

SERVICE QUALITY AND VISITOR INTENTIONS AT THE NATIONAL PALACE MUSEUM OF KOREA

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Abstract: This study explores how service quality at the National Palace Museum of Korea (NPMK) affects visitors' revisit and recommendation intentions, with a focus on differences between domestic and international visitors. A modified HISTOQUAL model was applied, adding attractiveness to the five established dimensions of empathy, communication, consumables, responsiveness, and tangibles. Data were collected through a structured on-site survey of 256 visitors (154 Korean and 102 foreign) conducted in October 2024, using seven-point Likert scales for service quality and single-item measures for behavioral intentions. Reliability and validity were confirmed through Cronbach's alpha and confirmatory factor analysis, and multiple regression analyses were performed to test the hypothesized relationships. Results indicated that for Korean visitors, attractiveness and empathy significantly influenced both revisit and recommendation intentions, highlighting the importance of collection appeal and emotional engagement. For international visitors, responsiveness strongly predicted revisit intention, while tangibles and attractiveness shaped recommendation intention, underscoring the role of staff support and physical facilities. Comparative analyses also showed that foreign visitors reported lower revisit intentions than domestic visitors, likely due to practical barriers to repeat visits, while repeat visitors with greater prior experience expressed stronger loyalty. The findings demonstrate that culturally differentiated service strategies are essential: immersive interpretation and empathetic communication for Koreans, and multilingual responsiveness with enhanced facilities for foreigners. The study validates a heritage-sensitive service quality model and provides practical insights for strengthening visitor satisfaction, loyalty, and sustainable competitiveness in global museum tourism.

Keywords: service quality, HISTOQUAL, revisit intention, recommendation intention, National Palace Museum of Korea

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INTRODUCTION

Research on service quality has been actively conducted, particularly in the tourism sector. The SERVQUAL scale developed by Parasuraman et al. (1988, 1991) has been widely used to measure tourists' perceptions of service quality. Studies on museum service quality have also been conducted extensively, utilizing various measurement scales, including SERVQUAL and its adaptations such as SERVPERF (Daskalaki et al., 2020) and HISTOQUAL (Markovic & Jankovic, 2019; ÜNÜVAR & Yapici, 2016). The importance of museum service quality lies not only in visitor satisfaction but also in its role in local revitalization. Chami & Kaminyoge (2019) found that museum closures led to a decline in tourist satisfaction, a decrease in tour guides' and operators' income, and a downturn in the local economy. These findings indicate that such closures act as factors that reduce destination loyalty and revisit intention. Furthermore, Sharmin & Haque (2024) emphasized the importance of museum service quality in Bangladesh, as it significantly impacts sustainable tourism. They highlighted the need to develop a sustainable museum tourism model through the establishment of a museum service quality evaluation system, increased government investment, and the enhancement of research activities.

Despite the growing importance of museum service quality in global scholarship, research remains uneven across cultural and institutional contexts. In Korea, limited attention has been paid to the National Palace Museum of Korea (NPMK), a leading institution dedicated to royal culture and court heritage. Established within Gyeongbokgung Palace, the NPMK possesses unique cultural significance, housing UNESCO Memory of the World documents, national treasures, and artifacts central to Korean royal history. Yet, few empirical studies have systematically measured its service quality or examined how such perceptions shape visitors' future behavioral intentions, including their likelihood to revisit and recommend the museum.

To evaluate service quality in heritage contexts such as the NPMK, conventional tools like SERVQUAL and SERVPERF may be insufficient, as they often fail to capture the cultural, historical, and interpretative dimensions of heritage sites. Instead, the HISTOQUAL model developed by Frochot & Hughes (2000) provides a more suitable framework, specifically tailored to museums and heritage attractions by including dimensions such as communications and consumables.

However, given the dual nature of the NPMK as both a museum and a cultural heritage site, further modification of HISTOQUAL is warranted. In particular, the addition of an "attractiveness" dimension—reflecting the intrinsic appeal of

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artifacts, exhibitions, and the museum's royal setting—offers a more comprehensive way to assess visitor perceptions. Against this backdrop, this study examines how service quality at the NPMK influences visitor intentions to revisit and recommend the museum, while explicitly comparing domestic and international visitors.

By applying a modified HISTOQUAL model, this research not only contributes to refining service quality measurement in heritage settings but also provides actionable insights for differentiated visitor management strategies.

LITERATURE REVIEW

1. Evolution of Service Quality Measurement Tools

Service quality has been a central concept in tourism and hospitality research, with the SERVQUAL model (Parasuraman et al., 1988/1991) being the most widely applied instrument. SERVQUAL measures perceived service quality across five dimensions: reliability, empathy, tangibles, responsiveness, and assurance. Despite its popularity, criticisms emerged regarding its reliance on the gap between expectations and perceptions, which some scholars argued was methodologically problematic. In response, SERVPERF was introduced, focusing solely on performance perceptions. Studies such as Gür (2019) and Daskalaki et al. (2020) demonstrated SERVPERF's efficiency and predictive validity, showing its usefulness in linking service quality to visitor satisfaction and behavioral outcomes. However, both SERVQUAL and SERVPERF remain limited when applied to cultural heritage sites and museums, as they inadequately address the unique cultural, historical, and interpretative dimensions central to the visitor experience.

2. HISTOQUAL and Its Application in Museums and Heritage Sites

To address these limitations, Frochot & Hughes (2000) developed HISTOQUAL, a measurement tool specifically designed for heritage sites and museums. HISTOQUAL retains SERVQUAL's focus on responsiveness, tangibles, and empathy but adds two dimensions: communications (the quality of interpretive information and signage) and consumables (the provision of on-site ancillary services such as food, beverages, and souvenirs). This adaptation acknowledges that heritage sites are not only service-providing institutions but also spaces where cultural narratives, historical authenticity, and visitor interpretation play vital roles in shaping experiences. HISTOQUAL has been applied in diverse contexts, confirming its adaptability. Guliling & Aziz (2018) found that service quality strongly influenced satisfaction and loyalty in Malaysia's UNESCO World Heritage cities of Melaka and George Town. Olusola & Kayode (2018) identified staff responsiveness and experience packaging as key predictors of quality in Nigeria's National Theatre and National Museum. Markovic & Jankovic (2019), using a modified HISTOQUAL model in Croatia's museum sector, highlighted tangibles and accessibility as the strongest drivers of satisfaction. Similarly, ÜNÜVAR & Yapici (2016) applied HISTOQUAL to four Turkish museums, finding high ratings for tangibles and accessibility but weaker evaluations for availability. In Indonesia, Putra (2016) revealed a gap between visitor expectations and experiences at the Museum Geology Bandung, particularly in staff responsiveness, information provision, and souvenir services. Triantafillos & Stavros (2023) applied HISTOQUAL at the Acropolis Museum in Greece and showed that responsiveness, tangibles, communications, and consumables were reliable dimensions, while empathy was statistically insignificant. Finally, Benjawan et al. (2019) in Thailand emphasized the role of service quality in fostering creative tourism and competitiveness in UNESCO city museums. Collectively, these studies demonstrate the robustness of HISTOQUAL while also highlighting the need for contextual modifications.

3. Emerging Research Trends: Experience, Digitalization, and Cross-Cultural Factors

Recent scholarship has expanded beyond functional service delivery to incorporate experiential and technological dimensions. Codignola & Mariani (2017) identified attractiveness—the intrinsic appeal of exhibitions, artifacts, and location—as a determinant of visitor satisfaction and behavioral outcomes. Wu & Li (2014) similarly argued that heritage tourists' behavioral intentions are shaped by a complex interplay of experiential quality, perceived value, heritage image, and affective satisfaction. In China, Zhou & Ramli (2025) found that service management and facility environment significantly affected satisfaction in intangible cultural heritage museums, while Chen (2024) further identified cultural transmission factors as critical determinants in shaping the museum tourism experience. Digital innovations are also reshaping museum service frameworks. Zheng et al. (2024) showed that performance expectancy, design aesthetics, and cultural value drive engagement in digital museums, while Tang & Zhou (2025) demonstrated that augmented reality enriches satisfaction in historical museums. Fan (2025) further confirmed that affective and aesthetic experiences strongly influence recommendation intentions. Cross-cultural differences remain a critical theme. Zhang et al. (2020) highlighted the role of cultural identity in shaping consumption intentions in heritage tourism. Alves de Medeiros et al. (2025) showed discrepancies between residents' and tourists' perceptions of service quality, underscoring the need for segmented strategies. P.J. et al. (2021) also synthesized hospitality research, emphasizing the growing influence of emotions, engagement, and technology acceptance.

4. Research Gaps and Contribution of This Study

Despite these advancements, several limitations persist. First, many studies remain geographically localized (e.g., Aksöz & Çay, 2022; Zhou & Ramli, 2025), limiting generalizability to diverse global contexts. Second, few studies rigorously compare domestic and international visitors, leaving cultural contrasts understudied. Third, while digital transformation is increasingly explored (Zheng et al., 2024; Tang & Zhou, 2025), its integration with heritage-specific frameworks like HISTOQUAL remains underdeveloped. Additionally, empathy has shown inconsistent effects across cultural groups, suggesting the need for context-sensitive interpretations (Triantafillos & Stavros, 2023). This study addresses these gaps by applying a modified HISTOQUAL model to the National Palace Museum of Korea (NPMK),

incorporating an “attractiveness” dimension to reflect its royal collections and heritage setting. By comparing Korean and international visitors, the study provides empirical insights into how service quality perceptions vary across cultural groups and how these differences shape revisit and recommendation intentions. In doing so, it contributes to refining museum service quality measurement and guiding differentiated, culturally sensitive management strategies.

5. Conceptual Framework

The conceptual framework of this study is based on a modified HISTOQUAL model originally developed by Frochot & Hughes (2000) and adapted for the NPMK. This framework posits that service quality dimensions directly influence visitors’ behavioral intentions, specifically their intention to revisit and their intention to recommend the museum. Prior research has established that museum service quality positively affects revisit intention (Daskalaki et al., 2020; Duantrakoonsil et al., 2017) as well as recommendation intention (Bahrin et al., 2017). To capture the multifaceted nature of museum service quality, six dimensions are incorporated as independent variables. The attractiveness dimension reflects the appeal of artifacts, exhibitions, and the museum’s royal heritage setting. Empathy refers to the extent to which the museum accommodates diverse visitor needs, including those of children, the elderly, and people with disabilities.

Communication encompasses the quality, clarity, and accessibility of interpretive information, signage, and promotional materials, while consumables represent the availability and quality of ancillary services such as souvenirs and food and beverage options. Responsiveness refers to the efficiency and helpfulness of staff in addressing visitor inquiries and problems, and tangibles capture the physical environment, cleanliness, safety, and overall maintenance of museum facilities. The dependent variables consist of revisit intention, defined as the likelihood of visitors returning to the museum in the future, and recommendation intention, defined as the likelihood of visitors recommending the museum to others. Overall, this model suggests that museum service quality is a multidimensional construct that shapes visitor loyalty behaviors in distinct ways across different cultural groups. By testing this framework, the study aims to identify which dimensions are most influential for Korean and international visitors, thereby guiding the development of culturally differentiated service strategies. The proposed relationships among service quality dimensions and behavioral intentions are illustrated in Figure 1.

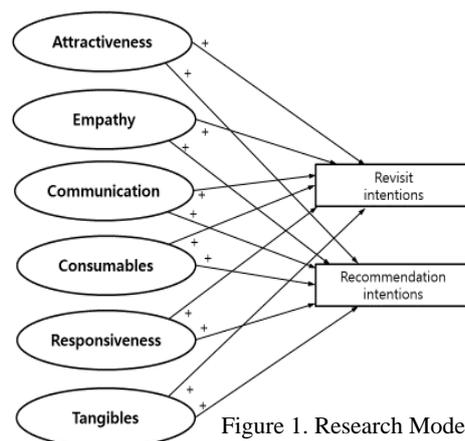


Figure 1. Research Model

MATERIALS AND METHODS

The subject of this study, the NPMK, is a prestigious national museum specializing in royal heritage. Established in 2005, the museum is dedicated to collecting, investigating, researching, preserving, educating, and exhibiting artifacts related to court culture and the overall state administration system from the Joseon Dynasty to the Korean Empire. The museum has set its vision as the realization of a happy life through the expansion of the foundation for enjoying royal culture. To achieve this vision, the museum has established key strategic areas, including digital transformation, safety, social value, and professional competency. The NPMK employs more than 150 personnel and operates seven permanent exhibition halls. As of 2023, the museum has registered a total of 64,632 artifacts, including five UNESCO Memory of the World items, four National Treasures, and 27 Treasures, all of which hold significant value in the history of the Korean royal family. Over the years, the museum has engaged in 79 special exhibitions, personnel exchanges, and collaborative research projects with institutions from Japan, China, Canada, Austria, and Germany.

In addition to exhibitions and academic exchanges, the museum actively conducts educational programs targeting infants, youth, and adults. As of 2023, a total of 883,599 visitors were recorded, benefitting from the museum’s proximity to Gyeongbokgung Palace, a major tourist attraction in Korea. This geographical advantage enhances the museum’s potential as a key cultural and educational hub (National Palace Museum of Korea, 2024). The aim of this research is to measure the service quality at the NPMK, to identify which dimensions are most prominent, and to examine whether these dimensions are perceived differently across visitor demographics. Additionally, the ultimate goal of this study is to examine whether service quality positively influences revisit intention and recommendation intention. The HISTOQUAL scale developed by Frochot & Hughes (2000) was used as measuring tool. Sampling method, population and sample, data collection tool, analysis of data and information about the reliability and validity of the scales used in the research take place in the method part of the research in terms of this aim. The population of the research is the visitors of NPMK. The measurement items and their corresponding constructs are presented in Table 1.

Table 1. Scale and Items (Source: Adapted from Frochot & Hughes (2000) to fit the context of this study)

Latent Variable	Items
Attractiveness	a1: The museum's artifacts are attractive. a2: The museum's artifacts represent royal culture well. a3: The museum provides interesting attractions. a4: The museum and its surroundings have beautiful scenery. a5: Historical resources are well preserved throughout the museum. a6: The National Palace Museum is distinct from other museums.
Empathy	b1: The museum allows free exploration without restrictions. b2: The museum has sufficient convenience facilities. b3: The museum provides appropriate facilities for children. b4: The museum provides facilities for the elderly and disabled. b5: The museum considers the needs of various visitor groups.
Communication	c1: The artifact information panels provide sufficient details. c2: Promotional materials and signboards are well placed in the museum. c3: Foreign language promotional materials and signboards are appropriate. c4: Museum promotions are effectively conducted. c5: Museum guides are appropriately assigned.
Consumables	d1: The museum provides a variety of souvenirs and products. d2: The museum café offers a diverse selection of food and beverages.
Responsiveness	e1: The museum allows visitors to ask questions anytime. e2: Staff are available to resolve any inconvenience or issue.
Tangibles	f1: The museum is well maintained and clean. f2: Signposts in the museum are accurate and helpful. f3: Safety management within the museum is well implemented.

This study conducted a survey targeting visitors to the National Palace Museum of Korea. The survey was administered by a professional research agency over a one-week period from October 17 to October 23, 2024. Surveyors were stationed at the exit lobby of the museum, where they selected respondents based on a proportional representation of nationality (domestic and international visitors), gender, and age. After obtaining their consent, the survey was conducted through one-on-one face-to-face interviews. Given the high proportion of foreign visitors, the questionnaire was prepared in foreign languages with content identical to that of the Korean version. The survey analysis was conducted using SPSS 22.0, applying descriptive statistics, group mean comparisons, reliability analysis, and multiple regression analysis. Additionally, confirmatory factor analysis (CFA) was performed using AMOS 18.0. Especially, Cheng & Wan (2012) utilized HISTOQUAL to examine the service quality of museums in Macao. As they suggested, this study also categorized participants into Korean (local) and foreign groups and conducted various statistical analyses.

The measurement scale used in this study is based on the service quality scale (HISTOQUAL) developed by Frochot & Hughes (2000). Accordingly, the 24 questions in total they developed were adopted and modified to fit the research context. Likert-type scale (1= totally disagree, 4=normal, 7= totally agree) was used. Regarding the dependent variables, previous studies have utilized revisit intention and recommendation intention either as single-item measures. The decision to measure revisit and recommendation intentions using single-item direct measurement variables in this study is methodologically sound and supported by academic literature. This approach was chosen to elicit intuitive and direct responses from participants, minimizing cognitive burden and potentially yielding more authentic reflections of immediate intentions, especially within a survey context measuring multiple complex constructs. Academically, Bergkvist & Rossiter (2009) advocate for single-item measures for "doubly concrete constructs," which are defined by a simple, clear object (e.g., the museum) and a single, unambiguous attribute (e.g., intention to revisit or recommend). Both "revisit intention" and "recommendation intention" fit this definition. Furthermore, research indicates that single-item measures can achieve comparable predictive validity to multiple-item measures, and methods exist to estimate their reliability and correct for attenuation, ensuring psychometric soundness. The consistency of this approach with previous studies in tourism and marketing further validates its application in this research (Efverman, 2024).

The questionnaire consists of two parts. In the first part, there is information about participants (Korean/foreigner, gender, age, reason for visit, occupation, and companion, number of museum visits) and in the second part there are HISTOQUAL scale items. The questionnaires were filled in by the museum visitors in person or were filled in with face-to-face interviews in the research. 256 questionnaires were filled in and there were no incomplete or invalid responses.

The demographic characteristics of the respondents are summarized in Table 2. A total of 256 individuals responded to the survey. Among them, 154 participants (60.2%) were Korean, while 102 (39.8%) were foreign nationals. In terms of gender distribution, females (54.7%) outnumbered males (45.3%). The age distribution was as follows: individuals in their 30s (25.8%), 20s (19.5%), and 40s (18.8%) constituted the largest groups. Regarding occupational distribution, company employees accounted for the largest proportion (37.5%), followed by others (16.8%), homemakers (12.5%), and self-employed individuals (11.7%). Regarding visit experiences, the most common number of visits to the NPMK was twice, accounting for 52.0% of respondents. The average duration of stay per visit was 77.5 minutes.

As for the motivation for visiting, 57% of respondents stated that they visited the museum while touring Gyeongbokgung Palace, while 14.8% cited recommendations from acquaintances. Additionally, family groups were the most common type of companions, comprising 42.6% of the respondents.

Table 2. Characteristics of Survey Respondents

Category	Frequency	Percentage (%)
Nationality	Korean: 154	60.2%
	Foreigner: 102	39.8%
Gender	Male: 116	45.3%
	Female: 140	54.7%
Age Group	Teens: 15	5.9%
	20s: 50	19.5%
	30s: 66	25.8%
	40s: 48	18.8%
	50s: 36	14.1%
	60+: 41	16.0%
Visit Purpose	Promotional Material: 10	3.9%
	Palace Visit: 146	57.0%
	SNS: 15	5.9%
	Recommendation: 38	14.8%
	Regular Visit: 27	10.5%
Occupation	Self-employed: 30	11.7%
	Office Worker: 96	37.5%
	Public Sector/Education: 26	10.2%
	Housewife: 32	12.5%
	Student (Secondary): 15	5.9%
	Student (University): 14	5.5%
	Other: 43	16.8%
NPMK Visit Frequency	Once: 43	16.8%
	Twice: 133	52.0%
	Three or more: 80	31.2%

RESULTS

1. Validity and Reliability of Variables

This study utilized the HISTOQUAL scale proposed by Frochot & Hughes (2000) to assess service quality. The validity and reliability of this scale have been demonstrated through various studies. To examine the validity of the model, as recommended by Anderson & Gerbing (1988), the measurement model was first estimated using a confirmatory factor analysis (CFA), followed by a structural model to test the proposed hypothesis relationships. To verify potential differences in these relationships, both the measurement model and the structural model were separately conducted for the Korean visitors group and the foreign visitors group. The validity of the measurement model was evaluated through model fit indices, factor loadings, Squared Multiple Correlation (SMC) values, Average Variance Extracted (AVE), and Construct Reliability (CR). Additionally, Cronbach's Alpha (α) was used to assess the reliability of the constructs. The results of the validity and reliability analyses are reported in Table 3.

Table 3. Validity and Reliability Analysis Results

Latent Variable	Item	Estimate	SMC	AVE	CR	Cronbach's α
Attractiveness	a1	.771	.595	.669	.923	.921
	a2	.853	.727			
	a3	.838	.702			
	a4	.812	.659			
	a5	.910	.828			
	a6	.707	.500			
Empathy	b1	.597	.356	.521	.844	.856
	b2	.713	.509			
	b3	.742	.550			
	b4	.751	.564			
	b5	.791	.625			
Communication	c1	.869	.755	.651	.903	.887
	c2	.875	.765			
	c3	.811	.658			
	c4	.791	.626			
	c5	.673	.453			
Consumables	d1	.834	.696	.662	.797	.795
	d2	.793	.628			
Responsiveness	e1	.794	.630	.612	.759	.743
	e2	.770	.592			
Tangibles	f1	.754	.569	.641	.842	.801
	f2	.793	.629			
	f3	.851	.725			

The results of the confirmatory factor analysis indicated that all six intended factors in the research model had factor loadings exceeding 0.5. Although the SMC value for c5 was 0.453, which was the lowest among the factors, it still

exceeded the minimum threshold of 0.4 suggested by Diamantopoulos & Sigauw (2000), indicating that it does not significantly impair validity. Furthermore, both the AVE and CR values exceeded the commonly accepted thresholds, confirming no validity concerns. Reliability analysis was conducted using Cronbach's Alpha (α), and the results showed that all latent variables had coefficients of 0.743 or higher, indicating no issues related to reliability. To evaluate the goodness of fit of the proposed research model, this study utilized absolute fit indices, incremental fit indices, and parsimonious fit indices, as suggested by Kim (2005) and Hu & Bentler (1999). The absolute fit indices were assessed using the chi-square (X^2)/degrees of freedom (df), goodness of fit index (GFI), and root mean-square residual (RMR). The incremental fit indices included the normed fit index (NFI), incremental fit index (IFI), and comparative fit index (CFI). The parsimonious fit index was examined using the root mean square error of approximation (RMSEA). After reviewing the initial model fit, modification indices (MI) could have been applied within a logical framework; however, since the model fit was not low, they were not implemented. The results indicated that the degrees of freedom (DF) were 237, and the chi-square (CMIN/ X^2) value was 560.129, yielding an X^2 /df ratio of 2.363, which met the acceptable threshold. Additionally, IFI, CFI, RMR, and RMSEA values satisfied the acceptance criteria. Although GFI and NFI fell slightly below the recommended thresholds, they were close to the acceptable range. Considering the overall fit indices, the model validity was not significantly impaired. Therefore, a comprehensive assessment of the model fit indices suggests that the research model presented in this study does not exhibit any serious issues that could compromise its validity. The overall model fit indices are shown in Table 4.

Table 4. Model fit

	X^2 /df	GFI	RMR	NFI	IFI	CFI	RMSEA
Acceptance	<3	>.9	<.08	>.9	>.9	>.9	<.08
model	2.363	.848	.07	.898	.938	.938	.07

2. Analysis of Mean Differences Between Groups

The analysis of mean differences between groups in this study was conducted using an independent samples t-test and one-way ANOVA. First, the difference in mean scores between domestic and foreign visitors was found to be statistically significant in terms of revisit intention ($p < 0.05$). The lower revisit intention among foreign visitors compared to Korean visitors can be attributed to factors such as accessibility and limited opportunities for revisits. Cheng & Wan (2012) utilized HISTOQUAL to examine the service quality of museums in Macao, finding that foreign visitors reported higher satisfaction levels than local visitors. Additionally, demographic factors, such as visitors' educational levels, appeared to influence satisfaction. However, the results of this study indicated that, except for revisit intention, there were no significant mean differences between Koreans and foreigners across all latent variables. The results of the t-test and ANOVA analyses are presented in Table 5. Next, the difference in mean scores across age groups was found to be statistically significant in terms of intention to recommend ($p < 0.05$). According to Ünüvar & Yapıcı (2016), visitor perceptions of service quality differed based on demographic factors such as age and education level.

However, no statistically significant mean differences were found among the age groups for other variables. Cheng & Wan (2012) concluded that visitor perception may vary depending on the type of museum. Finally, the difference in mean scores based on visit frequency revealed that visitors who had visited the museum three times or more exhibited a higher revisit intention compared to those who had visited twice, with the difference being statistically significant ($p < 0.01$).

Table 5. T-test, ANOVA (* $p < 0.05$, ** $p < 0.01$)

	(N)	Attractiveness	Empathy	Communication	Consumables	Responsiveness	Tangibles	Revisit intention	Intention to recommend
Nationality	Korean (154)	6.06	5.73	5.78	5.43	5.86	6.19	6.09*	6.13
	Foreigner (102)	6.23	5.89	5.86	5.36	5.68	6.28	5.74*	6.27
	t	-.76	1.33	.40	-.61	-1.28	-1.39	2.23*	-1.17
Gender	Male (116)	6.02	5.76	5.69	5.36	5.75	6.17	5.82	6.04*
	Female (140)	6.22	5.83	5.90	5.44	5.83	6.28	6.06	6.31*
	t	-1.78	-.61	-1.58	-.51	-.61	-1.04	-1.51	-2.19*
Age	Teens (15)	6.18	5.85	6.11	5.93	5.63	6.38	5.93	6.27
	20s (50)	6.19	5.88	5.84	5.50	5.87	6.35	5.56	6.14
	30s (66)	6.21	5.88	5.76	5.43	5.86	6.35	6.02	6.26
	40s (48)	6.10	5.68	5.83	5.32	5.83	6.13	6.00	6.04
	50s (36)	5.92	5.76	5.82	5.46	5.65	6.08	6.00	6.08
	60+ (41)	6.11	5.72	5.69	5.07	5.72	6.07	6.22	6.37
	F	.56	.36	.39	1.29	.33	1.24	1.41	.689
Visit frequency	Once (43)	6.21	5.89	5.87	5.55	5.92	6.38	6.00	6.33
	Twice (133)	6.14	5.80	5.76	5.33	5.73	6.21	5.65**	6.08
	Three or more (80)	6.07	5.75	5.86	5.43	5.83	6.17	6.43**	6.30
	F	.311	.308	.335	.523	.601	.872	10.28**	1.89

3. Multiple Regression Analysis

This study conducted a multiple linear regression analysis to empirically examine the impact of the service quality (HISTOQUAL) of the NPMK on revisit intention and intention to recommend. During the analysis, gender was treated as a dummy variable, with females set as the reference group. First, in the regression analysis for Korean visitors, the results showed that when the dependent variable was revisit intention, the $R^2(AdjR^2)$ value was 0.471 (0.438), and the F-value was 14.245 ($p = 0.00$), meeting the statistical significance criteria. The Durbin-Watson value was 2.22, indicating no significant autocorrelation concerns. When the dependent variable was intention to recommend, the $R^2(AdjR^2)$ value was 0.544 (0.515), with an F-value of 19.069 ($p = 0.00$), and a Durbin-Watson value of 2.08, confirming that the model met the statistical assumptions. Additionally, the tolerance and VIF values indicated a low possibility of multicollinearity. For Korean visitors, attractiveness ($\beta=0.487$) and empathy ($\beta=0.259$) had a significant positive effect on revisit intention, both being statistically significant. Similarly, attractiveness ($\beta=0.445$) and empathy ($\beta=0.302$) also showed a significant influence on intention to recommend. Overall, Korean visitors perceived attractiveness and empathy as the most critical factors in enhancing revisit intention and intention to recommend in relation to the service quality of the NPMK. Among the control variables, age and visit frequency were found to be relevant to both revisit intention and intention to recommend. The regression results for Korean visitors are presented in Table 6.

Table 6. Regression Analysis Results for Korean Visitors (* $p<0.05$, ** $p<0.01$)

	Revisit intention		Recommendation Intention		Collinearity	
	Standardized β	t	Standardized β	t	tolerance	VIF
Attractiveness	.487	4.082**	.445	4.016**	.259	3.868
Empathy	.259	2.127*	.302	2.672**	.247	4.045
Communication	.087	.729	-.071	-.637	.257	3.889
Consumables	.055	.606	.054	.642	.442	2.262
Responsiveness	-.099	-1.008	-.103	-1.133	.381	2.625
Tangibles	-.163	-1.228	.123	.999	.209	4.784
Gender	.076	1.217	.075	1.292	.940	1.063
Age	.185	2.910**	.153	2.577*	.905	1.105
Visit frequency	.205	3.303**	.115	2.002*	.954	1.048
$R^2(AdjR^2)$.471(.438)		.544(.515)			
F	14.245**		19.069**			
Durbin-Watson	2.22		2.08			

Next, the regression analysis results for foreign visitors were examined. When the dependent variable was revisit intention, the $R^2(AdjR^2)$ value was 0.426 (0.370), and the F-value was 7.587 ($p = 0.00$), meeting the statistical significance criteria. The Durbin-Watson value was 2.29, indicating no significant autocorrelation issues. When the dependent variable was intention to recommend, the $R^2(AdjR^2)$ value was 0.716 (0.688), with an F-value of 25.758 ($p = 0.00$), and a Durbin-Watson value of 2.35, confirming that the model met the statistical assumptions. Additionally, the tolerance and VIF values indicated a low possibility of multicollinearity. For foreign visitors, responsiveness ($\beta=0.452$) had a significant positive effect on revisit intention, with statistical significance at $p < 0.01$. This suggests that staff-related responsiveness played a crucial role in determining whether foreign visitors would return to the museum. Regarding intention to recommend, both tangibility ($\beta=0.350$) and attractiveness ($\beta=0.335$) exhibited statistically significant effects at $p < 0.05$.

This indicates that foreign visitors were more likely to recommend the museum based on the quality of museum facilities (tangibility) and the appeal of artifacts and scenery (attractiveness). Overall, the results highlight that the key factors influencing revisit intention and recommendation intention differ for foreign visitors. While responsiveness was the most significant factor for revisit intention, attractiveness and tangibility were the primary drivers for recommendation intention. Unlike Korean visitors, none of the control variables (e.g., age or visit frequency) showed significant relevance for foreign visitors. The regression results for foreign visitors are presented in Table 7.

Table 7. Regression Analysis Results for Foreign Visitors (* $p<0.05$, ** $p<0.01$)

	Revisit intention		Recommendation Intention		Collinearity	
	Standardized β	t	Standardized β	t	tolerance	VIF
Attractiveness	.092	.443	.335	2.291*	.145	6.915
Empathy	-.183	-.957	.166	1.237	.171	5.857
Communication	.193	1.270	-.004	-.037	.272	3.682
Consumables	.148	1.094	-.054	-.570	.342	2.924
Responsiveness	.452	3.322**	.064	.672	.336	2.972
Tangibles	.018	.081	.350	2.300*	.133	7.496
Gender	.015	.183	.062	1.070	.914	1.094
Age	.071	.829	-.011	-.184	.858	1.166
Visit frequency	-.009	-.113	-.063	-1.117	.957	1.045
$R^2(AdjR^2)$.426(.370)		.716(.688)			
F	7.587**		25.758**			
Durbin-Watson	2.29		2.35			

DISCUSSION

This study provides significant insights into the differentiated impact of service quality dimensions on visitor behavior at the National Palace Museum of Korea (NPMK). A key theoretical contribution is the introduction of “attractiveness” as an additional dimension in the modified HISTOQUAL framework. By explicitly integrating the heritage asset itself as part of perceived service quality, this study extends the conventional service quality discourse and highlights the intrinsic role of cultural and historical resources in shaping visitor experiences. The empirical findings reveal clear nationality-based differences. Korean visitors emphasized attractiveness and empathy, suggesting that cultural familiarity and emotional engagement are decisive in shaping their museum experience. In contrast, foreign visitors highlighted responsiveness and tangibility, underlining the importance of staff interaction, multilingual communication, and physical facilities in reducing barriers to engagement. These results add a nuanced layer to existing literature, showing that nationality and cultural background function as critical moderating variables in museum service quality research.

When compared with previous studies, the findings both align with and diverge from established evidence. For example, Markovic & Jankovic (2019) identified tangibility and accessibility as the most influential factors in Croatia’s museums, while ÜNÜVAR & Yapici (2016) found that Turkish museums faced challenges in service availability despite strong ratings for tangibility and accessibility. The NPMK’s positive evaluations in tangibility but relatively weaker responsiveness for foreign visitors reflect this international trend, yet also suggest the necessity of more culturally adaptive strategies. Putra (2016) similarly emphasized the role of responsiveness, reinforcing the argument that personalized and context-sensitive interactions are essential for foreign visitor satisfaction.

This study also contributes to the debate on empathy’s role. While Triantafillos & Stavros (2023) found empathy insignificant, the present research demonstrates its importance for Korean visitors, implying that cultural context and museum management approaches significantly mediate the role of affective dimensions. Moreover, differences in revisit intentions noted by Maghrifani et al. (2024) further support the proposition that prior experiences and expectations vary across nationalities, influencing behavioral outcomes in distinctive ways. This is consistent with Preko et al. (2020), who demonstrated that visit frequency serves as a significant moderating factor in the relationship between museum experience and visitor satisfaction. Collectively, these findings underscore the importance of culturally sensitive and segmented service strategies in museum management. They confirm that a “one-size-fits-all” model is inadequate and that the interplay between heritage presentation, staff interaction, and visitor background critically shapes satisfaction and behavioral intentions.

CONCLUSION

This study demonstrates that service quality at the NPMK significantly influences both revisit and recommendation intentions, but the determinants vary by visitor nationality. For Korean visitors, attractiveness and empathy are central, while for foreign visitors, responsiveness and tangibility are more decisive. Accordingly, the museum should prioritize enhancing exhibitions and immersive heritage programs for domestic audiences, while focusing on improving multilingual services, staff responsiveness, and visitor-friendly communication for international tourists. These differentiated strategies will not only enhance visitor satisfaction but also strengthen the museum’s role in promoting sustainable cultural tourism. Future research should investigate how heritage-based service quality contributes to long-term brand loyalty and destination competitiveness, thereby extending the applicability of the modified HISTOQUAL model in broader cultural tourism contexts.

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