Museums' Service Quality and Visitors' Future Intention: The Case of Greek Museums

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ABSTRACT

The satisfaction of museum visitors, consist a prominent reason for their future intention, to revisit and recommend the place. The research efforts of the present study were to investigate the relationship between the museum's service quality, visitors' intention to future revisit and their willing to talk positive about the museum visit. In order to get a holistic view of the subject, a survey among museum visitors was conducted and a statistical model was designed. The scope of this model was the understanding and the prediction of museum visitor's future behaviour.

Key Words: Visitor's Behavior, Service Quality, Model

INTRODUCTION

Cultural tourist is defined as someone who visits a cultural tourism attraction, museum or historic site, attends a performance or festival and participates in other cultural activities at any time during its trip (McKercher, 2002). The World Tourism Organization estimates that the demand for cultural tourism is growing by 15% per annum (Richards, 1996). As cultural tourism continues to grow, site and museum managers face the challenge of developing a better understanding of the market and of developing services to best mach the needs of the visitors (McKercher, 2002).

The factors that lead to visitors' satisfaction and consist the dimensions of service quality were investigated with the help of the principal components analysis to reveal the quality aspects that affect visitors' future intentions. Based on the theoretical model of service quality, (SERVQUAL, Parasuraman et al., 1985), museums' services were evaluated by the visitors and the quality dimensions of the services, were described.

The Structural Equation Modeling (SEM) was selected as the most appropriate statistical tool to verify the model in the case of Greek archaeological, public museums, with questionnaires filled by tourists, visitors of the museums. The data fitted the model well and described the relationship between the museums' service quality and visitors' future intention to revisit and recommend. This modified SERVQUAL model, lead to the description of a behavioural model of Greek museum visitors.

CONCEPTUAL FRAMEWORK

Visitors choose a service to gain some utility. They evaluate the satisfaction they received from the services offered by comparing their expectations, with the perceived quality of the service (Tse and Wilton, 1988; Rojas et al, 2008). From the literature will conclude that the service satisfaction is a key factor for future behaviour and the intention to revisit it (Fornell, 1992; Oliver, 1999; Zeithaml et al, 1996). The higher their satisfaction is, the stronger the intention of the visitor-consumer is going to be (Rojas et al, 2008), in order to visit the site in the future and recommend it to friends and relatives.

The adoption of marketing philosophy in the museum operation will result in service quality, higher satisfaction ratings, and satisfied visitors will become the best ambassadors of the organization, spreading its fame through the "word of mouth" (Tobelem, 1998). It is important to underline that creating a strong brand, is essential in developing a positive "word of mouth", (WOM), (Kotler et al, 2008; Rentschler, 2007).

The basic literature on tourism development and visitor's satisfaction argues that tourists choose their destination based on the service quality of their experience. Their positive or negative experiences form their satisfaction or their tourist trip. Huo and Miller (2007), based on previous surveys, they defined a theoretical model exploring the relationship between visitor satisfaction, the characteristics of the service and their future intentions on behaviour. Huo and Miller (2007) defined three assumptions of the relationship between visitor satisfaction and tourism development that lead to increased visits to a museum:

• The greater the satisfaction of the visitor's experience is the more likely is to visit the museum again.
• Visitor's satisfaction depends on the characteristics of the visit, the staff and the overall perceived experience.
• Satisfaction varies, depending on the demographic characteristics of each group of visitors.

The research results of Huo and Miller (2007), confirmed the three assumptions. More likely is to visit again the site in the future, when the satisfaction is higher and the museum's personnel is crucial in evaluating the services offered by the visitor.

The quality of services can be assessed using rating scale (service quality measurement), (Albacete-Saez et al, 2007). One of the most widely used rating scales and services is the SERVQUAL by Parasuraman, Zeithaml and Berry (1988, 1991), which assesses customers' expectations and the perceived quality of service. The theoretical model SERVQUAL, developed by Parasuraman et al (1985), is a useful tool for studying the quality of service and customer satisfaction (Eraqi, 2006). This model was used in the evaluation of the museum as a tourism product by Nowacki (2005) and by Eraqi (2006) for the tourist services. Although this method has influenced many researchers, it has received also many critical reviews (Buttle, 1996; Ekinci and Riley, 2001).

The assessment of the quality of service, because of its intangible nature, is much more difficult than evaluating the quality of products. To achieve this Nowacki (2005) conducted a survey among museum visitors to identify what are the expectations of visitors and what is the level of perceived quality describing the use of the model SERVQUAL, in assessing the quality of the museum. This method had been also used in recreational areas (Taylor et al, 1993), historical sites, historic houses (Frochot and Huges, 2000), tourist agencies (Luk et al, 1993), tourism offices (Ryan and Cliff, 1997), tour (Atilgan et al, 2003), theme parks (O'Neill and Palmer, 2003) and other forms of entertainment and tourism.

Based on the theoretical model of SERVQUAL by Parasuraman et al (1988), two (2) research questions were formed and investigated, as it is also illustrated in the investigated model, Figure 1:
- Research Question 1: Which are the main factors that constitute the dimensions of the service quality in the Greek public museums, (Nowacki, 2005; Lam and Hsu, 2006)?
- Research Question 2: Does the Service Quality influence visitors' future intention to Revisit and Recommend the museum, (Nowacki, 2005)?

Figure 1.
Service Quality with Revisit and Recommend
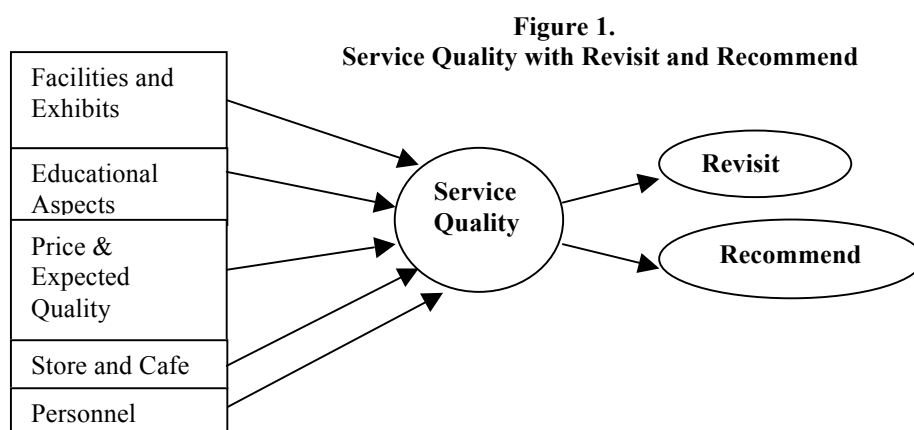
METHODOLOGY

In the present survey, the impact of cultural tourism to the development of tourist destinations was investigated with two statistical methods; the principal component analysis and the SEM. The methodology used was based on the strategic planning for marketing research by Kotler et al (2008) and the marketing strategy by Runyard and French (1999). The survey took place from January 2009 to July 2009 with 535

questionnaires, filled by tourists, visitors of five Greek, archaeological museums, in five tourist destinations in Greece, which were: the Delphi Museum, the Mycenae Museum, the Ancient Olympia Museum, the Ancient Corinth Museum and the Epidaurus Museum. Those public museums represent about the 15% of the total museum visits, including their archaeological sites.

The scope of this survey was the evaluation of the museums' services and the understanding and the prediction of museum visitor's future behaviour. The quality of services offered and the ability of the directors and the staff of the museums to meet the needs of visitors were investigated. In order this to be achieved, questionnaires were designed according to the literature, to investigate the factors that represent the data quality and the visitor's satisfaction elements of the services offered. With the exploratory principal component analysis, the factors that represent museum quality characteristics were formed. Thereupon, the SEM analysis followed, to correlate the already defined factors, as latent variables with visitors' willing to future revisit and recommend.

The SEM was selected as the most appropriate method to examine the relationship between service quality and visitors' intention to revisit and recommend (Tabachnick and Fidell, 2007). According to Hoe (2008), the critical sample size should reach 200 samples. This condition was met since the sample was 535 questionnaires and could be considered as representative of a typical museum audience (Kawashima, 1998; Harrison and Shaw, 2004). The application of SEM, evaluated the adaptation of the model based on the suggestions of the theory. The statistical analysis was done with the program STATISTICA 8.0 for Windows of StatSoft USA.

ANALYSIS OF RESULTS

On the application of principal components analysis, five factors extracted from the characteristics of the services. The principal component analysis of five museums explained 60% of the total variance. With this method the questions of the questionnaire were grouped into five factors and described the services' characteristics, as assessed by the respondents. The factors were; Facilities and Exhibits, Educational Aspects, Price and Expected Quality, Store and Café, Personnel (Table 1).

Parasuraman et al. (1988) described five factors affecting service quality: Tangible, Assurance, Responsiveness, Reliability and Empathy. In this modified SERVQUAL model, the factors that were revealed could be regarded in correspondence to SERVQUAL method as: Facilities and Exhibits as Tangible, Educational Aspects as Responsiveness, Store and Café as Tangible, Price and Expected Quality as Reliability and Personnel as Empathy, Assurance and Responsiveness.

Therefore, this analysis revealed that there were different factors that lead to the satisfaction and visitors' satisfaction depended on the characteristics of the quality of the services offered. These were in accordance to the literature (Nowacki, 2005; Lam and Hsu, 2006), that visitors were affected by specific factors which constitute the dimensions of the service quality and confirmed the Research Question 1. Taking into account the variables and the factors extracted from the principal components analysis, the following model was created, depicting the loadings of twenty-nine characteristics, questions from the questionnaire, and the variance of each of the five factors (Table 1).

With the SEM analysis, the relationship between the service quality, the revisit, and the recommend, was investigated. Service quality was composed of five factors that emerged from the principal components analysis that was preceded. The investigated model is shown in Figure 1. The relationship between service quality, with the revisit and recommend, finally was confirmed, as is shown in Table 2, since they form statistically significant relationship (Prob. Level 0.0) and confirmed the Research Question 2.

The variables of the model consisted of the relevant questions in the questionnaire. The statistical relations were examined according to their loadings. The statistical significant p level ($p < 0.05$), confirmed that were not accidental. The parameter estimate of each variable, showed the importance of each variable in the relationship and it was stronger when it was closer to the unit. Revisit forms a strong relationship (Par. Est. 0.77) while recommend is less strong (Par. Est.. 0.64). As it is shown in Table 2, service quality forms statistically significant relationships with the Facilities & Exhibits and the Personell. To find more detailed what factors of the service quality contribute to revisit and to recommend, further analysis was conducted.

As it is shown in Table 4, revisit forms relationship with four factors, Facilities & Exhibits, Educational Aspects, Store & Cafe and the Staff. Therefore, these four factors affect the disposal of visitors to visit again and

should be taken seriously by the staff of museums and the Ministry of Culture and Tourism to design the appropriate strategy, and to ensure future visits (Figure 2). As is apparent from the statistical analysis, when the probability level is statistically significant (less than 0.05), then the relationships are confirmed (Figure 2). Therefore, these services should be analysed and developed appropriately to meet the needs and demands of visitors.

Table 1.
Loadings of 29 Characteristics and Variances of 5 Factors

0,57	FE1:The building, the architecture	
0,72	FE2:The internal area, the exhibits	Expl. Var 5.10
0,62	FE3:The structure of the exhibitions	
0,55	FE4:The lighting of the exhibitions that show the exhibits	Facilities and Exhibits
0,51	FE5:Labels with enough information	
0,59	FE6:The beauty of the exhibits	
0,68	FE7:The important, uniqueness of the exhibits	
0,68	FE8:The variety of the exhibitions	
0,61	FE9:Completeness of the exhibits	
0,80	EA1:PC for searching information	
0,86	EA2:Virtual Reality	Expl. Var 5.64
0,87	EA3:PC games with historical theme	Educational Aspects
0,87	EA4:Special routes and exhibitions for families and kids	
0,81	EA5:Educational program, special leaflet for families	
0,63	EA6:Ease of access for elderly and disable	
0,54	PE1:Ticket price compared to the service quality offered	Expl. Var 3.49	Price and Expected Quality
0,75	PE2:Cleanliness indoor spaces	
0,74	PE3:Cleanliness outdoor spaces	
0,68	SC1:Quality and variety of the goods at the café-restaurant	Expl. Var 4.31	Store and Cafe
0,69	SC2:Quality and variety of the selling goods at the store	
0,68	SC3:Attractive presentation of the goods at the store	
0,63	SC4:Café-restaurant prices compared to the	
0,57	P1:Personnel appearance	Expl. Var 4.86	Personnel
0,70	P2:Personnel attitude in the entrance	
0,69	P3:Personnel attitude in the exhibitions	
0,66	P4:Enough personnel	
0,74	P5:Knowledgeable personnel	
0,64	6:Communication in foreign languages adequacy of the personnel	Total variance explained=0.60%

Table 2.
Model Estimates

	Parameter - Estimate	Standard - Error	T - Statistic	Prob. - Level
(Service) -> FACILITIES	0.415	0.062	6.665	0.000
(Service) -> EDUCATION	0.100	0.064	1.559	0.119
(Service) -> PRICE AND	0.024	0.063	0.373	0.709
(Service) -> STORE AND	0.057	0.062	0.921	0.357
(Service) -> PERSONNEL	0.263	0.062	4.230	0.000
(Service) -> (Revisit)	0.777	0.073	10.576	0.000
(Service) -> (Recommend)	0.644	0.046	14.134	0.000

Table 3.
Statistical Analysis of the Model

	Value	Comments
Discrepancy Function	0.0584	
Maximum Residual Cosine	0.307	Low value indicates good application of the data to the model.
Maximum Absolute Gradient	0.0701	Very low value indicates good application of the data to the model.
ML Chi-Square	26.8218	The value of x^2 is statistically significant and therefore the relationships examined can be regarded as real.
Degrees of Freedom	14	
p-level	0.020306	
RMS Standardized Residual	0.036	Very low value indicating good implementation of the data to the model.

| Noncentrality Fit Indices	Lower 90% Conf. Bound	Point Estimate	Upper 90% Conf. Bound	Comments
Steiger-Lind RMSEA Index	0.0115	0.0416	0.0674	The low index value indicates a good fit of the data to the model.

Table 4.
Model Estimates

	Parameter - Estimate	Standard - Error	T - Statistic	Prob. - Level
(Facilities) -> (Revisit)	0.223	0.057	3.929	0.000
(Educational) -> (Revisit)	0.274	0.121	2.257	0.024
(Price) -> (Revisit)	-0.055	0.102	-0.538	0.591
(Store) -> (Revisit)	0.819	0.128	6.394	0.000
(Personnel) -> (Revisit)	0.330	0.093	3.568	0.000
(Facilities) -> (Recommend)	0.311	0.040	7.718	0.000
(Educational) -> (Recommend)	-0.006	0.085	-0.068	0.946
(Price) -> (Recommend)	0.085	0.073	1.174	0.241
(Store) -> (Recommend)	0.431	0.064	6.696	0.000
(Personnel) -24 -> (Recommend)	0.301	0.066	4.585	0.000

Table 5.
Statistical Analysis Model

	Value	Comments
Discrepancy Function	0.00933	
Maximum Residual Cosine	0.00615	Special low price showing good application of the data to the model.
Maximum Absolute Gradient	0.000654	Very low value indicating good application of the data to the model.

ML Chi-Square	4.28107			
Degrees of Freedom	10			
p-level	0.933778			
RMS Standardized Residual	0.0185		Very low value indicating good application of the data to the model.	
Noncentrality Fit Indices	**Lower 90% Conf. Bound**	**Point Estimate**	**Upper 90% Conf. Bound**	**Comments**
Steiger-Lind RMSEA Index	0	0	0.011	The low index value indicates a good fit of the data to the model.

Figure 2.
Final Model
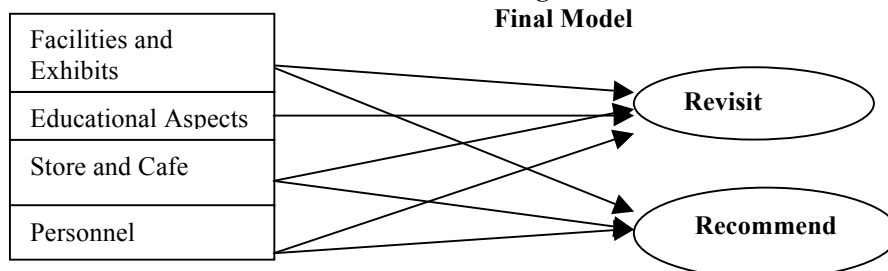
Recommend forms relationship with three factors, Facilities & Exhibits, Store & Cafe and the Personnel. Hence, these factors affect visitors' willing to disseminate their visit to friends and relatives and should be taken seriously by the staff of museums and the Ministry, in planning their strategy to ensure the dissemination of positive comments (Figure 2).

Facilities & Exhibits, Store & Cafe and Personnel, according to their loadings, consist the main factors influencing visitors willing both to revisit and recommend (Figure 2). Therefore museum services should meet the needs and requirements of visitors and the staff ought to provide quality services to ensure future visits and positive reputation for their institutions. Since the relationship between service quality with revisit and recommend was confirmed, the statistical significance was obtained and the model could be considered as real.

CONCLUSIONS AND IMPLICATIONS

According to the survey, service quality consisted of different factors and forms a stronger statistical significant relationship with the Facilities & Exhibits, Store & Café, and the Personnel and the willing of visitors to future revisit and recommend. Quality museum services could lead to satisfied tourists that are willing to disseminate information about the museums they visited and revisit the place in the future.

Since the Greek public museums are dominant features for tourism development, they could seriously strengthen the key sector of tourism. The cultural, heritage advantages of the Greek tourist destinations, should be supported by quality museum's services, since visitor's intention to future revisit and recommend (WOM), is seriously influenced by the services they were offered. The marketing tools could help the Greek museums to fulfil their mission, improve service quality and maximize the satisfaction of their visitors. Satisfied tourists are willing to disseminate information about the museum and the destination they visited.

The present study encountered with some research limitations. The museums investigated, seemed limited in terms of visits, about 15% of the total museum visits in public museums, due to money and time constraints, therefore future studies should expand the analysis to more public and private museums, in a wider range. Future research could combine the SERVQUAL model with theories of planned behavior, in order to define a more holistic visitors' behavioral model.

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