

Perceived Quality and Exhibition Visitors' Satisfaction: The Mediating Role of Perceived Value

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Abstract: Exhibition visitors, as the core value realization subject of the exhibition industry, their satisfaction not only affects the evaluation of exhibition quality directly but also plays an important role in the sustainable development of the MICE industry. Therefore, improving exhibition visitors' satisfaction is the core driving force for optimizing exhibition experience and enhancing exhibition appeal. This paper selects the Liangzhilong 2025 13th China Food Ingredients E-commerce Festival as the research object for empirical analysis, aiming to clarify the mechanism of action between perceived quality, perceived value, and exhibition visitors' satisfaction. The study finds that there is a significant positive correlation between perceived quality and exhibition visitors' satisfaction, and perceived quality has a positive impact on their satisfaction. The perceived value of exhibition visitors also has a promoting effect on their satisfaction. Moreover, perceived quality can enhance satisfaction by influencing perceived value. The research conclusions reveal the mechanism of action among perceived quality, perceived value, and exhibition visitors' satisfaction and contribute certain theoretical insights for exhibitions to further optimize services and better improve visitors' satisfaction.

Keywords: Exhibition Visitors' Satisfaction; Perceived Value; Perceived Quality; Exhibition Visitors

1. Introduction

In recent years, China's exhibition industry has shown a good trend of high-quality and steady development. Against this backdrop, how to precisely and effectively attract and retain visitor groups and improve their satisfaction and loyalty has become one of the key problems that exhibition organizers urgently need to solve.

This issue is not only directly related to the short-term economic benefits of the exhibition but also has far-reaching strategic significance for the long-term sustainable development of the exhibition brand. Therefore, in-depth exploration of the influencing factors of exhibition visitors' satisfaction is of great practical value for exhibition organizers to accurately understand visitors' needs and improve their satisfaction.

Although the theory of customer satisfaction has developed maturely, most existing studies on exhibition customer satisfaction focus on the exhibitor perspective, with insufficient attention to the core group of exhibition visitors. That is to say, research on the influencing factors of exhibition visitors' satisfaction is still lacking. In addition, although scholars in the field of marketing have paid attention to the impact of two core variables, perceived quality and perceived value, on customer satisfaction, there is still a significant gap in the exploration of the relationship between perceived quality, perceived value, and satisfaction of exhibition visitors in the exhibition and convention field. Therefore, this study takes the domestic leading food ingredients exhibition, Liangzhilong Food Ingredients E-commerce Festival, as the research object and attempts to clarify the mechanism of action and internal connection between perceived quality, perceived value, and satisfaction of exhibition visitors through empirical analysis. It aims to enrich and deepen the theoretical research on the relationship among the three and provide theoretical guidance for exhibition organizers to improve exhibition quality.

2. Literature Review

2.1 Perceived Quality

Perceived quality pertains to the subjective assessment by exhibition visitors regarding the services provided, encapsulating their overall perception of the exhibition experience. A

review of pertinent literature reveals that scholarly research on perceived quality can be categorized into two primary areas: the definition of perceived quality and the evaluation system of perceived quality within exhibitions.

Concerning the conceptual definition, an eight-dimensional framework of perceived quality—comprising performance, features, reliability, conformance, durability, serviceability, aesthetics, and perceived value—was introduced in 1987, establishing a foundational basis for subsequent research. Using the Guangzhou International Light Festival as a case, participants' sensory, emotional, social, and cognitive experiences positively affect their satisfaction, with both satisfaction and these multi-dimensional experiences jointly driving online communication behaviors [1].

In relation to the evaluation system of exhibition perceived quality, scholarly focus has predominantly been on expanding its dimensional structure. A study constructs a second-order model of perceived knowledge quality in online learning comprising five dimensions (including intrinsic and contextual dimensions), develops a scale to quantify perceived quality, and reveals the multidimensional and hierarchical composition of perceived quality [2]. Further research has augmented this structure by incorporating information-communication quality and organizational-management quality, illustrating that accurate, timely information dissemination and efficient operational procedures significantly enhance visitors' quality perceptions [3]. As research has evolved, increasing attention has been directed towards the relationship between perceived quality and visitor behavior. Previous studies have demonstrated that high perceived quality not only augments visitor satisfaction but also fortifies loyalty and enhances the propensity for positive word-of-mouth communication [4]. In the digital realm, researchers have developed new dimensions such as platform interaction quality and virtual display quality. Empirical investigations have confirmed that advancements in these dimensions effectively foster visitor engagement and satisfaction.

2.2 Perceived Value

Scholarly discourse on perceived value has coalesced around two predominant research streams: conceptual explication and empirical

application. Early formulations defined perceived quality as consumers' aggregate appraisal of product utility, arising from a comparative assessment of benefits against sacrifices, thereby foregrounding an inherent benefit-sacrifice trade-off. An empirical study using the means-end chain logic demonstrates that perceived value is a multidimensional hierarchical structure linking the specific attributes of things to personal benefits and then to core value goals [5].

On the empirical front, convergent evidence substantiates that perceived value operates as a potent antecedent to visitor satisfaction. Investigations reveal that when visitors deem the informational, networking, and experiential benefits of an exhibition to outweigh attendant monetary and temporal costs, satisfaction is significantly enhanced [6]. The literature defines perceived value as a multidimensional construct encompassing social value, functional value, emotional value, and economic value. An empirical study reveals that quality exerts a significant positive impact on perceived value, and this enhanced perceived value ultimately contributes to a notable improvement in satisfaction. This finding effectively validates the stable causal correlation among quality, perceived value and satisfaction.

2.3 Exhibition Visitors' Satisfaction

Exhibition visitor satisfaction denotes the congruence between experiential outcomes and preconceived expectations, representing an affective response elicited through subjective appraisals of facilities, services, content, and related dimensions throughout the exhibition encounter. Scholarly investigations reveal that extant literature converges on two principal foci: the determinants influencing this construct [7], and the corresponding evaluative frameworks together with enhancement strategies [8].

Within the exhibition domain, three antecedents recurrently emerge as pivotal drivers of visitor satisfaction. Initially, the intensity of engagement demonstrates a pronounced positive association: empirical findings confirm that augmenting both anticipated and actual participation substantially enhances subsequent ratings [9]. Subsequently, pre-visit expectations—configured by projected exhibitor scale and caliber—serve as a critical benchmark against which the overall exhibition is assessed [10]. Finally, multi-dimensional analyses

demonstrate that satisfaction is jointly determined by the perceived quality of the exhibition proper and its attendant services; rigorous planning and exemplary service administration strengthen this nexus, while operational deficiencies attenuate it [11]. Concerning measurement and optimization approaches, existing research decomposes exhibition services into four sequential phases—on-site reception, specialized exhibition support, supplemental services, and back-office functions—and establishes that aggregate satisfaction represents the cumulative synthesis of these stage-specific interactions. Supplementary qualitative inquiries further delineate a twenty-item evaluative spectrum—encompassing personnel professionalism, venue atmosphere, physical infrastructure, and auxiliary provisions—that forms the primary criterion for professional visitors' assessment of service excellence, thereby offering an actionable framework for subsequent satisfaction enhancement initiatives [12].

3. Main Title

3.1 Research Variables

3.1.1 Explanatory Variable: Perceived Quality

Perceived quality denotes consumers' subjective appraisal of actual product or service performance relative to anticipated standards. Its defining attributes entail subjectivity, relativity, and multidimensionality [13]. Exhibition visitor perceived quality constitutes a holistic judgment formed when visitors, through direct participation, assess exhibition functions, services, and content against comparable events or personal expectations. This construct does not operate in isolation; rather, it intersects dynamically with visitor expectations, perceived value, and exhibition market positioning. It encompasses both objective exhibition attributes—such as exhibit professionalism and venue infrastructure—and experiential dimensions grounded in sensory perception, including the affective resonance of on-site ambiance and the facilitation provided by way finding services. Consequently, visitors' perceived quality is significantly affected by individual differences, has strong subjectivity and relativity, and reflects the integration of visitors' emotional cognition and expected goals. Drawing on previous work, this study operationalizes perceived quality through eight

reflective indicators: pre-visit expectations, infrastructure assessment, evaluations of exhibition content and design, appraisals of on-site services and management, traffic convenience, catering quality, perceived value of industry networking, and post-visit satisfaction (Table 1).

Table 1. Perceived Quality Observation Indicators

Variable	Observation Indicator
Perceived Quality	Expectations Before Visiting
	Overall Satisfaction with Infrastructure
	Overall Satisfaction with Exhibition Content and Design
	Overall Satisfaction with Exhibition Services and Management
	Overall Satisfaction with Transportation
	Overall Satisfaction with Catering
	Overall Satisfaction with Industry Networking
	Post-exhibition satisfaction

3.1.2 Mediating Variable: Perceived Value

Exhibition visitor perceived value constitutes a holistic assessment derived through subjective psychological processes upon participation, diverging from objective value attributes inherent to the exhibition itself. This construct encapsulates the systematic weighing of benefits accrued against sacrifices incurred during attendance. Grounded in the scholarship of Liu et al. and Wang et al., perceived value is operationalized through four manifest indicators: service quality perceptions, attendant monetary and temporal expenditures, the expo's distinctive value proposition, and professional networking opportunities (Table 2).

Table 2. Perceived Value Measurement Indicator

Variable	Observation Indicator
Perceived Value	Service Quality of the Exhibition
	Cost of Attending the Food E-commerce Festival
	Distinctive Value of the Food E-commerce Festival
	The Industry Networking Value of Professional Trade Shows

3.1.3 Dependent Variable: Visitor Satisfaction

Visitor satisfaction denotes the degree of congruence between experiential actualization and anticipatory benchmarks, constituting an affective assessment derived from appraisals of exhibits, design schema, and service provisions. This construct exhibits dynamic heterogeneity within the visitor cohort, as divergent

expectancy thresholds yield differential satisfaction responses toward identical exhibitions. Operationally, visitor satisfaction represents a composite index formed by contrasting perceived exhibition performance against internalized expectations. Augmentation of satisfaction occurs when organizers demonstrate responsiveness to visitor requirements, furnish unambiguous guidance, curate comfortable environs, and integrate diversified interactive programming. Conversely, satisfaction attenuation ensues from operational deficiencies—encompassing obsolete displays, congested venues, and protracted service response—that precipitate misalignment between delivery and anticipation. In this study, the measurement indicators of visitor satisfaction are divided into four categories, referring to the research of Liu et al., namely satisfaction compared with other exhibitions, overall satisfaction, cost-performance satisfaction, and satisfaction with the exhibition's unique features (Table 3).

Table 3. Observable Indicators of Visitor Satisfaction

Variable	Observation Indicator
Visitor Satisfaction	Satisfaction Compared to Other Exhibitions
	Overall Satisfaction
	Value for Money Satisfaction
	Exhibition Feature Satisfaction

3.2 Theoretical Hypotheses

Based on the literature review and theoretical analysis, this paper constructs a theoretical model to explore the relationship between perceived quality, perceived value, and visitor satisfaction. This study builds the hypothesis based on the relationship of "perceived quality - perceived value - visitor satisfaction," forming a theoretical closed loop of perceived quality as the independent variable (H1, H2), influencing visitor satisfaction through the mediating role of perceived value (H3, H4).

3.2.1 Perceived Quality and Satisfaction

Focusing on tourists at internet celebrity check-in spots, the study proposes "the body as the core carrier of travel experience," confirms the experiential quality-tourist satisfaction correlation, and offers empirical support for optimizing perceived quality in cultural tourism [14]. Based on media richness theory, the study confirms that core perceived quality dimensions (e.g. informativeness, convenience) positively

influence viewers satisfaction, flow experience and loyalty, with heterogeneous effects across viewers of different engagement levels [15]. Therefore, the perceived quality of exhibition visitors on the content and services of the exhibition will positively affect customer satisfaction [16]. Structural-equation analyses reveal a monotonic positive relationship between service-quality levels and visitor-satisfaction levels [17]. Accordingly, this paper proposes the following hypothesis:

H1: There is a positive correlation between exhibition visitors' perceived quality and their satisfaction.

3.2.2 Perceived Quality and Perceived Value

The logical chain whereby perceived service quality drives satisfaction and purchase intention by enhancing customer perceived value demonstrates that perceived quality serves as a core antecedent of perceived value. This study confirms that perceived medical quality exerts a significant positive influence on perceived value co-creation, which in turn drives the formation of tourists' emotional attachment and trust. Within exhibition contexts, superior service quality amplifies visitors' experiential benefits—including enhanced business-matching prospects, substantive industry intelligence, and augmented professional networks—consequently elevating holistic value perceptions [18]. The following hypothesis is thus advanced:

H2: There is a positive correlation between exhibition visitors' perceived quality and their perceived value.

3.2.3 Perceived Value and Satisfaction

Extant literature delineates perceived value as a four-dimensional construct encompassing functional, emotional, social, and monetary dimensions, wherein emotional value exerts the strongest marginal effect on satisfaction [19]. SERVPERF theory similarly contends that service performance—constituting the core of this construct—directly determines satisfaction, a relationship substantiated within the hospitality sector. Exhibition-specific inquiry, underpinned by ACSI and ECSI models, has further validated the generalizability of this framework to Chinese trade shows, documenting a causal sequence from promotional efficacy through perceived value to visitor satisfaction [11]. Accordingly, this paper advances the following hypothesis:

H3: There is a positive correlation between exhibition visitors' perceived value and their satisfaction.

3.2.4 The Mediating Role of Perceived Value

Service scape scholarship establishes that physical and social cues—including interior design, ambient conditions, and staff professionalism—enhance satisfaction indirectly by elevating perceived value. Hospitality sector evidence demonstrates, for instance, that luxurious fixtures augment functional-value appraisals, thereby intensifying satisfaction. Exhibition-specific inquiry corroborates that quality dimensions—encompassing exhibition caliber, exhibitor prestige, and venue excellence—predominantly influence visitor satisfaction through this mediating mechanism [20]. Consequently, dynamic pricing strategies and stringent exhibitor-screening mechanisms emerge as recommended pathways to synergistically enhance both value perceptions and satisfaction outcomes. The following hypothesis is therefore advanced:

H4: Perceived value plays a mediating role in the positive correlation between perceived quality and visitor satisfaction.

Thus, the theoretical model of this study is derived (Figure 1).

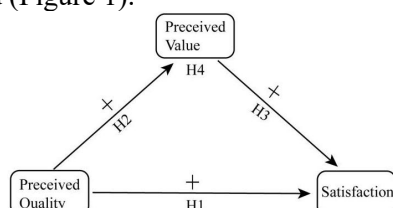


Figure 1 Theoretical Model of This Study

4. Research Design

This study uses SPSS and AMOS, two data analysis software tools, to conduct detailed processing of the collected questionnaire data and build analysis models to draw scientifically based conclusions.

4.1 Data Collection

Based on the variables selected for this study, the survey questionnaire is divided into two parts: The first part is personal basic information, including gender, age, education level, and occupation; the second part is the visitor satisfaction survey, including eight aspects such

as pre-exhibition expectations and infrastructure. This questionnaire uses a single-choice question format, and the questions measuring the respondents' satisfaction level use the Likert five-point scale.

The survey questionnaire was distributed during the Liangzhilong·2025 13th China Food Ingredients E-commerce Festival, with a total of 122 visitors participating in the questionnaire filling. A total of 122 questionnaires were collected, of which 108 were valid, with an effective rate of 88%.

4.2 Data Analysis

4.2.1 Reliability Analysis

Reliability analysis is the process of assessing the consistency and stability of the measurement results of a survey questionnaire. By calculating indicators such as Cronbach's α coefficient, it determines whether the questionnaire can accurately and reliably collect data, thereby providing a basis for the credibility of the research conclusions. This study conducted a reliability analysis on the 108 questionnaires collected and used SPSS 26.0 to evaluate the reliability of the perceived quality survey of the visitors. The data is shown in Table 4.

As shown in the table, the Cronbach's α index is above 0.7, meeting the requirements for judging the coefficient, which fully proves that the questionnaire survey designed in this study has effective and credible guarantees.

4.2.2 Validity Analysis

Validity analysis is the process of testing the measurement tool through statistical methods to see if it can effectively reflect the true meaning of the research concept, and to evaluate the fit of the data with the research objectives and the effectiveness of the results.

4.2.2.1 Content Validity

This paper conducts KMO and Bartlett tests on the factors in the scale to infer the representativeness of each dimension and whether it is suitable to proceed to the next stage of factor analysis. If the KMO sampling adequacy value is greater than 0.7, it indicates that the validity requirements are met and the next step of factor analysis can be carried out.

Table 4. Reliability Analysis

Questionnaire Dimension	Specific Item	Correlation between Revised Items and Total Score	Cronbach's Alpha After Item Deletion	Cronbach's Alpha	Number of Items
Expectations	Overall expectations for the exhibition	.641	.659	0.774	3
	Industry Exchange Value	.553	.775		
	Product Experience Needs	.636	.666		

Overall Infrastructure Satisfaction	Exhibition Hall Lighting and Sound	.618	.881	0.891	10
	Parking, Dining, Portable	.631	.880		
	Unobstructed Access	.715	.874		
	Fire safety signage is clearly marked	.669	.877		
	Clear communication signals	.740	.872		
	Clear directional guidance	.747	.871		
	Storage and charging fully equipped	.758	.871		
	Convenient and hygienic drinking water	.635	.880		
	Special Amenities	.353	.896		
	Overall Satisfaction	.403	.895		
Overall satisfaction with the content and design of the exhibition	Exhibition Area Layout	.594	.865	0.875	7
	High visual appeal	.638	.860		
	Showcases abundant ingredients	.723	.848		
	Environmentally Themed	.739	.846		
	Highly engaging content	.642	.859		
	Strong tech experience	.618	.862		
	Overall Satisfaction	.633	.860		
Exhibition Services and Management	Multiple ticket purchasing channels	.682	.924	0.928	8
	Security is sufficient and entry is fast	.736	.921		
	Reasonable opening hours	.704	.923		
	Staff are friendly	.799	.916		
	Proficient route recommendations	.738	.920		
	Information Services Provided	.792	.916		
	Exhibition Venue Cleanliness	.762	.918		
Transportation	Overall Satisfaction	.824	.913	0.864	4
	Clear Directional Signs	.596	.872		
	Convenient transportation	.758	.808		
	Shuttle Bus Convenience	.692	.836		
Catering	Overall Satisfaction	.814	.784	0.923	4
	Food Pricing	.812	.903		
	Accessibility of Dining Services	.813	.902		
	Food Variety & Hygiene	.799	.907		
Industry Exchange	Overall Satisfaction	.816	.886	0.860	4
	Industry Expert Insights	.507	.892		
	Business Negotiation Convenience	.789	.785		
	Industry Exchange Activities	.742	.806		
Perceived Value	Overall Satisfaction	.804	.778	0.782	4
	Service Quality	.569	.739		
	Cost	.516	.767		
	Distinctive Value	.623	.713		
Overall Satisfaction	Industry Exchange Value	.655	.695	0.819	7

Table 5. KMO and Bartlett Tests

KMO Sampling Adequacy Measure	Chi-Square	0.856 4900.892
Bartlett's Sphericity Test	Degrees of Freedom Significance	.946 .000

As shown in Table 5, the KMO sampling adequacy value is greater than 0.7, indicating that the validity requirements are met and the next step of factor analysis can be carried out.

Table 6. Factor Analysis Results

Total Variance Explained									
Component	Initial Eigenvalues			Extraction Sums of Squared Loading			Rotation Sums of Squared Loading		
	Total	Variance (%)	Cumulative (%)	Total	Variance (%)	Cumulative (%)	Total	Variance (%)	Cumulative (%)
1	16.814	38.214	38.214	16.814	38.214	38.214	7.741	17.593	17.593
2	4.120	9.363	47.577	4.120	9.363	47.577	7.041	16.003	33.597
3	3.027	6.879	54.456	3.027	6.879	54.456	6.437	14.629	48.225
4	2.858	6.495	60.951	2.858	6.495	60.951	5.599	12.726	60.951
5	1.897	4.311	65.261						
6	1.641	3.730	68.992						
7	1.484	3.372	72.364						
8	1.132	2.574	74.938						

9	1.079	2.452	77.390						
10	.928	2.109	79.499						
11	.838	1.905	81.405						
12	.716	1.628	83.033						
13	.590	1.341	84.373						
14	.530	1.205	85.578						
15	.501	1.138	86.716						
16	.469	1.065	87.781						
17	.445	1.011	88.792						
18	.427	.971	89.762						
19	.404	.919	90.681						
20	.380	.864	91.545						
21	.335	.762	92.307						
22	.317	.719	93.027						
23	.306	.696	93.723						
24	.283	.642	94.365						
25	.264	.599	94.964						
26	.224	.508	95.472						
27	.207	.471	95.943						
28	.198	.451	96.394						
29	.180	.410	96.804						
30	.172	.391	97.195						
31	.158	.360	97.555						
32	.140	.318	97.873						
33	.135	.306	98.179						
34	.114	.259	98.438						
35	.104	.236	98.674						
36	.100	.228	98.902						
37	.091	.206	99.109						
38	.081	.184	99.293						
39	.075	.171	99.464						
40	.064	.146	99.610						
41	.055	.126	99.736						
42	.049	.111	99.847						
43	.036	.083	99.930						
44	.031	.070	100.000						

4.2.2.2 Construct Validity

The core of construct validity is to test whether the measurement tool can accurately reflect the constructs or characteristics preset by the theory. Currently, principal component analysis (PCA) is the most commonly used factor decomposition technique for assessing construct validity. After determining through preliminary tests that the data is suitable for factor analysis, this study

uses principal component analysis to extract common factors based on the criterion of eigenvalues greater than 1. The specific extraction results are shown in Table 6.

As shown in the table, the factor analysis results indicate that four factors were extracted, with eigenvalues of 16.814, 4.120, 3.027, and 2.858, all of which are greater than 1, meeting the extraction criteria mentioned earlier.

Table 7. Rotated Component Matrix

Rotated Factor Matrix				
	Component			
	1	2	3	4
10. Cleanliness and convenience of shuttle buses within the exhibition area	.767			
11. Food and Beverage—Price Range	.767			
10. Overall satisfaction with transportation	.751			
11. Overall satisfaction with dining	.751			
8. Exhibits with strong visual appeal	.745			
11. Variety and hygiene of food and beverage options	.739			

11. Convenience of obtaining food and beverages	.702			
8. Variety of ingredients displayed	.594			.504
7. Overall Satisfaction with Infrastructure	.592			
13. Industry exchange value of the food e-commerce festival (industry trends, cooperation opportunities, etc.):	.572			
8. Alignment of environment and exhibition content with theme	.555			
Exhibition Area Content and Design—Functional Zones and Themed Areas Layout Reasonably	.551			
Unique Value of the Ingredient E-commerce Festival:	.507			
10. Transportation—Clarity of directional signage from downtown to the exhibition area		.721		
9. Cleanliness of Exhibition and Venue		.698		
9. Overall satisfaction with exhibition services and management		.697		
9. Service staff can quickly and accurately recommend routes		.688		
12. Overall satisfaction with the depth of industry exchange		.679		
12. Convenience and comfort of business meeting areas		.660		
9. Proactive and friendly attitude of service staff		.652		
9. Adequate visitor information services (brochures, etc.)		.644		
12. Participation in industry exchange activities		.632		
10. Convenience of transportation to exhibition areas	.523	.555		
13. Cost of attending the Food Ingredients E-commerce Festival:		.524		
7. Smooth and well-designed access routes to major exhibition areas			.745	
7. Infrastructure—exhibition hall lighting and sound effects provide a comfortable experience			.718	
7. Clear communication signals and comprehensive Wi-Fi coverage			.716	
7. Ample luggage storage and phone charging facilities			.694	
7. Clear directional signage and guide maps			.693	
7. Emergency exits and firefighting equipment clearly marked			.680	
6. Overall expectations for the Liangzhonglong Food E-commerce Festival:			.597	
7. Convenient parking, dining, and rest areas			.582	
6. Expectations for industry networking value at the food e-commerce festival:			.554	
6. Expectations for product experience meeting personal needs at the Food E-commerce Festival:			.547	
7. Free drinking water is conveniently and hygienically available throughout the park.				
7. Special accessibility facilities (for persons with disabilities, pregnant women, and seniors)				
9. Adequate security personnel ensure efficient entry				.820
9. Reasonable exhibition and venue opening hours				.814
8. Overall satisfaction with exhibition content and design				.796
9. Diverse ticketing methods and convenient purchasing channels				.788
8. Strong technological experience within exhibition areas (multimedia technology)				.722
8. Highly engaging exhibition content				.595
Extraction Method: Principal Component Analysis				

As shown in Table 7, the rotated component matrix clearly shows that the factor loadings of each variable are all greater than 0.5, which provides strong empirical support for the construct validity of the questionnaire survey.

4.2.2.3 Correlation Analysis

Correlation analysis is used to reveal the strength

and trend of linear or non-linear relationships between variables. This paper employs Pearson correlation analysis. By dividing the covariance of two variables by their respective standard deviations, the Pearson correlation coefficient is obtained. The value range of this coefficient is between -1 and +1, and the closer its absolute

value is to 1, the closer the relationship between the measured variables.

Table 8. Pearson Correlation Analysis

	Infra	Expects	Content & design	Services & Management	Trans	Food and Beverage	Industry Exchange	Perceived Value
Infrastructure Data	1							
Expectations Data	.512**	1						
Content & Design	.538**	.346**	1					
Services & Management	.419**	0.148	.633**	1				
Transportation Data	.540**	.293**	.580**	.645**	1			
Food and Beverage	.520**	.378**	.621**	.528**	.865**	1		
Industry Exchange	.569**	.314**	.376**	.555**	.605**	.542**	1	
Perceived Value	.555**	.304**	.463**	.507**	.636**	.631**	.635**	1

Note: ** Significant at the 0.01 level (two-tailed).

As shown in the correlation analysis table 8, the eight indicators involved in this study show a significant positive correlation at the 0.01 significance level.

4.2.2.4 Structural Equation Model Testing

Structural equation modeling is a multivariate statistical analysis technique used to evaluate complex models of relationships between variables. Confirmatory factor analysis is a statistical method based on structural equation modeling used to verify the pre-set relationships between observed variables and latent factors. It combines factor analysis and path analysis, enabling the simultaneous handling of observed and latent variables and the assessment of both measurement and structural models. This study uses AMOS 24.0 software to construct and analyze the structural equation model, conducting a series of tests to verify the validity and reliability of the data (Figure 2&Figure 3).

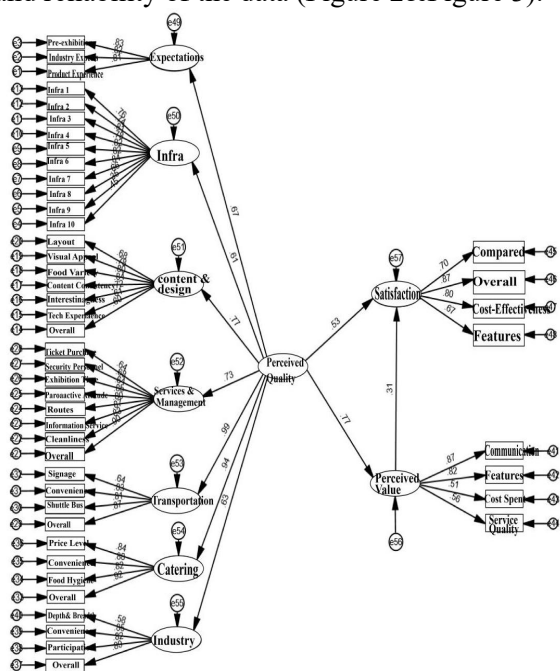


Figure 2. Standardized Structural Equation Model of Visitor Satisfaction

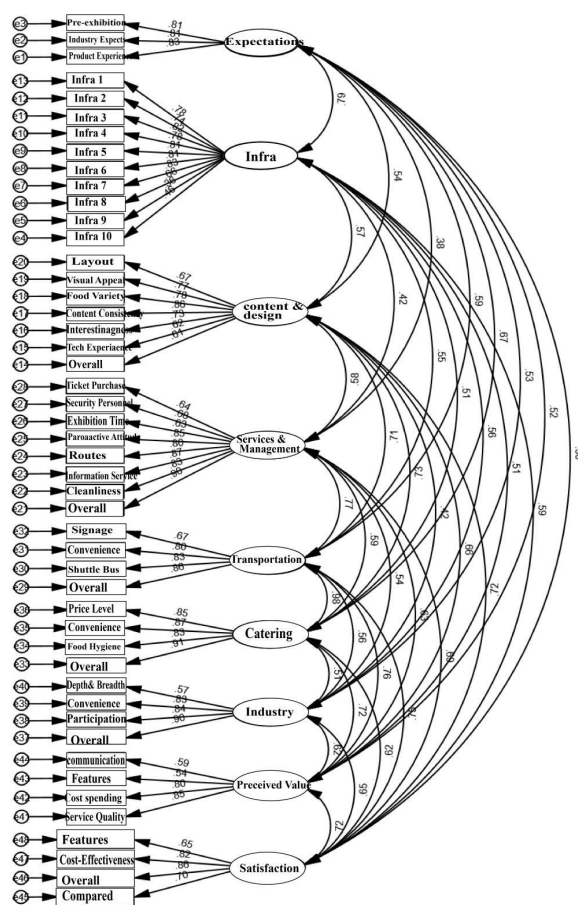


Figure 3. Confirmatory Factor Analysis Model

4.2.2.4.1 Convergent Validity Analysis

Convergent validity is used to assess whether a measurement tool can effectively measure the construct it is designed to measure. This analysis is based on the consistency between different measurement indicators of the same construct. If the factor loading is greater than 0.5, it indicates a strong relationship between the indicator and the construct. An average variance extracted (AVE) value of 0.5 or greater indicates that the construct can adequately explain the variance of its measurement indicators. A composite reliability (CR) value of 0.7 or greater indicates

high internal consistency among the measurement indicators of the construct.

Table 9. Convergent Validity Analysis Results

Item	Latent	Estimate	S.E.	C.R.	AVE	Composite
Product Experience	Expectation	0.825			0.6691	0.8585
Industry Expectations		0.815	0.097	9.929		
Exhibition Anticipations		0.814	0.098	9.919		
Infra10	Infrastructure	0.458			0.5223	0.9125
Infra9		0.365	0.21	3.266		
Infra8		0.662	0.304	4.657		
Infra7		0.826	0.354	5.085		
Infra6		0.808	0.405	5.045		
Infra5		0.812	0.384	5.055		
Infra4		0.784	0.409	4.992		
Infra3		0.817	0.39	5.065		
Infra2		0.741	0.369	4.885		
Infra1		0.785	0.413	4.993		
Overall Satisfaction	Content and Design	0.607			0.5235	0.8835
Technology Experience		0.619	0.177	5.646		
Highly Engaging		0.727	0.195	6.368		
Content Relevance		0.858	0.218	7.106		
Ingredient Variety		0.783	0.204	6.702		
Visual Appeal		0.77	0.209	6.623		
Layout Rationality		0.665	0.199	5.967		
Overall Satisfaction	Service Management	0.902			0.6113	0.9252
Cleanliness		0.833	0.068	12.676		
Information Services		0.867	0.068	13.854		
Familiarity with Routes		0.804	0.069	11.811		
Proactive attitude		0.848	0.066	13.191		
Exhibition Dates		0.634	0.08	8		
Security personnel		0.677	0.085	8.815		
Ticket purchasing cons		0.637	0.079	8.059		
Overall Satisfaction	Transportation	0.865			0.6305	0.8713
Shuttle Bus Cons		0.827	0.084	12.033		
Transport Accessibility		0.799	0.081	11.297		
Signage		0.672	0.09	8.638		
Overall Satisfaction	Food & Beverage	0.91			0.7512	0.9234
Hygiene		0.835	0.066	13.155		
Convenience		0.869	0.065	14.442		
Price Range		0.851	0.066	13.75		
Overall satisfaction	Industry	0.903			0.6310	0.8694
Event & engagement		0.838	0.073	11.952		
Convenience		0.829	0.08	11.723		
Depth and breadth		0.565	0.074	6.634		
Exchange Value	Perceived Value	0.848			0.5020	0.7956
Exhibition Features		0.802	0.095	9.563		
Cost Expenditure		0.54	0.118	5.904		
Service Quality		0.595	0.116	6.605		
Compared Satisfaction	Satisfaction	0.701			0.5860	0.8483
Value for Money Satisfaction		0.863	0.154	8.528		
Unique Features Satisfaction		0.824	0.161	8.201		
Overall Satisfaction		0.655	0.177	6.611		

As shown in the table 9, the factor loading of the measurement items corresponding to "perceived quality" are mostly greater than 0.5, indicating that the items are representative and have a strong correlation. According to the criteria mentioned above, the average variance extracted (AVE) and composite reliability are both higher than the standard values, which fully demonstrate that the questionnaire has good convergent validity among the latent variables.

4.2.2.4.2 Discriminant Validity Analysis

Discriminant validity is used to assess the independence between different constructs. If the measurement indicators of different constructs are significantly uncorrelated in statistics, then these constructs are considered to have good discriminant validity. As shown in the table below, there is a clear correlation between each potential variable, and its AVE value is mostly greater than the absolute value of its

correlation coefficient, indicating that the correlation and discriminant validity (Table 10). potential variables have a certain degree of

Table 10. Discriminant Validity

	Expects	Infra	Content Design	Services	Trans	F&B	Industry	PV	SAT
Expectation	0.818								
Infrastructure	0.793**	0.723							
Content Design	0.543**	0.569**	0.724						
Service	0.377**	0.424**	0.577**	0.782					
Transportation	0.593**	0.547**	0.706**	0.767**	0.794				
F&B	0.675**	0.507**	0.735**	0.589**	0.983**	0.867			
Industry	0.535**	0.559**	0.424**	0.542**	0.564**	0.511**	0.794		
PV	0.522**	0.511**	0.662**	0.627**	0.759**	0.721**	0.62**	0.709	
Satisfaction	0.495**	0.585**	0.721**	0.689**	0.746**	0.621**	0.653**	0.719**	0.766
AVE	0.669	0.522	0.524	0.611	0.631	0.751	0.631	0.502	0.586

Note: Bolded font indicates the arithmetic square root of AVE; ** denotes p-value significant at the 0.01 level

4.2.2.4.3 Overall Model Fit

The overall model fit refers to the degree of match between the structural equation model (SEM) and the actual data. Table 11 presents the criteria and data for evaluating the overall model fit.

Table 11. Criteria and Data for Structural Equation Model Fit

Criterion	Criterion	Data (Adjusted)
Chi-Square Test	Less than 3	2.783
RESEA	Less than 0.08	0.072
GFI	Greater than 0.9	0.905
CFI	Greater than 0.9	0.928

Due to discrepancies between the original data fit and the standard values, the data were revised. According to the data presented in the table above, all the values are higher than the standard values, indicating that the data fit the criteria for ideal data. Therefore, the structural equation model for visitor satisfaction has a good fit.

4.2.3 Hypothesis Testing and Summary Analysis

4.2.3.1 Hypothesis Testing

As shown in the table 12:

H1: There is a positive correlation between exhibition visitors' perceived quality and their satisfaction (C.R. > 1.96, P < 0.01), so hypothesis H1 is established.

H2: There is a positive correlation between exhibition visitors' perceived quality and their perceived value (C.R. > 1.96, P < 0.01), so hypothesis H2 is established.

H3: There is a positive correlation between exhibition visitors' perceived value and their satisfaction (C.R. > 1.96, P < 0.01), so hypothesis H3 is established.

Table 12. Path Coefficients Table

Path	Estimate	S.E.	C.R.	P
Perceived Value<--- Perceived Quality	1.016	.198	5.138	***
Audience Satisfaction <---	1.086	.206	5.265	***

Perceived Quality				
Audience Satisfaction<---	.390	.110	3.561	***
Perceived Value				

Furthermore, in the process of constructing the structural equation model in this study, the Bootstrap method was used to test the mediating effect of perceived value. Bootstrap mediation testing is a non-parametric resampling-based statistical method used to verify the mediating effect between variables. If the 95% confidence interval does not include 0, it indicates that the mediating effect is significant.

Table 13. Bootstrap Analysis of Indirect Effects

Effect Type	Estimate	95% Confidence Interval		P
		Lower Bound	Upper Bound	
Indirect Effect	.396	.108	.806	.015
Total Effect	1.482	1.127	1.985	.000
Relative Effect Value	.267	.068	.543	.014

According to the data in Table 13, the indirect effect value is 0.396, with (P < 0.05). The Bootstrap confidence interval is ([0.108, 0.806]), which does not include 0. Therefore, the mediating effect of perceived value between perceived quality and satisfaction is significant and is a partial mediating effect. Thus, Hypothesis H4 is established: The perceived value of exhibition visitors plays a mediating role in the impact of perceived quality on satisfaction.

4.2.3.2 Summary and Analysis

Through the research conducted, several key findings have been identified:

Firstly, the perceived quality of the exhibition has a significant positive impact on visitor satisfaction. The multidimensional perceptions formed by visitors during the exhibition, such as

their subjective evaluations of the exhibition's infrastructure, service management, and exhibition content, constitute the direct basis for the formation of satisfaction. High perceived quality means that visitors have experienced high standards in various aspects of the exhibition site, such as organizational arrangements, service quality, and exhibit presentation. This directly leads to a more satisfactory overall experience for the visitors. Therefore, exhibition organizers can precisely optimize exhibition services to enhance visitors' perceived quality of the exhibition, thereby achieving higher visitor satisfaction.

Secondly, the perceived quality of the exhibition is significantly positively correlated with visitor satisfaction. The perceived value that visitors obtain from the exhibition encompasses multiple dimensions, including functional value, emotional value, and social value. When visitors believe that the functions provided by the exhibition, such as product display, technical exchange, and business negotiation, meet their various needs, it prompts them to form a positive evaluation of the exhibition. This positive evaluation directly enhances visitor satisfaction, making them feel that the benefits of attending the exhibition far exceed their expectations, thereby generating recognition and goodwill towards the exhibition. Thirdly, perceived value plays a significant partial mediating role between perceived quality and satisfaction. As a "bridge variable," perceived value transforms visitors' quality perceptions into actual value recognition. When visitors believe that the service quality, unique value, industry communication value, and other aspects provided by the exhibition match their input costs, their perceived value increases, thereby driving an increase in satisfaction.

5. Conclusions and Discussion

5.1 Conclusions

This study takes the Liangzhilong·2025 13th China Food Ingredients E-commerce Festival as the research object. By collecting primary data through questionnaires and using statistical software such as SPSS and AMOS for in-depth econometric analysis, it elucidates the mechanism of action among perceived quality, perceived value, and visitor satisfaction. The findings indicate that, first, exhibition visitors' perceived quality can significantly enhance

visitor satisfaction. Providing high-quality on-site exhibition services has a positive promotional effect on visitor satisfaction. Second, exhibition visitors' perceived value can significantly enhance visitor satisfaction. When the exhibition influences visitors' subjective evaluations through aspects such as exhibit quality, service quality, and brand image, if visitors perceive higher benefits relative to their costs, their satisfaction will be significantly enhanced. Finally, perceived quality can indirectly influence visitor satisfaction by affecting perceived value. If the exhibition has a stronger quality perception in the minds of visitors, and visitors believe that the information acquisition, experience enjoyment, social opportunities, and other values brought by the exhibition are more advantageous, the satisfaction of visitors will correspondingly increase.

5.2 Discussion

Through a review of the existing literature, it is evident that this study contributes to the body of research on exhibition visitor satisfaction by addressing the gap in the exploration of the relationship between perceived quality, perceived value, and visitor satisfaction. This study holds theoretical value. However, several limitations are apparent in this study. The survey primarily targeted general visitors, which may have affected the overall model fit. Moreover, the study solely examined the relationship between perceived quality and perceived value with visitor satisfaction, without considering other factors that may influence visitor satisfaction. This limitation has resulted in insufficient depth and breadth of the research.

Future research could be improved in several ways. First, expanding the scope of the questionnaire survey to include more regions, different scales, and types of exhibitions could increase the diversity and representativeness of the samples, thereby enhancing the persuasiveness of the research conclusions. Second, constructing and comparing different satisfaction models could verify the universality and applicability of the models. For instance, incorporating more statistical analysis methods, such as the IPA analysis method, could provide a more comprehensive perspective and richer data support for the research. Third, further refining the model construction by enriching the relevant variables like visitor expectation, visitor

experience and visitor engagement to reveal the factors that affect visitor satisfaction comprehensively.

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