



Universiteit
Leiden

The Netherlands

Cruise control: steering through the waves of customer satisfaction across cruise market segments

Demydyuk, G.; Carlbäck, M.

Citation

Demydyuk, G., & Carlbäck, M. (2024). Cruise control: steering through the waves of customer satisfaction across cruise market segments. *Gastronomy And Tourism*, 8(3), 153-169. doi:10.3727/216929824X17207924097162

Version: Publisher's Version

License: [Creative Commons CC BY-NC-ND 4.0 license](https://creativecommons.org/licenses/by-nc-nd/4.0/)

Downloaded from: <https://hdl.handle.net/1887/4212638>

Note: To cite this publication please use the final published version (if applicable).

Cruise Control: Steering Through the Waves of Customer Satisfaction Across Cruise Market Segments

Ganna V. Demydyuk*  and Mats Carlbäck† 

*Leiden Law School, Institute of Tax Law and Economics, Business Studies, Leiden, Netherlands

†School of Hospitality, Culinary Arts & Meal Science, Örebro University, Grythyttan, Sweden

This study investigates the intricate relationships between overall cruise rating and various experience attributes by leveraging a comprehensive dataset of consumer reviews from two major online platforms. The analysis revealed that the core elements of hospitality, particularly dining and service, are critical for overall cruise satisfaction, perceived value, and ship quality perceptions. A major finding of this study is the critical role of perceived value for money in shaping the satisfaction narratives expressed by cruise patrons in online reviews in all market segments. The originality of this study lies in its examination of various market segments and review samples, which illuminate the complex and multidimensional aspects of customer satisfaction. The results indicate that hospitality strategies should vary significantly across segments, further emphasizing the need for a nuanced approach because of the varied expectations across these markets. Furthermore, the study reveals a pattern suggesting that cost-cutting efforts, when involving food costs, result in lower satisfaction levels in dining and multiple categories, ultimately opposing potential savings. This insight emphasizes the need for cruise lines to balance cost-cutting measures carefully while maintaining high-quality dining experiences to enhance overall customer satisfaction. These findings underscore the importance of utilizing diverse review metrics to develop a multidimensional framework for customer-centric performance management across all hospitality sectors.

Key words: Cruise industry; Experience accounting (EA); Online reviews;
Customer satisfaction; Value for money; Cruise dining; Food and dining onboard;
Cruise market classification

Introduction

Customer experience has become increasingly vital across various business sectors, and the travel and tourism industry is no exception. The leisure cruise

sector presents a unique blend of hospitality, combining elements of hotels, restaurants, transportation, and entertainment, along with specialized offerings such as excursions, childcare, and onboard activities. The multifaceted nature of cruises provides an exceptional

Address correspondence to Mats Carlbäck, School of Hospitality, Culinary Arts & Meal Science, Örebro University, Campus Grythyttan, Box 1, 712 01 Grythyttan, Sweden. E-mail: Mats.Carlbäck@oru.se

platform for exploring and enhancing various customer experiences. As such, the cruise industry was leveraged as the foundation for this research.

The complexity and diversity of services offered on cruise ships create ample opportunities to delve deeper into the customer–experience world. However, capitalizing on these opportunities necessitates the continuous adaptation and fine-tuning of business models, strategies, and operational activities to meet the evolving expectations of customers. The increasing significance of the cruise industry has garnered substantial academic attention, as evidenced by numerous studies (N. Li, 2022; Manolitzas et al., 2022; Risitano et al., 2017).

At the heart of the cruising experience is service quality, where the efficiency and effectiveness of core hospitality services are critical for sustaining competitiveness. This focus on the experiential aspect of cruising has been emphasized in recent research (Demydyuk et al., 2024; Lallani, 2017; Radic et al., 2021). These studies underscore the importance of delivering exceptional service across various dimensions of cruise experience, from dining and accommodation to entertainment and onboard activities, all of which contribute to overall customer satisfaction and loyalty.

Crafting exceptional customer experiences in the cruise industry demands a fundamentally different approach than traditional product and service offerings (Kandampully, 2006; Pine & Gilmore, 2011). In experience-based sectors, customer-perceived value presents a unique opportunity for profitability (Carlbäck, 2010, 2022; Demydyuk & Carlbäck, 2024; McNair-Connolly et al., 2013). Hospitality and tourism companies can capitalize on this by aligning their operations with evolving market demands, as higher customer value directly correlates with increased profitability (Carlbäck, 2010, 2022; Demydyuk & Carlbäck, 2024; Liu et al., 2022; McNair-Connolly et al., 2013). Achieving a competitive edge in this experience-driven market requires a deep understanding of customer expectations, supported by reliable data and innovative analytical methods, allowing companies to focus their resources on activities that yield the highest returns (Ingenbleek, 2014; Kandampully, 2006; van der Rest & Roper, 2013).

In today's market, customers have elevated expectations for all aspects of service delivery, particularly cruise passengers, who often set even

higher standards (Kandampully, 2006; Reichheld et al., 2017). The hospitality elements of a cruise, such as food, beverages, service, and accommodation, are integral to the overall cruise experience (Castillo-Manzano & López-Valpuesta, 2018; Kwortnik, 2008; N. Li, 2022; Radic, 2018; Tao & Kim, 2019). These aspects are within the control of management, both in terms of daily operations and strategic planning for future cruises.

Therefore, this study seeks to explore the fundamental components of cruise customer experiences and prioritize them based on their impact on customer satisfaction and perceived value for money. The core of this research is a customer-centered management approach that not only aids in creating enriching experiences, but also enhances customer value and strengthens the competitive advantage of the business. Essentially, the study aims to “measure the unmeasurable,” a concept described by Normi and Panjaitan (2022) in their exploration of assessing attitudes towards intangible and often subjective values. Although these nonmonetary values add complexity to the measurement, interpretation, and analysis processes (Carlbäck, 2022), they are also critical for the formulation of effective business strategies. Failure to measure and understand these soft values, such as perceived customer value, experience, and satisfaction, can render business strategies ineffective and out of touch with the dynamics of this complex and rapidly evolving industry.

Literature Review

Within the travel and tourism landscape, the leisure cruise sector is a prime example of how creating memorable experiences can drive business success. However, capitalizing on this opportunity requires the continuous adaptation and fine-tuning of business models, strategies, and operational activities. As the significance of the cruise industry continues to grow, it has acquired substantial academic attention, with studies highlighting various aspects of the cruise experience (Kwortnik, 2008; Lallani, 2017; N. Li, 2022; Y. Li & Kwortnik, 2017; Pranić et al., 2013). The essence of cruising lies in the experience itself, where the quality and efficiency of core hospitality services become crucial to maintaining competitiveness—a perspective underscored by recent research (Demydyuk et al., 2024).

This study aims to examine the fundamental components of cruise customer experiences and prioritize them based on their impact on customer satisfaction and perceived value. The core of this research is a customer-centered management approach that not only aids in creating enriching experiences but also enhances customer value and strengthens the competitive advantage of the business. Specifically, this study draws inspiration from experience accounting (EA), a concept rooted in empirical assessments that align managerial performance systems with the creation of customer experiences (Andersson & Carlbäck, 2009; Carlbäck, 2010, 2022; Demydyuk et al., 2024; Radic et al., 2021). EA emphasizes the importance of measuring and understanding soft, often subjective values, such as perceived customer value and satisfaction, which are critical to business success, yet challenging to quantify (Carlback, 2022; Normi & Panjaitan, 2022).

However, any effort to refine and advance this process would require measurable, accessible, and relevant data. In practice, companies often lean towards offerings shaped by management, owners, or staff preferences rather than customer-driven insights (Wood, 2015). Armed with relevant customer data, companies can tailor their offerings and allocate limited resources to activities that yield the greatest positive impact on customers, thereby fostering a distinctive competitive advantage. The development of unique value-added features should be informed by the company's resources and competencies and guided by sophisticated managerial control insights (Ingenbleek, 2014; Liu et al., 2022).

Unfortunately, within the tourism and travel industry, many performance management systems lack crucial customer preferences and reaction data, constraining informed decision-making. This void underscores the pressing need for novel hospitality concepts and tools capable of measuring perceived value, guiding resource allocation, and integrating customer metrics into managerial control practices (Assaf & Magnini, 2012; Bonacchi & Perego, 2023; Carlbäck, 2010; McManus & Guilding, 2008; Nemeschansky et al., 2020; van der Rest et al., 2018). In the realm of the cruise sector, previous studies have explored online customer reviews and electronic word of mouth to understand cruisers' experiences and satisfaction (Aggett, 2011; Hosany & Witham, 2010; Kwortnik, 2008;

Radic, 2018; Zhang et al., 2015). Building on this foundation, this study focuses on elements within the control of service managers, aiming to establish a customer-centered managerial control system tailored to the cruise industry, integrating customer experiences and perceived values with relevant resource consumption and financial contributions.

In the perpetual quest for optimization, companies must carefully allocate resources to maximize returns, balancing cost minimization with the value perceived by customers (Ingenbleek, 2014; Liu et al., 2022; van der Rest & Roper, 2013). According to the resource advantage theory of competition (Hunt & Morgan, 1995), a strategic blend of low resource costs and high customer value provides a competitive advantage. Insights into which aspects of customer experience drive value creation can inform resource allocation strategies and amplify value-creation efforts (Carlback, 2010; Demydyuk & Carlbäck, 2024; Ingenbleek, 2014). This proposition echoes the philosophy of the EA concept, which aims to establish a benchmark for evaluating individual customer experience roles and aligning them with the resources consumed to achieve the desired performance levels (Andersson & Carlbäck, 2009; Demydyuk & Carlbäck, 2024; Ingenbleek, 2014).

Methodology

This study is based on a quantitative analysis aimed at identifying the key attributes of customer satisfaction, perceived value for money, and cruise ship quality. The analysis examines customer reviews from two major online platforms (<https://cruiseline.com> and <https://www.tripadvisor.com/>) focusing on various experience categories and overall cruise satisfaction. The data span from 2001 to the beginning of 2020, a period selected to explore the development patterns of the cruise industry before the pandemic and during a significant phase of modern cruise evolution. (Data include reviews for the cruises in the first months on 2020 for the cruises that were not interrupted or cancelled due to cruising suspension by Centers for Disease Control and Prevention, USA.) Through this analysis, we model the relationships between specific attributes, extract indicators of service quality, and explore how this information can elucidate variations in overall customer satisfaction (Busacca & Padula, 2005; Matzler et al., 2004).

The analysis considers various cruise markets (mainstream, premium, luxury and ultraluxury), type of travel, such as size of the travel party (solo, couple, family with children, big group, or multigeneration family), and the moderating effect of price proxied by cabin category. The sample is narrowed down to cruise lines that belong to the three largest operators, which cover 85% of the worldwide cruise market: Carnival Corporation (NYSE: CCL), Royal Caribbean Group (RCL), and Norwegian Cruise Line Holdings (NCLH) (<https://www.statista.com/forecasts/1258067/market-share-cruises-worldwide>). As these are public companies, their financial performance is accessible and can be connected to customer satisfaction ratings in the main analysis. All financial and operating information was obtained from the 10-K SEC filings in the EDGAR SEC database. Data for CCL and RCL were available for 2001–2019, while data for NCLH covered

only 2013–2019. The analysis of these reports contains a brief overview of key financial performance indicators, including self-computed per-passenger and passenger-day metrics, such as average ticket price, onboard revenue, cost of food.

To access customer satisfaction data, customer cruise reviews written in English were collected from two internet portals: <https://cruiseline.com> and <https://www.tripadvisor.com/>. A web crawler written in the PHP language 7.4 was used to download the reviews. The review data consisted of user criteria and cruise experience categories for rating and commenting on. The ratings ranged from 1 (lowest) to 5 (highest), or no rating. All data consistently contained the date of review, cabin type, and name of the ship; therefore, it was possible to assign a review to a cruise line and corporation. The clean-up included deleting duplicate reviews, ships that did not belong to one of the three corporations,

Table 1

Descriptive Statistics and Review Categories and Data From the Two Portals

	<i>N</i>	Minimum	Maximum	Mean	Standard Deviation
Cruiseline.com					
Overall rating	159,515	1	5	4.00	1.051
Cabin rating	133,581	1	5	4.31	1.103
Dining rating	135,797	1	5	4.07	1.251
Entertainment rating	131,541	1	5	4.02	1.239
Onboard activities	96,779	1	5	3.97	1.200
Ship quality rating	133,921	1	5	4.29	1.108
Service rating	135,594	1	5	4.47	1.058
Children programs	34,828	1	5	3.86	1.318
Sail date	159,515	04/02/01	29/02/20	04/07/15	1349 02:57:10.770
Cruise length	124,719	1	180	7.47	3.523
Traveler type (group)	143,814	1	5	2.55	1.166
Reviewer experience (Cruises taken)	143,461	1	4	2.75	1.118
Cabin type	136,577	1	4	2.37	0.967
Valid <i>N</i> (listwise)	21,483				
TripAdvisor					
Overall rating	9,541	1	5	3.88	1.280
Cabin rating	6,871	1	5	4.24	0.999
Dining rating	6,887	1	5	4.05	1.131
Entertainment	6,749	1	5	3.89	1.167
Onboard activities	6,728	1	5	3.78	1.158
Value for money	6,841	1	5	3.82	1.240
Service rating	6,878	1	5	4.30	1.099
Pools and sundecks	6,654	1	5	3.89	1.069
Sail date	4,374	03/04/15	12/03/20	09/23/19	195 22:42:35.041
Traveler type (group)	5,339	1	4	2.35	1.075
Cabin type	9,474	1	4	2.64	0.924
Valid <i>N</i> (listwise)	1,050				

Note. Traveler type (group): 1 = Solo; 2 = Couple; 3 = Family (young kids) or F (older kids); 4 = Family (multigenerational) or Friends; 5 = Large group. Cabin type: 1 = Inside; 2 = Ocean view; 3 = Balcony; 4 = Suite. Reviewer experience: 1 = 1st cruise; 2 = 2–3 cruises; 3 = 4–7 cruises; 4 = 7+ cruises.

Table 2

Descriptive Statistics: Average Satisfaction Ratings by Category and Corporation

	Whole Sample					CCL		RCL		NCLH	
	<i>N</i>	Min	Max	Mean	<i>SD</i>	<i>N</i>	Mean	<i>N</i>	Mean	<i>N</i>	Mean
Cruiseline.com											
OVERALL_RATING	159,515	1	5	4.00	1.051	76,092	3.99	50,671	4.15	32,752	3.78
CABIN	133,581	1	5	4.31	1.103	62,656	4.33	42,898	4.44	28,027	4.09
DINING	135,797	1	5	4.07	1.251	63,559	4.04	43,607	4.22	28,631	3.89
ENTERTAINMENT	131,541	1	5	4.02	1.239	61,537	3.96	42,295	4.15	27,709	3.95
ONBOARD_ACTIVITIES	96,779	1	5	3.97	1.200	44,385	3.97	32,034	4.11	20,360	3.77
SHIP_QUALITY	133,921	1	5	4.29	1.108	62,700	4.22	43,055	4.49	28,166	4.16
SERVICE	135,594	1	5	4.47	1.058	63,484	4.47	43,512	4.61	28,598	4.24
CHILDREN_PROGRAMS	34,828	1	5	3.86	1.318	17,061	3.88	10,342	3.92	7,425	3.70
Valid <i>N</i> (listwise)	25,376					12,191		7,850		5,335	
TripAdvisor											
OVERALL_RATING	9,541	1	5	3.88	1.280	3,600	3.88	3,560	4.05	2,381	3.64
CABIN	6,871	1	5	4.24	0.999	2,565	4.26	2,569	4.33	1,737	4.09
DINING	6,887	1	5	4.05	1.131	2,573	4.00	2,573	4.21	1,741	3.89
ENTERTAINMENT	6,749	1	5	3.89	1.167	2,524	3.85	2,524	4.00	1,701	3.79
ONBOARD_ACTIVITIES	6,728	1	5	3.78	1.158	2,515	3.75	2,528	3.94	1,685	3.59
POOLS_AND_SUNDECKS	6,654	1	5	3.89	1.069	2,478	3.87	2,504	4.05	1,672	3.65
SERVICE	6,878	1	5	4.30	1.099	2,565	4.31	2,568	4.44	1,745	4.09
VALUE_FOR_MONEY	6,841	1	5	3.82	1.240	2,550	3.82	2,560	3.97	1,731	3.58
Valid <i>N</i> (listwise)	2,587					944		1,020		623	

and reviews without a date or an overall rating. The variables and number of observations used in the analysis are summarized in Table 1. Because the two datasets contain different attributes, they were tested separately. To reflect different levels of customer expectations, the samples were split into three parts by cruise line market: 1) mainstream, 2) premium, and 3) luxury and ultraluxury.

A summary of the descriptive statistics for the variables used in the analysis is presented in Table 1, which provides a comprehensive overview of the sample size, variables, and mean ratings across different categories. Further, Table 2 summarizes the satisfaction ratings in different categories for the three corporations and illustrates the discussion provided for the analysis of corporate performance. These tables form a foundation for understanding the distribution and characteristics of the data and serve as crucial reference points for subsequent analyses. By offering insight into the central tendencies and variations within the dataset, Tables 1 and 2 help contextualize the relationships explored later in the study.

All stages of analysis were performed using SPSS Statistics 28 software. The main analysis

consisted of two parts preceded by correlation analysis intended to prevent multicollinearity issues. In the first part, a series of linear regressions were run to identify the relationship between different review categories and the overall cruise rating separately for each dataset and market segment, following the basic regression formula:

$$Y = \beta_0 + \beta_1 X_1 + \dots + \beta_n X_n + \epsilon \quad (1)$$

where Y is the overall satisfaction rating (OVERALL), and the X_1 – X_n are the experience categories CABIN, DINING, SERVICE, ENTERTAIN, ONBOARD, VALUE, and SHIP QUAL. While this approach poses certain measurement limitations (Matzler et al., 2004), it gives a pretty good first idea about the importance range of single experience attributes (Table 3).

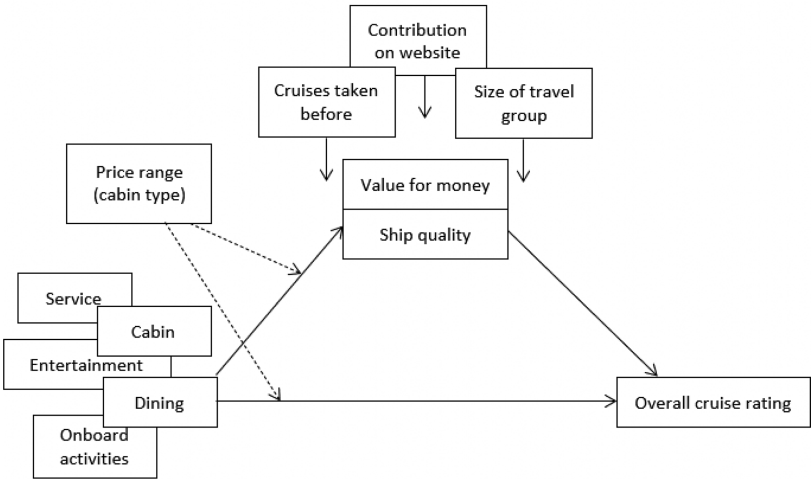
The second major part of the analysis consisted of a regression-based analysis of moderated mediation (Hayes, 2022) following the Model 8 template (Fig. 1) and using the PROCESS macro for SPSS 4.0 (Hayes, 2022). The model measures direct, indirect, and moderating effects as follows:

Conditional indirect effect of X on Y
though $M_i = (a_{1i} + a_{3i}W) b_i$ (2)
Conditional direct effect of X on $Y = c_1' + c_3'W$

PROCESS 4.0 uses bootstrapping to assess the direct and indirect effects of variables, as well as to

optimize data for the analysis. To judge the significance of the indirect effect, PROCESS 4.2 uses 95% bootstrap confidence intervals constructed using 5,000 bootstrap samples (Hayes, 2022). The indirect effect represents the impact of the mediator variable on the original relationship (i.e., the relationship between

Conceptual diagram



Statistical diagram

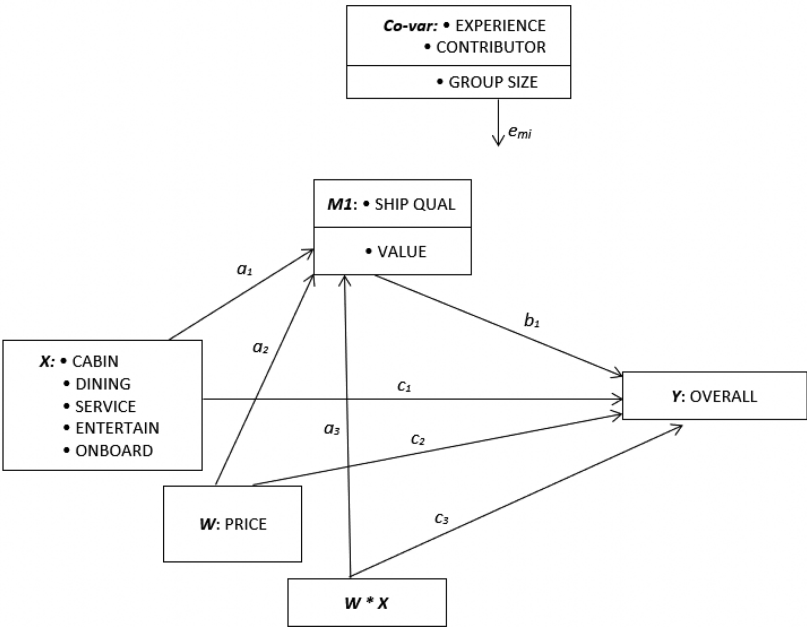


Figure 1. Regression-based moderated mediation analysis. Model 8 template (Hayes, 2022).

independent and outcome variables). In moderation analyses, the predictors were centered and unstandardized coefficients were reported (Hayes, 2022).

Specifically, based on data from *cruiseline.com*, ratings in various categories were used as independent variables (X) to test their direct and indirect effects on overall cruise rating (dependent variable Y) through the perception of ship quality by cruise guests (mediator M_1). This model also contains cabin type as a proxy for the price paid for the ticket as a moderator (W) to address distinct experiences in different cabin classes for two main reasons. First, expectations vary in relation to the amount invested in cruise booking (Abrate et al., 2021). Second, higher class cabins (suites) usually receive extras during the cruise, including a dedicated dining and sundeck area, butler and/or concierge, priority boarding in ports, and other perks, while cheap inside cabins might come with price fences, where both can strongly interact with the cruise experience. Thus, we analyze the moderating effect of W on the first-stage mediation (path a_1), which is the effect of experience category (X) on ship quality perception (M_1), as well as the moderating effect of W on the direct relationship X – Y (path c_1), which is the effect of experience category on overall cruise satisfaction.

A similar analysis was performed with the TripAdvisor data, where the mediator variable “perception of ship quality” was replaced with the “value for money” ($M1 = \text{VALUE}$). Both models also control for travel type (e.g., family, couple, etc.) as a proxy for group size, previous experience in cruising (*cruiseline.com*), and number of contributions on the website (*tripadvisor.com*).

Findings

Attributes of Customer Satisfaction, Value for Money, and Ship Quality

Multivariate Regression Analysis. Table 3 presents the results of the linear regression analysis performed on both the datasets. A critical takeaway from this analysis is that value for money (VALUE) emerged as the most significant predictor of positive cruise ratings across all market segments from mainstream to luxury and ultraluxury. The highest coefficient for this predictor was observed in the mainstream cruise segment (0.379), which

underscores the pivotal role of perceived economic value in influencing overall customer satisfaction. This finding is particularly important in the context of a highly competitive industry, where customers weigh their experiences against the cost of the service, expecting a high return on investment.

In the model where VALUE was the dependent variable, the analysis further revealed that within the mainstream sector, all rating criteria—CABIN (0.212), DINING (0.203), onboard activities (ONBOARD) (0.200), and SERVICE (0.220)—contributed similarly to perceived VALUE. This balanced contribution suggests that customers do not prioritize one aspect over others but rather evaluate the entire package of services when assessing value. The strong explanatory power of these models, as indicated by R^2 values exceeding 0.70, demonstrates that a substantial portion of the variance in overall ratings can be explained by these subratings, confirming the interconnected nature of customer experience elements.

Furthermore, the model using ship quality (SHIP QUAL) as the dependent variable revealed that CABIN, DINING, ONBOARD, and SERVICE had the highest coefficients across all market segments, with R^2 values surpassing 0.40. This finding indicates that these factors are crucial drivers of perceived SHIP QUAL, which is a key component of the overall cruise experience (OVERALL). The emphasis on ship quality highlights the importance of maintaining high standards in these areas as they are directly linked to the customer’s overall perception of the cruise experience.

Moderated Mediation: Direct and Mediating Effects. Tables 4, 5, and 6 present the results of the mediation path analyses separately for each cruise market. In the first-stage mediation (path a_1), CABIN, DINING, SERVICE, and ONBOARD were found to have significant direct effects on both VALUE (R^2 above 0.40) and SHIP QUAL (R^2 above 0.23) across all models.

In the second-stage mediation (path b_1), VALUE emerged as the strongest direct predictor of OVERALL cruise ratings across all market segments, with the highest coefficients observed in the mainstream and luxury segments, which is consistent with the first series of tests. This reinforces the idea

Table 3

Results of Linear Regression, by Different Categories and Market Segments

	Mainstream			Premium			Lux & Ultra		
	Unstand. B	Stand. Beta	<i>t</i>	Unstand. B	Stand. Beta	<i>t</i>	Unstand. B	Stand. Beta	<i>t</i>
Dependent variable: OVERALL cruise rating (TripAdvisor)									
Constant	-0.545***		-11.033	-0.413***		-5.078	-0.369*		-2.277
CABIN	0.167***	0.139	14.238	0.181***	0.148	10.375	0.131***	0.108	3.685
DINING	0.167***	0.159	14.198	0.187***	0.181	10.568	0.171***	0.141	4.316
ENTERTAIN	0.027*	0.026	2.142	0.051**	0.053	3.002	-0.005	-0.005	-0.173
ONBOARD	0.130***	0.123	8.796	0.090***	0.093	4.604	0.128**	0.124	3.388
POOLS	0.077***	0.070	6.255	0.080***	0.069	4.255	0.056	0.045	1.441
SERVICE	0.161***	0.150	13.616	0.162***	0.143	8.747	0.274***	0.222	7.004
PRICE	0.013	0.010	1.280	0.021	0.016	1.478	-0.053*	-0.035	-1.708
VALUE	0.379***	0.386	28.289	0.336***	0.360	17.542	0.370***	0.391	10.389
Dependent variable: VALUE for money (TripAdvisor)									
Constant	-0.664***		-11.278	-0.930***		-9.878	-1.278***		-6.765
CABIN	0.212***	0.173	15.424	0.173***	0.132	8.519	0.264***	0.206	6.336
DINING	0.203***	0.190	14.617	0.252***	0.227	12.483	0.173***	0.136	3.654
ENTERTAIN	0.129***	0.121	8.480	0.169***	0.165	8.542	0.126**	0.118	3.305
ONBOARD	0.200***	0.186	11.380	0.209***	0.202	9.242	0.283***	0.259	6.398
POOLS	0.186***	0.168	12.809	0.128***	0.102	5.751	0.114*	0.088	2.455
SERVICE	0.220***	0.202	15.950	0.268***	0.221	12.691	0.293***	0.226	6.401
PRICE	-0.052***	-0.039	-4.419	-0.045*	-0.032	-2.592	-0.025	-0.016	-0.668
Dependent variable: OVERALL cruise rating (Cruiseline.com)									
Constant	0.370***		14.321	0.571***		10.176	0.508		1.516
CABIN	0.101***	0.118	28.612	0.114***	0.138	15.171	0.083*	0.102	2.232
DINING	0.222***	0.269	59.813	0.222***	0.280	28.521	0.254***	0.274	5.210
ENTERTAIN	0.069***	0.091	20.995	0.056***	0.088	9.677	0.063**	0.112	2.673
ONBOARD	0.168***	0.206	43.116	0.151***	0.210	21.461	0.162***	0.220	4.701
SHIP	0.163***	0.179	38.778	0.165***	0.180	18.291	0.099*	0.100	2.000
SERVICE	0.179***	0.188	43.607	0.165***	0.172	17.979	0.246***	0.213	4.280
CHILDREN	-0.035***	-0.075	-20.551	-0.034***	-0.073	-9.123	-0.044*	-0.067	-1.729
PRICE	0.003*	0.007	2.058	0.004**	0.024	3.038	-0.003	-0.029	-0.741
Dependent variable: Perceived SHIP QUAL (Cruiseline.com)									
Constant	0.706***		24.211	1.266***		20.367	1.150***		3.801
CABIN	0.237***	0.251	53.126	0.236***	0.262	24.295	0.252***	0.304	6.444
DINING	0.179***	0.198	37.484	0.169***	0.196	16.516	0.193***	0.206	3.637
ENTERTAIN	0.073***	0.088	16.957	0.036***	0.052	4.627	-0.009	-0.016	-0.342
ONBOARD	0.179***	0.200	35.455	0.119***	0.152	12.783	0.123**	0.165	3.266
SERVICE	0.161***	0.154	30.236	0.198***	0.189	16.350	0.251***	0.214	4.031
CHILDREN	0.010***	0.019	4.525	0.002	0.004	0.411	-0.009	-0.013	-0.308
LENGTH	0.013***	0.026	6.095	-0.006**	-0.033	-3.402	-0.007	-0.054	-1.301
PRICE	0.002	0.002	0.421	-0.011	-0.010	-1.062	-0.019	-0.016	-0.366

*Coefficient is significant at the 0.10 level; **significant at the 0.05 level; ***significant at the 0.01 level.

that customers in these segments are particularly sensitive to the cost–benefit ratio of their cruise experience. SHIP QUAL demonstrated similar patterns, with coefficients slightly lower than those for VALUE, which is also in agreement with the first series of tests. However, these factors had comparatively lower effect coefficients on the overall satisfaction ratings, where VALUE maintained the highest influence. This pattern suggests that while individual aspects of the cruise experience

are important, overall perceived value remains the most critical determinant of customer satisfaction.

The analysis also revealed that the control variables GROUP SIZE and previous cruising EXPERIENCE (path e_{mi}) have significant effects across all areas of cruise experience, particularly in the mainstream and premium sectors. The effects of EXPERIENCE on VALUE, SHIP QUAL, and OVERALL were consistently negative, meaning that more experienced cruisers were harder to satisfy. In the

Table 4

Results of Moderated Mediation, Main Effects: Mainstream Market

First-Stage Moderated Mediation Analysis						
Outcome variable: Ship Quality (M1)				Outcome variable: Value for Money (M1)		
Cruiseline				TripAdvisor		
Link	Predictor	Coeff.	Model Fit	Predictor	Coeff.	Model Fit
a_1	CABIN	0.4696****	$R^2: 0.3065$	CABIN	0.6610****	$R^2: 0.3872$
a_2	PRICE	-0.1819****	$N: 95,831$	PRICE	-0.2317*	$N: 1,677$
e_{mi}	GROUP SIZE	-0.0099***		GROUP SIZE	-0.0464*	
e_{mi}	EXPERIENCE	-0.0583****		CONTRIBUTOR	ns	
a_1	DINING	0.4529****	$R^2: 0.2621$	DINING	0.6784****	$R^2: 0.4651$
a_2	PRICE	0.0359***	$N: 97,499$	PRICE	ns	$N: 1,677$
e_{mi}	GROUP SIZE	0.0135****		GROUP SIZE	-0.0576**	
e_{mi}	EXPERIENCE	-0.0546****		CONTRIBUTOR	ns	
a_1	SERVICE	0.5237****	$R^2: 0.2458$	SERVICE	0.7387****	$R^2: 0.4744$
a_2	PRICE	0.0506***	$N: 97,349$	PRICE	ns	$N: 1,676$
e_{mi}	GROUP SIZE	ns		GROUP SIZE	-0.0596**	
e_{mi}	EXPERIENCE	-0.0574****		CONTRIBUTOR	ns	
a_1				ENTERTAIN	0.6601****	$R^2: 0.4386$
a_2				PRICE	ns	$N: 1,650$
e_{mi}				GROUP SIZE	-0.0596**	
e_{mi}				CONTRIBUTOR	ns	
a_1	ONBOARD	0.4639****	$R^2: 0.2632$	ONBOARD	0.7119****	$R^2: 0.5036$
a_2	PRICE	-0.0199****	$N: 68,991$	PRICE	ns	$N: 1,650$
e_{mi}	GROUP SIZE	ns		GROUP SIZE	-0.0752****	
e_{mi}	EXPERIENCE	-0.0473****		CONTRIBUTOR	ns	
Second-Stage Mediation Analysis						
Outcome variable – Overall Satisfaction (Y)				Outcome variable – Overall Satisfaction (Y)		
c_1	CABIN	0.2514****	$R^2: 0.4219$	CABIN	0.2147****	$R^2: 0.7375$
b_1	SHIP QUAL	0.4236****	$N: 95,831$	VALUE	0.6653****	$N: 1,677$
e_{mi}	GROUP SIZE	0.0099****		GROUP SIZE	0.0366**	
e_{mi}	EXPERIENCE	-0.0344****		CONTRIBUTOR	ns	
c_1	DINING	0.3468****	$R^2: 0.5093$	DINING	0.3736****	$R^2: 0.7414$
b_1	SHIP QUAL	0.3573****	$N: 97,499$	VALUE	0.6278****	$N: 1,677$
e_{mi}	GROUP SIZE	0.0087****		PRICE	0.1533**	
e_{mi}	EXPERIENCE	-0.0180****		GROUP SIZE	0.0303*	
c_1	SERVICE	0.3484****	$R^2: 0.4692$	SERVICE	0.3280****	$R^2: 0.7353$
b_1	SHIP QUAL	0.3970****	$N: 97,349$	VALUE	0.6388****	$N: 1,676$
e_{mi}	GROUP SIZE	0.0166****		GROUP SIZE	0.0292*	
e_{mi}	EXPERIENCE	-0.0228****		CONTRIBUTOR	ns	
c_1				ENTERTAIN	0.2067****	$R^2: 0.7231$
b_1				VALUE	0.6919****	$N: 1,650$
e_{mi}				GROUP SIZE	0.0322*	
e_{mi}				CONTRIBUTOR	ns	
c_1	ONBOARD	0.3565****	$R^2: 0.4917$	ONBOARD	0.2929****	$R^2: 0.7279$
b_1	SHIP QUAL	0.3517****	$N: 68,991$	VALUE	0.6359****	$N: 1,650$
e_{mi}	GROUP SIZE	ns		GROUP SIZE	0.0221*	
e_{mi}	EXPERIENCE	-0.0383****		CONTRIBUTOR	ns	

* $p > 0.01$; ** $p < 0.001$; *** $p > 0.0001$; **** $p < 0.0000$; ns – not significant.

Table 5

Results of Moderated Mediation, Main Effects: Premium Market

First-Stage Moderated Mediation Analysis						
Outcome Variable: Ship Quality (M1)				Outcome Variable: Value for Money (M1)		
Cruiseline				TripAdvisor		
Link	Predictor	Coeff.	R ²	Predictor	Coeff.	R ²
<i>a</i> ₁	CABIN	0.3935****	R ² : 0.3022	CABIN	0.3779**	R ² : 0.3224
<i>a</i> ₂	PRICE	−0.2457****	N: 23,810	PRICE	−0.6822****	N: 872
<i>e</i> _{mi}	GROUP SIZE	0.0521****		GROUP SIZE	−0.0746*	
<i>e</i> _{mi}	EXPERIENCE	−0.0529****		contributor	ns	
<i>a</i> ₁	DINING	0.4318****	R ² : 0.2343	DINING	0.6953****	R ² : 0.4642
<i>a</i> ₂	PRICE	0.0566*	N: 24,181	PRICE	ns	N: 874
<i>e</i> _{mi}	GROUP SIZE	−0.0132*		GROUP SIZE	−0.0523*	
<i>e</i> _{mi}	EXPERIENCE	−0.0554****		CONTRIBUTOR	ns	
<i>a</i> ₁	SERVICE	0.5075****	R ² : 0.2398	SERVICE	0.7300****	R ² : 0.3860
<i>a</i> ₂	PRICE	ns	N: 24,145	PRICE	ns	N: 869
<i>e</i> _{mi}	GROUP SIZE	ns		GROUP SIZE	−0.0745*	
<i>e</i> _{mi}	EXPERIENCE	−0.0633****		CONTRIBUTOR	ns	
<i>a</i> ₁				ENTERTAIN	0.6278****	R ² : 0.4629
<i>a</i> ₂				PRICE	ns	N: 851
<i>e</i> _{mi}				GROUP SIZE	−0.0650*	
<i>e</i> _{mi}				CONTRIBUTOR	ns	
<i>a</i> ₁	ONBOARD	0.3220****	R ² : 0.1958	ONBOARD	0.7075****	R ² : 0.3860
<i>a</i> ₂	PRICE	ns	N: 18,054	PRICE	ns	N: 846
<i>e</i> _{mi}	GROUP SIZE	−0.0190**		GROUP SIZE	ns	
<i>e</i> _{mi}	EXPERIENCE	−0.0534****		CONTRIBUTOR	ns	
Second-Stage Mediation Analysis						
Outcome Variable: Overall Satisfaction (Y)				Outcome Variable: Overall Satisfaction (Y)		
<i>c</i> ₁	CABIN	0.2636****	R ² : 0.3834	CABIN	0.2733****	R ² : 0.6895
<i>b</i> ₁	SHIP QUAL	0.4012****	N: 23,810	VALUE	0.5972****	N: 872
<i>e</i> _{mi}	GROUP SIZE	ns		GROUP SIZE	ns	
<i>e</i> _{mi}	EXPERIENCE	−0.0240****		CONTRIBUTOR	ns	
<i>c</i> ₁	DINING	0.3765****	R ² : 0.4742	DINING	0.2650****	R ² : 0.6888
<i>b</i> ₁	SHIP QUAL	0.0430*	N: 24,181	VALUE	0.5480****	N: 874
<i>e</i> _{mi}	GROUP SIZE	0.3479****		PRICE	ns	
<i>e</i> _{mi}	EXPERIENCE	−0.0119**		GROUP SIZE	ns	
<i>c</i> ₁	SERVICE	0.3582****	R ² : 0.4267	SERVICE	0.2809****	R ² : 0.6938
<i>b</i> ₁	SHIP QUAL	0.3808****	N: 24,145	VALUE	0.5778****	N: 869
<i>e</i> _{mi}	GROUP SIZE	ns		GROUP SIZE	ns	
<i>e</i> _{mi}	EXPERIENCE	−0.0225****		CONTRIBUTOR	ns	
<i>c</i> ₁				ENTERTAIN	0.2048**	R ² : 0.6621
<i>b</i> ₁				VALUE	0.6583****	N: 851
<i>e</i> _{mi}				GROUP SIZE	ns	
<i>e</i> _{mi}				CONTRIBUTOR	ns	
<i>c</i> ₁	ONBOARD	0.3200****	R ² : 0.4705	ONBOARD	0.1549*	R ² : 0.6702
<i>b</i> ₁	SHIP QUAL	0.3646****	N: 18,054	VALUE	0.5998****	N: 846
<i>e</i> _{mi}	GROUP SIZE	ns		GROUP SIZE	ns	
<i>e</i> _{mi}	EXPERIENCE	−0.0228****		CONTRIBUTOR	ns	

p* > 0.01; *p* < 0.001; ****p* > 0.0001; *****p* < 0.0000; ns – not significant.

Table 6

Results of Moderated Mediation, Main Effects: Luxury and Ultraluxury Markets

First-Stage Moderated Mediation Analysis						
Outcome Variable: Ship Quality (M1)				Outcome Variable: Value for Money (M1)		
Cruiseline				TripAdvisor		
Link	Predictor	Coeff.	R ²	Predictor	Coeff.	R ²
<i>a</i> ₁	CABIN	0.2086*	R ² : 0.4096	CABIN	0.4451*	R ² : 0.4086
<i>a</i> ₂	PRICE	−0.7058****	N: 1,104	PRICE	−0.7105*	N: 236
<i>e</i> _{mi}	GROUP SIZE	ns		GROUP SIZE	ns	
<i>e</i> _{mi}	EXPERIENCE	ns		CONTRIBUTOR	ns	
<i>a</i> ₁	DINING	0.5396****	R ² : 0.2460	DINING	0.5515*	R ² : 0.4895
<i>a</i> ₂	PRICE	ns	N: 1,123	PRICE	ns	N: 237
<i>e</i> _{mi}	GROUP SIZE	ns		GROUP SIZE	ns	
<i>e</i> _{mi}	EXPERIENCE	−0.0448*		CONTRIBUTOR	ns	
<i>a</i> ₁	SERVICE	0.6088****	R ² : 0.2270	SERVICE	ns	R ² : 0.3860
<i>a</i> ₂	PRICE	ns	N: 1,122	PRICE	ns	N: 237
<i>e</i> _{mi}	GROUP SIZE	ns		GROUP SIZE	ns	
<i>e</i> _{mi}	EXPERIENCE	ns		CONTRIBUTOR	ns	
<i>a</i> ₁				ENTERTAIN	0.6968**	R ² : 0.3456
<i>a</i> ₂				PRICE	ns	N: 227
<i>e</i> _{mi}				GROUP SIZE	ns	
<i>e</i> _{mi}				CONTRIBUTOR	ns	
<i>a</i> ₁	ONBOARD	0.2421*	R ² : 0.2301	ONBOARD	0.7395****	R ² : 0.5416
<i>a</i> ₂	PRICE	ns	N: 921	PRICE	ns	N: 227
<i>e</i> _{mi}	GROUP SIZE	ns		GROUP SIZE	ns	
<i>e</i> _{mi}	EXPERIENCE	ns		CONTRIBUTOR	ns	
Second-Stage Mediation Analysis						
Outcome Variable: Overall Satisfaction (Y)				Outcome Variable: Overall Satisfaction (Y)		
<i>c</i> ₁	CABIN	0.2882**	R ² : 0.3623	CABIN	0.4616**	R ² : 0.7647
<i>b</i> ₁	SHIP QUAL	0.4484****	N: 1,104	VALUE	0.6651****	N: 236
<i>e</i> _{mi}	GROUP SIZE	ns		PRICE	ns	
<i>e</i> _{mi}	EXPERIENCE	ns		GROUP SIZE	ns	
<i>c</i> ₁	DINING	0.4733****	R ² : 0.4416	DINING	0.7220****	R ² : 0.7849
<i>b</i> ₁	SHIP QUAL	0.3831****	N: 1,123	VALUE	0.6018****	N: 237
<i>e</i> _{mi}	GROUP SIZE	ns		PRICE	0.6653**	
<i>e</i> _{mi}	EXPERIENCE	ns		GROUP SIZE	ns	
<i>c</i> ₁	SERVICE	0.3870**	R ² : 0.3965	SERVICE	ns	R ² : 0.7683
<i>b</i> ₁	SHIP QUAL	0.362****	N: 1,122	VALUE	0.6506****	N: 237
<i>e</i> _{mi}	GROUP SIZE	ns		PRICE	ns	
<i>e</i> _{mi}	EXPERIENCE	ns		GROUP SIZE	ns	
<i>c</i> ₁				ENTERTAIN	0.4577**	R ² : 0.7440
<i>b</i> ₁				VALUE	0.7627****	N: 227
<i>e</i> _{mi}				PRICE	ns	
<i>e</i> _{mi}				GROUP SIZE	ns	
<i>c</i> ₁	ONBOARD	0.1851*	R ² : 0.4477	ONBOARD	0.4387**	R ² : 0.7527
<i>b</i> ₁	SHIP QUAL	0.4452****	N: 921	VALUE	0.6803****	N: 227
<i>e</i> _{mi}	GROUP SIZE	ns		PRICE	0.4833**	
<i>e</i> _{mi}	EXPERIENCE	ns		GROUP SIZE	ns	

p* > 0.01; *p* < 0.001; ****p* > 0.0001; *****p* < 0.0000; ns – not significant.

luxury market, this negative effect of EXPERIENCE was observed exclusively in DINING. No effects were observed for the CONTRIBUTOR variable; meaning and cruise satisfaction were not very among active or passive website contributors. On the other hand, the effect of GROUP SIZE was not consistently significant for all attributes, and interestingly varied in sign (+/-) in mainstream and premium markets and was not significant in the luxury segment. The effects of GROUP SIZE also varied across the two samples. These findings suggest that customers who travel in larger groups or who have more cruising experience may have different expectations and perceptions, which in turn can influence their overall satisfaction. Understanding these dynamics is essential for cruise operators to tailor their offerings to different customer segments.

Moderated Mediation: Moderating Effect of Price (Cabin Category). The moderating effects of price as proxied by cabin category on path a_1 (X : performance attribute – $M1$: VALUE or SHIP QUAL) were significant for the categories CABIN, SERVICE, and ONBOARD, and were not consistent across markets (link a_3). Similar inconsistent effects were observed for CABIN, DINING, and ENTERTAIN on prime path c_1 (X : performance attribute – Y : OVERALL), link c_3 . These different effects are discussed below, together with the individual features of the different market segments. Overall, our moderated mediation model was confirmed on both paths, $a1$ and $c1$, and links $a3$ and $c3$, respectively, as depicted in Figure 1. The coefficients and conditional effects at the moderator values are available upon request.

Our findings prompted a deeper exploration of measurement procedures highlighted by Busacca and Padula (2005) as particularly useful for practitioners, namely “regression with dummy variables” guiding the “Importance Grid.” Our regression results closely align with the moderated mediation analysis, validating the use of regression with dummy variables. Although this method has its limitations, it provides a straightforward and effective way to identify key attributes. The similarity in the regression results between the linear multivariate and moderated mediation analyses indicates that this simpler regression approach can quickly and reliably identify critical factors.

Individual Features of MAINSTREAM Market Segment. The mainstream market segment stood out from the other market segments because of the nearly equal importance of all experience attributes in all models. While CABIN was significantly important for VALUE and SHIP QUAL, the weight of this attribute was the lowest and least significant for directly predicting OVERALL cruise satisfaction. Further, the negative effect of higher PRICE on VALUE and SHIP QUAL (high expectations) was lower than that of the premium and luxury segments. Finally, the effect of GROUP SIZE is most pronounced in this segment. Thus, cruisers traveling in larger groups were more critical in their VALUE and SHIP QUAL perceptions; however, their OVERALL cruise satisfaction grew together with the GROUP SIZE consistently in all attribute models.

In the mainstream cruise market, PRICE had a positive moderation effect on the CABIN–SHIP QUAL relationship, where PRICE was proxied by cabin class (1—inside, 3—balcony). That is, balcony-class passengers’ satisfaction with CABIN was strongly associated with a higher perception of SHIP QUAL than those who booked inside cabins. There was also a positive moderation effect of PRICE on the DINING–OVERALL relationship, meaning that balcony guests who were satisfied with their dining experience were more likely to be satisfied with their cruises, while the effect was less significant than in the first case.

Individual Features of PREMIUM Market Segment. The premium cruise market had many similarities to the mainstream; however, several distinctions were observed. The effect of GROUP SIZE on VALUE and SHIP QUAL was consistently negative in the premium market and had no positive effect on OVERALL satisfaction, as in the mainstream case. The negative effect of PRICE on VALUE and SHIP QUAL was stronger than that in the mainstream market, and distinctly from the mainstream, the higher cabin category elevated the effect of CABIN satisfaction on perceived VALUE for money and SHIP QUAL. SERVICE had the highest weight for driving VALUE, SHIP QUAL, and OVERALL satisfaction in both markets.

Similar to the mainstream market, premium market passengers in the balcony cabins (3) who

were satisfied with their cabins would rate perceived SHIP QUAL and VALUE higher than those in the ocean-view cabins (2). The same effect, although lower and less significant, was observed for ONBOARD activities. No moderation effects of PRICE were observed on the prime path (i.e., Attributes–OVERALL Satisfaction).

Individual Features of LUXURY ULTRALUXURY Market Segment. In the luxury market, SERVICE and DINING overweigh other attributes, which sets this segment apart from mainstream and premium. Further, the effect of VALUE on OVERALL cruise satisfaction was similar to that of the mainstream market, although these two segments are on the opposite price scale. Unlike mainstream and premium, in the luxury market, PRICE had a positive effect on OVERALL satisfaction, meaning that guests that paid for higher class cabins were more satisfied with their cruise. The effect of EXPERIENCE was similar to that of the other market segments, but significantly less observable. There were no effects of GROUP SIZE in any category.

Similar to mainstream and premium markets, in the luxury segment there was a positive moderation of PRICE on the CABIN–SHIP QUAL relationship, meaning that passengers who booked suites and were satisfied with their CABIN would rate SHIP QUAL significantly higher than those in balcony cabins. In contrast to other markets, on the prime paths DINING and ENTERTAIN–OVERALL, the moderating effect of PRICE is negative. That is, the OVERALL satisfaction of passengers in the ocean-view cabins who were satisfied with their DINING and ENTERTAIN experiences would be higher than those in the suites, who were perhaps more critical.

Corporate Performance and Customer Satisfaction

The analysis of the corporate performance of the three cruise line corporations revealed several intriguing trends. The company with the largest fleet, which offered the lowest ticket prices and onboard spending, was rated second best overall, with moderate food expenditures per passenger-day (CCL). This suggests that while the company managed to attract a large customer base with its pricing strategy, it still maintained a respectable level

of customer satisfaction, potentially by balancing costs with service quality. Conversely, the smallest company, which charged the highest prices for tickets and extras, reported the lowest food expenditure and received the lowest satisfaction rating (NCLH). This finding raises questions about the sustainability of a high-cost, low-investment model in an industry in which customer satisfaction is closely tied to the perceived quality of services provided.

The medium-sized company, which offered midrange ticket prices and extras, emerged as the highest rated overall and across individual categories (RCL). This company also boasted the highest food expenditure per passenger day and achieved the highest net profit margin of 17%, suggesting a possible correlation between higher food expenditure and enhanced customer satisfaction. This correlation calls into question the common industry practice of cutting food costs to improve profitability, indicating that investing in high-quality dining experiences may yield better long-term returns by fostering higher customer satisfaction and loyalty.

In summary, these results highlight the multifaceted nature of customer satisfaction in the cruise industry, emphasizing the importance of perceived value and interconnectedness of various service elements. It also underscores the need for cruise operators to carefully consider their pricing strategies, investments in service quality, and the measurement tools they use to assess and improve customer satisfaction. By focusing on these areas, companies can enhance their competitive advantage, improve customer loyalty, and ultimately achieve greater profitability in highly competitive markets.

Discussion

Deploying a series of multiple regression analyses, this study revealed that perceived value for money is a central determinant of customer satisfaction among cruise passengers. This finding holds true across various market segments, including mainstream, premium, luxury, and ultraluxury cruises, indicating that the desire for value remains a universal priority, despite the diversity in expectations among these groups. The strong relationships observed, particularly in the mainstream segment where perceived value for money emerged as the most robust predictor of overall satisfaction, underscored the

significance of this insight. This aligns with industry trends, as evidenced by a Deloitte survey, which found that even a small increase in perceived value leads to a dramatic 123% increase in the likelihood of customers reporting high satisfaction with the cruise operator (Reichheld et al., 2017).

The preferences of mainstream and premium segment cruisers highlight the importance of every aspect of hospitality experience aboard a cruise vessel in shaping perceived value. Seasoned cruisers, particularly those in the higher class ticket categories, exhibit more discerning expectations, especially concerning cabin accommodation. This study reaffirms the critical role of service-related elements, encompassing cabins, dining, service provision, and onboard activities, in shaping perceptions of ship quality across all market segments. These findings are consistent with prior research, which also identified dining and service as key focal points in shaping customer perceptions of the cruise experience (Demydyuk et al., 2024; Gelen et al., 2022; Lallani, 2017; N. Li, 2022; Tao & Kim, 2019).

Moreover, this study extends the conversation by examining how cultural encounters, especially dining experiences, shape the overall cruise experience. As Lallani (2017) discussed, dining on modern cruises serves as a mediator of cultural encounters, highlighting the complex interplay between food, service, and cultural experience on board. This suggests that dining is not merely about sustenance but also about creating memorable cultural interactions that enhance the overall cruise experience. These findings are also reflected in the work of Pranić et al. (2013), who explored how cruise passengers' experiences in coastal destinations—whether perceived as floating “B&Bs” or floating “resorts”—can shape their overall satisfaction. Their research further supports the notion that all aspects of cruise experience, including those that extend beyond the ship itself, contribute to perceived value and satisfaction.

Beyond its empirical findings, this study has significant theoretical implications that extend beyond the cruise industry to the hospitality sector. By identifying and evaluating the hospitality-related components integral to cruise experience, this research contributes to the development of a framework of soft metrics that can support a customer-centered performance control paradigm. While rooted in the maritime domain, these metrics

have broader applicability and can be extended to other areas of the hospitality industry, such as all-inclusive resorts and other service-intensive environments. Future research could benefit from integrating these findings with established frameworks from related fields such as the restaurant industry (Andersson & Carlback, 2009; Demydyuk et al., 2024; Nemeschansky, 2020; Nemeschansky et al., 2020), to deepen the understanding of experiential economics and customer satisfaction.

Moreover, this study's financial analysis reveals an intriguing correlation: cruise companies that achieve the highest ratings in dining, perceived value, and overall satisfaction also tend to have the highest expenditures per passenger on food, along with superior financial performance. This suggests that investing in high-quality dining experiences may not only enhance customer satisfaction but also contribute to stronger financial outcomes. This relationship between experiential ratings, expenditure patterns, and financial performance warrants further exploration as it could provide valuable insights for strategically crafting profitable experiences within the Food & Beverage sector. The evolving dining preferences of cruise passengers, as explored in recent studies (Demydyuk et al., 2024; Radic et al., 2021), highlight the importance of continuously adapting culinary offerings to meet or exceed customer expectations. By conducting more in-depth analyses of these dynamics, future research could offer a more nuanced understanding of how to engineer transformative culinary experiences that resonate with patrons and bolster the bottom-line performance.

In conclusion, this study underscores the central role of perceived economic value in driving customer satisfaction in the cruise industry. The findings have broad implications for the hospitality sector, highlighting the importance of a holistic approach to service delivery that considers all components of customer experience. As the industry continues to evolve, the insights gained from this research could inform strategies for enhancing customer satisfaction and financial performance both within the cruise industry and beyond.

Managerial Implications

Findings related to a medium-sized and medium-priced cruise company with the highest customer

satisfaction levels have significant implications for hospitality businesses, particularly within the cruise industry. This company, which offered medium-priced tickets while maintaining the highest food expenditure per passenger, achieved top ratings across various satisfaction categories, and a notable net profit margin of 17%. These results highlight the crucial relationship between dining satisfaction and the overall vacation experience in an all-inclusive setting, challenging the conventional belief that cutting costs is a sound strategy for maximizing profits. In other words, by streamlining the key investment into the most critical experience attribute, proper resource allocation enables sustainable financial success among competitors.

For the all-in-experience type of hospitality companies looking to optimize both profitability and customer satisfaction, these findings suggest that investing in dining experiences and service quality is not just beneficial but essential. Rather than viewing food expenditures as expendable, companies should view them as strategic investments that yield substantial returns. Enhancing the dining experience contributes to customer and investor sentiment, boosting customer satisfaction, and financial performance. Thus, shaping unique customer experiences by reinforcing the importance of culinary offerings and service is a critical component of success in the hospitality industry.

Our findings further indicate that price is a significant factor influencing customer satisfaction. Higher prices tend to raise expectations, which in turn increases the potential for critical perceptions. However, when customers who have paid more receive a product with which they are satisfied, their overall satisfaction is even greater than that of customers who pay less. In the luxury segment, the effect reaches a threshold when higher paying guests demand exceptional experiences in all aspects of their cruises. These findings underscore the need for operators to meticulously manage quality in premium categories to meet elevated expectations associated with higher prices. Simultaneously, they suggest an opportunity to focus on high-price, high-performance customer relationships that foster loyalty rather than competing on price and compromising quality.

Additionally, this study highlights that travel party size significantly impacts satisfaction,

particularly in the mainstream market, where multi-generational families and larger groups were more satisfied. Simultaneously, onboard activities were perceived less favorably by larger groups in terms of both ship quality and value in the mainstream market. This suggests that beyond dining, onboard activities play a more crucial role in guest satisfaction than entertainment alone. To maximize the profit potential of larger groups, cruise lines would rather develop niche offerings and perks specifically tailored to these customers. According to CLIA's (2024) latest report, 28% of passengers cruise with three to five generations together. These larger groups represent an opportunity for increased onboard spending and generate positive word-of-mouth promotions, further contributing to the cruise experience's overall success.

In summary, the implications of this study are clear: hospitality companies, especially those in the cruise industry, should investigate their critical customer experiences and prioritize investments in them. Recognizing the nuanced impacts of customer demographics, cruise operators can develop targeted strategies that optimize guest experiences and contribute to sustainable business success.

Limitations and Directions for Future Research

One of the primary limitations of this study was its generalizability. First, the analysis relied on subjective perceptions that are inherently prone to bias. Second, the scope of this study was confined to a small subset of companies operating within a single market segment, limiting its applicability to broader contexts. Third, the absence of time-series analysis restricts the understanding of the temporal dynamics that influence customer satisfaction and related factors. Lastly, the quantitative analysis of customer ratings offers only a rudimentary and subjective measure of satisfaction, although it is suitable for the study's objectives.

Given the central role of service elements in shaping customer experiences, future research could delve into qualitative investigations to elucidate how customers perceive various aspects of service during cruise experiences. Specifically, differentiating between company policies, front-desk interactions, cleanliness standards, seamlessness of the cruise experience, and other service-related

elements could refine the conceptual frameworks used in this study. Such endeavors would facilitate more effective performance management and resource allocation, ultimately enhancing customer satisfaction and organizational outcomes.

Conclusions

In conclusion, the persistent importance of understanding customers' key experience attributes—individual for every business—highlights their crucial role in the success or failure of industry operators. Given that customer satisfaction is fundamentally multidimensional, a business's ability to thrive depends on consistently meeting and exceeding customer expectations, which requires precise attention to detail and a deep understanding of customer preferences.

The originality of this study lies in its analysis of various market segments and review samples, which underscores the complex nature of customer satisfaction. Our results show that the effectiveness of hospitality strategies can vary significantly across markets, thus emphasizing the need for a nuanced approach.

While there are many methods available for analyzing customer satisfaction, none of which is perfect, regression with dummy variables appears to be the most practical. This provides a clear and straightforward method for understanding customer driver areas. Integrating this approach with qualitative customer feedback and focused cost analytics allows operators to gain valuable insights into customer preferences and prioritize them to guide resource allocation. Furthermore, this knowledge helps in adapting services and offerings to meet evolving demands and maximize profitability.

Ultimately, a combination of detailed financial management and responsive customer feedback mechanisms is key to sustainable success in the hospitality industry. Those who adopt this comprehensive approach and stay in the know are better positioned to secure their customer base and thrive in a dynamic market, whereas those who do not risk falling behind.

ORCID

Ganna V. Demydyuk: <https://orcid.org/0000-0002-2504-3141>
 Mats Carlback: <https://orcid.org/0000-0002-6365-930X>

References

- Abrate, G., Quinton, S., & Pera, R. (2021). The relationship between price paid and hotel review ratings: Expectancy-disconfirmation or placebo effect? *Tourism Management*, 85, 104314. <https://doi.org/10.1016/j.tourman.2021.104314>
- Aggett, M. (2011). Cruise passengers' complaints: An analysis of online reviews. In P. Gibson, A. Papathanassis, & P. Milde (Eds.), *Cruise sector challenges* (pp. 147–161). Gabler Verlag.
- Andersson, T. D., & Carlback, M. (2009). Experience accounting: An accounting system that is relevant for the production of restaurant experiences. *Service Industries Journal*, 29(10), 1377–1395.
- Assaf, A. G., & Magnini, V. (2012). Accounting for customer satisfaction in measuring hotel efficiency: Evidence from the US hotel industry. *International Journal of Hospitality Management*, 31(3), 642–647.
- Bonacchi, M., & Perego, P. (2023). Customer analytics in performance measurement and reporting systems. *Accounting Horizons*, 1–29. <https://doi.org/10.2308/horizons-2021-016>
- Busacca, B., & Padula, G. (2005). Understanding the relationship between attribute performance and overall satisfaction theory, measurement and implications. *Marketing Intelligence and Planning*, 23(6), 543–561.
- Carlback, M. (2010). From cost accounting to customer accounting in the restaurant industry. *International Journal of Revenue Management*, 4(3–4), 403–419.
- Carlback, M. (2022). The EA-approach: A customer-centered management system to produce, manage and assess relevant experiences for the hospitality and tourism industry. In *Contemporary approaches studying customer experience in tourism research* (pp. 131–144). Emerald Publishing.
- Castillo-Manzano, J. I., & López-Valpuesta, L. (2018). What does cruise passengers' satisfaction depend on? Does size really matter? *International Journal of Hospitality Management*, 75, 116–118.
- CLIA. (2024). April 2024. *State of the cruise industry report*. <https://cruising.org/-/media/clia-media/research/2024/2024-state-of-the-cruise-industry-report-final-seatrade-live-web-revised.ashx>
- Demydyuk, G. V., & Carlback, M. (2024). Balancing short-term gains and long-term success in lodging: The role of customer satisfaction and price in hotel profitability model. *Tourism Economics*, 30(4), 844–875.
- Demydyuk, G. V., Kaurav, R. P. S., Carlback, M., & Vejlgard, H. (2024). From galley to gourmet: Experience accounting perspective on the evolving dining choices of cruise passengers. *Journal of Foodservice Business Research*. Advance online publication. <https://doi.org/10.1080/15378020.2024.2391161>
- Gelen, D., Cardenas, J., Gurung, D. M., Han, D., Ban, H., & Kim, H. (2022). The text mining from online customer reviews: Implications for luxury hotel in Busan. *Culinary Science & Hospitality Research*, 28(2), 67–80.
- Hayes, A. F. (2022). *Introduction to mediation, moderation, and conditional process analysis. A regression-based approach* (3rd ed.). The Guilford Press.

- Hosany, S., & Witham, M. (2010). Dimensions of cruisers' experiences, satisfaction, and intention to recommend. *Journal of Travel Research*, 49(3), 351–364.
- Hunt, S. D., & Morgan, R. M. (1995). The comparative advantage theory of competition. *Journal of Marketing*, 59(2), 1–15.
- Ingenbleek, P. T. M. (2014). The theoretical foundations of value-informed pricing in the service-dominant logic of marketing. *Management Decision*, 52(1), 33–53.
- Kandampully, J. (2006). The new customer-centred business model for the hospitality industry. *International Journal of Contemporary Hospitality Management*, 18(3), 173–187.
- Kwortnik, R. J. (2008). Shipscape influence on the leisure cruise experience. *International Journal of Culture, Tourism and Hospitality Research*, 2(4).
- Lallani, S. S. (2017). Mediating cultural encounters at sea: Dining in the modern cruise industry. *Journal of Tourism History*, 9(2–3), 160–177.
- Li, N. (2022). Food preferences of Chinese cruise tourists: an exploratory study. *Journal of Foodservice Business Research*, 25(1), 85–106.
- Li, Y., & Kwortnik, R. (2017). Categorizing cruise lines by passenger perceived experience. *Journal of Travel Research*, 56(7), 941–956.
- Liu, X., Zeng, Y., He, J., & Li, Z. (2022). Value cocreation research in tourism and hospitality: A comparative bibliometric analysis. *International Journal of Contemporary Hospitality Management*, 34(2), 663–686.
- Manolitzas, P., Glaveli, N., Palamas, S., Grigoroudis, E., & Zopounidis, C. (2022). Improving customer experience in the cruise industry in the post pandemic era. In *Cogent business and management* (Vol. 9, Issue 1). Cogent OA.
- Matzler, K., Bailom, F., Hinterhuber, H. H., Renzl, B., & Pichler, J. (2004). The asymmetric relationship between attribute-level performance and overall customer satisfaction: A reconsideration of the importance-performance analysis. *Industrial Marketing Management*, 33(4), 271–277.
- McManus, L., & Guilding, C. (2008). Exploring the potential of customer accounting: A synthesis of the accounting and marketing literatures. *Journal of Marketing Management*, 24(7–8), 771–795.
- McNair-Connolly, C. J., Silvi, R., & Bartolini, M. (2013). Integrated reporting and value-based cost management: A natural union. In *Integrated reporting: Concepts and cases that redefine corporate accountability* (pp. 147–157). Springer.
- Nemeschansky, B. (2020). Listen to your customer—How to manage your restaurant more effectively. *Journal of Foodservice Business Research*, 23(1), 17–45.
- Nemeschansky, B., von der Heide, T., & Kim, P. B. (2020). Customer-driven menu analysis (CDMA): Capturing customer voice in menu management. *International Journal of Hospitality Management*, 91, 102417.
- Normi, S., & Panjaitan, M. (2022). Effectiveness of structural equation modeling to measure hotel customer satisfaction. *Jurnal Ekonomi Modernisasi*, 18(2), 227–239.
- Pine, B. J., & Gilmore, J. H. (2011). *The experience economy*. Harvard Business Press.
- Pranić, L., Marušić, Z., & Sever, I. (2013). Cruise passengers' experiences in coastal destinations—Floating “B&Bs” vs. floating “resorts”: A case of Croatia. *Ocean and Coastal Management*, 84, 1–12.
- Radic, A. (2018). Exploring the building components of on-board cruise experience. *Australian Journal of Maritime and Ocean Affairs*, 10(2), 134–147.
- Radic, A., Lück, M., Al-Ansi, A., Chua, B. L., Seeler, S., & Han, H. (2021). Cruise ship dining experiencescape: The perspective of female cruise travelers in the midst of the COVID-19 pandemic. *International Journal of Hospitality Management*, 95, 102923.
- Reichheld, A., McGlone Russell, D., & Teegarden, L. (2017). *The next generation of cruise passengers has embarked. Customized cruises sail away with profits.* <https://www2.deloitte.com/content/dam/Deloitte/us/Documents/consumer-business/us-cruise-industry-analysis-passenger-experience.pdf>
- Risitano, M., Sorrentino, A., & Quintano, M. (2017). Understanding the role of the service experience in the cruise industry. *International Journal of Tourism Policy*, 7(4), 289–308.
- Tao, S., & Kim, H. S. (2019). Cruising in Asia: What can we dig from online cruiser reviews to understand their experience and satisfaction. *Asia Pacific Journal of Tourism Research*, 24(6), 514–528.
- van der Rest, J. P. I., & Roper, A. (2013). A resource-advantage perspective on pricing: Shifting the focus from ends to means-end in pricing research? *Journal of Strategic Marketing*, 21(6), 484–498.
- van der Rest, J. P. I., Roper, A., & Wang, X. L. (2018). Why is a change of company pricing policy so hard to implement? *International Journal of Hospitality Management*, 69, 30–40.
- Wood, R. C. (2015). *Hospitality management: A brief introduction*. SAGE Publications Ltd.
- Zhang, Z., Ye, Q., Song, H., & Liu, T. (2015). The structure of customer satisfaction with cruise-line services: An empirical investigation based on online word of mouth. *Current Issues in Tourism*, 18(5), 450–464.