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A VERIFICATION OF BEING CRUISE DESTINATION ATTRIBUTES TOWARDS PERCEIVED DESTINATION QUALITY: APPLICATION FOR MANAGING THAILAND CRUISE TOURISM DESTINATION

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Abstract

Current understanding of the basic characteristics that affect the perceived quality of cruise destinations remains lacking. In order to create a set of perceived destination quality (PDQ) variables, this study intends to investigate and verify cruise destination attributes in both reflective and formative terms. Data was gathered using a questionnaire survey as part of the study's quantitative research technique. The study sample comprised 350 participants, with GSCA Pro software version 1.1.8 being used to analyze the data that was gathered. The research results confirmed the essential components of perceived destination quality (PDQ), which were composed of the following six important categories as first-order constructs: natural and well-known attractions, the variety of tourist services and culture, the quality of general tourist atmosphere, entertainment and recreation, the general environment, and accessibility. The 23 observed variables in this study, which comprised important reflective and formative components, were used to evaluate these constructs. The study's findings can serve as a reference for executives, cruise tourism managers, and port destinations as they create policies and plans to grow cruise tourism in the destination region. Meanwhile, researchers may use these sets of variables for consideration in conjunction with other elements in subsequent studies.

Keywords: Cruise Tourism, Cruise Destination Attributes, Perceived Destination Quality, Thailand, GSCA

1. INTRODUCTION

Cruise tourism is a distinct type of travel that blends destination and transportation (Kizielewicz, 2012; UNWTO, 2012a). It includes multifunctional and interdisciplinary elements including onshore activities, facilities, infrastructure, and onboard entertainment (Gibson, 2006; Monpanthong & Choibamroong, 2016; Rungroueng et al., 2025). Over the past twenty years, cruise tourism has developed into a hospitality sector with consistently improved services. Cruises began to gain increasing recognition in 1960; by 1990, they were very well-liked by both Americans and Europeans (Liu, 2006). With more visitors visiting each year, this kind of tourism industry is

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becoming increasingly important.

The newest and fastest-growing industry in Asia is cruise tourism. According to a projection by the World Tourism Organization (WTO), the number of cruise passengers visiting Asia will rise by 30% from the current global total of 1.8 million visitors, by 2030 (UNWTO, 2016). In addition, Asia's growth rate during the past three to five years is very strong, even if it is low when compared to the global average. However, Asia has a great chance to see a rise in cruise passengers due to its large population and expanding economy.

The expansion of cruise tourism in Asia demonstrates the region's great potential. The region's many destinations, each with its own unique products and attractions, seasons that are suitable for year-round cruising, and affordable and fascinating cruise routes are factors contributing to Asia's unstable growth and intense competition. As a result, Asia will play a significant role in the future of cruise tourism. There are also excellent opportunities for Asia to create destinations and other components to help cruise companies expand and distribute revenue around the region.

As a result of Asia's development, ports now compete fiercely with one another since SEA and ASEAN are popular cruise destinations. In order to accommodate a high number of major cruises, the ASEAN nations have expanded their capacity to serve passengers in various ports (Asean Cruise New, 2016). A number of major cruise lines, including Princess, Celebrity, Seabourn, Silver Sea, Star Cruises, Royal Caribbean International (RCCL), and Costa, have also decided to expand their services throughout the ASEAN region. In any case, Singapore Harbor, also known as the Turn-around Port or Home Port, is the major port for several of the most popular nations, including Indonesia, Vietnam, Malaysia, and Thailand. With its wide range of attractions and excellent transportation, Singapore may draw many more cruise ships (Rungroueng, 2023; Rungroueng & Monpanthong, 2023b).

It may be infered that cruise tourism in ASEAN is quite popular among cruise passengers, and that several ASEAN nations are becoming hubs of the region's cruise tourism industry. Despite the lack of ports that can accommodate large international cruises, Thailand is nevertheless a desirable destination for passing cruises, reflecting the ability to travel around Thailand. Further expansion of these sites will draw additional cruises and increase future passenger satisfaction, which will boost revenue. Consequently, a fundamental and vital issue at hand that led to this research is the development of cruise tourism destinations based on sound principles that incorporate all relevant elements and collaboration from as many associated organizations as feasible.

2. LITERATURE AND RELATED THEORY REVIEW

Concept of Perceived Destination Quality

The Definition and Concept of Perceived Destination Quality

When goods and services meet or are above the expectations of the client, quality is generally seen as having been achieved. In the context of tourism, quality perception is associated with the visitor's evaluation of experience satisfaction based on a comparison of performance against expectations (Battour, 2017; Murphy, Pritchard, & Smith, 2000).

"The consumer's judgment about a product's overall excellence or superiority" is the definition of perceived quality (Zeithaml, 1988). Furthermore, Zeithaml (1988) adds that perceived quality differs from real quality as it incorporates the customer's complete overall appraisal of events and has a higher degree of abstraction. Crucially, measurement of perceived quality is based on the idea that consumers primarily make their judgments about perceived quality by recalling different elements of their experience. In accordance with these tenets, we define perceived quality in the context of sailing to the port of call as the whole evaluation of

all pertinent regarded positive accumulating characteristics of destination quality, which in turn constitute the second-order construct of perceived quality.

Cue-utilization theory states that consumers construct their perceived quality using both extrinsic and intrinsic attribution signals (Cox, 1967; Davis, 1985; Forsythe, Kim, & Petee, 1999). The product's physical attributes serve as intrinsic signals (Olson, 1977; Olson & Jacoby, 1972). The characteristics of the product that are not included in its physical makeup are known as extrinsic cues (Zeithaml, 1988). As a result, extrinsic signals include price, brand name, and shopping atmosphere, but intrinsic cues include broad perceived quality indicators including fiber content, performance, and aesthetics. Prior research has demonstrated that consumers prefer to employ external indicators over internal ones when determining a product's perceived quality (Bolton & Drew, 1991; Richardson, Dick, & Jain, 1994). Additionally, Zeithaml (1988) noted that when consumers lack the ability to appraise intrinsic traits easily or have little information about them, they rely more on extrinsic cues than on intrinsic ones.

In the context of cruise tourism, cruise passengers can perceive the quality of Thailand cruise tourism elements from the main elements of their destination which correspond to the review of destination literature. Synthesis of the elements by analyzing data in the form of SEM, PLS-SEM, and others, can be summarized as follows in table 1:

Table 1 Elements of Destination Attributes

Authors	**Destination Attributes**						**Model and Construct Approach**		
	Natural and well-known attractions	Variety of tourist services and culture	Quality of the general tourist atmosphere	Entertainment and recreation	General environment	Accessibility	SEM or PLS-SEM	Second- order	Formative
Forgas-Coll, Palau-Saumell, Sanchez-Garcia, and Garrigos-Simon (2015)			√				SEM		
Castillo-Manzano, Lopez-Valpuesta, and Alanis (2015)		√		√	√				
Wang, Yang, Han, and Shi (2016)	√			√	√	√	PLS-SEM	√	√
Toudert and Bringas-Rabago (2016)	√		√	√	√		PLS-SEM	√	√
Sanz-Blas and Buzova (2016)	√		√	√	√		PLS-SEM	√	√
Cardenas-Garcia, Pulido-Fernandez, and Pulido-Fernandez (2016)	√	√	√	√	√	√			

Ozturk and Gogtas (2016)	√	√	√	√		√			
Sanz-Blas, Buzova, and Carvajal-Trujillo (2017)	√		√	√			PLS-SEM	√	√
Lyu, Hu, Hung, and Mao (2017)	√		√		√	√			
Whyte (2017)	√	√	√	√	√	√			
Hallak, Assaker, and El-Haddad (2018)	√	√	√	√	√	√	PLS-SEM	√	√
Zhang, Wu, and Buhalis (2018)	√	√		√			PLS-SEM	√	√
Mustelier-Puig, Anjum, and Ming (2018)			√			√	PLS-SEM	√	√
Ali, Kim, Li, and Jeon (2018)			√		√		PLS-SEM		
Wu, Cheng, and Ai (2018)			√		√	√	SEM	√	√
Ma, Fan, and Zhang (2018)	√					√	-		
Hanafiah, Jasmi, Razali, and Sulaiman (2019)	√		√				PLS-SEM		
Muskat, Hortnagl, Prayag, and Wagner (2019)		√	√		√		PLS-SEM	√	√
Ye, Wu, and Zheng (2019)			√				SEM		
Oviedo-Garcia, Vega-Vazquez, Castellanos-Verdugo, and Orgaz-Aguera (2019)				√			PLS-SEM		
Gamez, Serrano, Gil, and Ruiz (2019)	√						PLS-SEM		
Sanz-Blas, Buzova, and Carvajal-Trujillo (2019)	√		√	√	√		PLS-SEM	√	√
Total	**14**	**7**	**16**	**12**	**12**	**9**			

Table 1 shows the 6 key attributes as follows: (1) Natural and well-known attractions (2) Variety of tourist services and culture (3) Quality of the general tourist atmosphere (4) Entertainment and recreation (5) General environment and (6) Accessibility, which are the overall components of destination used in previous studies. Therefore, this research took these relevant issues to be defined as variables in the study.

If considering only the results of the SEM and PLS-SEM data analysis, there are 16 relevant studies from the 2015-2019 period. More than half (10) of these studies used formative second-order constructs. Therefore, this research took the above-mentioned issues to define the measurement model, as explained in detail in the next section.

Measurements of Perceived Destination Quality

According to the literature review for perceived destination quality, this is one of the factors that directly and indirectly influences behavioral intentions through the mediating effect of perceived value and overall satisfaction. From the collection and synthesis of destination components, especially data analysis to test the relationships of PLS-SEM models, it was found that the measurement construct of these components is commonly used in formative second-

order and formative first-order models. Therefore, this model was adapted to the present research.

Table 2 The Summary of Latent Constructs and Observed Variables of Perceived Destination Quality

Latent Construct (formative second-order factor)	Observed variables (formative first-order factor)	Elements	Authors
Perceived Destination Quality (PDQ)	Natural and well-known attractions	1. Thailand has spectacular scenery and natural attractions. 2. Thailand is a country with many well-known tourist sites. 3. Thailand has magnificent sunny beaches. 4. Thailand has fascinating native animals and vegetation.	Adapted from (Cardenas-Garcia et al., 2016; Gamez et al., 2019; Hallak et al., 2018; Hanafiah et al., 2019; Lyu et al., 2017; Ma et al., 2018; Ozturk & Gogtas, 2016; Sanz-Blas & Buzova, 2016; Sanz-Blas et al., 2017, 2019; Toudert & Bringas-Rabago, 2016; Wang et al., 2016; Whyte, 2017; Zhang et al., 2018)
	Variety of tourist services and culture	1. Thailand offers a variety of foods, souvenirs and duty-free goods for travelers. 2. Thailand has wonderful historical sites and excellent museums/art galleries. 3. Thailand has a unique aboriginal culture.	Adapted from (Cardenas-Garcia et al., 2016; Castillo-Manzano et al., 2015; Hallak et al., 2018; Muskat et al., 2019; Ozturk & Gogtas, 2016; Whyte, 2017; Zhang et al., 2018)
	Quality of general tourist atmosphere	1. Thailand's service staff are qualified, helpful and friendly. 2. Thailand is a safe destination for travelers. 3. The environment in Thailand is exceptionally clean.	Adapted from (Ali et al., 2018; Cardenas-Garcia et al., 2016; Forgas-Coll et al., 2015; Hallak et al., 2018; Hanafiah et al., 2019; Lyu et al., 2017; Muskat et al., 2019; Mustelier-Puig et al., 2018; Ozturk & Gogtas, 2016; Sanz-Blas & Buzova, 2016; Sanz-Blas et al., 2017, 2019; Toudert & Bringas-Rabago, 2016; Whyte, 2017; Wu et al., 2018; Ye et al., 2019)
	Entertainment	1. Thailand has a variety of	Adapted from (Cardenas-

and recreation	entertainment/nightlife activities for travelers. 2. Thailand offers many opportunities for sports and adventurous activities. 3. Thailand has good tourism infrastructure facilities, such as restaurants.	Garcia et al., 2016; Castillo-Manzano et al., 2015; Hallak et al., 2018; Oviedo-Garcia et al., 2019; Ozturk & Gogtas, 2016; Sanz-Blas & Buzova, 2016; Sanz-Blas et al., 2017, 2019; Toudert & Bringas-Rabago, 2016; Wang et al., 2016; Whyte, 2017; Zhang et al., 2018)
General environment	1. Thailand's climate is good. 2. Thailand is a good place for rest and relaxation.	Adapted from (Ali et al., 2018; Cardenas-Garcia et al., 2016; Castillo-Manzano et al., 2015; Hallak et al., 2018; Lyu et al., 2017; Muskat et al., 2019; Sanz-Blas & Buzova, 2016; Sanz-Blas et al., 2019; Toudert & Bringas-Rabago, 2016; Wang et al., 2016; Whyte, 2017; Wu et al., 2018)
Accessibility	1. Thailand is a value for money destination. 2. Communication is not a serious problem for non-English speaking tourists. 3. Thailand is easy to access.	Adapted from (Cardenas-Garcia et al., 2016; Hallak et al., 2018; Lyu et al., 2017; Ma et al., 2018; Mustelier-Puig et al., 2018; Ozturk & Gogtas, 2016; Wang et al., 2016; Whyte, 2017; Wu et al., 2018)

Following the summarized content shown in Table 2, the latent construct, perceived destination quality, can be split into 6 observed variables as follows:

(1) Natural and well-known attractions
(2) Variety of tourist services and culture
(3) Quality of general tourist atmosphere
(4) Entertainment and recreation
(5) General environment
(6) Accessibility

Each of the sub-components consists of indicators which can be examined through the formative second-order model and formative first-order model to test the study results for research objective 2. In addition, these sub-components can also be used to assess Thailand's cruise tourism potential according to research objective 1.

The model consists of indicators for each of the sub-components through the second-order constructs and first-order constructs to test the study results according to the research objectives, which can determine an outcome for the 12-research hypotheses (research hypotheses 1-6 are in the formative form, while research hypotheses 7-12 are in the reflective

form) as follows:

H1: *Natural and well-known attractions (PDQ1) have a positive influence on Perceived Destination Quality (PDQ)*

H2: *The variety of tourist services and culture (PDQ2) has a positive influence on Perceived Destination Quality (PDQ)*

H3: *The quality of the general tourist atmosphere (PDQ3) has a positive influence on Perceived Destination Quality (PDQ)*

H4: *Entertainment and recreation (PDQ4) has a positive influence on Perceived Destination Quality (PDQ)*

H5: *The general environment (PDQ5) has a positive influence on Perceived Destination Quality (PDQ)*

H6: *Accessibility (PDQ6) has a positive influence on Perceived Destination Quality (PDQ)*

H7: *Perceived Destination Quality (PDQ) has a positive influence on natural and well-known attractions (PDQ1)*

H8: *Perceived Destination Quality (PDQ) has a positive influence on the variety of tourist services and culture (PDQ2)*

H9: *Perceived Destination Quality (PDQ) has a positive influence on the quality of the general tourist atmosphere (PDQ3)*

H10: *Perceived Destination Quality (PDQ) has a positive influence on entertainment and recreation (PDQ4)*

H11: *Perceived Destination Quality (PDQ) has a positive influence on the general environment (PDQ5)*

H12: *Perceived Destination Quality (PDQ) has a positive influence on accessibility (PDQ6)*

3. RESEARCH METHODOLOGY

Population and Sample

The CILA annual report (CLIA, 2014, 2016, 2017, 2018a, 2019b), that provides information on Thailand's destinations, might be used to calculate an endless population. The top three ports for docking are Samui, Phuket, and Laem Chabang. Laem Chabang port is the only port with all of the necessary port infrastructure, including a terminal, and the only port where cruise ships may dock immediately at the port, according to the chosen research criteria. As a result, the study's population consists of Thai people who are able to speak in English as well as international cruise passengers that boarded a cruise ship, arrived at Laem Chabang port, and spent the night in Thailand as well as through transit or turnaround.

Focusing on establishing a suitable sample size results in stagnant potential study outcomes given the unlimited population employed in this research (Baggio, 2011). However, for equation analysis, the sample size should be at least 100–200 (Hoyle, 1995; Kline, 2016). Using the G*power program with Linear Multiple Regression: Fixed model, the Cohen equation cited in (Cunningham & McCrum-Gardner, 2007; Faul, Edgar, Buchner, & Lang, 2009) defined the α error probability and power of 1-β error probability as 0.5 and 0.95, respectively, based on the R2 deviation from zero that explains the three levels of effect size (Cohen, 1988).

According to the work of Barclay, Thompson, and Higgins (1995); Gefen, Straub, and Boudreau (2000); Hair, Ringle, and Sarstedt (2011); Joseph F. Hair Jr, Hult, Ringle, and Sarstedt (2013); Hoyle (1995); Kline (2016); Marcoulides and Saunders (2006); (Wiratchai, 2012) there should be a minimum sample size of 74. A total of 350 respondents provided data, ensuring that the sample size exceeded the minimal quantity established by all calculation techniques. In this work, non-probability sampling using a convenience or accidental sampling

strategy was used to sample an infinite population (Sangpikul, 2013).

Survey Instrument

A questionnaire was employed as the research tool in this quantitative study in accordance with the study's goals. An examination of pertinent ideas, concepts, and research led to the creation of the questionnaire, which assessed Thailand's potential for cruise tourism as well as the perceived quality of the location. Both first-order and a second-order multidimensional concepts have been previously proposed for perceived destination quality (PDQ). A validated scale format was used to operationalize the visitors' PDQ as a higher order construct.

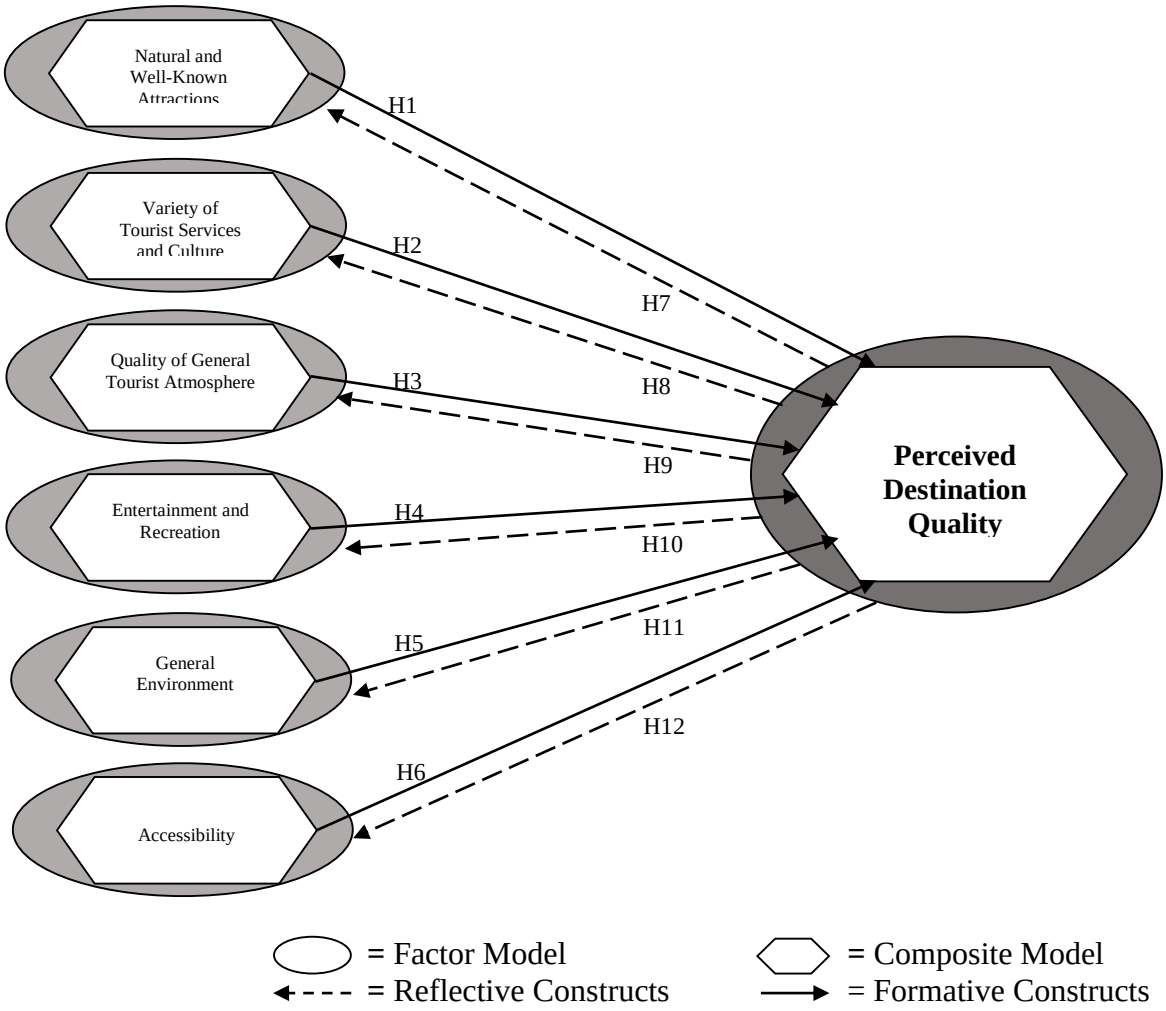
The PDQ scale comprises six latent factors: (1) Natural and well-known attractions, adapted from (Cardenas-Garcia et al., 2016; Gamez et al., 2019; Hallak et al., 2018; Hanafiah et al., 2019; Lyu et al., 2017; Ma et al., 2018; Ozturk & Gogtas, 2016; Sanz-Blas & Buzova, 2016; Sanz-Blas et al., 2017, 2019; Toudert & Bringas-Rabago, 2016; Wang et al., 2016; Whyte, 2017; Zhang et al., 2018); (2) The variety of tourist services and culture, adapted from (Cardenas-Garcia et al., 2016; Castillo-Manzano et al., 2015; Hallak et al., 2018; Muskat et al., 2019; Ozturk & Gogtas, 2016; Whyte, 2017; Zhang et al., 2018); (3) Quality of the general tourist atmosphere, adapted from (Ali et al., 2018; Cardenas-Garcia et al., 2016; Forgas-Coll et al., 2015; Hallak et al., 2018; Hanafiah et al., 2019; Lyu et al., 2017; Muskat et al., 2019; Mustelier-Puig et al., 2018; Ozturk & Gogtas, 2016; Sanz-Blas & Buzova, 2016; Sanz-Blas et al., 2017, 2019; Toudert & Bringas-Rabago, 2016; Whyte, 2017; Wu et al., 2018; Ye et al., 2019); (4) Entertainment and recreation, adapted from (Cardenas-Garcia et al., 2016; Castillo-Manzano et al., 2015; Hallak et al., 2018; Oviedo-Garcia et al., 2019; Ozturk & Gogtas, 2016; Sanz-Blas & Buzova, 2016; Sanz-Blas et al., 2017, 2019; Toudert & Bringas-Rabago, 2016; Wang et al., 2016; Whyte, 2017; Zhang et al., 2018); (5) The general environment, adapted from (Ali et al., 2018; Cardenas-Garcia et al., 2016; Castillo-Manzano et al., 2015; Hallak et al., 2018; Lyu et al., 2017; Muskat et al., 2019; Sanz-Blas & Buzova, 2016; Sanz-Blas et al., 2019; Toudert & Bringas-Rabago, 2016; Wang et al., 2016; Whyte, 2017; Wu et al., 2018); and (6) Accessibility, adapted from (Cardenas-Garcia et al., 2016; Hallak et al., 2018; Lyu et al., 2017; Ma et al., 2018; Mustelier-Puig et al., 2018; Ozturk & Gogtas, 2016; Wang et al., 2016; Whyte, 2017; Wu et al., 2018). The six factors (dimensions) were measured using 23 attribute items (observed variables) though a close-ended questionnaire, with each question using an 8-point Likert scale.

Data Analysis

This study applied the Generalized Structured Component Analysis (GSCA) to evaluate the model (Hwang & Takane, 2004); GSCA Pro 1.1.8 software was used for the analysis of the structural equation model (Hwang et al., 2021). Recently, this technique has gained greater traction among tourism and hospitality researchers (Manosuthi, Lee, & Han, 2022a, 2022b; Rungroueng, 2024; Rungroueng & Monpanthong, 2023a) as it is an unbiased estimator compared to other comparable methods when the model contains both factors and components (Hwang et al., 2021; Manosuthi, Lee, & Han, 2021a, 2021b). The construct validity was examined through convergent validity where each criterion should have a factor loading > 0.7 (Claes Fornell & David F. Larcker, 1981; Joe F Hair Jr, Howard, & Nitzl, 2020) and a proportion of variance explained (PVE) > 0.7 (Hwang, Cho, & Choo, 2023), as well as discriminant validity, which can be determined via the Heterotrait-Monotrait ratio of correlations (HTMT) being < 0.85 (Chumwichan, Wongwanich, & Piromsombat, 2023; Henseler, Ringle, & Sarstedt, 2015). The model fit indices were also examined, such that each

criterion had a standardized root mean square residual (SRMR) < 0.08 (Joe F Hair Jr et al., 2020).

Figure 1 Conceptual Research Framework



4. RESULTS

Most respondents were female (181 or 51.7%), while 145 were male (41.4%), 13 were LGBTQ+ (3.7%), and 11 answered N/A (3.1%). The age group of 18-40 years old accounted for the majority of respondents, totaling 319 (91.2%).

Results of the Analysis of Construct Validity

Internal consistency was assessed using Dillon-Goldstein's Rho, with the criterion of having a value greater than 0.7 to indicate high reliability, as recommended by Hwang and Takane (2014). Results showed that all variables within the structure were highly consistent, with Rho values ranging from 0.883 to 0.95, (PDQ1 = 0.95, PDQ2 = 0.948, PDQ3 = 0.901, PDQ4 = 0.905, PDQ5 = 0.897, PDQ6 = 0.883). Convergent validity was assessed by calculating the Proportion of Variance Explained (PVE) with a recommended threshold of 0.7, as suggested by (Hwang et al., 2023); Manosuthi et al. (2021a, 2021b). The results indicated that the instrument used in this study had good convergent validity, with PVE values ranging from 0.716 to 0.813, (PDQ1 = 0.791, PDQ2 = 0.724, PDQ3 = 0.753, PDQ4 = 0.761, PDQ5 = 0.813, PDQ6 = 0.716). Construct validity was assessed through factor analysis, which grouped

similar questions into the same variable. The criterion for factor loading was set at 0.7 or greater, as recommended by Joe F Hair Jr et al. (2020). Results showed that all factors were highly related, with factor loading values greater than 0.7. The goodness of fit of the structural model was evaluated using the Goodness of Fit Index (GFI) and Standardized Root Mean Square Residual (SRMR), with the recommended criteria of 0.9 and 0.08, respectively, as suggested by Hu and Bentler (1999). Results indicated that the GFI was 0.978 and the SRMR was 0.083, suggesting a good model fit. Discriminant validity was assessed using the Heterotrait-Monotrait ratio of correlations (HTMT) with a recommended threshold of less than 0.85, as suggested by Henseler et al. (2015). Results showed that all variables had HTMT values less than 0.85, ranging from 0.543 to 0.85, (PPQ1 ↔ PPQ2 = 0.824, PPQ1 ↔ PPQ3 = 0.612, PPQ1 ↔ PPQ4 = 0.809, PPQ1 ↔ PPQ5 = 0.543, PPQ1 ↔ PPQ6 = 0.66, PPQ2 ↔ PPQ3 = 0.721, PPQ2 ↔ PPQ4 = 0.85, PPQ2 ↔ PPQ5 = 0.63, PPQ2 ↔ PPQ6 = 0.701, PPQ3 ↔ PPQ4 = 0.85, PPQ3 ↔ PPQ5 = 0.85, PPQ3 ↔ PPQ6 = 0.89, PPQ4 ↔ PPQ5 = 0.766, PPQ4 ↔ PPQ6 = 0.762, PPQ5 ↔ PPQ6 = 0.813) and thus were deemed acceptable, indicating good discriminant validity. Following this examination, it was concluded that the measurement model had acceptable construct validity (Claes Fornell & David F Larcker, 1981; Joe F Hair Jr et al., 2020; Henseler et al., 2015) as shown in Table 4.

Table 3 The Analysis Results of Construct Validity

Item	Mean	SD	Loadings	Weights for 1st order components	Weights for 2nd order components	95% CI		PVE
1st Order Components								
Perceived Destination Quality								
Natural and Well-Known Attractions								
PDQ1.1	6.583	1.262	0.894	0.226		0.201	0.252	
PDQ1.2	6.746	1.294	0.924	0.226		0.193	0.262	
PDQ1.3	6.726	1.242	0.915	0.24		0.217	0.266	0.791
PDQ1.4	6.786	1.321	0.878	0.213		0.193	0.231	
PDQ1.5	6.589	1.234	0.833	0.219		0.196	0.238	
Variety of Tourist Services and Culture								
PDQ2.1	6.854	1.322	0.823	0.161		0.143	0.181	
PDQ2.2	6.614	1.293	0.856	0.161		0.145	0.173	
PDQ2.3	6.383	1.364	0.843	0.177		0.16	0.202	
PDQ2.4	6.329	1.269	0.872	0.172		0.151	0.188	0.724
PDQ2.5	6.563	1.408	0.833	0.165		0.148	0.185	
PDQ2.6	6.306	1.419	0.862	0.179		0.159	0.196	
PDQ2.7	6.851	1.258	0.866	0.161		0.14	0.18	
Quality of General Tourist Atmosphere								
PDQ3.1	6.466	1.417	0.838	0.418		0.39	0.446	
PDQ3.2	5.74	1.754	0.914	0.393		0.364	0.435	0.753
PDQ3.3	5.394	1.842	0.85	0.342		0.313	0.378	
Entertainment and Recreation								
PDQ4.1	6.634	1.411	0.89	0.349		0.316	0.375	
PDQ4.2	6.446	1.34	0.922	0.412		0.38	0.455	0.761
PDQ4.3	5.94	1.693	0.8	0.387		0.357	0.411	
General Environment								
PDQ5.1	5.351	1.862	0.851	0.408		0.381	0.441	0.813
PDQ5.2	6.289	1.491	0.95	0.687		0.655	0.714	

Accessibility								
PDQ6.1	6.217	1.511	0.864	0.429		0.39	0.467	
PDQ6.2	5.506	1.671	0.825	0.357		0.324	0.394	0.716
PDQ6.3	6.257	1.387	0.848	0.394		0.358	0.433	
2nd Order Components								
Perceived Destination Quality								
1. Natural and well-known attractions (PDQ1)					0.19	0.181	0.2	
2. Variety of tourist services and culture (PDQ2)					0.203	0.192	0.214	
3. Quality of general tourist atmosphere (PDQ3)					0.201	0.192	0.213	
4. Entertainment and recreation (PDQ4)					0.209	0.199	0.218	
5. General environment (PDQ5)					0.19	0.183	0.202	
6. Accessibility (PDQ6)					0.192	0.176	0.205	

Results of the Analysis of the Structural Model and Hypothesis Testing

The model had satisfactory fit indices. Overall, the model explained 75.4% of all variation as indicated by FIT = 0.754. In addition, variation within the measurement models was explained by around 75.4% of their respective indicators (FITm = 0.754), while the model was structurally explained by 75.3% of all variables (FITs = 0.753). The analysis result for the model fit indices yielded a standardized root mean square residual value (SRMR) of 0.083. This investigation shows that the measurement model has a good model fit. The investigation of the structural path coefficients shown in Figure 2, indicates that the results support the ten hypotheses. In the additional investigation, natural and well-known attractions yielded values of β (Reflective) = 0.812, and β (Formative) = 0.19; the variety of tourist services and culture yielded values of β (Reflective) = 0.867, and β (Formative) = 0.203; the quality of the general tourist atmosphere yielded values of β (Reflective) = 0.857, and β (Formative) = 0.201; entertainment and recreation yielded values of β (Reflective) = 0.891, and β (Formative) = 0.209; the general environment yielded values of β (Reflective) = 0.811, and β (Formative) = 0.19; and accessibility yielded values of β (Reflective) = 0.821, and β (Formative) = 0.192.

Natural and well-known attractions (PDQ1) can predict 66% ($R^2 = 0.66$) of the variation in perceived destination quality, while the variety of tourist services and culture (PDQ2) can predict 75.2% ($R^2 = 0.752$) of the variation in perceived destination quality, the quality of the general tourist atmosphere (PDQ3) can predict 73.4% ($R^2 = 0.734$) of the variation, entertainment and recreation (PDQ4) can predict 79.4% ($R^2 = 0.794$) of the variation, the general environment (PDQ5) can predict 65.8% ($R^2 = 0.658$) of the variation, and accessibility (PDQ6) can predict 67.4% ($R^2 = 0.674$) of the variation in perceived destination quality.

Path Coefficients

Table 4 and Figure 2 present the results of the path coefficients and 95% confidence intervals for the structural equation model. The research findings indicate that the path coefficients are statistically significant for the paths of the model's relationships.

Natural and well-known attractions (PDQ1) has a positive influence on perceived destination quality (PDQ) (β (Formative) = 0.19, 95% CI = 0.181 - 0.2, SE = 0.005); in the same way, perceived destination quality (PDQ) has a positive influence on natural and well-known attractions (PDQ1) (β (Reflective) = 0.812, 95% CI = 0.749 - 0.861, SE = 0.033), both supporting hypothesis 1 (H1) and hypothesis 7 (H7).

The variety of tourist services and culture (PDQ2) has a positive influence on perceived destination quality (PDQ) (β (Formative) = 0.203, 95% CI = 0.192 - 0.214, SE = 0.005), while perceived destination quality (PDQ) also has a positive influence on the variety of tourist services and culture (PDQ2) (β (Reflective) = 0.867, 95% CI = 0.819 - 0.909, SE = 0.023), both supporting hypothesis 2 (H2) and hypothesis 8 (H8).

In addition, the quality of the general tourist atmosphere (PDQ3) has a positive influence on perceived destination quality (PDQ) (β (Formative) = 0.201, 95% CI = 0.192 - 0.213, SE = 0.006), while perceived destination quality (PDQ) also has a positive influence on the quality of the general tourist atmosphere (PDQ3) (β (Reflective) = 0.857, 95% CI = 0.831 - 0.886, SE = 0.014), both supporting hypothesis 3 (H3) and hypothesis 9 (H9).

Additionally, entertainment and recreation (PDQ4) has a positive influence on perceived destination quality (PDQ) (β (Formative) = 0.209, 95% CI = 0.199 - 0.218, SE = 0.005), and perceived destination quality (PDQ) has a positive influence on entertainment and recreation (PDQ4) (β (Reflective) = 0.891, 95% CI = 0.85 - 0.919, SE = 0.019), both supporting hypothesis 4 (H4) and hypothesis 10 (H10).

Moreover, the general environment (PDQ5) has a positive influence on perceived destination quality (PDQ) (β (Formative) = 0.19, 95% CI = 0.183 - 0.202, SE = 0.005), while perceived destination quality (PDQ) also has a positive influence on the general environment (PDQ5) (β (Reflective) = 0.811, 95% CI = 0.758 - 0.854, SE = 0.024), both supporting hypothesis 5 (H5) and hypothesis 11 (H11).

Furthermore, accessibility (PDQ6) has a positive influence on perceived destination quality (PDQ) (β (Formative) = 0.192, 95% CI = 0.176 - 0.205, SE = 0.007); in the same way, perceived destination quality (PDQ) has a positive influence on accessibility (PDQ6) (β (Reflective) = 0.821, 95% CI = 0.757 - 0.859, SE = 0.026), both supporting hypothesis 6 (H6) and hypothesis 12 (H12).

Figure 2 The Results of Hypothesis Testing Using GSCA

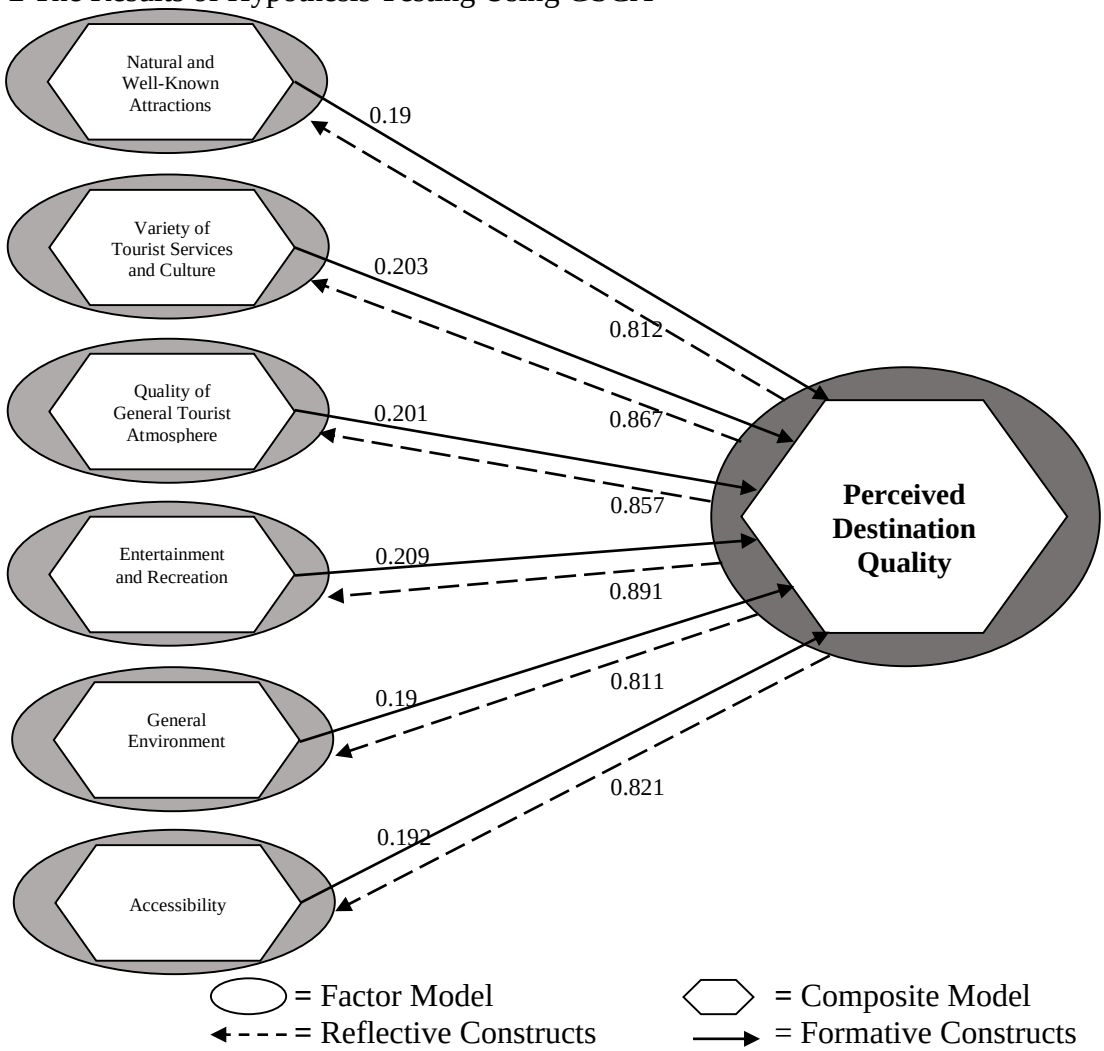


Table 4 The Results of Hypothesis Testing Based on GSCA

		Estimate	SE	95%CI		Results
H1	PDQ1→PDQ	0.19	0.005	0.181	0.2	Supported
H2	PDQ2→PDQ	0.203	0.005	0.192	0.214	Supported
H3	PDQ3→PDQ	0.201	0.006	0.192	0.213	Supported
H4	PDQ4→PDQ	0.209	0.005	0.199	0.218	Supported
H5	PDQ5→PDQ	0.19	0.005	0.183	0.202	Supported
H6	PDQ6→PDQ	0.192	0.007	0.176	0.205	Supported
H7	PDQ→PDQ1	0.812	0.033	0.749	0.861	Supported
H8	PDQ→PDQ2	0.867	0.023	0.819	0.909	Supported
H9	PDQ→PDQ3	0.857	0.014	0.831	0.886	Supported
H10	PDQ→PDQ4	0.891	0.019	0.85	0.919	Supported
H11	PDQ→PDQ5	0.811	0.024	0.758	0.854	Supported
H12	PDQ→PDQ6	0.821	0.026	0.757	0.859	Supported

5. DISCUSSION

This study aimed to develop a set of perceived destination quality (PDQ) variables that reflect the relationships between influencing variables, which can be useful for reference and future research. To do this, the confirmatory components of the factors were examined in reflective and formative terms.

In accordance to the study's findings and the literature evaluation, perceived destination quality (PDQ) was constructed from the following six significant component parts: natural and well-known attractions, the variety of tourist services and culture, the quality of the general tourist atmosphere, entertainment and recreation, the general environment, and accessibility. In addition, when considering each element separately, it was discovered that natural and well-known attractions had 5 components 5 items, consisting of 1) Thailand has spectacular scenery; 2) Thailand has spectacular natural attractions; 3) Thailand is a country with many well-known tourist sites; 4) Thailand has magnificent sunny beaches; and 5) Thailand has fascinating native animals and vegetation (Cardenas-Garcia et al., 2016; Gamez et al., 2019; Hallak et al., 2018; Hanafiah et al., 2019; Lyu et al., 2017; Ma et al., 2018; Ozturk & Gogtas, 2016; Sanz-Blas & Buzova, 2016; Sanz-Blas et al., 2017, 2019; Toudert & Bringas-Rabago, 2016; Wang et al., 2016; Whyte, 2017; Zhang et al., 2018).

The variety of tourist services and culture construct was formed from 7 items including 1) Thailand offers a variety of foods for travelers; 2) Thailand provides convenience in receiving food services; 3) Thailand offers souvenirs and duty-free goods for travelers; 4) Thailand provides convenience in receiving services from souvenir shops; 5) Thailand has wonderful historical sites and excellent museums/art galleries; 6) Thailand provides convenience in receiving services from historical sites/museums/art galleries; and 7) Thailand has a unique Thai culture (Cardenas-Garcia et al., 2016; Castillo-Manzano et al., 2015; Hallak et al., 2018; Muskat et al., 2019; Ozturk & Gogtas, 2016; Whyte, 2017; Zhang et al., 2018).

Meanwhile, the quality of the general tourist atmosphere construct comprised of 3 items, 1) Thailand's service staff are qualified, helpful, and friendly; 2) Thailand is a safe destination for travelers; and 3) The environment in Thailand is exceptionally clean (Ali et al., 2018; Cardenas-Garcia et al., 2016; Forgas-Coll et al., 2015; Hallak et al., 2018; Hanafiah et al., 2019; Lyu et al., 2017; Muskat et al., 2019; Mustelier-Puig et al., 2018; Ozturk & Gogtas, 2016; Sanz-Blas & Buzova, 2016; Sanz-Blas et al., 2017, 2019; Toudert & Bringas-Rabago, 2016; Whyte, 2017; Wu et al., 2018; Ye et al., 2019).

In addition, the entertainment and recreation construct was made up of 1) Thailand has

a variety of entertainment/nightlife activities for travelers; 2) Thailand offers many opportunities for sports and adventurous activities; and 3) Thailand has good tourism infrastructure facilities, such as restaurants, and public toilets (Cardenas-Garcia et al., 2016; Castillo-Manzano et al., 2015; Hallak et al., 2018; Oviedo-Garcia et al., 2019; Ozturk & Gogtas, 2016; Sanz-Blas & Buzova, 2016; Sanz-Blas et al., 2017, 2019; Toudert & Bringas-Rabago, 2016; Wang et al., 2016; Whyte, 2017; Zhang et al., 2018).

Meanwhile, the general environment construct comprised of 2 items, 1) Thailand's climate is good; and 2) Thailand is a good place for rest and relaxation (Ali et al., 2018; Cardenas-Garcia et al., 2016; Castillo-Manzano et al., 2015; Hallak et al., 2018; Lyu et al., 2017; Muskat et al., 2019; Sanz-Blas & Buzova, 2016; Sanz-Blas et al., 2019; Toudert & Bringas-Rabago, 2016; Wang et al., 2016; Whyte, 2017; Wu et al., 2018).

Furthermore, accessibility was set to include 3 items, consisting of 1) Thailand is a value for money destination; 2) Communication is not a serious problem for non-English speaking tourists; and 3) Thailand has easy access, such as through transport routes, seasonal weather variation, and the simplicity of the VISA application process (Cardenas-Garcia et al., 2016; Hallak et al., 2018; Lyu et al., 2017; Ma et al., 2018; Mustelier-Puig et al., 2018; Ozturk & Gogtas, 2016; Wang et al., 2016; Whyte, 2017; Wu et al., 2018).

Accordingly, through the 23 observed variables used in this empirical testing and research, it was feasible to corroborate the components of the Perceived Destination Quality (PDQ) latent construct. Additionally, these components may be categorized into 6 latent construct categories as first-order constructs consisting of (1) Natural and well-known attractions (2) Variety of tourist services and culture (3) Quality of the general tourist atmosphere (4) Entertainment and recreation (5) General environment (6) Accessibility, which include significant reflective and formative constructs that were representative of Perceived Destination Quality (PDQ).

6. CONCLUSION

Theoretical Implications

This research confirms the aspects that constitute a great cruise destination based on the perceptions of cruise passengers. The research investigation led to the identification of new variables and included the same aspects that have been previously studied. In order to produce a more conceptually thorough knowledge, this research is helpful in filling in the gaps left by previous studies. Meanwhile, researchers may use these sets of characteristics in combination with other elements in subsequent studies.

Additionally, it is essential to update the variables to be more comprehensive and reflective in order to keep the theoretical applications interesting and applicable today. In the same way as data analytic tools may, the GSCA program can be used to concurrently discover influences, routes, and linkages in both formative and reflective perspectives. Consequently, the error value may be reduced. This model and its concepts might develop further on this paradigm in the future.

Managerial Implications

Analysis of the elements employed in this research can help managers understand the important factors that cruise passengers evaluate when selecting a cruise destination. The expertise gained can be useful to executives and tourism managers of cruise ships and port destinations to effectively and successfully develop and design services for passengers in this category. A review of passenger perspectives and service touchpoints was also part of the investigation. Policies to promote cruise tourism in the destination region can also be designed using the study's findings as a reference.

The results of the study could also be used to determine the level of importance needed to develop Thailand as a cruise destination and possibly serve as a model for other cruise destinations regarding which aspects should be developed first or last to optimize benefits and minimize costs.

Limitations and Future Research

The main focus of this survey was on respondents who utilize Thai cruise destinations and are members of Generation Z and Y (18–40 years old). Future research should thus concentrate on a sample of individuals over 40 or cruise passengers from other countries. By doing so, it will be feasible to compare and analyze customer behavior regarding cruise destinations and port services from a demographic and geographic standpoint, ensuring that no one age group is overrepresented in the results.

Additionally, the data for this study were gathered through a quantitative survey technique. It is suggested that qualitative data collection methods be employed in subsequent studies to supplement and improve the research findings. Using an EDFR (Ethnographic Delphi Futures Research) qualitative analysis (Rungroueng, 2016; Rungroueng, Chanthothai, & Namzuy, 2016), for example, one may investigate the data using mixed methods research, which combines quantitative and qualitative research (Rungroueng & Charoenbut, 2019). Creating effective and suitable service procedures may be facilitated by further research on the connections between customer pleasure and perceived cruise destination quality, among other pertinent topics.

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