

*Full Length Research Paper*

# The relationships of cruise image, perceived value, satisfaction, and post-purchase behavioral intention on Taiwanese tourists

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The travel industry has recognized the advantages offered by global cruise tourism, now a famous tourism product in Taiwan. This research looks at the cruise image as a recreational experience and compares the results of 906 questionnaires to investigate perceived value, satisfaction and post-purchase behavioral intention. Analyzing these factors, Structural Equation Modeling (SEM) is used for theory development. This research presents a concept and measurement using information from cruise tourists and proposes methodological and statistical procedures for measuring the relationships in order to help researchers for an overall picture. The results show that cruise image has a positive effect on tourists' perceived value and satisfaction, and also has an indirect effective on post-purchase behavioral intention. Tourists' perceived value influences their satisfaction positively. Plus, tourists' perceived value and satisfaction play a significant role in post-purchase behavioral intention. Empirical findings contribute some important extensions to image relationships in cruise ship.

**Key words:** Cruise image, perceived value, satisfaction, post-purchase behavioral intention.

## INTRODUCTION

The cruise industry has evolved dramatically over the past few decades. In the 1960s when the jet plane became the prime choice for international travel, ship travel was seen as a dying industry, of a past era (Hobson, 1993; Lawton and Bulter, 1987). Cruises have played a significant role in tourism advances in the past decade and the image of the cruise has been demonstrated to have an important influence on choice of resort mode. In recent years, the industry went through economic restructuring, and with increasing passenger demand for ocean transportation for leisure, passenger ship patterns have been gradually changing in the process of tourism marketing to cruise tour services to meet the diverse needs of tourists. Cruise ship deployments are increasingly global and Asian cruise lines are on the way (Veronneau and Roy, 2009). The Taiwan cruise market plays an important role in these developing regions because of the geographic advantage of Taiwan's

harbor location at the intersection of northeast and southeast Asia.

Transportation is an intermediary of supply and demand for tourism whereby tourists can be transported to attractions and resorts (Li and Koo, 2000); the usage of transportation varies with the tourist route and location (Li, 1990). Cruises not only offer a means of ocean transport but also provide hotel, accommodation, sport, restaurant, leisure, shopping, destination touring and the facilities of resort entertainments. It is advantageous for Taiwanese businesses to develop cruise tours and take advantage of a new style of tourism. The cruise ship is an important recreation product for tourists in Taiwan.

The image describes not only the individual traits or qualities but also the total impression the entity makes on the minds of others (Dichter, 1985). The cruise image also serves as a vehicle for tourists to demonstrate their lifestyle and purchasing habits. By giving the cruise a positive image, the negative impact such as seasickness, associated with the sailing environment is reduced.

However, how to present a positive image of sailing and stimulate tourist purchasing are significant challenges. Jackie (1999) indicated that perceived value and customer satisfaction are variables of high interest to

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marketers and these variables have been regarded as factors in customers' post-purchase behavior within the context of the restaurant industry. Petrick (2004) indicated that satisfaction and perceived value were utilized to assess the passengers' behavioral intentions on cruise line. Duman and Mattila (2005) expanded perceived value by demonstrating the role of selected affective factors on value in the context of cruise vacation experiences to examine the role of customer satisfaction in the affect–value relationship. This result indicated that these affective factors are determinants of the perceived value of cruise services. Gallarza and Saura (2006) confirm the existence of a quality–value–satisfaction–loyalty chain in university students' travel behavior, assessed by exploring the constructs on perceived value, satisfaction, and loyalty.

To promote floating resort of cruise, it is important first to explore several key issues: Does the cruise image affect perceived value, satisfaction and post-purchase behavioral intention? Do these constructs of perceived value, satisfaction and post-purchase behavioral intention create a relationship of mutual influence? If these relationships can once be identified and validated, the service providers can design a whole marketing plan to promote this travel product. Thus this study is aimed at exploring how the cruise travel post-purchase behavioral intention is formed and influenced by possible latent considerations. The following sections of this article provide: (1) a review of the literature relating to cruise image, perceived value, satisfaction and post-purchase behavioral intention, and development of hypotheses; (2) a description of research method details, including questionnaire design, data collection and methods for analyzing data; (3) the presentation of survey results and findings; and (4) conclusions drawn from discussion of findings and managerial implications.

## LITERATURE REVIEW AND HYPOTHESES

### Cruise image

Images are mixed with impressions by a potential tourist (Fakeye and Crompton, 1991). Image is comprised of the ideas or conceptions held individually or collectively of the destination under investigation. The cruise industry is distinct from other forms of travel and tourism in that a cruise can be marketed both as a form of transportation and as a destination (Ahmed et al., 2002). It comes into being through a creative process in which selected impressions are elaborated, embellished and ordered. For example, Lawson and Bond-Bovy (1977) presented that the conceptual delimitation of destination image is an expression of knowledge, impressions, prejudice, imagination and emotional thoughts an individual has of a specific object or place. Gartner, (1993, 1996) argued that destination images are developed by three hierarchically interrelated components: cognitive, affective and

affective, and conative. Consequently, 'images are more important than tangible resources', because 'perceptions, rather than reality, are what motivate consumers to act or not act' (Guthrie and Gale, 1991). Gallarza et al., (2002) presented a conceptual framework of destination image constructs: this nature is complex, multiple, relativistic, and dynamic; the importance of this construct is simultaneously a variable of analysis, action, strategy, and tactics. They describe how an individual develops the image, starting off uninterested and becoming involved positively. In general, the crucial factors of cruise ship image include personnel, products and environment items. The cruise ship serves as an image product, since it plays an important fundamental role.

### Perceived value

Perceived value is a subjective evaluation of consumers' feeling and the balance of payment and obtainment (Zeithaml, 1988; Monroe, 1990). Sweeney and Soutar (2001) divided functional value into quality and price, and even developed a PERVAL model (PERceived VALue model). The perceived value is the trade-off relationship between perceived benefits on the one hand and monetary and non-monetary sacrifices on the other, with highly personalized involvement and abstract level activities. As applied to the cruise industry, evaluating perceived value is not limited to the monetary aspects, and it might be more important to take the non-monetary aspects.

### Satisfaction

Satisfaction is the level of enjoyment or disappointment, originating from expectation of the product (Kotler, 2003). To be precise, satisfaction is a person's feelings of pleasure or disappointment resulting from comparing a product's perceived performance (or outcome) in relation to his or her expectations (Kotler, 2000). The consumer is satisfied or not with the product, whereas pre-purchase evaluation is related to function of products (Engel et al., 1995). Teye and Leclerc (1998) presented the results of an exploratory study that examined passengers' satisfaction with a number of cruise products and service delivery components. Nicholls et al., (1999) showed that cruise lines earned significantly higher satisfaction for both the personal service received and the setting in which the service was provided. Tourism and hospitality research have recently shown an interest in value, especially when investigated with quality and/or satisfaction (Gallarza and Saura, 2006). Customer satisfaction is viewed as a function of perceived performance and expectations and consumer behavioral studies show that customers who are only just satisfied still find it easy to switch over when a better offer comes along. High satisfaction or delight creates an emotional bond with the brand,

bond with the brand, not just a rational preference, and can result in high customer loyalty (Lee et al., 2007). It is clear that if performance falls short of expectations, the customer is dissatisfied, and if performance matches expectations, the customer is highly satisfied or delighted.

### **Post-purchase behavioral intention**

Post-purchase behavioral intention governs consumer loyalty, complaint and switch. The switch intention represents consumers' intention to stop consuming or change the brand of purchasing (Keaveney, 1995). Apart from individual re-purchase intention, consumers' loyalty also includes their recommendation to others (Zeithmal et al., 1996). The post-purchase behavioral intention can be used to predict whether consumers could be long-term customers and bring stable profits to the enterprise or not (Chen and Chen, 2005). The best way to increase consumer satisfaction is to reduce consumer complaint (Fornell et al., 1996). The purpose of complaint is to seek indemnity, inform about problems and boycott actions. Petrick et al. (2006) indicated that 'moment of truth' is a critical incident technique for management to better understand cruise passengers' overall satisfaction, perceived value, word of mouth, and repurchase intentions. According to the destination image study by Silvestre et al. (2008) for a cruise ship in the Azores, behavioral intentions are linked to the city, its attractions in general and the individual's level of satisfaction with the overall visit, and of secondary importance are perceptions of hospitality, safety, services and cleanliness of the environment. As a cruise ship is an intermediary type of transportation, this is another factor to take into account concerning the tourist's travel experience; hence, this research focuses on positive behavioral intentions.

## **CONCEPTUAL MODEL AND HYPOTHESES**

### **Cruise image and perceived value**

Image is a mental representation of attributes and benefits sought of a product and developed by the consumer on the basis of a few selected impressions among the flood of total impressions (Reynold, 1985). Bigne et al. (2001) suggested that tourism image is a direct antecedent of perceived quality, satisfaction, intention to return and willingness to recommend the destination. Jeng (2010) indicated that corporate reputation positively affects affective comments. Thus, the above discussion leads to the following first hypothesis:

H<sub>1</sub>: The tourist's cruise image has a significant positive effect on perceived value.

### **Cruise image and satisfaction**

First we study the relationship between image and tourist behavior in terms of satisfaction (Chon, 1990). Orams' (2000) research on whale watching looked at the number of whales and their behavior, number of fellow passengers, cruise duration, boat construction and seasickness as overall image factors influencing satisfaction. Guests' satisfaction with hotels was influenced by hotels' star ratings (Ryan and Gu, 2007). Furthermore, the proposed model of Chi and Qu (2008) on destination image directly influenced attributed satisfaction, and destination image and attributed satisfaction were both direct antecedents of overall satisfaction. Based on the above-mentioned arguments in the literature, the second hypothesis is as follows:

H<sub>2</sub>: The tourist's cruise image has a significant positive effect on satisfaction.

### **Cruise image and post-purchase behavioral intention**

Andreassen and Lindestad (1998) used as a basis consumer behavior and cognitive psychology to discuss the corporate image and customer loyalty through SEM to prove that corporate image directly affects customer loyalty. Nirundon (2000) stated that beneficial image is conceptualized as the image characteristics of a destination that subsequently influence tourists' decisions to visit particular vacation destinations. Hence, hypothesis 3 is derived based on the above argument:

H<sub>3</sub>: The tourist's cruise image has a significant positive effect on post-purchase behavioral intention.

### **Perceived value and satisfaction**

Bolton and Drew (1991) and Riechheld (1996) emphasized that, whereas satisfaction is measured, perceived value should be considered, or the plans and processes of product and service strategies would create a drop. Fornell et al. (1996) stated that perceived value is a determinant of customer satisfaction. Hallowell (1996) argued that customer satisfaction is the result of a customer's perception of the perceived value. Customer satisfaction had the strongest effect on behavioral intentions, followed by perceived value (Jackie, 1999). Athanassopoulos (2000) pointed out that customer satisfaction is recognized as being associated with 'value' and is based. It then affects the further purchase intention. Baker and Crompton (2000) adopted a SEM test to show a perceived performance quality would have a stronger total effect on behavioral intentions than satisfaction. McDougall and Levesque (2000) explained that perceived value is an important variable of evaluating

satisfaction. Patterson and Spreng (1997) and Petrick and Backman (2002) pointed out that perceived value is a positive influential variable of satisfaction. Through the analysis of SEM, it can be seen that perceived value is a positive influential factor of satisfaction (Chen and Chen, 2005). Therefore, the following hypothesis 4 is deduced:

H<sub>4</sub>: The tourist's perceived value has a significant positive effect on satisfaction.

### **Perceived value and post-purchase behavioral intention**

Rao and Monroe (1989); Monroe (1990); Chang and Wildt (1994) argued that perceived value is affected by the information obtained by consumers. This then influences consumers' purchase intention. According to the results from Petrick and Backman (2002), both satisfaction and perceived value can explain post-purchase behavioral intention; satisfaction is predominant in explaining loyalty. Swait and Sweeney's (2000) empirical research concentrated on consumers' perceived value and the resulting behavior. Eggert and Ulaga (2002) suggested a direct impact of perceived value on the purchasing intentions by purchasing managers in Germany. Petrick (2003) indicated that service perceived value factors are related to cruise passengers' post-cruise cognitive assessments. Petrick (2004) found that perceived value was the best predictor of repurchase intentions for repeaters on cruise ships. David et al., (2007) indicated that perceived price fairness influences customer's satisfaction and loyalty in service sector journals. Chen and Tsai (2008) investigated the relationships among perceived value, satisfaction, and loyalty of TV shoppers and revealed that perceived value affects loyalty. Therefore, the following hypothesis 5 is proposed:

H<sub>5</sub>: The tourist's perceived value has a significant positive effect on post-purchase behavioral intention.

### **Satisfaction and post-purchase behavioral intention**

Anderson and Sullivan (1993) mentioned that consumer satisfaction affects re-purchase behavior. In addition, the relationship between satisfaction and loyalty is positive. Cronin et al. (2000) reported an empirical verification that satisfaction directly related to behavioral intentions in the service environment. Baker and Crompton (2000) pointed out that higher satisfaction increases tourists' re-purchase intention. Moreover, they would also tolerate higher prices. Lobo (2008) found that overall customer satisfaction had a relatively strong relationship with all three variables of behavioral intentions in the cruise liner industry. Yoon and Uysal (2005) suggested that tourism

managers should establish a higher tourist satisfaction level to create positive post-purchase tourist behavior in order to improve and sustain destination competitiveness. Faullant et al. (2008) indicated that ski resorts with the highest satisfaction ratings have the highest loyalty scores. Yang et al. (2009) indicated that online game service satisfaction significantly affects online loyalty. Customer satisfaction has a direct and positive impact on purchase intentions (Bai et al., 2008). Finally, the following hypothesis 6 is proposed:

H<sub>6</sub>: The tourist's satisfaction has a significant positive effect on post-purchase behavioral intention.

## **RESEARCH METHODOLOGY**

The data for this study were collected from a survey questionnaire. Initial measures of images items of cognitive, affective, and conative come from Gartner (1993; 1996) of image formation process. We consider into the measures of perceived value on trade-off perspective of activities, comparison, novel product, blind impulse and psychical happiness into tourist's consideration. For the satisfaction measure, we rely on Kotler (2000; 2003), Teye and Leclerc (1998). Finally, we refer the study results of Petrick et al. (2006) and Yang et al. (2009) for measure items on post-purchase behavioral intention.

The content validity of the items was first assessed by a panel of five expert judges: a lecturer, a university professor and three executives from Taiwan Visitors Association. Development of scales of cruise image, perceived value, satisfaction and post-purchase behavioral intention followed the previous literature and the procedures recommended by experts in their research and consulting activities. The interviewer consulted each of the experts and explained to them the purpose of the questionnaires. In the last version, 35 items were shown good validity as the instrument for measuring the respective constructs. Then the 35 items were also pre tested by 20 tourists on cruise ship at the end of trip.

Based on the literature review, recommendations of experts and item analyses, the items depicted in Table 3 were used to design the questionnaire. Of all the scales used in questionnaire collection procedures, the seven-point Likert scale is the most commonly used (Driscoll et al., 1994; Gallarza et al., 2002). Attitudes to each of the item scales used in the questionnaire were assessed using the seven-point Likert scale based on '1=strongly disagree' to '7=strongly agree'.

### **Data collection**

Data were collected from the passengers travelling with Star Cruise at the end of trip (Star Cruise is unique company to provide the regular sailing routes in Taiwan), sailing from Keelung to Japan and back for 5 trips. A total 1,600 of the approached tourists participated. We thus recruited a total of 1,137 questionnaires but 231 returned questionnaires were discarded because of incomplete information. In total, 906 valid questionnaires were obtained for an overall response rate of 56.6%.

### **Data analysis**

The SEM was used to test the causal relationships between constructs with multiple measurement items. The measurement model was first examined for instrument validation, followed by an analysis of the structure model to test the hypotheses drawn from the literature review.

**Table 1.** Demographic profile of the respondents.

<b>Demographic variable</b>	<b>Number</b>	<b>Percentage</b>	<b>Vital statistic</b>	<b>Number</b>	<b>Percentage</b>
<b>Sex</b>			<b>Career</b>		
Male	470	51.9	Farming, forestry, fishing and animal husbandry	86	9.5
Female	436	48.1	Industry	206	22.7
<b>Age</b>			Business (free, service trade)	348	38.4
Under 20	125	13.8	Army, teachers, and public service	55	6.1
21–30	224	24.7	Students	168	18.6
31–40	318	35.1	Retired	41	4.5
41–50	102	11.3	Others	2	0.2
Over 51	137	15.1			
<b>Education Level</b>			<b>Monthly income</b>		
Junior high School	40	4.4	Under 30,000	165	18.2
Senior high School	218	24.1	30,001–40,000	216	23.9
Masters includes the above	576	63.6	40,001–50,000	179	19.8
Universities and colleges	72	7.9	50,001–60,000	129	14.2
Junior High School	40	4.4	60,001–70,000	56	6.2
Senior High School	218	24.1	More than 70,001	71	7.8
Universities and Colleges	576	63.6	No income (children support )	90	9.9
Master includes the above	72	7.9			
<b>Living Place</b>			<b>Marriage status</b>		
North	461	50.9	Unmarried	432	47.7
Middle part	188	20.8			
South	167	18.4	Married	152	16.8
East	60	6.6			
off-shore island	26	2.9	Married with children	322	35.5
Others	4	0.4			

## RESULTS

In this study, we used SEM to test the causal relationships between constructs with multiple measurement items. The measurement model was first examined for instrument validation, followed by an analysis of the structure model to test the hypotheses we formed from the literature review.

### Respondents' demographic and travel characteristic profile

The demographic and travel characteristic profile of respondents are presented in Tables 1 and 2, respectively.

### Measurement model

The adequacy of the measurement model was examined by Confirmatory Factor Analysis (CFA). The conceptual

model for the test included four constructs comprising cruise image, perceived value, satisfaction and post-purchase behavioral intention. All of the model fit indices from CFA indicated a good fit with  $\chi^2=2858.8$ ,  $df=546$ , comparative fit index (CFI)=0.928, goodness of fit index (GFI)=0.827, Tucker-Lewis index (TLI)=0.921, and root mean square error of approximation (RMSEA)=0.068. The results of the CFA satisfy the recommended level of goodness of fit, which indicates that the measurement model fits the sample data well.

Composite reliability (CR) of the constructs was utilized to examine the internal consistency of the variables in the measurement model (Fornell and Larcker, 1981). According to Table 3, the CR of each construct ranged from 0.914 to 0.972; all the values exceeded 0.7 recommended by Nunnally and Bernstein, (1994). In addition, the Cronbach's alpha values of the four constructs were well above the threshold value of 0.7 that Nunnally, (1978) recommended. The results showed that all scale items of the measurement model were internally consistent.

**Table 2.** Travel characteristic profile of the respondents

Travel characteristic	No.	Percentage	Travel characteristic	No.	Percentage
<b>Travel budget for one year</b>			<b>Travel habits</b>		
Under NT 20,000	231	25.5	Plan in advance	234	329
20,001–40,000	273	30.1	Impromptu decision	36.3	1.1
40,001–60,000	240	26.5	Fixed schedule	36.8	333
60,001–80,000	43	4.8	Others	10	25.8
80,001–100,000	72	7.9			
More than 100,001	47	5.2			
<b>Travel companion</b>			<b>Land journey arrangements at destination</b>		
Family members	296	32.7	By cruise	191	21.1
Colleague	103	11.4	Arrange by Self	670	74.0
Friend	35.2	319	Stay on the vessel without destination tour	455.0	
Others	112	76			
Classmate	8.4	12.4			
	296	32.7			
<b>Method of purchase</b>			<b>Travel motive</b>		
Buying via the internet	325	35.9	Gamble	55	6.1
By travel agency	381	42.1	Cheap price	107	11.8
By telephone	200	22.0	Easy land tour	102	11.3
			Pursue cruise experience	262	28.9
			Afraid taking plane	24	2.6
			Entertainment	346	38.2
			Others	10	1.1
<b>Travel Sources</b>			<b>Past cruise experience</b>		
Television broadcasting	92	10.2	Joined	212	23.4
Internet	154	17.0	Never joined	694	76.6
Travel agency	206	22.7			
Told by friends	222	24.5			
Travel books	118	13.0			
Newspapers and Magazines	37	4.1			
DM and Leaflet	56	6.2			
Others	21	2.3			
<b>Habitual travel activities in one year</b>			<b>Have embarked on a cruise</b>		
Never	54	6.0	Once	157	74.1
1–2 times	405	44.7	Twice	38	17.9
3–4 times	325	35.9	Three times	10	4.7
5–6 times	69	7.6	More than four times	7	3.3
More than 6 times	53	5.8			

Note: 1. Only one option could be chosen. 2. Total of 212 tourists embarked on cruise.

### Convergent and discriminant validity

Convergent validity was supported because all standardized loadings were correlated strongly with significance and the items' square multiple correlation (SMC) (Refer to Table 3) exceeded 0.4 (Bollen, 1989). The discriminant

validity of a construct is established when its square root of AVE is greater than the correlation coefficients between the construct and all other constructs (Fornell and Larcker, 1981). In addition, discriminant validity can be assessed for each pair of estimated constructs by constraining the estimate correlation parameter between

**Table 3.** Standardized loadings, Cronbach's  $\alpha$ , CR and AVE of the model.

Construct	Item	Standardized loadingt-value	SMC
<b>Cruise image (CRIM; Cronbach's <math>\alpha=0.951</math>; CR=0.950; AVE=0.678)</b>			
	Cruise travel experience and my experience of life has close connection	0.777	-- 0.60
	Travel by Cruise ship might reduce pressure on my life	0.862	29.355*** 0.74
	Travel by cruise ship make me feel quite excited	0.863	29.285*** 0.74
	This tourism activity of cruise ship is an attraction.	0.897	30.758*** 0.80
	Cruise ship is an essential part of my tourism experience.	0.853	28.791*** 0.73
	It is an interesting experience for me on a cruise ship.	0.874	29.634*** 0.76
	I will collect related cruise ship information from newspapers and magazines.	0.659	21.030*** 0.43
	I will reinforce my travel intention by collecting cruise information data.	0.754	24.666*** 0.57
	Travel by the Cruise ship will make my life happier	0.845	34.047*** 0.71
<b>Perceived Value (PEVA; Cronbach's <math>\alpha =0.910</math>; CR=0.914; AVE=0.641)</b>			
	I will purchase cruise tour because of how it is promoted.	0.785	-- 0.62
	I would select cruise tour because cruise service is better than normal passenger ship.	0.871	30.003*** 0.76
	I would opt for cruise tour because cruise's overall facilities are different to normal passenger ship.	0.885	30.618*** 0.78
	I would pay for this tour because cruise ship is a novel travel experience.	0.821	27.585*** 0.67
	I would pay for this cruise tour product on blind impulse.	0.724	23.580*** 0.52
	I paid trip expenses and am satisfied by the experience.	0.701	21.734*** 0.49
<b>Satisfaction (SAT; Cronbach's <math>\alpha =0.972</math> ; CR= 0.972 ; AVE= 0.730 )</b>			
	The cruise tour arrangements for destination ashore satisfied me.	0.807	-- 0.65
	The leisure space on cruise ship is spacious enough to satisfy me.	0.824	29.606*** 0.68
	The public areas on the cruise ship are clean and neat and satisfy me.	0.842	30.568*** 0.71
	The safety equipment is complete on cruise ship and satisfies me.	0.840	30.451*** 0.71
	I am satisfied with instruction manual on entertainment facilities of cruise ship.	0.828	29.801*** 0.69
	Marine navigation experience is satisfactory.	0.860	31.486*** 0.74
	The neat uniform of service personnel is satisfactory to me.	0.900	33.695*** 0.81
	I am satisfied with the courteous service.	0.861	31.464*** 0.74
	The specialized knowledge of service personnel adequately answered my questions.	0.858	31.279*** 0.74
	I have the faith in the cruise service.	0.879	32.453*** 0.77
	I am satisfied with the promptness and overall service.	0.894	33.371*** 0.80
	Great communication service on the cruise.	0.813	28.950*** 0.66
	Appropriate cruise ship uniforms.	0.893	33.353*** 0.80
<b>Post-purchased behavioral intention (PPBIN; Cronbach's <math>\alpha=0.911</math>; CR=0.915; AVE=0.610)</b>			
	I will opt for an identical cruise ship route next time.	0.864	-- 0.75
	I won't select another cruise line.	0.886	36.930*** 0.78
	I will recommend my friends purchase this cruise tourism product.	0.803	30.509*** 0.64
	I will actively look for recent information about the cruise ship.	0.824	31.570*** 0.68
	I will choose a cruise as my first choice for tourism.	0.764	28.209*** 0.58
	I will still be willing to pay for a cruise if the price is increased.	0.581	19.259*** 0.34
	I will choose the cruise ship in preference to air travel.	0.704	24.759*** 0.50

\*\*\* $P < 0.001$ .

**Table 4.** AVE and correlation estimates.

Constructs	AVE	CRIM	PEVA	SAT	PPBIN
Cruise image (CRIM)	0.678	1			
Perceived value (PEVA)	0.641	0.669	1		
Satisfaction (SAT)	0.732	0.809	0.699	1	
Post-purchase behavioral intention (PPBIN)	0.610	0.582	0.732	0.662	1

**Table 5.**  $\chi^2$  different test results to discriminant validity of estimated constructs.

		PEVA		SAT		PPBIN	
		Unconstraint	Constraint	Unconstraint	Constraint	Unconstraint	Constraint
CRIM	$\chi^2$	678.4	2080.9	997.4	2717.6	541.9	2753.4
	$\Delta\chi^2$	1402.5***		1720.2***		2211.5***	
PEVA	$\chi^2$			1395.5	2614.7	560.5	1461.2
	$\Delta\chi^2$	--		1219.2***		900.7***	
SAT	$\chi^2$					1065.7	3008.7
	$\Delta\chi^2$	--		--		1943.0***	

Notes: The constrained model was constrained the estimated correlation for each pair of estimated constructs to one. \*\*\* $P < 0.001$ .

**Table 6.** Results of the hypothesis testing.

Relationship		Standardized parameter estimates	t-value	Hypothesis	Conclusion
Dependent variable	Independent variable				
PEVA	← CRIM	0.692	18.709***	1	Supported
SAT	← CRIM	0.661	18.074***	2	Supported
PPBIN	← CRIM	-0.005	-0.098	3	Not supported
SAT	← PEVA	0.269	9.043***	4	Supported
PPBIN	← PEVA	0.563	14.073***	5	Supported
PPBIN	← SAT	0.316	6.367***	6	Supported

\*\*\* $P < 0.001$ .

correlation parameter between them to 1 and a  $\chi^2$  difference test performed on the values obtained from the constrained and unconstrained models (Joreskog, 1971; Anderson and Gerbing, 1988). The results, shown in Table 4 and Table 5, indicate that the measurement model met the discriminant validity criterion.

### Structure model

The structure model used to test the hypotheses consisted of all four latent constructs. The overall fit measures of the proposed model to the data were acceptable, where,  $\chi^2 = 2858.83$ ,  $df. = 546$ ; CFI = 0.928, GFI = 0.827, TLI = 0.921, and RMSEA = 0.068.

The tested results of the proposed model were shown in Table 6 and depicted in Figure 1. With all structural path estimates, we found that CRIM was positively linked

to PEVA ( $\beta = 0.692$ ,  $P < 0.001$ ) and SAT ( $\beta = 0.661$ ,  $P < 0.001$ ) but not significantly linked to PPBIN ( $\beta = -0.005$ ,  $P > 0.05$ ), in support of H<sub>1</sub> and H<sub>2</sub> but not supporting H<sub>3</sub>. In support of H<sub>4</sub> and H<sub>5</sub>, PEVA was positively linked to SAT ( $\beta = 0.269$ ,  $P < 0.001$ ) and PPBIN ( $\beta = 0.563$ ,  $P < 0.001$ ). In support of H<sub>6</sub>, SAT was positively linked to PPBIN ( $\beta = 0.316$ ,  $P < 0.001$ ). Overall, five of the six proposed hypotheses tested through the structure model were supported.

## DISCUSSION

### Interpretations of findings

According to the results shown by this empirical study of the research objectives of this paper, the five hypotheses findings in Table 6 are proved. Through SEM analysis



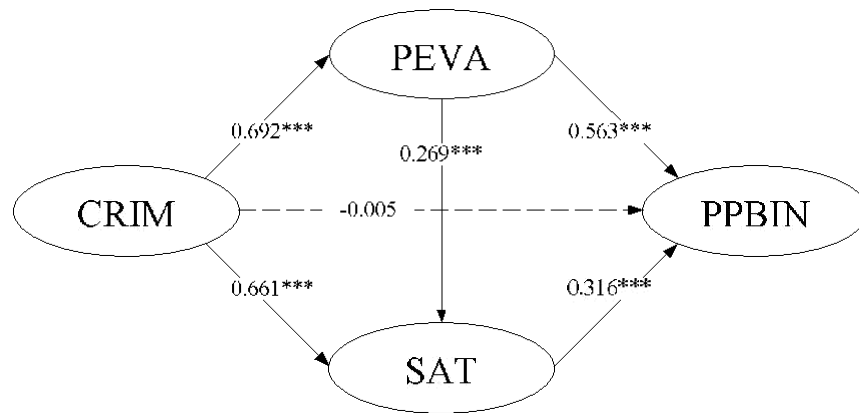


Figure 1. Results of proposed model. Note: \*\*\* $P < 0.001$

methods, this study explores the notion that tourists' image of a cruise will positively affect perceived value and satisfaction. Since the cruise image is invisible, it can motivate tourists to expect more to enhance subjective choice and then promote perceived value and satisfaction. Furthermore, tourists' perceived value positively influences satisfaction; this was proved in our study referring to Cronin et al. (2000).

The tourists' post-purchase behavioral intention is positively affected by perceived value and satisfaction; this finding is consistent with findings reported in Baker and Crompton's study (2000). However, statistical evidence shows that cruise image does not have a significant direct connection with post-purchase behavioral intention. Through this finding, we propose that cruise travel differs from other kinds of short distance travel; the expenditure and time required for cruises are much higher than other kinds of short distance traveling. Hence, customers think more rationally, weighing more information about their own experiences or from other people by talking or surfing on the internet, before repeat purchasing, reducing the level of impulse purchasing. Consequently, customers will compare previous feeling of perceived value and satisfaction.

### Managerial implications

Qu and Ping (1999) indicated that the major travel motivation factors of cruise ships were escape from normal life, social gathering, and beautiful environment and scenery; moreover, tourists report a high satisfaction level with food, beverages, facilities, quality, and staff performance on board cruise ships. From the tourists' point of view, the main reasons to purchase this kind of trip are entertainment and trying out the cruise experience. In addition, travel companions are friends and family. Therefore, the most important inducements to repeat a cruise are likely to be entertainment, then experience image of such factors as accommodation, food and

beverages in great facilities. Approximately 23.4% tourists have taken the cruise before. That is to say, around a quarter of tourists are loyal to taking the cruise again. The cruise trip affords views of seascapes and various sights while accommodating the passengers in a floating resort; the tourists enjoy the entertainment facilities just as they would the life of a resort or island or seaside. Therefore, it is suggested that the various organizers should take entertainment into account to increase tourists' post-purchase behavioral intention.

The sample in this research comprised 76.6% Taiwanese tourists for whom this was the first experience of travel by cruise ship; there is potential to develop cruise trips to popularize this tourist product. In this research, the empirical evidence shows that cruise image positively influences tourists' perceived value and satisfaction. We suggest that trying to give tourists a positive cruise image can effectively increase tourists' satisfaction. Because image involves both tour information obtained in advance and post-tour impressions, executives should create various marketing strategies to shape a unique traveling product with a particular image (such as ocean-going casino ships) aimed at attracting the tourist who has never been on a cruise ship. Travel by cruise ship can take the tourist to a number of countries, even sailing round the world, like a moving hotel. The guests do not have to be troubled with luggage arrangements and different accommodation while travelling.

It is interesting to see the relationships of the critical factors evolve in promoting cruise trips as a product, specifically marketing to Taiwanese tourists. According to the SEM result, tourists' perceived value positively influences their satisfaction, and tourists' positive post-purchase behavioral intention is positively influenced by their satisfaction and perceived value. In order to increase tourists' loyalty, we maintain that it is crucial to pay attention to what managers actually offer to tourists and what the tourists expect. Tourists perceive greater value when they get more than they were expecting; this

kind of value can be transferred to satisfaction. Also, the positive cruise image can positively influence tourists' perceived value and satisfaction; therefore we do not emphasize tourists' perceived value and satisfaction without also looking at cruise image.

## LIMITATIONS AND FUTURE RESEARCH DIRECTIONS

The paper brings to light factors which affect cruise marketing. However, the conclusions drawn should be analyzed with an awareness of the limitations faced. The results of this study need to be cautiously generalized because the sample is limited to mandarin speaking Taiwanese guests on Star Cruise. It will be interesting to see the findings gathered from non mandarin-speaking guests. Future research might explore the relationships between cruise image and post-purchase behavior by considering perceived value and satisfaction as mediating variables. A follow-up study is needed, with an understanding of the kind of image formed in the minds of tourists; it is important for managers to use this kind of image information for marketing promotion to attract customers.

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