

EVALUATION OF THE QUALITY OF RIVER TOURISM PRODUCTS IN CAN THO CITY, VIET NAM: A DOMESTIC TOURIST PERSPECTIVE

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Title:

Đánh giá chất lượng sản phẩm du lịch đường sông tại thành phố Cần Thơ: Góc nhìn từ du khách nội địa

Từ khóa:

Chất lượng sản phẩm du lịch đường sông, du lịch đường sông, khách du lịch nội địa, thành phố Cần Thơ, Việt Nam.

Key words:

Can Tho city, domestic tourism, quality of river tourism products, river tourism, Viet Nam.

TÓM TẮT: Du lịch đường sông là một trong những sản phẩm du lịch nổi bật tại thành phố Cần Thơ. Việc phát triển các sản phẩm du lịch đường sông là một trong những trọng tâm được chính quyền địa phương quan tâm. Nghiên cứu đánh giá chất lượng các sản phẩm du lịch đường sông của thành phố Cần Thơ thông qua khảo sát 130 khách du lịch nội địa đã trải nghiệm loại hình du lịch này. Dữ liệu sau khi thu thập được xử lý bằng phần mềm SPSS 20, với các phương pháp như thống kê mô tả, đánh giá độ tin cậy của thang đo, phân tích nhân tố khám phá và hồi quy tuyến tính đa biến. Nghiên cứu xác định được 5 yếu tố ảnh hưởng đến chất lượng sản phẩm du lịch đường sông tại thành phố Cần Thơ gồm cơ sở vật chất và khả năng đáp ứng, an toàn và an ninh, sự hấp dẫn, môi trường, dịch vụ. Hầu hết các yếu tố được đánh giá ở mức khá tốt. Trong đó, cơ sở vật chất và khả năng đáp ứng được đánh giá cao nhất, trong khi môi trường du lịch sông nước nhận được đánh giá thấp nhất.

ABSTRACT: River tourism is one of the prominent tourism products in Can Tho City. Developing river tourism products is a key focus for the local authorities. The study evaluates the quality of river tourism products in Can Tho City through a survey of 130 domestic tourists who have experienced river tourism there. The collected data were processed using IBM SPSS Statistics version 20, employing methods such as descriptive statistics, scale reliability assessment, exploratory factor analysis, and multivariate linear regression. The research results identify five factors influencing the quality of river tourism products in Can Tho City: tangibles and responsiveness, safety and security, attractiveness, environment, and services. Most factors were rated at a good level. Among them, tangibles and responsiveness received the highest ratings, while the river tourism environment was rated the lowest

1. Introduction

Many of the world's great rivers are used for touristic purposes and river tourism can act as an additional source of income (Van

Balen et al., 2014). Vietnam, with its dense network of rivers, offers favorable conditions for the development of river tourism.

Prominent examples include tourism on the Hong River, the river systems in the Northern Delta region, and the Mekong Delta (Hai, 2024). Can Tho is one of the five centrally governed cities of Vietnam. It is located in the downstream region of the Mekong River. Can Tho has a dense network of rivers and canals, along with favorable geographical location, natural conditions, and climate for the development of river tourism products. River tourism is one of the two main tourism products that Can Tho is developing, contributing to the goal of building a "riverine urban area" [12].

The total length of the waterways in Can Tho City reaches 3,400 km. The river network density is 1.8 – 2.0 km/km². The main river system spans over 453 km, with a network of canals and tributaries extending across the entire area (Ministry of Culture, Sports and Tourism, 2024). Can Tho has three major rivers: Hau River, Can Tho River, and Cai Lon River. In addition, there are other rivers such as Binh Thuy River, Tra Noc River, O Mon River, Thot Not River, Thoem Rom Canal, and many other large canals in the districts of Thot Not, Vinh Thanh, Co Do, and Phong Dien. Can Tho is famous for the Cai Rang Floating Market, which was ranked by the British travel magazine *Rough Guide* as one of the 10 most impressive markets in the world [6].

In the past, river tourism products in Can Tho City were quite monotonous, mainly consisting of sightseeing routes from Ninh Kieu wharf to Cai Rang floating market and the fruit orchards in Phong Dien district. In recent years, river tourism products have become more diverse. Popular river tourism products in Can Tho include boat tours to visit the floating markets, river cruises on the Can Tho River, and SUP paddling to explore the Can Tho River. Overall, Can Tho's river tourism potential is considered significant. However, according to some travel companies, river tourism is not attractive, as tourism in Can Tho lacks a distinctive highlight for visitors and does not differ significantly from other provinces [19]. Some tourist sites and historical landmarks are not suitable for the development of river tourism. There are no speed regulations for waterway

transportation, and river routes are not yet clearly defined or easily navigable. Additionally, river water is polluted due to excessive waste, and local residents lack awareness of environmental protection. Moreover, river tourism still faces many limitations in terms of transportation infrastructure and docking facilities. Therefore, conducting a study to evaluate the quality of river tourism products in Can Tho City and propose solutions for improving tourism quality and developing river tourism is highly necessary.

2. Literature Review and Hypothesis Development

One tourism sector developed based on rivers is called river tourism [1]. River tourism refers to tourism activities conducted on rivers and along riverbanks, including individual activities or those involving boats for recreation, relaxation, and sports, whether the vessels are anchored or moving on the river (Bosnic, 2012). It also includes exploring the cultural life of local residents along the river routes. The development of river tourism must be closely tied to improving local livelihoods and protecting the ecological environment. River-oriented tourism is a type of tourism based on waterways (river flows) as well as the tourism opportunities provided by the surrounding landscapes, including both natural and man-made features (Cooper, 2009). According Can Tho Department of Culture, Sports, and Tourism (2018), River tourism is understood as a type of tourism that allows visitors to experience the life of local communities, focusing on the values of river landscapes and indigenous culture. The target audience for river tourism products is substantial, consisting of individuals from all over the country, representing diverse social backgrounds, professions, and age groups. This type of tourism typically operates year-round and is less affected by seasonal fluctuations in tourism. The primary purpose of tourists engaging in this form of tourism is to explore scenic river landscapes, orchard gardens, and floating markets by boat, as well as visit tourist spots developed by locals. These activities often include enjoying fresh fruit, local cuisine, and observing traditional

practices such as making rice paper, brewing rice wine, weaving fish traps, and crafting fishing nets, all presented in a way that enhances the cultural tourism experience. From the above concepts, river tourism products can be understood as integrated tourism offerings that combine recreational activities, sightseeing, dining, relaxation, and transportation, all closely connected to the natural river environment. Tourism services are provided directly on the river or along its banks. Notably, the development of river tourism products must go hand in hand with improving the economic livelihoods of local residents and protecting the aquatic ecological environment.

Evaluating product quality involves assessing the attributes and characteristics of a product to determine whether it satisfies customer needs, serves its intended purpose, and meets the relevant standards for the product or service. When evaluating the quality of a service product, it is essential to consider several key factors, including whether the service product addresses the customer's issues, operates efficiently, and aligns with the customer's intended use. Parasuraman et al. (1988) are described of a multiple-item instrument called SERVQUAL for measuring consumer perceptions of service quality. It is a 22-item instrument that addresses many elements of service quality divided into the 5 dimensions: 1. tangibles, 2. reliability, 3. responsiveness, 4. assurance, and 5. Empathy. Nam & Phuong (2009), when evaluating the quality of tourism products, identified three factors influencing the quality of ecotourism products in Can Tho: promptness, adherence and diversification of entertainment activities. Hong et al. (2022) evaluated the quality of river tourism products based on seven factors: Tourism resources, Attraction level, Location of tourist sites, Infrastructure and technical facilities, Duration of tourism activities, Tourist capacity, and Environmental sustainability. In recent years, there has also been some research on river tourism in Can Tho. For example, Tung and Nguyen (2019), in *"The situation and solutions to improve the quality of services of organizations and individuals participating in river tourism in*

Can Tho city", analyzed the current state and proposed solutions. Trinh (2024), in *"Potential for river tourism development in Can Tho city"*, outlined the advantages and challenges of developing river tourism in Can Tho. Similarly, Giang et al. (2024), in their research *"Orientation and solutions for developing river tourism products in Can Tho city"*, also assessed the potential for river tourism development in Can Tho city. *However, most studies have not yet explored the quality of river tourism products or identified the factors influencing the development of river tourism products.*

Based on a review of relevant studies and the local context, the research proposes a model for evaluating the quality of river tourism products in Can Tho City, including the following factors: Attractiveness, Tangibles, Responsiveness, Environment, Services, and Safety and Security.

The "Attractiveness" factor consists of 4 observed variables: Diverse river and canal ecosystems (X1); Unique riverine and orchard landscapes (X2); Fresh and clean natural environment (X3); Many valuable cultural and historical relics along the riverbanks (X4).

The "Tangibles" factor includes 3 observed variables: River transportation ensures safety (X5); Spacious and safe docks for boarding boats (X6); Service stations and shopping spots on the river are spacious and offer many products/souvenirs (X7).

The "Responsiveness" factor comprises 4 observed variables: Tour guides are attentive, professional, and knowledgeable (X8); Crew/staff on boats are friendly, polite, and attentive (X9); Local people are friendly and always ready to assist tourists (X10); Enthusiastic and hospitable vendors on the river (X11).

The "Environment" factor includes 3 observed variables: Clean, unpolluted river water (X12); Tourist transport equipped with garbage bins (X13); Clean riverbanks without litter (X14).

The "Services" factor consists of 4 observed variables: A wide variety of rich and diverse services (X15); Many souvenir products available (X16); Tour prices are

reasonable (X17); Reasonable product and service prices at tourist destinations (X18).

The “Safety and Security” factor comprises 4 observed variables: Safe tourist transport equipped with life jackets (X19); Tour guides remind tourists to ensure safety during river tourism (X20); No cases of harassment or pressure on tourists (X21); Boat operators instruct tourists on safety during river tourism (X22).

The “Overall Evaluation” factor includes 3 observed variables: Are you satisfied with

the quality of river tourism products in Can Tho City? (X23); Do you believe that the river tourism products in Can Tho City have fully utilized their potential? (X24); Do you believe that river tourism products in Can Tho City will develop sustainably in the future? (X25).

The observed variables are measured using a 5-point Likert scale: (1) Strongly disagree, (2) Disagree, (3) Neutral, (4) Agree, (5) Strongly agree.

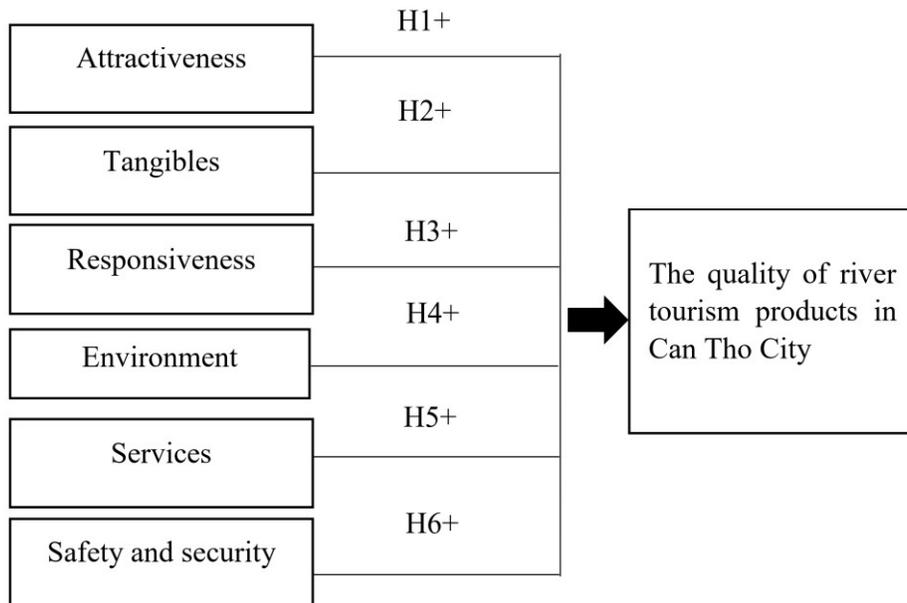


Figure 1. Research model for evaluating the quality of river tourism products in Can Tho City

Source: Proposed by the author based on reference materials, 2024

From the model at figure 1, the author proposed the following hypotheses:

The attractiveness of a destination reflects the feelings and opinions of its visitors about the destination’s perceived ability to satisfy their need. Attractiveness can be defined as the perceived ability of the destination to deliver individual benefits (Vengesai, 2003). Hypothesis 1 (H1): There is a positive correlation between attractiveness and the quality of river tourism products in Can Tho City.

In river tourism activities, tangible facilities are considered an important factor in attracting tourists (Hong et al., 2022). Tangible attributes influence loyalty through attendee satisfaction (Molina-Go’mez etc.,

2021). Hypothesis 2 (H2): There is a positive correlation between tangibles and the quality of river tourism products in Can Tho City.

Responsiveness is willing ness to help customer and provide prompt service (Parasuraman et al., 1988). The study of tourism responsiveness objectively reflects the gap between tourists’ real feelings and their expectations of the quality of the tourism (Wang & Guo, 2024). Hypothesis 3 (H3): There is a positive correlation between responsiveness and the quality of river tourism products in Can Tho City.

Environment is one of important factor that related to the attractiveness of a destination. A well-managed destination environment is the best destination advertiser

(Mihalic, 2000). Hypothesis 4 (H4): There is a positive correlation between environment and the quality of river tourism products in Can Tho City.

The diversity of services will attract more tourists. It has been proven that service influences tourists' satisfaction and loyalty (Tung and Nguyen, 2019). Hypothesis 5 (H5): There is a positive correlation between services and the quality of river tourism products in Can Tho City.

Safety and security are primary requirements for growth, attractiveness and competitiveness of tourism destinations. Safety and security has been identified as one of the five global forces that would drive the tourism industry in the new millennium (Vengesai, 2003). Hypothesis 6 (H6): There is a positive correlation between safety and security and the quality of river tourism products in Can Tho City.

3. Research Methods

3.1. Methods for collecting and processing secondary data

Secondary data was collected from books, the internet, statistical data, and summary

reports related to tourism and river tourism. The collected data was then compiled and analyzed to address the research problem.

3.2. Methods for collecting and processing primary data

Data for this study was collected through a questionnaire survey method. The total number of independent observed variables in the research model is 22, adhering to the guideline of at least one variable corresponding to five observations (Hair et al., 2010), which necessitates a minimum sample size of 110. A sample of 130 observations was conducted to meet this requirement. Participants were selected using convenience sampling, and they self-completed the questionnaires. The interviews were conducted from June to December 2024. The survey data was analyzed using descriptive statistics, reliability testing of measurement scales, exploratory factor analysis and multivariate linear regression, utilizing IBM SPSS Statistics version 20.

The study surveyed 130 domestic tourists, with an overview of the data presented in Table 1 below.

Table 1. Overview of research data

Observed Variable		Percent	Observed Variable		Percent
Gender	Male	40	Occupation	Students	53.5
	Female	60		Workers and farmers	12.6
Age	<18	7.7		Government employees	8.7
	18-30	57.7		Private enterprise employees	16.5
	31-45	14.6		Homemakers	8.7
	46-60	11.5			
	>60	8.5			

Source: Data from the tourist survey, n=130

4. Research results

4.1. Factors Affecting the Quality of River Tourism Products in Can Tho City

To ensure the reliability of the scale and observed variables, the scale reliability evaluation method was utilized. Each scale was assessed based on the Cronbach's Alpha coefficient to identify and remove insignificant observed variables in the research model. A scale is considered reliable if its Cronbach's Alpha coefficient is ≥ 0.6 (Nunnally, 1978; Peterson, 1994; Slate,

1995; as cited in Huy et al., 2012). Scales with a Cronbach's Alpha ranging from 0.6 to 0.8 are deemed usable, while those with a Cronbach's Alpha of 0.8 or higher are regarded as excellent measures by many researchers, indicating a higher level of correlation. For observed variables, reliability is ensured when the adjusted item-total correlation coefficient is ≥ 0.3 (Nunnally & Bernstein, 1994; as cited in Thọ, 2011). According to the results of the scale reliability assessment, all seven scales

comprising 24 observed variables met the reliability criteria. However, the observed variable “*Enthusiastic and hospitable*

vendors on the river” was excluded due to a corrected item-total correlation coefficient below 0.3 (see Table 2).

Table 2. Evaluation of Scale Reliability

No.	Scale	Number of Reliable Observed Variables	Cronbach’s Alpha	Corrected Item-Total Correlation
1	Attractiveness	4	0,761	0,483 – 0,603
2	Tangibles	3	0,768	0,597 – 0,608
3	Responsiveness	3	0,750	0,522 – 0,619
4	Environment	3	0,726	0,504 – 0,605
5	Services	4	0,807	0,584 – 0,660
6	Safety and Security	4	0,781	0,526 – 0,639
7	Overall Evaluation	3	0,576	0,340 – 0,450

Source: Data from the tourist survey, n=130

According to the results of the KMO and Bartlett's test, the KMO coefficient is 0.657 (> 0.5), which exceeds the minimum threshold of 0.5, confirming that the data is appropriate for factor analysis (Hair et al., 2010). Bartlett’s test of sphericity yielded a p-value of 0.000, indicating that the observed variables are correlated in the population and thus suitable for factor analysis. The total variance explained by the data is 65,152%,

which is greater than the minimum acceptable level of 50%, ensuring that the variables meet an acceptable level of explanatory power (Hair et al., 2010). Thus, the data is suitable for EFA analysis. Using principal components extraction and Varimax rotation, with Eigenvalues greater than 1 and a minimum factor loading coefficient of 0.5, the data was grouped into five factors as shown in Table 3.

Table 3. Rotated component matrix[@]

Observed Variable	Component					
	1	2	3	4	5	6
Reasonable product and service prices at tourist destinations	0.820					
Many souvenir products available	0.799					
A wide variety of rich and diverse services	0.791					
Tour prices are reasonable	0.751					
Safe tourist transport equipped with life jackets		0.820				
Tour guides remind tourists to ensure safety during river tourism		0.806				
Boat operators instruct tourists on safety during river tourism		0.750				
No cases of harassment or pressure on tourists		0.713				
Unique riverine and orchard landscapes			0.781			
Fresh and clean natural environment			0.760			
Diverse river and canal ecosystems			0.753			
Many valuable cultural and historical relics along the riverbanks			0.728			
River transportation ensures safety				0.822		
Spacious and safe docks for boarding boats				0.821		

Service stations and shopping spots on the river are spacious and offer many products/souvenirs	0.816
Tour guides are attentive, professional, and knowledgeable	0.859
Local people are friendly and always ready to assist tourists	0.809
Crew/staff on boats are friendly, polite, and attentive	0.730
Tourist transport equipped with garbage bins	0.809
Clean, unpolluted river water	0.787
Clean riverbanks without litter	0.782

KMO = 0,657; Sig. = 0.000

Based on Table 3, six factor groups influencing the quality of river tourism products in Can Tho City were identified as follows:

Factor 1 is influenced by 4 observed variables and can be labeled “Services.”

Factor 2 is influenced by 4 observed variables and can be labeled “Safety and Security.”

Factor 3 is influenced by 4 observed variables and can be labeled “Attractiveness.”

Factor 4 is influenced by 3 observed variables and can be labeled “Tangibles.”

Factor 5 is influenced by 3 observed variables and can be labeled “Responsiveness.”

Factor 6 is influenced by 3 observed variables and can be labeled “Environment.”

The results of the exploratory factor analysis (EFA) for the dependent variables show that the KMO coefficient was 0.617, the total variance explained was 54.679% (greater than the 50% threshold), Bartlett’s

test of sphericity was statistically significant (Sig. < 0.05), and all factor loadings exceeded 0.5. These results indicate that all dependent variables met the validity requirements (see Table 4).

Table 4. Rotated Factor Matrix of Dependent Variables

Variables	Component 1
Do you believe that river tourism products in Can Tho City will develop sustainably in the future?	0.789
Do you believe that the river tourism products in Can Tho City have fully utilized their potential?	0.737
Are you satisfied with the quality of river tourism products in Can Tho City?	0.689

KMO = 0,617; Sig. = 0.000

Source: Data from the tourist survey, n=130

The results of the multiple linear regression analysis show an adjusted R² of 0.764, indicating that the independent variables explain 76.4% of the variance in the dependent variable. The significance level of the F-test is 0.000, confirming that the regression model is statistically significant. The Variance Inflation Factor (VIF) values for all factors are equal to 1.000, indicating no multicollinearity. The model yielded a multiple correlation coefficient (R) of 0.880, suggesting a strong relationship between the independent variables and the dependent variable. The R² value is 0.775, and the adjusted R² is 0.764, indicating that the model explains 77.5% of the variation in the dependent variable. The Sig. value of the F Change is 0.000, further confirming the statistical significance of the model.

The Durbin-Watson statistic is 1.613, which falls within the acceptable range of 1.5 to 2.5, suggesting no serious autocorrelation issues. All Beta coefficients have a significance level (Sig.) of 0.000, indicating that all independent variables significantly impact the dependent variable. The VIF values of 1.000 across all variables confirm the absence of multicollinearity. Among the factors, Tangibles exert the strongest influence, followed by Responsiveness, Safety and Security, Environment, Attractiveness, and finally, Services.

The regression equation is as follows: Y = 0.428·Tangibles + 0.374·Responsiveness + 0.342·Safety and Security +

0.337·Environment + 0.337·Attractiveness +
0.328·Services

Table 5. Results of Multiple Linear Regression Analysis

R = 0.880; R² = 0.775 ; adjusted R² = 0.764; Sig. F Change = 0.000; Durbin-Watson = 1.613

Model	Standardized Coefficients			Collinearity Statistics	
	Beta	t	Sig.	Tolerance	VIF
(Constant)		0.000	1.000		
Services	0.328	7.672	0.000	1.000	1.000
Safety and Security	0.342	7.987	0.000	1.000	1.000
Attractiveness	0.337	7.888	0.000	1.000	1.000
Tangibles	0.428	10.012	0.000	1.000	1.000
Responsiveness	0.374	8.738	0.000	1.000	1.000
Environment	0.337	7.867	0.000	1.000	1.000

Source: Data from the tourist survey, n=130

4.2. The Current State of River Tourism Product Quality in Can Tho City

4.2.1 Visitors, Revenue, and Tourist Activities

In 2023, Can Tho welcomed 5,988,000 visitors, with estimated revenue reaching 5,420,000 billion VND (Can Tho Department of Culture, Sports, and Tourism, 2024). According to a survey of 130 domestic tourists participating in river tourism experiences in Can Tho City, visitors experienced river tourism products in the city through two main forms: joining tours organized by travel companies (80.8%) and self-organized trips (19.2%). Among the visitors, first-time visitors accounted for 37.7%, while repeat visitors (two or more visits) made up 62.3%. Tourists learned about Can Tho’s river tourism products primarily through recommendations from friends/relatives (32.8%), followed by the internet (31.7%), television (16.4%), books/newspapers/magazines (13.1%), and promotional leaflets (6%).

The river tourism products in Can Tho that visitors have experienced include visiting the Cai Rang and Phong Dien floating markets (46.2%), taking a cruise to explore the Can

Tho River at night (28.1%), visiting floating fish farms such as the 7 Bon fish farm (16.9%), and exploring floating souvenir shops (8.8%).

When participating in river tourism activities, the main purposes of visitors are sightseeing and experiencing (43.7%), learning about culture (23.6%), conducting research or studying (22.8%), or simply following a trend to discover what this type of tourism is about (9.9%).

The services that tourists typically experience during river tourism include enjoying cuisine on boats (33.1%), purchasing products at floating shops (24.4%), sightseeing and taking photos on the river (22.8%), listening to traditional "Don Ca Tai Tu" music (16.6%), and kayaking (3.1%).

4.2.2 Tangibles

Most observed variables assessing the tangible conditions and responsiveness of river tourism products in Can Tho City were rated fairly well by tourists. Among them, the highest-rated was “Crew/staff on boats are friendly, polite, and attentive,” while the lowest-rated was “River transportation ensures safety” (see table 6).

Table 6. Tangibles

Variables	Mean	Std. Deviation
River transportation ensures safety	2.84	1.15
Spacious and safe docks for boarding boats	2.94	1.15
Service stations and shopping spots on the river are spacious and offer many products/souvenirs	2.86	1.26

Source: Data from the tourist survey, n=130

According to statistics from the Can Tho Department of Culture, Sports, and Tourism (2024), a review of inland waterway ports and piers related to tourism activities in Can Tho City reveals the following: 02 tourist ports (Ninh Kieu 1 and Ninh Kieu 2 Tourist Ports); 29 inland waterway passenger terminals for tourism; 76 river-crossing passenger piers; 03 yachts (Can Tho Cruise, Ninh Kieu Cruise, and Anh Duong Cruise); 09 overnight cruise ships, 11 speedboats; Over 1000 passenger transport vehicles; A total of approximately 208 tourist boats operate from Ninh Kieu Wharf for trips to Cai Rang Floating Market and ecological gardens, with each boat having a capacity of 10–50 passengers. Additionally, the Con Son area in Binh Thuy District is also an emerging tourist attraction, with an average of about 100 tourist boat trips to this location daily. From the infrastructure conditions just outlined, it can be seen that the tangibles and the responsiveness to develop river tourism products in Can Tho City are generally quite good. However, Can Tho currently lacks

high-quality boat docks, and many riverfront tourist sites still lack docking facilities for visitors to access when traveling by river. Additionally, souvenir shopping spots on the river remain limited in both availability and scale.

4.2.3 Responsiveness

Based on the survey results, most observed variables evaluating safety and security conditions in developing river tourism products in Can Tho City were rated as fairly good. Among them, the highest-rated was “Tour guides remind tourists to ensure safety during river tourism,” while the lowest-rated was “Tour prices are reasonable.” From field surveys conducted at various wharf areas, most boats are equipped with life jackets, and nearly all have signs displaying regulations on wearing life jackets as well as rescue and safety instructions. Smaller boats are equipped with signal lights to help larger vessels avoid collisions. Along the riverbank embankments, warning signs indicate dangerous areas with deep water or sinkholes for tourists to be aware of

Table 7. Responsiveness

Variables	Mean	Std. Deviation
Tour guides are attentive, professional, and knowledgeable	3.00	1.15
Local people are friendly and always ready to assist tourists	2.90	1.15
Crew/staff on boats are friendly, polite, and attentive	3.00	1.20

Security patrol police frequently conduct patrols, which have somewhat reduced disturbances and traffic safety violations. According to the Department of Culture, Sports, and Tourism (2024), three administrative violations related to inland waterway tourist transport were recorded at the Ninh Kieu Tourist Wharf during the year, with the main violations including the absence of tourist route itinerary charts and missing instructions for using lifesaving and rescue equipment.

4.2.4 Safety and Security

The survey results indicate that most observed variables assessing the

Source: Data from the tourist survey, n=130
 attractiveness of river tourism products in Can Tho City were rated as fairly good (see table 7). However, the observed variable “Unique riverine and orchard landscapes” was only rated at an average level. Currently, the river tourism programs in Mekong Delta are quite similar, featuring activities such as boat rides on the river, visits to fruit gardens, hands-on experiences with making traditional cakes, fruit picking at orchards, and listening to *đờn ca tài tử* performances. Each province and city has yet to create a truly distinctive highlight for river tourism activities.

Table 8. Safety and Security

Variables	Mean	Std. Deviation
Safe tourist transport equipped with life jackets	2.93	1.16
Tour guides remind tourists to ensure safety during river tourism	3.03	1.11
Boat operators instruct tourists on safety during river tourism	2.87	1.21
No cases of harassment or pressure on tourists	3.00	1.16

Source: Data from the tourist survey, n=130

In Can Tho City, Cai Rang Floating Market is considered one of the standout attractions for river tourism. According to statistics from the Can Tho Department of Culture, Sports, and Tourism (2020), Cai Rang Floating Market has approximately 200–250 boats, sometimes reaching 300–400 boats. Among these, around 150 are permanently anchored, while about 100 come from other locations. However, the number of boats trading on the river has significantly decreased, and the market is no longer as bustling and vibrant as it once was. This is one of the issues that requires attention in the

development of river tourism products in the locality.

4.2.5 Environment

The survey results show that the river tourism environment in Can Tho City is rated fairly well by tourists. The highest-rated variable was “Tourist transport equipped with garbage bins” while the lowest-rated was “Clean riverbanks without litter” (see table 8)

Local authorities at river-based tourist destinations are also highly attentive to waste collection.

Table 9. Environment

Variables	Mean	Std. Deviation
Tourist transport equipped with garbage bins	3.03	1.15
Clean, unpolluted river water	2.90	1.10
Clean riverbanks without litter	2.90	1.14

Source: Data from the tourist survey, n=130

residents to begin sorting waste at the source. These bins are placed along the sidewalks of Vo Tanh Street, adjacent to the floating market. Moreover, 250 households in the floating market area are supported with free trash collection services, exempt from service charges.

For example, in the Cai Rang Floating Market area, under the project for preserving and developing the floating market (2020), the local government has taken several measures. They have placed trash bins to collect waste at the market, distributed nearly 200 trash containers to households living in the market area, and printed numerous banners for public awareness campaigns. Additionally, 15 public trash bins have been installed, along with three-colored trash bins (white, black, and green) to encourage

The Can Tho City authorities have implemented the “River Trash Collection” model led by the Youth Union. They regularly organize environmental cleanup campaigns and integrate efforts to educate the public on proper waste disposal and the

importance of not littering in the river, helping to maintain the area's aesthetics. However, according to the Cai Rang District People's Committee (2020), although efforts have been made to collect trash, the public's awareness of proper waste disposal has not improved. Additionally, trash drifting in from various locations causes some river-based tourist attractions, such as the Cai Rang Floating Market, to remain littered with waste.

4.2.6 Attractiveness

Based on survey results, tourists rate the service quality of river tourism products in Can Tho City as fairly good (see table 9).

Currently, river tourism in Can Tho City is primarily developed through four main routes: Route 1: Ninh Kieu Wharf – Cai Rang Floating Market – My Khanh Tourism Village – Truc Lam Phuong Nam Zen Monastery. Route 2: Ninh Kieu Wharf – Binh Thuy Ancient House – Traditional Rice Wine Village – Bang Lang Stork Garden. Route 3: Ninh Kieu Wharf – Con Au Islet – Gian Gua Historical Site – Walking Bridge. Route 4: Ninh Kieu Wharf – Con Son Islet – Tan Loc Islet. Depending on the services chosen by tourists, each route can include additional options such as dining and entertainment directly on the tour boats.

Table 10. Attractiveness

Variables	Mean	Std. Deviation
Unique riverine and orchard landscapes	2.98	1.13
Fresh and clean natural environment	2.97	1.10
Diverse river and canal ecosystems	3.06	1.16
Many valuable cultural and historical relics along the riverbanks	2.90	1.10

Source: Data from the tourist survey, n=130

However, many food and beverage stalls on the river have yet to meet food safety and hygiene standards, and prices are not clearly listed. Specialty product stalls on the river to serve tourists participating in river

tourism routes are still limited, focusing mainly on food and drink, with a lack of souvenir products.

4.2.7 Services

Table 11. Services

Variables	Mean	Std. Deviation
Reasonable product and service prices at tourist destinations	2.95	1.14
Many souvenir products available	2.91	1.18
A wide variety of rich and diverse services	2.92	1.16
Tour prices are reasonable	2.86	1.11

Source: Data from the tourist survey, n=130

4.2.8 Overall Evaluation

Overall, the quality of river tourism products in Can Tho City is steadily improving. Most factors influencing the development quality of river tourism products in the area are rated as fairly good, with only a few observed variables evaluated

at an average level. However, the potential for river tourism development here remains abundant and requires further investment and assessment to better utilize the available resources.

According to a tourist survey (see table 10), most visitors are quite satisfied with the quality of river tourism products in the area and believe that river tourism in Can Tho City will develop sustainably in the future. However, tourists also evaluate the current level of exploitation of river tourism products in Can Tho as only average compared to its potential. This indicates that many river tourism opportunities remain untapped and should be prioritized for investment and development in the future.

5. Propose solutions and conclusion

River tourism products are among the priority tourism products for development under the project to create distinctive tourism products for Can Tho City during the 2018–2020 period, with a vision toward 2030. Research results have identified five factors influencing the quality of river tourism products in Can Tho City, including: tangibles and responsiveness, safety and security, attractiveness, environment, and service.

Table 11. Overall Evaluation

Variables	Mean	Std. Deviation
Are you satisfied with the quality of river tourism products in Can Tho City?	3.04	0.49
Do you believe that the river tourism products in Can Tho City have fully utilized their potential?	2.95	0.64
Do you believe that river tourism products in Can Tho City will develop sustainably in the future?	2.87	0.51

Source: Data from the tourist survey, n=130

To enhance the quality of river tourism products in Can Tho City, the following measures should be considered:

For local authorities:

Reorganize the floating market and pay greater attention to the livelihoods of merchant residents to maintain the number of trading boats on the river, creating a highlight for river tourism products in Can Tho City.

Enhance food safety knowledge for food and beverage service providers operating on rivers, such as those in the Cai Rang Floating Market area. Help vendors identify unsafe food, select safe products, and follow proper sample retention procedures as required by regulations, contributing to improving food hygiene and safety standards in river tourism services.

Invest in tourism-related infrastructure to provide visitors with opportunities to interact, exchange, and trade with floating market merchants and local residents. In

addition, at the passenger docks, it is necessary to redesign the premises to create highlights, provide resting areas for visitors, and increase green spaces to leave a positive impression on tourists before starting the tour program.

Strengthen the promotion of legal regulations in the field of inland waterway transportation; implement the model of "Cultural, Civilized, and Safe Tourist Docks" to reduce the practice of soliciting tourists at passenger docks.

For tourism operators:

Focus on training and developing skills, professional expertise, and foreign language proficiency to improve the quality of the workforce serving river tourism, especially service and sales staff at tourist areas and sites, as well as local residents involved in providing services at river-based tourist destinations.

Invest in additional river tourism service products such as water taxis, amphibious vehicles, and floating riverside restaurants to enhance the diversity of river tourism services. Strengthen the development of new river tourism routes combined with local cultural exploration.

References

1. Abbas, E. W., Jumriani, J., Syaharuddin, S., Subiyakto, B., & Rusmaniah, R. (2021). Portrait of Tourism Based on River Tourism in Banjarmasin. *The Kalimantan Social Studies Journal*, 3(1), 18-26.
2. Bosnic, I. (2012). River tourism in eastern Croatia: Perspectives for development. *Economy of eastern Croatia yesterday, today, tomorrow*, 1, 216-222.
3. Cooper, M. (2009). River tourism in the South Asian subcontinent. *River Tourism; Prideaux, B., Cooper, M., Eds*, 23-40.
4. Can Tho Department of Culture, Sports, and Tourism (2018). *The proposal for developing Can Tho City's distinctive tourism products for the period 2018–2020, with a vision to 2030* (Đề án xây dựng sản phẩm du lịch đặc thù thành phố Cần Thơ giai đoạn 2018-2020, tầm nhìn 2030).
5. Can Tho Department of Culture, Sports, and Tourism (2020). *Results after four years of implementing the project to preserve and develop the Cái Răng Floating Market to promote tourism and socio-economic development in Cái Răng District, Can Tho City* (Kết quả sau 4 năm thực hiện đề án bảo tồn và phát triển Chợ nổi Cái Răng phục vụ phát triển du lịch và kinh tế - xã hội của quận Cái Răng, thành phố Cần Thơ)
6. Giang, C. (2019). Cai Rang Floating Market is ranked among the top 10 most impressive markets in the world (Chợ nổi Cái Răng lọt vào top 10 chợ ấn tượng nhất thế giới). <https://vietnamtourism.gov.vn/post/29585>
7. Giang, D.V.H., Long, P.H., Cam, L.H., Quyen, L.T.T., and Em, N.V.T. (2024). Orientation and solution for developing river tourism product in Can Tho city. *Journal of science and economic development, Nam Can Tho university*, vol 30, 28-37
8. Hai, T. (2024). *Vietnam has many advantages for developing river tourism* (Việt Nam có nhiều lợi thế để phát triển du lịch đường sông). Available online: <https://thanhtra.com.vn/xa-hoi/du-lich/viet-nam-co-nhieu-loi-the-de-phat-trien-du-lich-duong-song-231751.html>
9. Hair, J. F., Black, W. C., Babin, B. J., & Anderson, R. E. (2010). *Multivariate data analysis (7th ed.)*. Pearson Prentice Hall.
10. Huy, L.V. and Anh, T.T.T. (2012). *Research Methods in Business* (Phương pháp nghiên cứu trong kinh doanh). Finance Publishing House.
11. Mihalič, T. (2000). Environmental management of a tourist destination: A factor of tourism competitiveness. *Tourism management*, 21(1), 65-78.
12. Ministry of Culture, Sports and Tourism (2024). Can Tho: Promoting the Potential of River Tourism (Cần Thơ: Phát huy tiềm năng du lịch đường sông). <https://bvhttdl.gov.vn/can-tho-phat-huy-tiem-nang-du-lich-duong-song-20241007153633592.htm>
13. Molina-Go´mez, J., Mercade ´-Mele´, P., Almeida-Garci´a, F., & Ruiz-Berro´n, R. (2021). New perspectives on satisfaction and loyalty in festival tourism: The function of tangible and intangible attributes. *PLoS ONE* 16(2): e0246562.
14. Nam, M.V. and Phuong, V.H. (2009). Developing Ecotourism in Cần Thơ City (Phát triển du lịch sinh thái tại thành phố Cần Thơ). *Scientific Journal of Cần Thơ University*, 2009:12, 112-122
15. Trinh, N.T.T. (2024). Potential for river tourism development in Cần Thơ City. *Vietnam national authority of tourism-institute for tourism development research (2024)*, 67-77.

16. Hong, N.T., Hong, N.K., & Minh, T.P. (2022). Tourists satisfaction with river tourism in Han river, Da Nang city (Sự hài lòng của khách du lịch với hoạt động du lịch đường sông ở tuyến Sông Hàn, Thành phố Đà Nẵng). *Ho Chi Minh city university of education journal of science, Vol.19, no.1 (2022), 159-173.*
17. Parasuraman, A., Zeithaml, V. A., & Berry, L. L. (1988). SERVQUAL: a multiple-item scale for measuring consumer perceptions of service quality. *Journal of retailing, 64(1), 12-40.*
18. Tho, N.Đ. (2011). *Scientific Research Methods in Business: Design and Implementation* (Phương Pháp nghiên cứu khoa học trong kinh doanh: Thiết kế và thực hiện). Labor and Social Affairs Publishing House.
19. Tung, H.V., and Nguyen, N.T.T. (2019). The situation and solutions to improve the quality services of organizations and individuals participating in river tourism in CanTho City (Thực trạng và giải pháp nâng cao chất lượng dịch vụ của các tổ chức, cá nhân tham gia du lịch đường sông tại thành phố Cần Thơ). *Scientific Journal of Cần Thơ University, Vol.55, no.19, 104-114.*
20. Trong, H. & Ngoc, C.N.M. (2008). *Data Analysis in Research with SPSS* (Phân tích dữ liệu nghiên cứu với SPSS). Hong Duc Publishing House
21. Van Balen, M., Dooms, M., & Haezendonck, E. (2014). River tourism development: The case of the port of Brussels. *Research in Transportation Business & Management, 13, 71–79.* doi:10.1016/j.rtbm.2014.10.014
22. Vengesai, S. (2003). A conceptual model of tourism destination competitiveness and attractiveness. *ANZMAC 2003-Conference Proceedings Adelaide 2003, 637-647.*
23. Wang, X., Lai, J., & Guo, Y. (2024). Study on Tourism Responsiveness and Habitat Environment-Influencing Factors of Traditional Villages in Huizhou Area. *Sustainability, 16(8), 3424.* <https://doi.org/10.3390/su16083424>