The Quality of Public Maritime Transportation Services

NATHA SAWETNARAKUL, RUNGROJ SUBANJUI*
Faculty of Business Administration,
King Mongkut's University of Technology North Bangkok,
1518 Pracharat 1 Road, Wongsawang, Bangsue, Bangkok 10800,
THAILAND

**Corresponding Author*

Abstract: - This research aims to 1) study the components of the quality of public maritime transportation services, and 2) develop a structural equation model (SEM) of the quality of public maritime transportation services. The research population under investigation in this study includes individuals who utilize marine passenger vessels, including ferries, crossing boats, and speedboats, in four primary coastal destinations of Thailand: Pattaya, Trat, Hua-Hin, and Phuket. A sample of 400 respondents was selected using questionnaires as the primary data collection tool. The data were analyzed using multivariate statistical techniques to construct the SEM. The results revealed that the proposed model demonstrated a good fit with the empirical data, as indicated by statistical values: p-value = 0.082, CMIN/DF = 1.415, GFI = 0.983, and RMSEA = 0.032, all meeting the recommended thresholds and showing significance at the 0.001 level. The standardized regression weight of 0.95 indicated that reliability had the most significant direct effect on responsiveness in the analysis of the overall model influence. This investigation demonstrates that the operator's dependability is a critical foundation that directly influences the readiness and speed of timely service delivery. Therefore, it is evident that maritime public transport operators should prioritize the development of reliability in order to encourage their personnel to operate at their maximum capacity.

Key-Words: - Quality, Public Maritime Transportation, Service, Tangible, Reliability, Responsiveness, Assurance, Empathy.

Received: April 17, 2026. Revised: May 29, 2026. Accepted: July 2, 2026. Published: August 6, 2026.

1 Introduction

The tourism sector is a significant economic driver in Thailand, consistently generating trillions of baht in revenue. It facilitates the growth of tourism infrastructure, which in turn contributes to the country's rapid economic recovery following any economic crisis, distributes income to tourist destinations, and facilitates trade. This is consistent with the 4th National Economic and Social Development Plan of 1977, which prioritized the reduction of social inequality and rural development to facilitate economic recovery following the oil crisis. The Tourism Authority of Thailand projected that the total tourism revenue would reach 2.58 trillion baht by 2026, with an estimated 30-34 million foreign tourists, [1]. Popular tourist destinations in Thailand include coastal and marine tourism, as the country boasts a vast maritime area spanning 323,488.32 square kilometers in both the Gulf of Thailand and the Andaman Sea, [2]. Consequently, the number of passengers participating in offshore marine activities, including scuba diving tours and island-hopping cruises, is steadily increasing. This group is a highly sought-after target for tour boat operators and is making a substantial contribution to the country's economic growth [3], as shown in Figure 1.

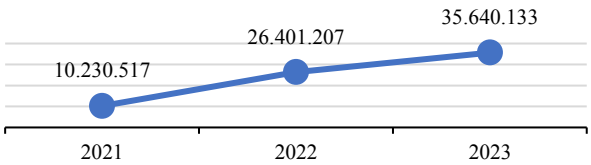

Fig. 1: The number of people using public sea transportation in Thailand
Source: Statista [4]

Natural disasters and accidents pose a significant risk to passenger boat travel in Thailand, despite the popularity of marine tourism. This can lead to the loss of life and property. The risk may cause the passenger boat to be delayed or to fail to reach its destination, even if no losses are incurred. Most

maritime accidents are the result of a variety of factors, such as the negligence of the boat driver, the condition of the boat's structure or equipment, and unfavorable environmental conditions (e.g., thunderstorms, thick fog, or unusual currents). All these factors have the potential to result in accidents. In 2024, Phuket Provincial Office of Disaster Prevention and Mitigation reported statistics on marine accidents in Phuket Province, which indicated that 18 individuals, primarily foreign tourists, tragically drowned; five of these were citizens of Thailand. Additionally, the annual statistics demonstrate that humans are the primary cause of these accidents, with 78.8% of marine accidents being caused by humans. This is particularly evident in the case of fishing boats and speedboats colliding, resulting in passengers falling overboard, [5]. The accident figures in question are indicative of the persistent hazards that marine tourist destinations face, necessitating more stringent monitoring than other tourist destinations. This underscores the pressing necessity of enhancing safety standards in tourist areas and vigorously enforcing maritime laws in accordance with the international standards established by the European Maritime Safety Agency (EMSA) and other pertinent regulatory bodies, [6].

This investigation endeavors to evaluate the quality of maritime public transportation services by conducting a systematic evaluation of user feedback. By doing so, maritime transport operators guarantee that their services are genuine, prioritize safety, and foster user confidence. This is a departure from previous research, which frequently concentrated on engineering or logistics management rather than the passenger's perspective on service quality. Consequently, there is a substantial knowledge gap in the comprehension of the expectations and perceptions of actual users, which is essential information for operators to enhance and develop sustainable and efficient maritime public transportation services.

1.1 Research Objectives

1) To study the components of the quality of public maritime transportation services.

2) To develop a structural equation model (SEM) of the quality of public maritime transportation services.

2 Literature Review

2.1 Conceptual Framework: Service Quality (SERVQUAL)

The SERVQUAL model, which was developed by Parasuraman, Zeithaml, and Berry, was employed by the researchers to establish the conceptual framework for this research. This theory is widely accepted and posits that service quality can be quantified by the discrepancy between the service user's expectations and the perceived actual service received, [7]. It is composed of the following five primary dimensions:

1) Reliability: the capacity to operate and deliver services to clients in a manner that is consistent, precise, and accurate, as agreed upon or advertised. This dimension underscores the importance of adhering to policy commitments and deadlines, such as timely task completion or error minimization. The most critical element in establishing initial trust with clients is the organization's professionalism and dependability.

2) Responsiveness: pertains to the readiness and interest of personnel to render prompt service to clients. The emphasis is on the expeditious resolution of issues, the reduction of waiting times, and the demonstration of enthusiasm to assist clients without displaying indifference. This dimension indicates the effectiveness of the service process and the capacity of personnel to effectively manage requests or specific situations.

3) Assurance: is a dimension that is dedicated to establishing a sense of security and trust for clients by leveraging the professional skills, knowledge, and expertise of personnel (Competence), as well as establishing a positive communication attitude and a polite and courteous demeanor. The information that is provided must be both accurate and dependable, as this reduces the anxiety or risk that clients may experience when deciding to use the service, particularly in highly complex businesses or those that involve assets and security.

4) Empathy: is expressed when the organization and its personnel exhibit compassion and comprehension for the unique requirements of each client, as if they were unique individuals. This dimension includes communication that prioritizes the customer's benefit, service scheduling that prioritizes the customer's benefit, and convenient access channels. Developing an emotional bond with customers and demonstrating empathy and comprehension of their concerns results in long-term loyalty and satisfaction.

5) Tangibles: the tangible evidence that service recipients can observe and handle. Indicators of the

quality of intangible service include the modernity and availability of technological equipment and tools, the architecture and aesthetically pleasing premises, and the appearance and attire of staff that are consistent with the organization's image. These elements contribute to a positive initial impression and improve the overall service experience.

In the transportation industry, reliability is widely regarded as the most critical foundation. Academics generally concur that a transportation system's negative emotions cannot be ameliorated by its numerous other benefits if it lacks reliability, [8]. Consequently, the application of the Service Quality Model (SERVQUAL) in the transportation industry is significantly distinct from that of other service industries, as the behavior and perceptions of public transport passengers are primarily influenced by the time and safety requirements to reach their destination. The following is a summary of the relationship between each factor, as suggested by the pertinent literature:

2.2 Theoretical Justification for Reliability as a Primary Antecedent

In the context of transit and passenger transportation, Reliability (such as adherence to schedules and core service delivery) functions as the fundamental condition and core utility that dictates the performance of other service quality components. Prior literature in transportation research argues that this functional dependability heavily governs how passengers perceive non-core dimensions of service quality, [9]. If a transit service fails to satisfy the primary operational need for punctuality and safety, passengers tend to discount the value of individual attention (Empathy), staff helpfulness (Responsiveness), or the physical environment (Tangibles). Specifically, the impact of empathy and responsiveness on overall satisfaction is substantially reduced when on-time service fails to meet acceptable minimum standards, [10]; in such instances, passengers will interpret the staff's politeness and willingness to assist as a mere façade for service failure, rather than genuine empathy. Additionally, the significance of functional utility consistently takes precedence over aesthetic appeal, [11]. This implies that the value of tangibles, such as the contemporary aesthetics of a passenger cabin, is immediately diminished if the public transport provider is unable to ensure that passengers arrive at their destination on time, [12]. Consequently, a reliable core operation acts as a crucial structural antecedent that activates and enhances the perceived performance of other service quality attributes, [13]. Based on this contextual mechanism, this study justifiably departs from the static parallel structure of classical SERVQUAL to capture the hierarchical nature of quality perception in public transit.

2.3 Theoretical Justification for the Path from Assurance to Reliability

While the classical SERVQUAL framework conceptualizes service quality dimensions as parallel and independent constructs, recent structural advancements in high-risk operational environments, such as maritime and public transportation, suggest an inter-dimensional causal relationship where Assurance serves as a critical prerequisite for Reliability. In maritime transit, passengers cannot perceive a service as dependable or reliable unless they first feel assured of their physical safety and the technical competence of the operators, [14]. Although operational reliability is the primary factor in initially attracting individuals to use a transit service, the key mechanism for maintaining the customer base in the long term is assurance, which focuses on ensuring passenger safety and the provider's technical expertise. This interdependency implies that despite a provider's high level of scheduling reliability, if physical safety is compromised—such as through a driver's reckless and unsafe driving behavior—passengers will develop a profound lack of confidence, resulting in a severe decline in the perceived overall quality of service, [15]. Therefore, the confidence instilled by the crew's professionalism (Assurance) establishes the psychological foundation for passengers to trust that the service schedules and operations will be executed safely and accurately. Furthermore, the pertinent literature [16] asserts that this safety-driven confidence is the primary motivating factor in establishing trust, a state that transcends basic customer satisfaction. Ultimately, this trust acts as a critical catalyst that incites positive Word-of-Mouth (WOM) and fosters long-term loyalty, thereby facilitating the sustainable expansion and retention of the customer base, [17].

2.4 Research Hypotheses

In accordance with the theoretical foundation, the researcher formulated the following four research hypotheses based on the research objectives and the relevant literature:

- Hypothesis 1 (H1): The assurance component has a direct influence on the reliability component.
- Hypothesis 2 (H2): The reliability component has a direct influence on the empathy component.

- Hypothesis 3 (H3): The reliability component has a direct influence on the tangible component.
- Hypothesis 4 (H4): The reliability component has a direct influence on the responsiveness component.

2.5 Conceptual Framework

Figure 2 illustrates the conceptual framework that was developed from the literature review, relevant research, and the established hypotheses.

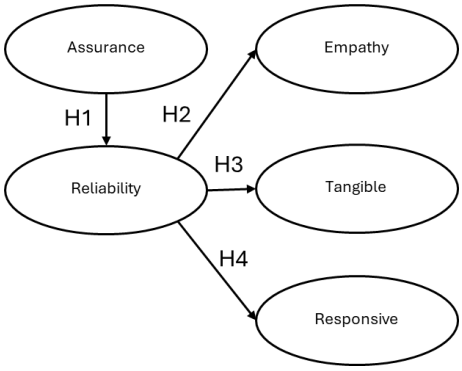

Fig. 2: Conceptual Framework
Source: created by the authors

3 Research Methodology

3.1 Population and Sample

The population under investigation in this study includes individuals who utilize marine passenger vessels, including ferries, crossing boats, and speedboats, in four primary coastal destinations of Thailand: Pattaya, Trat, Hua-Hin, and Phuket. A sample size of 400 was determined for this study using the calculation from Yamane's table, with a 5% margin of error, [18]. The researcher chose purposive sampling because it enables effective access to specialized or hard-to-reach populations and enables the collection of in-depth insights from knowledgeable key informants, [19]. Afterward, the researcher commenced the collection of data from the sample group.

3.2 Research Instruments

The research instrument used for data collection was a questionnaire, developed from a review of relevant literature, documents, theories, and research. The content validity of the questionnaire was assessed using the Index of Item-Objective Congruence (IOC), evaluated by five experts, resulting in an average score of 0.97, which exceeds the acceptable threshold of 0.50, [20]. The reliability of the questionnaire was tested with a pilot group of 30 individuals with similar characteristics to the target population. Cronbach's alpha reliability coefficient was 0.90, which is higher than the 0.80 threshold, indicating a high level of reliability and suitability for data collection, [21].

3.3 Data Analysis

The data analysis employed both descriptive statistics and inferential statistics using the SPSS software. For multivariate statistical analysis and to develop the structural equation model (SEM), the AMOS software was used. The model fit was evaluated using four key criteria: 1) Chi-square probability (p-value) more than 0.05. 2) Relative Chi-square (CMIN/DF) less than 2.00. 3) Goodness of Fit Index (GFI) more than 0.90 and 4) Root Mean Square Error of Approximation (RMSEA) less than 0.08, [22].

4 Research Results

The analysis results based on the research objectives—to examine the components of the quality of public maritime transportation services—identified five main components: First component: Empathy ($\bar{x}$ = 3.88, S.D. = 0.95), second component: Assurance ($\bar{x}$ = 3.78, S.D. = 0.91), third component: Reliability ($\bar{x}$ = 3.59, S.D. = 0.99), fourth component: Tangible ($\bar{x}$ = 3.53, S.D. = 0.95), and fifth component: Responsiveness ($\bar{x}$ = 3.42, S.D. = 1.07). These components were derived from the review of relevant literature and previous studies. From the analysis using the initial Structural Equation Model (SEM) developed by the researcher, the model did not meet the criteria for a good fit with the empirical data. The fit indices were as follows: p-value = 0.000, CMIN/DF = 3.022, GFI = 0.862, RMSEA = 0.071, and statistical significance = 0.001, which did not meet the criteria. These results indicated that the model required improvement. To enhance the model, the researcher revised it based on the Modification Indices (M.I.) of the variable pairs, following three approaches to improve data-model alignment. Those are: 1) Removing certain variables, 2) Merging related variables, and 3) Connecting variables through additional paths, [23].

The initial structural model yielded an inadequate fit to the empirical data. To achieve an acceptable fit, post-hoc modifications were conducted based on the Modification Indices (MI) and theoretical plausibility to avoid capitalization on chance (overfitting). First, indicators with low factor loadings (< 0.50) or high standardized residuals (> 2.58) were systematically removed, specifically items as1, as2, as3, re2, re3, re4, em1, em2, em4, ta1, ta3, ta4, rp2, rp3, and rp5.

Second, error covariances were added between error terms within the same construct where high MI values were observed, specifically between e1 and e13, e1 and e15, e2 and e13, e2 and e15, e13 and e17, e13 and e20, which reflects semantic redundancies between the questionnaire items. No cross-loading or structural paths were added without a rigid theoretical foundation. Following these targeted adjustments, the modified structural model demonstrated a substantially improved and robust fit to the data

After these adjustments, the model achieved an acceptable level of fit with the empirical data: p-value = 0.082, CMIN/DF = 1.415, GFI = 0.983, RMSEA = 0.032, Statistical significance = 0.001. All other statistical indices are detailed in Table 1.

Table 1. Structural Model Fit Indices Comparison

Model Fit Index	Recommended Threshold	Initial Model	Modified Model
p-value	> 0.05	0.000	0.082
CMIN/DF	< 2.00	3.022	1.415
GFI	> 0.90	0.862	0.983
CFI	> 0.90	0.941	0.996
TLI	> 0.90	0.934	0.993
NFI	> 0.90	0.914	0.987
AGFI	> 0.80	0.834	0.962
RMSEA	< 0.08	0.071	0.032
SRMR	< 0.08	0.560	0.018

Source: created by the authors

These values meet the recommended criteria and demonstrate consistency with the reviewed literature and empirical data, as shown in Figure 3.

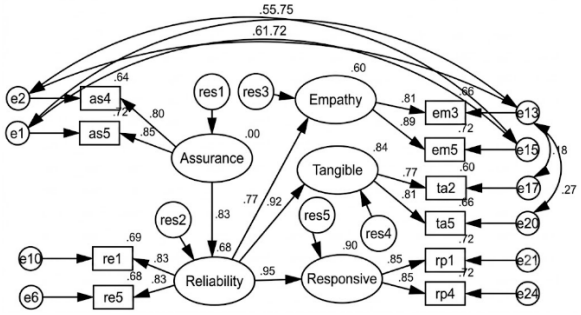

Fig. 3: Path Diagram of the Structural Equation Model

Source: created by the authors

Based on Table 2, the measurement model results, including standardized factor loadings, squared multiple correlations (R^2), error variances, and critical ratios (CR) for each observational variable. The standardized factor loadings for all items range from 0.772 to 0.950, exceeding the recommended threshold of 0.50, and all are statistically significant at the 0.001 level (P < 0.001). Furthermore, the R^2 values range from 0.596 to 0.903, indicating that the latent constructs account for a substantial proportion of the variance in their respective indicators. These findings confirm the strong individual item reliability and construct validity of the measurement scale, with each variable profile further detailed in Table 3.

Table 2. Measurement Model Results

Variables	Estimate	R^2	Variance	CR	P
Assurance			0.646		
Reliability	0.826	0.682	0.280	13.887	***
Reliability		0.682	0.280		
Responsive	0.950	0.903	0.104	18.604	***
Tangible	0.917	0.841	0.108	15.540	***
Empathy	0.772	0.596	0.301	13.331	***
Assurance			0.646		
ass4	0.799	0.639	0.365		
ass5	0.846	0.716	0.319	15.995	***
Reliability			0.280		
re1	0.827	0.684	0.461		
re5	0.832	0.692	0.406	19.527	***
Responsive		0.682	0.104		
rp1	0.851	0.725	0.407		
rp4	0.850	0.723	0.432	20.471	***
Tangible		0.841	0.108		
ta2	0.772	0.596	0.463		
ta5	0.812	0.659	0.472	15.893	***
Empathy		0.596	0.301		
em3	0.815	0.664	0.377		
em5	0.889	0.790	0.227	16.533	***

Source: created by the authors

Table 3. Profiles of Measurement Variables

Abbreviation/Description	
Assurance	
as4	It can resolve issues in an emergency or in the moment.
as5	The clothes the staff wears are appropriate and make a good impression.
Reliability	
re1	Safety equipment, including lifebuoys and life jackets is easily accessible.
re5	To reduce accidents, there are only a certain number of passenger pick-up locations.
Empathy	
em3	The quality of service received is a good value for the price.
em5	All passenger requirements are accommodated during the service hours.
Tangible	
ta2	Clearly displayed and updated boat schedules at the pier.
ta5	All users, like the elderly or people with disabilities, should be able to get to services.
Responsive	
rp1	Staff respond quickly to clean and maintain the vehicles and waiting areas.
rp4	Staff respond promptly to handle and clean up any pollution or waste in the waiting area.

Source: created by the authors

The hypothesis test aimed to examine the causal influences among latent variables in the structural equation model of the quality of public maritime transportation services. A total of four hypotheses were tested with the following results:

Hypothesis 1 (H1): The assurance component has a direct influence on the reliability component, with statistical significance at the 0.001 level. Standardized Regression Weight was 0.83.

Hypothesis 2 (H2): The reliability component has a direct influence on the empathy component, with statistical significance at the 0.001 level. Standardized Regression Weight was 0.77.

Hypothesis 3 (H3): The reliability component has a direct influence on the tangible component, with statistical significance at the 0.001 level. Standardized Regression Weight was 0.92.

Hypothesis 4 (H4): The reliability component has a direct influence on the responsiveness component, with statistical significance at the 0.001 level. Standardized Regression Weight was 0.95.

The standardized regression weight of 0.95 indicated that reliability had the most significant direct effect on responsiveness in the analysis of the overall model influence.

5 Discussion

5.1 Assurance has a Direct Influence on Reliability

Assurance is regarded as a critical factor that directly affects reliability, as the operation of public maritime transport is characterized by distinct characteristics that vary from general service terms of physical risk and the intangible (abstract) travel experience of service users. This is consistent with the research conducted by [24], which delineates the intangible nature of the travel experience. This aspect can result in misunderstandings between service providers and service users, as customers in the travel industry are unable to experience the service prior to making a purchase. Consequently, this research underscores the significance of trust as the most effective mechanism for service providers to establish credibility and mitigate potential risks. Furthermore, [25]'s research suggests that tourists' perceptions of risk are elevated by tourism activities, including maritime tourism. Consequently, service providers must establish trust to maintain sufficient credibility and persuade customers to select their services.

5.2 Reliability has a Direct Influence on Empathy

Reliability is intricately linked to and significantly influences employee empathy through organizational management mechanisms. According to research conducted by [26], a dependable organizational environment promotes employee engagement, job security, and a favorable perspective toward both the organization and its clients. These favorable attitudes encourage employees to exhibit behaviors that exceed expectations, such as a sea guide closely monitoring passengers for seasickness or an employee volunteering to assist the elderly or children during boarding and disembarking, thereby demonstrating the highest level of customer service. Additionally, research conducted by [27] indicates that employees who are highly reliable are able to serve as brand ambassadors. This is due to the fact that they possess a genuine understanding of and conviction in the brand's commitments, which enables them to deliver customer service that is consistent with the brand's reliability standards in a natural and seamless manner.

5.3 Reliability has a Direct Influence on Tangible

It is an intangible (abstract) quality that has a significant impact on a variety of tangible physical aspects, thereby serving as a critical factor in the establishment of trust among tourists. According to [28], operators need to uphold strict physical environment standards that correspond with their brand identity in order to foster trust in the organization. The operator's attentiveness and professionalism are tangible evidence by the consistent cleanliness and hygiene standards of the docks, cabins, onboard amenities, and diving equipment in the context of maritime travel. This is in line with the research conducted by [29], which suggests that operator reliability is most readily apparent in the high-risk environment of maritime travel when physical aspects are managed to reduce the perceived risk to passengers. The operators employ tangible symbols, including the structural integrity of the vessel, visible vessel maintenance, and the placement of clearly visible, well-maintained, and sufficient life-saving equipment in the event of an emergency. These elements not only function as safety tools but also as significant signals that reflect operator responsibility and adherence to brand promises, thereby fostering passenger confidence prior to travel.

5.4 Reliability has a Direct Influence on Responsiveness

A fundamental factor that directly influences responsiveness is reliability. The reliability of the service provider is a critical factor in determining the speed and efficiency of staff service, as maritime travel is high-risk and necessitates precise operational skills. This is consistent with the branding framework [30], which posits that employees are more inclined to respond to customers in a timely and voluntary manner when they have a high level of trust in the organization. In the maritime tourism industry, which necessitates adaptability to accommodate fluctuating weather conditions, a dependable system enables both captains and crew to address immediate issues and make informed decisions without the need to wait for lengthy, delaying instructions, [31]. In addition, the quality of precise weather forecasts, personal traveler data, and tidal charts is a component of the reliability of maritime public transport. It is [32] underscored that punctuality and data accuracy are critical components of service quality in the maritime sector. Personnel are able to provide precise responses to the time constraints and specific health concerns of travelers by utilizing dependable databases. This data-driven responsiveness serves as a bridge between the anticipated service and the actual service that is provided. Customers are guaranteed service that meets the highest standards of accuracy and efficiency.

6 Conclusion and Suggestions

This study used the SERVQUAL model created by Parasuraman, Zeithaml, and Berry to examine the quality of maritime public transportation services. Five primary dimensions of service quality are identified in this model as the discrepancy between user expectations and the perceived actual service. These characteristics are reliability, responsiveness, assurance, empathy, and tangibles. The following is a concise summary of the research findings:

1) The empathy component, which is associated with the care and consideration provided by operators, achieved the highest average score in the study. This was observed in the structural equation model that the researchers developed, which utilized two variables: the value-for-money ratio between the price and quality of the service received, and the service time that encompasses all time requirements. Pricing must be commensurate with the quality of service, as evidenced by these two variables. Passengers are amenable to paying a fair price for the amenities they receive, including punctuality, safety, passenger comfort, and cabin cleanliness. Passengers will be satisfied and will continue to utilize the service if they believe that the sum they pay is commensurate with the quality of the service they receive. In contrast, a comprehensive travel schedule will guarantee equal accessibility for all passengers and instill confidence in their ability to utilize the public transportation service, irrespective of the time of travel.

2) The reliability component has the most direct impact on the responsiveness component, as determined by the structural equation model that the researchers developed. This investigation demonstrates that the operator's dependability is a critical foundation that directly influences the readiness and speed of timely service delivery. Employees build confidence and are prepared to effectively address passenger issues when the operator is dependable. In contrast, if the operator is unreliable, it will result in workplace friction, which will prevent employees from fully dedicating their time to caring for and responding to passenger needs. This is due to the fact that employees will be preoccupied with resolving immediate issues that arise from organizational shortcomings. Therefore, it is evident that maritime public transport operators should prioritize the development of reliability in order to encourage their personnel to operate at their maximum capacity. Moreover, the model demonstrates that the establishment of a strong foundation of trust in the business has a significant impact on the other two factors (Empathy and Tangibles), thereby enhancing the overall passenger experience.

Declaration of Generative AI and AI-assisted Technologies in the Writing Process

During the preparation of this work the authors used LanguageTool in order to modify a few phrases in the abstract and introduction sections to enhance academic quality. After using this tool/service, the authors reviewed and edited the content as needed and takes full responsibility for the content of the publication.

References:

[1] Tourism Authority of Thailand. (2026). TAT refocuses on value over volume as 2026 tourism outlook is recalibrated, [Online]. https://www.tatnews.org/2026/04/tat-refocuses-on-value-over-volume-as-2026-

tourism-outlook-is-recalibrated/ (Accessed Date: April 19, 2026).

[2] Open Development Thailand. (2023). Thailand's 20-Year National Strategy (2018-2037) (Unofficial Translation), [Online]. https://data.opendevelopmentmekong.net/dataset/3440acec-9130-4ad2-b917-91e71553c99a/resource/37036ef5-59d0-46ac-a7ef-476856c225b4/download/download-20201012111719.pdf (Accessed Date: April 19, 2026).

[3] Vichkovitten, T., Suksomjit, M., Intarachart, A., Khaodon, K., Kantavong, A., & Rermdumr, S. (2021). New Normal in Marine and Coastal Tourism after COVID-19 Pandemic in Thailand. Thammasat Journal, 40(3), 161–190, [Online]. https://so05.tci-thaijo.org/index.php/tujo/article/view/271919 (Accessed Date: April 19, 2026).

[4] Statista Research Department. (2025). Number of visitors to major tourist destinations in Thailand, [Online]. https://www.statista.com/topics/6845/tourism-industry-in-thailand/ (Accessed Date: April 19, 2026).

[5] Phuket Provincial Office of Disaster Prevention and Mitigation. (2025). Maritime accident statistics 2024, [Online]. https://pkt.disaster.go.th/pkt/cms/31104?id=123984 (Accessed Date: April 19, 2026).

[6] European Maritime Safety Agency. (2026). Annual overview of marine casualties and incidents 2025, [Online]. https://www.emsa.europa.eu/publications/reports.html (Accessed Date: April 19, 2026).

[7] Parasuraman, A., Zeithaml, V. A., & Berry, L. L. (1985). A conceptual model of service quality and its implications for future research. Journal of Marketing, 49(4), 41–50. https://doi.org/10.1177/002224298504900403.

[8] 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.

[9] Van Lierop, D., Badami, M. G., & El-Geneidy, A. M. (2018). What influences satisfaction and loyalty in public transport? A review of the literature. Transport Reviews, 38(1), 52-72. https://doi.org/10.1080/01441647.2017.1298683.

[10] Hensher, D. A., Stopher, P., & Bullock, P. (2003). Service quality—determinants of valued brands in the bus industry. Transportation Research Part A: Policy and Practice, 37(6), 499–513. https://doi.org/10.1016/S0965-8564(02)00055-2.

[11] Van Lierop, D., & El-Geneidy, A. (2016). Enjoying loyalty: The relationship between service quality, customer satisfaction, and behavioral intentions in public transit. Research in Transportation Economics, 59, 50–59. https://doi.org/10.1016/j.retrec.2016.04.00.

[12] Dell'Olio, L., Ibeas, A., & Cecin, P. (2011). The quality of service desired by public transport users. Transport Policy, 18(1), 217–227. https://doi.org/10.1016/j.tranpol.2010.08.005.

[13] Chowdhury, S., & Ceder, A. A. (2016). Users' willingness to ride an integrated public-transport service: A literature review. Transport Policy, 48, 183-195. https://doi.org/10.1016/j.tranpol.2016.03.007.

[14] Jen, W., Tu, R., & Lu, T. (2011). Managing passenger behavioral intention: an integrated framework for service quality, satisfaction, perceived value, and switching barriers. Transportation, 38(2), 321-342. https://doi.org/10.1007/s11116-010-9306-9.

[15] Eboli, L., & Mazzulla, G. (2007). Service quality attributes affecting customer satisfaction for bus transit. Journal of Public Transportation, 10(3), 21–34. https://doi.org/10.5038/2375-0901.10.3.2.

[16] Zeithaml, V. A., Berry, L. L., & Parasuraman, A. (1996). The behavioral consequences of service quality. Journal of Marketing, 60(2), 31–46. https://doi.org/10.1177/002224299606000203.

[17] Lagrosen, S., & Lagrosen, Y. (2006). Management of service quality in passenger transport. Managing Service Quality: An International Journal, 16(4), 373–385. https://doi.org/10.1108/09604520610675701.

[18] Yamane, T. (1973). Statistics: An introductory analysis (3rd ed.). Harper and Row.

[19] Patton, M. Q. (2015). Qualitative research & evaluation methods: Integrating theory and practice (4th ed.). SAGE Publications. ISBN 978-1-4129-7212-3.

[20] Rovinelli, R. J., & Hambleton, R. K. (1977). On the use of content specialists in the assessment of criterion-referenced test item validity. Tijdschrift voor Onderwijsresearch, 2(2), 49–60, [Online]. https://files.eric.ed.gov/fulltext/ED121845.pdf (Accessed Date: April 19, 2026).

[21] Cronbach, L. J. (1951). Coefficient alpha and the internal structure of tests. Psychometrika

Journal, 16(3), 297-334. https://doi.org/10.1007/BF02310555.
[22] Arbuckle, J. L. (2009). Amos 18 user's guide. U.S.: Amos Development Corporation. ISBN: 978-1-56827-404-1.
[23] Silpcharu, T. (2020). Research and statistical analysis with SPSS and AMOS. (18th ed.). Nonthaburi: Business R&D Ordinary Partnership. ISBN: 978-616-91239-0-3.
[24] Elshaer, I. A., & Alaa, M. S. (2025). From asymmetry to satisfaction: The dynamic role of perceived value and trust to boost customer satisfaction in the tourism industry. Tourism and Hospitality, 6(2), 68. https://doi.org/10.3390/tourhosp6020068.
[25] Su, L., Hsu, M. K., & Swanson, S. (2022). The impact of online reviews on destination trust and travel intention: The moderating role of online review trustworthiness. Journal of Vacation Marketing. Advance online publication. https://doi.org/10.1177/13567667221101429.
[26] Xiong, L., King, C., & Piehler, R. (2013). "That's not my job": Exploring the employee perspective in the development of brand ambassadors. International Journal of Hospitality Management, 35, 348-359. https://doi.org/10.1016/j.ijhm.2013.07.009.
[27] Punjaisri, K., & Wilson, A. (2009). Internal branding to influence employees' brand promise delivery: A case study in Thailand. Journal of Service Management, 20(5), 561-579. https://doi.org/10.1108/09564230910995143.
[28] Bitner, M. J. (1992). Servicescapes: The impact of physical surroundings on customers and employees. Journal of Marketing, 56(2), 57–71. https://doi.org/10.1177/002224299205600205.
[29] Punjaisri, K., & Wilson, A. (2011). Internal branding process: Key mechanisms, outcomes and mediating factors. European Journal of Marketing, 45(9/10), 1521–1537. https://doi.org/10.1108/03090561111151871.
[30] King, C., & Grace, D. (2010). Building and measuring employee-based brand equity. European Journal of Marketing, 44(7/8), 938-971. https://doi.org/10.1108/03090561011047472.
[31] Rahareng, S. (2021). The impact of implementing standard operating procedures and supervision on employee performance. BJRM (Bongaya Journal of Research in Management), 4(1), 26-33. https://doi.org/10.37888/bjrm.v4i1.252.
[32] Widiyanto, P., Endri, E., Sakti, R. F. J., Setiawan, E. B., Manfaluthy, M., Suryaningsih, L., ... & Limakrisna, N. (2021). The relationship between service quality, timeliness of arrival, departure flip ship logistics and people and customer satisfaction: A case in Indonesia. Academy of Entrepreneurship Journal, 27(6), 1-12.

Contribution of Individual Authors to the Creation of a Scientific Article (Ghostwriting Policy)

- Natha Sawetnarakul carried out the conceptualization, methodology, project administration, resources, visualization, writing, and editing.
- Rungroj Subanjui has implemented methodology, investigation, and review.

Sources of Funding for Research Presented in a Scientific Article or Scientific Article Itself

This research was funded by King Mongkut's University of Technology North Bangkok, Contract No. KMUTNB-68-BASIC-13.

Conflict of Interest

The authors have no conflicts of interest to declare.