have higher risk perception than men [3][4]. The difference can be explained by the social role. Women, as mothers, often have a higher concern about food safety and risk associated with unsafe food.

Webster-herber & Warg [5] pointed out that gender difference means a difference in power and influence. Men are more motivated to be adventurous and take more risks in trying new food or unfamiliar foods. Women, however, are motivated to avoid taking high risks of trying new food or unfamiliar food. Leikas, Lindeman, Roininen, and Lahteenmaki [6] had investigated the nature of gender and anxiety interaction and they found that anxiety was positively associated with risk probability among men but not among women. In other words, trait anxiety was positively associated with food risk perception only among men which means the more anxiety men have, the more they get excited by the risk and willingness to try new dishes. On the other hand, for women, the level of anxiety did not matter. Fagerli and Wandel [3] explained that socioeconomic factors affect women's consumption and opinion about healthy diet less than they affect men's consumption and opinion.

## III. METHODOLOGY

The objectives of this study were: 1) to test if there was any gender effect in the level of satisfaction of food & beverage safety 2) to test if there was an association between gender and being sick because of food and 3) if there was an association between gender and the perception on standard of food safety. The findings were drawn from the experiences of an equal representation of both male and female foreign tourists from their vacations in Thailand from January to June, 2012. A total of 400 foreign tourist respondents, 200 male as well as 200 female foreign tourists, were obtained at the departure lounge at Suvarnabhumi airport, Thailand. A quota sampling was used to make certain that there were an equal number of male and female foreign tourists. The data were collected by a survey questionnaire and analyzed using SPSS program. Respondents were asked to indicate the level of satisfaction on Likert five-point scale which included highly satisfied, very satisfied, satisfied, unsatisfied, and highly unsatisfied.

#### IV. RESULTS

The goal of the result section in this empirical paper was to report the descriptive results and the results of the data analysis from t-test and chi square ( $\chi^2$ ) test as follows.

1. The independence sample t-test hypothesis (Gender and level of food & beverage safety satisfaction).
2. The chi square ( $\chi^2$ ) hypothesis test for independence (Gender and being sick because of food).
3. The chi square ( $\chi^2$ ) hypothesis test for independence (Gender and perception of food & safety standard).

TABLE I  
 DEMOGRAPHIC INFORMATION OF FOREIGN TOURISTS

	Frequency	Percent	N
<i>Gender</i>			400
Male	200	50.0	
Female	200	50.0	
<i>Age</i>			400
Below 20 – 20 years old	51	12.8	
21 – 30 years old	195	48.8	
31 – 40 years old	114	28.5	
41 – 50 years old	27	6.8	
More than 50 year old	13	3.3	
<i>Education</i>			400
Less than high school	9	2.3	
High school	77	19.3	
College/University	291	72.8	
Graduate school	23	5.8	
<i>Income</i>			400
Less than €10,000 – €15,000	142	35.5	
€15,001 - €25,000	145	36.3	
€25,001 - €50,000	60	15.0	
More than €50,000	53	13.3	
<i>Status</i>			400
Single	227	56.8	
Married	153	38.3	
Divorced	11	2.8	
Separated	9	2.3	
<i>Have you been to Thailand before?</i>			400
First time	124	31.0	
A few times	135	33.8	
Many times	141	35.3	
<i>Have you ever got food poisoning during the trip in Thailand?</i>			400
Never	229	57.3	
1 time	60	15.0	
2 times	38	9.5	
More than 3 times	73	18.3	
<i>How many days have you been in Bangkok?</i>			400
1-2 days	18	4.5	
3-4 days	50	12.5	
5-6 days	75	18.8	
More than 6 days	257	64.3	
<i>Have you been sick due to food or water in Thailand?</i>			400
Yes	123	30.8	
No	277	69.3	
<i>What is your perception of</i>			400

*food & beverage in Thailand?*

High standard	75	18.8
Medium standard	297	74.3
Low standard	28	7.0

A total of 400 foreign tourists completed the questionnaire of which 200 (50.0 percent) were male and 200 (50.0 percent) were female. There were no missing responses because the researcher had checked the questionnaire and asked the participants to redo if there was any missing response. Among the respondents, the largest group, 195 (48.8 percent), was between 21 to 30 years of age and the second largest group was 114 (28.5 percent) between 31-40 years of age. The majority, 291 (72.8 percent), had a college or university degree. Whereas, 77 (19.9 percent) had a high school diploma. In terms of income, the majority about 287 (70 percent) respondents had income from less than €10,000 to €25,000. The majority of respondents were single or about 227 (56.8 percent) and about 153 (38.3 percent) were married. For the question, "Have you been to Thailand before?" the majority or about 141 (35.3 percent) had been to Thailand many times. About 229 (57.3 percent) reported that they had not had any food poisoning during their trip to Thailand while most of them (64.3 percent) stayed in Thailand for at least 6 days. While 277 (70 percent) respondents said that they had not been sick due to food or water during their trip to Thailand, 137 (30 percent) respondents said they had been sick due to food and water during their trip to Thailand. In terms of perception of food & beverage in Thailand, the majority of foreign tourists 297 (74.3 percent) claimed that they had a medium perception.

TABLE II  
 LEVEL OF FOOD & BEVERAGE SATISFACTION

	Mean	S.D.	Rank
<i>Level of food safety satisfaction</i>			
1. Cleanliness of food Served	3.6000	.79787	1
2. Cleanliness of food Processing	3.5200	.81932	3
3. Cleanliness of kitchen	3.4725	.86378	5
4. Cleanliness of dining table	3.5125	.84060	4
The overall mean	3.5275	.82409	
<i>Level of beverage safety satisfaction</i>			
1. Cleanliness of beverage	3.6300	.78399	1
2. Cleanliness of glass	3.5325	.83708	3
3. Cleanliness of serving tray	3.5350	.77800	4
4. Cleanliness of bartender	3.5450	.81217	2
5. Cleanliness of ice	3.3100	.95193	5
The overall mean	3.5105	.83263	

From Table II, the mean score revealed the level of

satisfaction for food safety from highest to lowest as follows: cleanliness of food served, cleanliness of seasoning and ingredients, cleanliness of food processing, cleanliness of dining table, and cleanliness of kitchen respectively. The mean score also revealed the level of satisfaction for beverage safety from highest to lowest as follows: cleanliness of beverage, cleanliness of bartender, cleanliness of glass, cleanliness of serving tray, and cleanliness of ice respectively.

*The Independence Sample T-Test Hypothesis*

$H_0$ : There is no difference between gender and level of food & beverage safety satisfaction.

$H_1$ : There is a difference between gender and level of food & beverage safety satisfaction.

TABLE III  
 MALE AND FEMALE LEVEL OF FOOD & BEVERAGE SAFETY SATISFACTION

Level of food safety satisfaction	Level of Satisfaction					
	Male N=200		Female N=200		t	Sig.
	Mean	S.D.	Mean	S.D.		
1. Cleanliness of food served	3.577	0.8156	3.623	0.7808	-0.57	0.56
2. Cleanliness of food processing	3.497	0.8492	3.542	0.7894	-0.55	0.58
3. Cleanliness of kitchen	3.452	0.8994	3.492	0.8279	-0.45	0.64
4. Cleanliness of dining table	3.467	0.8945	3.557	0.7820	-1.07	0.28
5. Cleanliness of seasoning and ingredients	3.537	0.7999	3.527	0.7836	0.12	0.90

  

Level of beverage safety satisfaction	Level of Satisfaction					
	Male N=200		Female N=200		t	Sig.
	Mean	S.D.	Mean	S.D.		
1. Cleanliness of beverage	3.626	0.7714	3.633	0.7984	-0.08	0.93
2. Cleanliness of glass	3.497	0.8253	3.567	0.8493	-0.84	0.40
3. Cleanliness of serving tray	3.527	0.7940	3.542	0.7633	-0.19	0.84
4. Cleanliness of bartender	3.577	0.8094	3.512	0.8156	0.79	0.42
5. Cleanliness of ice	3.373	0.9669	3.246	0.9345	1.33	0.18

\* P value is less than 0.05

Since all the p values are more than 0.05, there are no differences between gender and level of food & beverage safety satisfaction in any categories. This would therefore suggest that there was no gender effect in terms of the level of satisfaction in food & beverage safety.

*The Chi Square (X<sup>2</sup>) Hypothesis Test for Independence*

$H_0$ : There is no association between gender and being sick because of food.

$H_1$ : There is an association between gender and being sick because of food.

TABLE IV  
 CROSSTABULATION OF GENDER AND BEING SICK

	Being Sick (Yes)	Being Sick (No)	$\chi^2$	Sig.
Male	63	137	.226	.635
Female	59	141		

\* P value is less than 0.05

A chi-square test of independence was performed to examine the relation between gender and being sick because of food. The relation between these variable was not significant,  $\chi^2 (1, N = 400) = 0.635, p > 0.05$ . This would therefore suggest that there was no gender effect in being sick for foreign tourists during their trip in Thailand.

*The Chi Square (X<sup>2</sup>) Hypothesis Test for Independence*

$H_0$ : There is no association between gender and perception of food & safety standard.

$H_1$ : There is an association between gender and perception of food & safety standard.

TABLE V  
 CROSSTABULATION OF PERCEPTION OF FOOD & BEVERAGE SAFETY STANDARD

	High Standard	Medium Standard	Low Standard	$\chi^2$	Sig.
	Male	33	149		
Female	42	148	10		

\* P value is less than 0.05

A chi-square test of independence was performed to examine the relation between gender and their perception of food & safety standard. The relation between these variable was not significant,  $\chi^2 (1, N = 400) = 0.231, p > 0.05$ . The data would suggest that there was no gender effect in foreign tourists' perception of food & beverage safety during their trip in Thailand.

V. DISCUSSION

Many studies Kenerdy, Cowan, Blair, and McDowell [7] have shown that demographics such as age, income, level of education and especially gender are the important factors in determining consumer food safety behavior. The difference in demographics often known as the factor that causes consumers to behave differently in many similar circumstances. However, the findings from this study indicated that there was no significant gender effect at all when talking about the issue of food & beverage safety for international tourists in Thailand. The results did not concur with the classic work of Douglos [8] which stated that role of adult male and female has the impacts for their perception of food & beverage safety. The adult male who worked outside their home are less concern with the food safety than the adult female who worked inside their home. One of the reasons is due the fact that society has changed rapidly for the last two or three decades, especially the social role of man and woman is converted. Therefore, the finding of Douglos was based on the clear and visible traditional separated role of man and woman, whereas, this

finding is based on the modern converted social role of man and women.

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