

A Study on the Impact of Cruise Tourism Experience on Satisfaction, Revisit Behavior, and Consumer Spending Behavior

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Abstract

This study focuses on exploring the impact of cruise tourism experiences on travelers' satisfaction, revisit intentions, and consumer spending behavior. By distributing questionnaires to cruise travelers and collecting 372 valid samples, the study conducted a comprehensive analysis using structural equation modeling (SEM). The empirical results show that cruise tourism experiences play a crucial role in enhancing travelers' intrinsic and extrinsic satisfaction. These satisfaction factors further positively influence travelers' revisit behavior and directly increase their consumer spending, highlighting the critical role of cruise service quality in promoting tourism sustainability and enhancing economic benefits. Additionally, the study found that improvements in the quality of services provided by cruise operators, such as accommodation, dining, and entertainment, can significantly enhance travelers' overall satisfaction. This not only fosters customer loyalty but also positively influences customers' revisit behavior and consumer spending behavior. These findings provide empirical support for cruise operators in improving services and formulating market strategies.

JEL classification numbers: Z30, Z32.

Keywords: Cruise tourism experience, Satisfaction, Revisit behavior, Consumer spending behavior.

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1. Introduction

Cruise tourism, as an important segment of the global tourism market, has gradually become a significant source of income for the industry. This unique form of travel combines elements of leisure, entertainment, adventure, and cultural exchange, providing a rich and diverse travel experience (Weaver, 2005). The flourishing cruise tourism market has created a demand for in-depth understanding of traveler behavior and consumption patterns, which is crucial for cruise companies to maintain an advantage in the competitive tourism market. With the rapid development of the cruise market, understanding the consumption behavior of cruise travelers and their underlying motivations has become increasingly important, not only to enhance customer satisfaction but also to drive business growth (Petrick, 2004).

The multifaceted nature of cruise tourism experiences, including on-board accommodation, dining, entertainment, services, and port activities, provides travelers with rich and varied experiences. These experiences play a decisive role in shaping travelers' overall satisfaction, which directly affects their loyalty and consumption behavior (Tian-Cole, Crompton, and Willson, 2002). By providing excellent services and memorable experiences, cruise companies can not only enhance travelers' satisfaction but also encourage their revisit intentions and increase consumption opportunities.

This study aims to explore how cruise tourism experiences affect travelers' intrinsic and extrinsic satisfaction, and further analyze how this satisfaction influences travelers' revisit behavior and consumption behavior, through the combined application of destination image theory and satisfaction theory. Research on cruise tourism often focuses on the relationship between traveler satisfaction and behavioral intentions, such as revisit behavior and consumption patterns. Satisfaction theory and destination image theory provide a theoretical basis for evaluating the interaction between these variables (Baloglu and McCleary, 1999). Specifically, intrinsic satisfaction (e.g., service quality and product performance) and extrinsic satisfaction (e.g., destination image and additional services) directly influence revisit intentions and strengthen consumption behavior (Chi & Qu, 2008). Through empirical analysis, this study reveals the dynamic interaction between cruise tourism experiences and satisfaction. Travelers' intrinsic satisfaction usually stems from evaluations of core cruise services, such as cabin comfort, food quality, and staff service attitude, while extrinsic satisfaction involves broader factors, including cruise brand image, price fairness, and additional service quality (Baker and Crompton, 2000). The combined effects of these factors determine whether travelers will choose the same cruise journey again or recommend it to others.

In summary, this study combines cruise tourism experiences with travelers' satisfaction, revisit behavior, and consumer spending behavior, establishing a comprehensive analytical framework that includes these elements. Through detailed exploration of how cruise tourism experiences shape travelers' intrinsic and extrinsic satisfaction, and how this satisfaction further drives their revisit behavior

and consumption patterns, this study aims to provide strategic insights to help cruise companies optimize their services and marketing strategies, thereby enhancing overall traveler satisfaction and promoting economic benefits.

2. Literature Review

2.1 Destination image theory

The Destination Image Theory explores tourists' overall perceptions and impressions of travel destinations, encompassing multiple dimensions such as landscape, culture, history, and atmosphere. This theory was initially proposed by Echtner and Ritchie in 1991, emphasizing how tourists' destination choices and satisfaction are influenced by their recognition and evaluation of the destination's image (Echtner and Ritchie, 1991; 1993). The theory suggests that the destination image is composed not only of objective elements (such as attractions and service quality) but also influenced by subjective experiences (such as emotions and personal encounters).

As research progressed, scholars further developed this theory to explore how factors such as media reports, social media, friends and relatives' recommendations, and prior personal experiences shape tourists' perceptions of destinations (Gartner, 1994). These diverse information sources combine to form the destination image in tourists' minds, influencing their travel decisions and satisfaction.

The Destination Image Theory has significant practical implications for the tourism industry, aiding marketers in understanding how to effectively promote destinations and how positive image creation can attract more tourists and foster local economic development. Scholars Baloglu and McCleary (1999) further examined the impact of destination image on tourists' behavioral intentions, finding that positive perceptions of the destination image can significantly increase tourists' intention to visit and their repeat behavior (Baloglu and McCleary, 1999).

Research has also started to focus on how to manage and improve the destination image, especially after negative news or natural disasters, and how to restore public trust and attractiveness. This involves crisis management and ongoing image reconstruction strategies, highlighting the importance of public relations and continuous brand management in image restoration (Avraham, 2015).

Through these studies, the Destination Image Theory has been continually enriched and expanded, becoming an indispensable theoretical foundation in tourism and leisure research, providing profound insights for guiding practical applications.

2.2 Satisfaction and revisit behavior

The Satisfaction Theory holds a central place in tourism and leisure management research, exploring consumers' psychological responses and evaluations after experiencing a product or service. According to the Satisfaction Theory, tourists' level of satisfaction is a psychological state that arises from comparing the actual experience with their expectations. If the actual experience exceeds expectations, tourists will feel satisfied; otherwise, they will feel dissatisfied (Oliver, 1980).

Satisfaction not only influences customer loyalty and word-of-mouth but is also a key driver of revisit behavior.

Revisit behavior, which refers to tourists choosing to visit a destination they have previously traveled to, is a phenomenon of great concern in the tourism industry. Research shows that tourists' intention to revisit is positively correlated with their satisfaction from the first visit (Oppermann, 2000). When tourists are satisfied with a travel experience, they are more likely to choose the same destination again, as the satisfactory experience reduces fear of the unknown and increases confidence in re-experiencing the same level of satisfaction.

Furthermore, Kozak (2001) pointed out in his study that different attributes of a destination, such as accommodation, dining, attractions, etc., contribute differently to tourists' satisfaction, and these attributes' satisfaction directly influences revisit behavior. This indicates that improving the quality of specific service attributes is an effective strategy for increasing the likelihood of revisits.

Additionally, Petrick (2004) found that satisfaction is related to perceived value and the level of tourists' commitment, which are important factors influencing revisit intention. When tourists perceive high value, their satisfaction is higher, thereby increasing the possibility of revisits. Therefore, enhancing the perceived value of the travel experience is key to promoting revisit behavior.

In summary, there is a close relationship between satisfaction and revisit behavior. By improving tourists' overall satisfaction, revisit intentions can be effectively promoted, thereby bringing long-term benefits to the travel destination.

2.3 Hypothesis development

To establish Hypothesis 1a, which posits that cruise tourism experience has a positive significant effect on intrinsic satisfaction, we can refer to the theoretical foundations of tourism satisfaction and consumer behavior, as well as previous research findings. According to Knutson et al. (1990), in their study of the hotel industry, there is a significant positive correlation between consumers' experiences and their satisfaction. This finding can also be extended to other tourism services, including cruise tourism. Additionally, Petrick (2004) confirmed that the quality of travel experiences plays a key role in improving travelers' satisfaction, particularly in the cruise industry. These studies suggest that cruise travelers' satisfaction is directly influenced by their travel experiences, especially their perceptions of service quality and overall experience. Based on this literature support, the following hypothesis is proposed.

Hypothesis 1a: Cruise tourism experience has a positive significant effect on intrinsic satisfaction.

To establish Hypothesis 1b, which posits that cruise tourism experience has a positive significant effect on extrinsic satisfaction, we can draw from the theories related to consumer behavior and service satisfaction. According to Anderson and Sullivan's (1993) customer satisfaction model, extrinsic satisfaction is often

influenced by service quality, customer expectations, and prior experience. As cruise tourism is a service-based industry, customer satisfaction is often closely related to their overall travel experience. Furthermore, Bramwell (2011) pointed out that, in cruise tourism, customers' extrinsic satisfaction is determined not only by the ship's hardware facilities, crew service attitude, and onboard entertainment quality but also by the attractiveness of the travel destination and the local cultural experience. These elements collectively form the overall cruise experience, thereby affecting customers' extrinsic satisfaction. Based on this literature, the following hypothesis is proposed.

Hypothesis 1b: Cruise tourism experience has a positive significant effect on extrinsic satisfaction.

To establish Hypothesis 2a, which posits that intrinsic satisfaction has a positive significant effect on revisit behavior, we can rely on the related theories and empirical research between customer satisfaction and loyalty. Oliver (1999), in his satisfaction model, proposed that customer satisfaction is a key factor influencing loyalty behavior, including revisit and recommendation behavior. Furthermore, Kandampully and Suhartanto (2000) showed in their study that, in the tourism and hotel industry, customer intrinsic satisfaction, such as satisfaction with service quality, is strongly positively correlated with their revisit intention. Additionally, Chi and Qu (2008) confirmed through their study of the hotel industry that customers' satisfaction with hotel experiences not only affects their revisit decisions but also positively influences their word-of-mouth behavior, thereby enhancing customer loyalty. These studies support the positive relationship between intrinsic satisfaction and revisit behavior, thus providing a solid theoretical foundation for Hypothesis 2a. Based on this literature, the following hypothesis is proposed.

Hypothesis 2a: Intrinsic satisfaction has a positive significant effect on revisit behavior.

To establish Hypothesis 2b, which posits that extrinsic satisfaction has a positive significant effect on revisit behavior, we can refer to related studies on customer satisfaction and behavioral intentions in the tourism and leisure industry. Extrinsic satisfaction typically involves travelers' evaluations of the overall impression of the destination, infrastructure, natural environment, and service quality. According to Bigne, Sanchez, and Sanchez (2001), external factors such as service quality and destination attractiveness play an important role in improving travelers' overall satisfaction and influencing their revisit intentions. Additionally, Prayag and Ryan (2012) found in their study of Mauritius tourists that there is a significant positive correlation between external factors such as destination environment and service quality and tourists' revisit intentions. Their study emphasized the importance of improving extrinsic satisfaction to promote revisit behavior. Based on these findings, the following hypothesis is proposed.

Hypothesis 2b: Extrinsic satisfaction has a positive significant effect on revisit behavior.

To establish Hypothesis 3, which posits that revisit behavior has a positive significant effect on consumer spending behavior, we can rely on the theoretical foundations of tourism economics and consumer behavior. According to Oppermann (2000), repeat visitors usually have a deeper emotional connection with the destination, which increases their willingness and amount of spending locally. Furthermore, Kozak (2001) showed that there is a positive correlation between revisit behavior and consumer spending behavior, indicating that travelers who frequently visit a place tend to spend more during their travels. Additionally, Petrick (2004) suggested that tourists' loyalty behavior, including revisiting, is closely related to their spending behavior, especially on leisure and tourism products. These studies indicate that repeat travelers, due to their familiarity and satisfaction with the destination, tend to increase their spending on subsequent trips, whether on accommodation, dining, or shopping. Based on this literature, the following hypothesis is proposed.

Hypothesis 3: Revisit behavior has a positive significant effect on consumer spending behavior.

3. Methodology

3.1 Conceptual framework

This study primarily applies the Destination Image Theory and Satisfaction Theory, integrating cruise tourism experience, satisfaction, revisit behavior, and consumer spending behavior as core research dimensions, establishing a comprehensive analytical framework. The study first analyzes the impact of cruise tourism experience on tourists' intrinsic and extrinsic satisfaction, further exploring how these two types of satisfaction promote tourists' revisit behavior, and finally focusing on how revisit behavior drives increased consumer spending behavior. Through this conceptual framework, the study aims to reveal how cruise tourists' experiences shape their satisfaction perceptions and how these satisfaction perceptions drive their future revisit intentions and consumption activities. The conceptual framework of the entire study is shown in Figure 1.

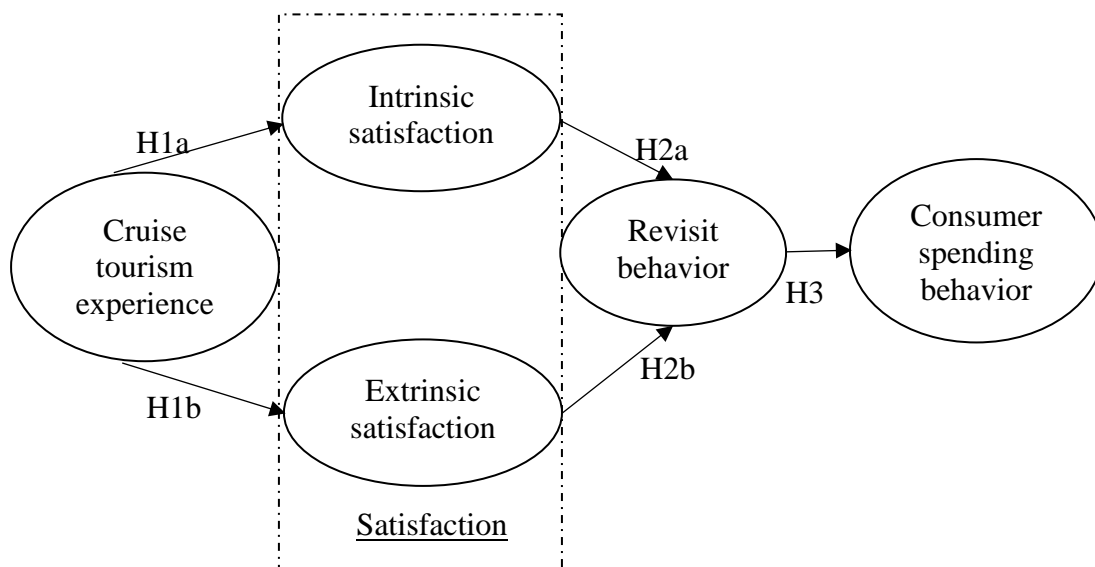


Figure 1: Conceptual framework

3.2 Measures

The demographic variables collected in this study include gender, education level, marital status, family situation, age, and previous cruise travel experience. The questionnaire used a 5-point Likert scale for responses, ranging from 1 (strongly disagree) to 5 (strongly agree). Below are the operational definitions of the five research constructs and their corresponding measurement questions, with relevant literature support provided:

1. Cruise Tourism Experience

Operational Definition: Cruise tourism experience refers to the series of interactions and activities that travelers encounter during a cruise trip, including all services, facilities, entertainment, and cultural experiences from embarkation to disembarkation. These experiences collectively shape travelers' overall impressions and evaluations of the cruise journey.

According to the study by Sanz-Blas and Buzova (2016), cruise tourism experience can be measured using the following four items:

- 1) I am very satisfied with the quality of service on the cruise.
- 2) I find the entertainment and activity options on the cruise to be rich and interesting.
- 3) I feel that the onboard facilities of the cruise are modern and well-maintained.
- 4) I find the nearby attractions at the cruise's port of call to be relaxing and enjoyable.

2. Intrinsic Satisfaction

Operational Definition: Intrinsic satisfaction refers to the consumer's sense of satisfaction derived from the basic attributes and essential functions of a product or service. This typically involves the core performance and direct experience of the product or service.

According to the study by Petrick (2004), intrinsic satisfaction can be measured using the following four items:

- 1) I am very satisfied with the comfort and privacy of the accommodations on the cruise.
- 2) The cruise's dining service fully met my expectations in terms of quality and taste.
- 3) I am satisfied with the stability and safety of the cruise's navigation.
- 4) The entertainment and activities provided by the cruise met my expectations for quality and professionalism.

3. Extrinsic Satisfaction

Operational Definition: Extrinsic satisfaction focuses on the added value provided by a product or service, such as customer service, additional benefits, and environmental factors.

According to the study by Petrick (2004), extrinsic satisfaction can be measured using the following four items:

- 1) I am satisfied with the customer service and support provided by the cruise company.
- 2) The overall environment and atmosphere of the cruise enhanced my travel experience.
- 3) I am satisfied with the ports of call during the cruise tour.
- 4) I am satisfied with the additional services and benefits (e.g., free upgrades, special events, etc.) provided by the cruise company.

4. Revisit Behavior

Operational Definition: Revisit behavior in cruise tourism refers to tourists choosing to sail with the same cruise company again or to revisit previously visited ports of call.

According to the study by Oppermann (2000), revisit behavior can be measured using the following four items:

- 1) I would choose to sail with this cruise company again.
- 2) If given the opportunity, I would revisit the ports of call from this cruise trip.
- 3) I would recommend this cruise trip to my friends and family.
- 4) I plan to book a cruise trip on the same route again in the future.

5. Consumer Spending Behavior

Operational Definition: In cruise tourism, consumer spending behavior specifically refers to tourists' purchasing behavior during the cruise trip and at various ports of call, including spending on dining, purchasing souvenirs, participating in paid activities, and so on.

According to the study by Petrick (2004), consumer spending behavior can be measured using the following four items:

- 1) During the cruise trip, I spend money at the onboard restaurants and bars.
- 2) I purchase local specialties and souvenirs at the cruise's ports of call.
- 3) I participate in additional paid entertainment activities offered by the cruise.
- 4) I purchase entrance tickets or guide services at tourist attractions at the ports of call.

3.3 Sample and process

Before conducting this study, it is planned to conduct a preliminary questionnaire survey on 50 travelers who have had cruise travel experience. The formal survey stage will use a convenience sampling method to select participants. The formal survey will be conducted through cruise travel agencies located in Taipei City, New Taipei City, Taichung City, and Kaohsiung City to ensure that the sample is representative. The survey methods include two types: one is an online questionnaire, where if the traveler cannot immediately fill it out, their email address will be collected, and the questionnaire will be sent via email later; the other is an on-site paper questionnaire, which will be distributed by well-trained questionnaire interviewers without disturbing the travelers. The survey period lasted from July 2023 to December 2023, with a total of 500 questionnaires distributed, and 372 valid questionnaires were collected, with an effective response rate of 74.4%. Among them, 232 were on-site questionnaires, and 140 were online questionnaires.

The demographic distribution of the sample is as follows: in terms of gender, there were 183 males and 189 females; in terms of educational level, 50 had a high school education, 225 had a university education, and 96 had a graduate education or above; in terms of marital status, 102 were single, and 270 were married; in terms of family situation, 251 had children, and 121 did not have children; in terms of age distribution, 33 were aged 30 or below, 37 were aged 31 to 40, 64 were aged 41 to 50, 108 were aged 51 to 60, and 130 were aged 61 or above. As for cruise travel experience, 258 had no previous cruise travel experience, 62 had one cruise travel experience, and 52 had two or more cruise travel experiences.

4. Results

4.1 Descriptive statistics and correlation analysis

Table 1 presents the descriptive statistics and Pearson correlation coefficient analysis results for the variables in this study. The analysis indicates that all the studied variables have significant positive correlations.

Table 1: Descriptive statistics and correlation analysis

	1	2	3	4	5
Cruise tourism experience	1				
Intrinsic satisfaction	.609**	1			
Extrinsic satisfaction	.556**	.411**	1		
Revisit behavior	.496**	.436**	.528**	1	
Consumer spending behavior	.574**	.555**	.483**	.468**	1
Mean	4.0242	4.0276	3.6935	3.8851	3.9026
S.D.	0.6335	0.6354	0.7060	0.5723	0.6619

** $p < 0.01$, $n = 372$

4.2 Confirmatory factor analysis results

Confirmatory Factor Analysis (CFA) was used in this study to examine the fit of the measurement model. According to the data in Table 2, all factor loadings (λ) range from 0.48 to 0.92, with t-values exceeding 1.96, indicating statistical significance. These results suggest that most factor loadings exceed the minimum threshold of 0.45 proposed by Bentler and Wu (1993), confirming that the scale has good convergent validity.

For the individual reliability of the observed variables, the range is from 0.23 to 0.85, with most exceeding the minimum standard of 0.20 recommended by Bentler and Wu (1993), indicating that each measurement item has adequate reliability. Moreover, the composite reliability (CR) of each construct ranges from 0.70 to 0.89, higher than the threshold of 0.6 recommended by Fornell and Larcker (1981), further confirming the reliability of the constructs.

The analysis of the average variance extracted (AVE) shows that the AVE values for the five constructs range from 0.37 to 0.67, all above the acceptance standard of 0.36 proposed by Fornell and Larcker (1981), confirming the convergent validity of the scale. These results indicate that the measurement model has good reliability and validity, effectively reflecting the meaning of the constructs.

In summary, the results of the confirmatory factor analysis in this study indicate that the measurement model is statistically sound, and all measurement indicators meet the established psychometric standards, providing a solid foundation for further causal path analysis. These findings lay a theoretical and methodological foundation for the in-depth study of the relationship between cruise tourism experience and tourist behavior.

Table 2: Individual item reliability, composite reliability, and average variance extracted

Construct	No. of items	Factor loading (λ)	Individual item reliability (λ^2)	t-value	Composite reliability (CR)	Average variance extracted (AVE)
Cruise tourism experience	4	0.67~0.83	0.45~0.69	13.86~18.55	0.83	0.55
Intrinsic satisfaction	4	0.80~0.83	0.64~0.69	17.94~19.03	0.89	0.67
Extrinsic satisfaction	4	0.69~0.92	0.48~0.85	14.64~22.35	0.89	0.67
Revisit behavior	4	0.48~0.70	0.23~0.49	8.75~13.46	0.70	0.37
Consumer spending behavior	4	0.59~0.92	0.35~0.85	12.23~22.89	0.89	0.67

$\chi^2=468.94$; $df=160$; $RMSEA=0.072$

4.3 Structural equation modeling and goodness of fit analysis results

This study used Structural Equation Modeling (SEM) for analysis to assess the model's goodness of fit. The goodness of fit assessment utilized three types of indices: Absolute Fit Measures, Incremental Fit Measures, and Parsimonious Fit Measures, to ensure the model's usability and strategic significance (Bagozzi and Yi, 1988).

1. Absolute Fit Measures

The absolute fit measures used in this study include the Goodness of Fit Index (GFI) and Adjusted Goodness of Fit Index (AGFI). Doll, Xia, and Torkzadeh (1994) suggested that GFI should be above 0.8, and in this study, GFI is 0.879. MacCallum and Hong (1997) recommended that AGFI should also be above 0.8, and in this study, it is 0.846. Additionally, the Root Mean Square Residual (RMR) should be less than 0.05, and in this study, it is 0.0466, while the Root Mean Square Error of Approximation (RMSEA) should be less than 0.08, and in this study, it is 0.0749. These results all indicate that the model's absolute fit is within an acceptable range.

2. Incremental Fit Measures

The incremental fit measures include the Normed Fit Index (NFI), Relative Fit Index (RFI), Incremental Fit Index (IFI), and Comparative Fit Index (CFI). The recommended values for these indices should all be greater than 0.9 to reflect good model fit (Bagozzi & Yi, 1988). In this study, the NFI is 0.954, the RFI is 0.947, the IFI is 0.967, and the CFI is also 0.967, indicating that the model has good incremental fit.

3. Parsimonious Fit Measures

The parsimonious fit assessment primarily involves the χ^2/df ratio, which is typically required to be less than 3 to demonstrate the model's parsimonious effectiveness (Kline, 2005). In this study, the χ^2/df ratio is 3.082, slightly higher

than the standard value, but still within the acceptable range as considered by Schumacker and Lomax (2004) (less than 5). Additionally, the Parsimony Goodness of Fit Index (PGFI) and Parsimony Normed Fit Index (PNFI) recommended values should be greater than 0.5 (Mulaik et al., 1989). In this study, the PGFI is 0.691 and the PNFI is 0.828, indicating that the model is not overly complex.

Table 3: Results of the goodness of fit indexes

	Index	Standard value	Result
Absolute fit measures	χ^2	—	508.86
	Goodness of Fit Index (GFI)	> 0.80	0.879
	Adjusted Goodness of Fit Index (AGFI)	> 0.80	0.846
	Root Mean Square Residual (RMR)	< 0.05	0.0466
	Root Mean Square Error of Approximation (RMSEA)	< 0.08	0.0749
Incremental fit measures	Normed Fit Index (NFI)	> 0.90	0.954
	Relative Fit Index (RFI)	> 0.90	0.947
	Incremental Fit Index (IFI)	> 0.90	0.967
	Comparative Fit Index (CFI)	> 0.90	0.967
Parsimonious fit measures	$\chi^2 / d.f.$	< 3	3.082
	Parsimony Goodness of Fit Index (PGFI)	> 0.50	0.691
	Parsimony Normed Fit Index (PNFI)	> 0.50	0.828

4.4 Causal path analysis results

This study used Structural Equation Modeling (SEM) to examine the causal relationships in the theoretical model and analyze the impact of cruise tourism experience on satisfaction and revisit behavior. The analysis results are as follows, with detailed data shown in Table 4.

First, cruise tourism experience (ξ_1) has a significant positive impact on intrinsic satisfaction (η_1), with an estimated parameter of $\gamma_{11} = 0.64$ and a t-value of 10.26. This indicates that the richness and quality of the cruise tourism experience significantly enhance tourists' intrinsic satisfaction. Similarly, cruise tourism experience also has a significant positive impact on extrinsic satisfaction (η_2), with an estimated parameter of $\gamma_{21} = 0.68$ and a t-value of 9.86, showing that the richness and quality of the cruise tourism experience significantly enhance tourists' extrinsic satisfaction.

Further analysis indicates that intrinsic satisfaction (η_1) has a significant positive impact on revisit behavior (η_3), with an estimated parameter of $\beta_{31} = 0.57$ and a t-value of 8.34. This means that tourists who are satisfied with the basic services and core experiences of the cruise are more likely to choose the same cruise again. Extrinsic satisfaction (η_2) also has a significant positive impact on revisit behavior (η_3), with an estimated parameter of $\beta_{32} = 0.39$ and a t-value of 6.30. This indicates that tourists' satisfaction with the overall brand and additional services of the cruise company also drives their willingness to revisit.

Finally, revisit behavior (η_3) has a highly significant impact on consumer spending behavior (η_4), with an estimated parameter of $\beta_{43} = 0.70$ and a t-value of 9.61. This result shows that tourists' choices to revisit and recommend significantly increase their consumption levels during the cruise journey.

In summary, the empirical results of this study strongly support the positive impact of cruise tourism experience on satisfaction, revisit behavior, and consumer spending behavior. These findings provide valuable insights for cruise companies in terms of strategic planning, service enhancement, and marketing.

Table 4: Parameter estimates for structural equations model

Hypothesized model (Paths)	Parameter estimates	T-value	Results
H1a: Cruise tourism experience $\xi_1 \rightarrow$ Intrinsic satisfaction η_1 (γ_{11})	0.64	10.26	Supported
H1b: Cruise tourism experience $\xi_1 \rightarrow$ Extrinsic satisfaction η_2 (γ_{21})	0.68	9.86	Supported
H2a: Intrinsic satisfaction $\eta_1 \rightarrow$ Revisit behavior η_3 (β_{31})	0.57	8.34	Supported
H2b: Extrinsic satisfaction $\eta_2 \rightarrow$ Revisit behavior η_3 (β_{32})	0.39	6.30	Supported
H3: Revisit behavior $\eta_3 \rightarrow$ Consumer spending behavior η_4 (β_{43})	0.70	9.61	Supported

“**” $p < 0.01$

4.5 Direct and indirect effect analysis results

This study explored the pathways through which cruise tourism experience impacts revisit behavior, primarily focusing on two paths: one through the direct effect of intrinsic satisfaction on revisit behavior, and the other through the effect of extrinsic satisfaction on revisit behavior. According to the analysis results in Table 5, the total effect of intrinsic satisfaction on revisit behavior is 0.3648, indicating that the influence of intrinsic satisfaction is relatively significant. This reflects the importance of tourists' satisfaction with core services in their decision to choose cruise travel again.

In terms of the impact of satisfaction on consumer spending behavior, there are also two paths: one through the effect of intrinsic satisfaction on consumer spending behavior via revisit behavior, and the other through the effect of extrinsic satisfaction on consumer spending behavior via revisit behavior. According to the analysis results in Table 6, the total effect of intrinsic satisfaction on consumer spending behavior via revisit behavior is 0.273, indicating that the influence of intrinsic satisfaction via revisit behavior is relatively significant. This highlights the

significant role of customer satisfaction with the core cruise experience in driving their consumer spending behavior.

These results underscore the importance of cruise operators in enhancing core service quality and customer satisfaction. High intrinsic satisfaction not only boosts customers' willingness to revisit but also promotes their spending during the journey. Cruise companies might consider further optimizing the passenger experience, such as improving accommodation conditions, providing high-quality dining services, and onboard entertainment activities, to enhance customers' intrinsic satisfaction, thereby promoting revisit behavior and increasing spending.

In summary, cruise companies should focus on enhancing customer intrinsic satisfaction and strengthen customers' revisit intentions and consumer spending behavior through effective market strategies, thereby achieving sustainable business growth and enhancing market competitiveness.

Table 5: Results of direct and indirect effect analysis of revisit behavior

Factors	Direct effects	Indirect effects via		Total effects
		Intrinsic satisfaction η_1	Extrinsic satisfaction η_2	
Cruise tourism experience ξ_1	-	$\gamma_{11} \times \beta_{31}=0.64 \times 0.57$	-	0.3648
Cruise tourism experience ξ_1	-	-	$\gamma_{21} \times \beta_{32}=0.68 \times 0.39$	0.2652

Table 6: Results of direct and indirect effect analysis of consumer spending behavior

Factors	Direct effects	Indirect effects via	Total effects
		Revisit behavior η_3	
Intrinsic satisfaction η_1	-	$\beta_{31} \times \beta_{43}=0.57 \times 0.70$	0.399
Extrinsic satisfaction η_2	-	$\beta_{32} \times \beta_{43}=0.39 \times 0.70$	0.273

5. Conclusion and Recommendations

5.1 Conclusion

This study aimed to thoroughly analyze the impact of cruise tourism experience on passenger satisfaction, revisit behavior, and consumer spending behavior. Through the application of Structural Equation Modeling (SEM), the results indicated that cruise tourism experience positively influenced revisit behavior through intrinsic satisfaction and extrinsic satisfaction, while revisit behavior further significantly increased consumer spending behavior. The specific research conclusions are as follows:

1. The Importance of Cruise Tourism Experience: Cruise tourism experience has a significant positive impact on both intrinsic satisfaction and extrinsic satisfaction of passengers, indicating that providing quality services and experiences is key to enhancing customer satisfaction. A good tourism experience can enhance overall customer satisfaction, thereby promoting revisit intention and increasing spending.

2. Mediating Role of Satisfaction: Intrinsic satisfaction and extrinsic satisfaction play key mediating roles between cruise tourism experience and revisit behavior. Particularly, intrinsic satisfaction, such as satisfaction with service quality and product experience, is especially important for promoting revisit behavior.

3. Impact of Revisit Behavior on Consumer Spending Behavior: Revisit behavior was found to be an effective predictor of increased spending. This means that enhancing tourists' revisit intention can directly boost their consumer activities during the cruise journey, which has significant implications for cruise operators when formulating market and service improvement strategies.

4. Strategic Implications: Cruise companies should focus on enhancing passengers' travel experience, especially the quality of core services such as ship facilities, customer service, and dining services, to enhance customer intrinsic satisfaction, thereby promoting revisit behavior and increasing spending.

In summary, this study emphasizes the importance of providing excellent passenger experiences in the cruise industry and reveals the interactive relationships among satisfaction, revisit behavior, and consumer spending behavior. These findings provide valuable insights for cruise industry operations management, market positioning, and customer relationship management, helping operators formulate effective strategies in a competitive market environment to achieve business growth and enhance customer loyalty.

5.2 Managerial implications

Managerial implications involve insights derived from research findings and how these insights can be applied to daily management and decision-making processes within an organization or business. In the context of the cruise industry, managerial implications particularly emphasize how research findings can be utilized to enhance business operation efficiency, improve customer satisfaction, foster customer loyalty, and ultimately drive performance growth. The following are the managerial implications suggested by this study for the cruise industry:

1. Enhancing Customer Experience: The study shows that cruise tourism experience significantly impacts customer satisfaction. Management teams should focus on customer experience at every touchpoint, from providing high-quality ship facilities and entertainment activities to ensuring positive staff service attitudes. Maintaining high standards in these areas is crucial for enhancing customer satisfaction.

2. Optimizing Customer Service: Considering the influence of intrinsic satisfaction and extrinsic satisfaction on revisit behavior, cruise companies should continuously optimize customer service processes and response mechanisms. This can be achieved, for example, through regular staff training to improve service quality and by utilizing customer management systems to collect and analyze customer feedback for real-time service improvements.

3. Strengthening Brand and Marketing Strategies: Given that extrinsic satisfaction also significantly impacts customer behavior, cruise companies should enhance brand building and marketing strategies. This could include effective advertising

and public relations activities to enhance brand image, as well as launching tailored promotional activities for specific markets to attract new customers and retain existing ones.

4. Implementing Loyalty Programs: Considering the positive association between revisit behavior and consumer spending behavior, cruise companies should consider designing and implementing customer loyalty programs, such as offering reward points, exclusive discounts, and member-only events, to increase the frequency of revisits and enhance spending.

5.3 Future research recommendations

Based on the findings of this study, the following suggestions for future research directions can provide new perspectives and in-depth analysis pathways for the cruise industry and tourism behavior research:

1. Cross-Cultural Studies: Future research could consider conducting cross-cultural comparisons to explore the perceptual differences in service satisfaction and revisit behavior among cruise passengers from different cultural backgrounds. This would help cruise companies better understand the needs of international markets and adjust their marketing strategies accordingly.

2. Ongoing Technological Innovation Research: Research should evaluate the application and effectiveness of new technologies (such as virtual reality and augmented reality) in enhancing cruise tourism experiences. Investigating how these technologies impact customer satisfaction and revisit intentions, as well as their potential influence on consumer behavior, would be valuable.

3. Environmental Sustainability Research: Given the importance of environmental protection, future research could explore the impact of environmental practices in the cruise industry on customer satisfaction and brand image. It would be insightful to study how cruise companies can enhance customer loyalty and market competitiveness by implementing sustainable tourism measures.

4. Long-Term Follow-Up Studies: Conduct long-term follow-up studies to observe customer behavior changes over time, particularly the sustainability of revisit behavior and consumption patterns. Such research will help gain a deeper understanding of the formation and development of customer loyalty.

5. Impact of Multichannel Marketing Strategies: Analyze the impact of multichannel marketing strategies (such as social media, email marketing, physical promotional activities, etc.) on customer satisfaction and revisit behavior. This will help cruise companies more effectively utilize various marketing tools to enhance customer experience and increase sales.

6. In-Depth Exploration of Psychological Factors: Study psychological factors, such as expectations and cognitive dissonance, and how they influence cruise passengers' satisfaction and behavioral decisions. Understanding these factors in depth will help cruise companies more precisely meet customers' psychological needs when providing services.

Through these suggestions, future research can introduce new theoretical and practical perspectives into cruise tourism behavior studies and provide the industry with more strategically significant insights.

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