

## STUDY ON THE INFLUENCE OF CUSTOMER SATISFACTION ON THE PERCEIVED QUALITY OF MUSEUM EXHIBITIONS

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### ABSTRACT

*The main objective of this study is to bring empirical evidence on the quality of services and customer satisfaction through their experiences during visits to three museums in Romania: The National Museum of Natural History Grigore Antipa, The National Museum of Romanian History and The Romanian National Museum of Art. For this, we applied a questionnaire to some respondents who visited the three museums in 2019, to which we obtained 141 valid answers. The data thus collected were analyzed by multiple linear regression. The results showed that customer satisfaction with items such as museum location, building, staff, museum activities and promotion influences their perception of the quality of services provided, described by satisfaction with the permanent and temporary exhibition of the analyzed museums.*

**KEYWORDS:** *customer satisfaction, museum exhibition, service quality.*

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### 1. INTRODUCTION

In the current social contexts, museums have come to fulfill more and more varied functions, among which we can mention their role in education, but also for recreational activities. Regardless of the role played, the issue of customer satisfaction and the quality of services provided is a current topic of discussion, a fact attested by practice, but also by some specialized studies (Chen & Shi, 2008). Although in the past museum managers were more oriented towards the good management of museum collections, current approaches surprise them with concerns about meeting the needs of visitors, considering that they, museum clients, are the key to the success of the entire organization (Harrison & Shaw, 2004). As this approach becomes a standard, marketing is used in the overall strategy of the organization to understand how visitor satisfaction contributes to the success or failure of the organization. Customer satisfaction in the case of museums can be evaluated continuously as the service is provided and the act of consumption takes place, but also post-consumption. Thus, when talking about the satisfaction of a museum's customers, we should evaluate both the overall satisfaction and the satisfaction with key elements of the museum visit (Harrison and Shaw, 2004). In this context, the objective of this study was to assess the influences of satisfaction on elements such as staff, promotion, museum activities, location, and building, on the general satisfaction of visitors regarding the permanent and temporary exhibition in the analyzed museums.

### 2. LITERATURE REVIEW

Different studies claim that culture is a significant factor in deciding which city to visit as a tourist destination. There are many reasons for visiting a museum according to previous studies, such as

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entertaining visitors, learning, visiting a specific event, time with people and social contact, and doing something worthwhile (Del Chiappa et al., 2013).

Studies also identified perceived content that more than emotional interactions, influence satisfaction. Consumers who are more satisfied with their service experience are more willing to use the service than consumers who are less satisfied (De Rojas & del Carmen Camarero, 2006). Furthermore, the greater the satisfaction, the greater the probability of the buyers repeating and/or recommending a return to a destination as a museum. It is also reasonable to study in detail what motivates people to attend a museum, what they feel when they visit a museum and what is satisfying for them with their experience (Ruiz-Alba et al., 2019).

A search of museum literature yields recorded works on preservation, advertising, instruction and building planning for public use, but few has been said regarding satisfaction of visitors with the tour experience and the facility itself (Huo & Miller, 2007). Researchers (Kuo et al., 2018; Mavragani, 2018; Ferilli et al., 2017) argued that satisfaction in the service environment should be evaluated on a range of elementary elements, particularly the museum environment. Therefore, it was postulated to impact the level of satisfaction and a desire for managers to return to the museum's "components" like infrastructure, staff support and experience as critical elements for customer satisfaction. For the museum, visitors are expected to have more overall interaction with the facility if they find the characteristics of a recreational service to be good performing. In addition, the greater the emotional advantages guests gain, the more enthusiastic they are likely to be in favor of the overall level of service (Mahdzar et al., 2017; Voutsas et al., 2018).

This paper is linked to a certain area of study, which examines the motivation and satisfaction of people to visit a museum by examining several factors that may influence their satisfaction with the museum exhibition.

### **3. RESEARCH METHODOLOGY**

The data used for this analysis have been obtained by means of an online questionnaire, by using the polling instrument as the basis of the quantitative research process. We used the Google portal for the use of Google Forms, to apply the online questionnaire. The research sample was composed of students aged 18-21, who made visits to the three museums analyzed in this study. They were asked to express their satisfaction with specific elements of the museums, using a scale from 1 to 5, where 1 meant very dissatisfied and 5 meant very satisfied. Thus, a total of 141 valid responses were collected.

Based on the responses obtained, research variables were constructed that were used to assess the influences between satisfaction with certain elements in the museum and the temporary and permanent exhibitions of the museums concerned. In this way we established the following independent variables that aimed at the satisfaction of the respondents regarding: the temporary exhibition (TE), the location of the museum (ML), the museum building (MB), the museum staff (MS), the activities in the museum (MA) and the promotion of the museum (MP). On the other hand, our dependent variables were described by the level of satisfaction with the permanent exhibition (PE) and temporary exhibition (TE).

### **4. ANALYSIS AND RESULTS**

To test the influences between the independent and dependent variables described in the previous section of the paper, we chose to use multiple linear regression whose results are described in the following tables, for each museum. We mention that the tables contain only statistically significant results for each museum.

Table 1, indicating a positive correlation between both variables, shows that the correlation coefficient is  $R = .816$  between the independent and the dependent variable (PE).  $R\text{-square} = .666$  indicates that the independent variables will describe 66.6 percent of variance changes of the

dependent variable. Adjusted R-square = .657 lets us get a picture of the model's generalized degree, such that the four independent variables may forecast 65.7 percent of the PE variance shifts. According to Cohen et al. (2013), this value indicates a strong relationship. Going further with the results presented for The National Museum of Natural History Grigore Antipa, having the temporary exhibition (TE) as the dependent variable, we can assume a positive correlation between both variables, showing that the correlation coefficient is  $R = .746$  between the independent and the dependent variable (TE). R-square= .557 indicates that the independent variables will describe 55.7 percent of variance changes of the dependent variable. Adjusted R-square = .550 lets us get a picture of the model's generalized degree, such that the two independent variables may forecast 55.0 percent of the TE variance shifts.

**Table 1. Results for The National Museum of Natural History Grigore Antipa**

Variables	Estimated Coefficient	Standard Robust Error	VIF	P-value	Level of Significance	Confidence Interval (95%)	
						Lower Bound	Upper Bound
TE	.437	.054	1.42	.000	**	.331	.543
ML	.179	.067	1.61	.008	**	.048	.311
MB	.192	.051	1.40	.000	**	.091	.293
MS	.146	.044	1.29	.001	**	.059	.232

N=141

F-test (4, 136) = 67.926 (.000) \*\*

R = .816

R-square = .666

Adjusted R-square= .657

\*\* = the coefficient had a 1% level of significance

*In this case, the dependent variable was the permanent exhibition at The National Museum of Natural History Grigore Antipa*

Variables	Estimated Coefficient	Standard Robust Error	VIF	P-value	Level of Significance	Confidence Interval (95%)	
						Lower Bound	Upper Bound
PE	.635	.077	1.52	.000	**	.483	.787
MA	.224	.065	1.52	.001	**	.096	.352

N=141

F-test (2, 138) = 86.672 (.000) \*\*

R = .746

R-square = .557

Adjusted R-square= .550

\*\* = the coefficient had a 1% level of significance

*In this case, the dependent variable was the temporary exhibition at The National Museum of Natural History Grigore Antipa*

The results presented in Table 2 are indicating a positive correlation between both variables, with a correlation coefficient of  $R = .766$  between the independent and the dependent variable (PE). R-square= .587 shows that the independent variables will describe 58.7 percent of variance changes of the dependent variable. Adjusted R-square = .582 indicates that the two independent variables may forecast 58.2 percent of the PE variance shifts. Going further with the results presented for The National Museum of Romanian History, having the temporary exhibition (TE) as the dependent variable, we can assume a positive correlation between both variables, showing that the correlation

coefficient is  $R = .808$  between the independent and the dependent variable (TE).  $R$ -square = .654 indicates that the independent variables will describe 65.4 percent of variance changes of the dependent variable. Adjusted  $R$ -square = .646 lets us get a picture of the model's generalized degree, such that the three independent variables may forecast 64.6 percent of the TE variance changes.

**Table 2. Results for The National Museum of Romanian History**

Variables	Estimated Coefficient	Standard Robust Error	VIF	P-value	Level of Significance	Confidence Interval (95%)	
						Lower Bound	Upper Bound
<b>TE</b>	.640	.061	1.26	.000	**	.520	.760
<b>MS</b>	.219	.065	1.26	.001	**	.090	.349

**N=141**

**F-test (2, 138) = 98.272 (.000) \*\***

**R = .766**

**R-square = .587**

**Adjusted R-square = .582**

**\*\* = the coefficient had a 1% level of significance**

*In this case, the dependent variable was the permanent exhibition at The National Museum of Romanian History*

Variables	Estimated Coefficient	Standard Robust Error	VIF	P-value	Level of Significance	Confidence Interval (95%)	
						Lower Bound	Upper Bound
<b>PE</b>	.513	.064	1.57	.000	**	.387	.640
<b>MA</b>	.237	.063	1.89	.000	**	.113	.361
<b>MP</b>	.136	.050	1.65	.007	**	.038	.235

**N=141**

**F-test (3, 137) = 86.156 (.000) \*\***

**R = .808**

**R-square = .654**

**Adjusted R-square = .646**

**\*\* = the coefficient had a 1% level of significance**

*In this case, the dependent variable was the temporary exhibition at The National Museum of Romanian History*

Finally, the results presented in Table 3, for The Romanian National Museum of Art, are also indicating a positive correlation between both variables, with a correlation coefficient of  $R = .905$  between the independent and the dependent variable (PE).  $R$ -square = .819 shows that the independent variables can describe 81.9 percent of variance changes of the dependent variable. Adjusted  $R$ -square = .815 indicates that the three independent variables may forecast 81.5 percent of the PE variance shifts. Going further with the results presented for The Romanian National Museum of Art, having the temporary exhibition (TE) as the dependent variable, we can assume a positive correlation between both variables, showing that the correlation coefficient is  $R = .871$  between the independent and the dependent variable (TE).  $R$ -square = .758 indicates that the independent variables will describe 75.8 percent of variance changes of the dependent variable. Adjusted  $R$ -square = .754 lets us get a picture of the model's generalized degree, such that the two independent variables may forecast 75.4 percent of the TE variance changes.

**Table 3. Results for The Romanian National Museum of Art**

Variables	Estimated Coefficient	Standard Robust Error	VIF	P-value	Level of Significance	Confidence Interval (95%)	
						Lower Bound	Upper Bound
<b>TE</b>	.393	.059	2.91	.000	**	.277	.509
<b>MB</b>	.446	.056	2.49	.000	**	.334	.557
<b>MA</b>	.103	.044	2.07	.021	**	.016	.191

**N=141**

**F-test (3, 137) = 206.862 (.000) \*\***

**R = .905**

**R-square = .819**

**Adjusted R-square= .815**

**\*\* = the coefficient had a 1% level of significance**

*In this case, the dependent variable was the permanent exhibition at The Romanian National Museum of Art*

Variables	Estimated Coefficient	Standard Robust Error	VIF	P-value	Level of Significance	Confidence Interval (95%)	
						Lower Bound	Upper Bound
<b>PE</b>	.716	.056	1.62	.000	**	.604	.827
<b>MP</b>	.220	.044	1.62	.000	**	.134	.307

**N=141**

**F-test (2, 138) = 216.038 (.000) \*\***

**R = .871**

**R-square = .758**

**Adjusted R-square= .754**

**\*\* = the coefficient had a 1% level of significance**

*In this case, the dependent variable was the temporary exhibition at The Romanian National Museum of Art*

## 5. CONCLUSION

The objective of this study was to assess the influences of satisfaction on elements such as staff, promotion, museum activities, location, and building, on the general satisfaction of visitors regarding the permanent and temporary exhibition for the three analyzed museums: The National Museum of Natural History Grigore Antipa, The National Museum of Romanian History and The Romanian National Museum of Art. Given the results obtained we consider that the objective has been achieved and we can conclude that the elements considered to assess customer satisfaction of the three cultural organizations influence the perception on the museum's exhibition, whether we are talking about the permanent exhibition or the temporary one.

We notice positive influences that manifest differently within the three organizations. For the National Museum of Natural History Grigore Antipa, satisfaction with the temporary exhibition, the location of the museum, the museum building and the museum staff are the elements that create a good perception of satisfaction with the permanent exhibition of the museum. Furthermore, we can note that for this cultural organization, the satisfaction with the permanent exhibition and the activities within the museum influence the satisfaction with the temporary exhibition. For the National Museum of Romanian History, customer satisfaction with the temporary exhibition and museum staff are the elements that create a positive perception of the museum's permanent exhibition. From the

perspective of satisfaction with the temporary exhibition of the museum, elements of satisfaction with the permanent exhibition, the activities of the museum and the promotion of the museum are those that contribute significantly. In the case of The Romanian National Museum of Art, the customers' satisfaction with the temporary exhibition, the museum building and the museum activities positively and significantly influence the perception regarding the permanent exhibition. Also, the satisfaction with the permanent exhibition and the museum staff are the elements of influence for a good perception of the temporary exhibition within the museum.

Although evaluating customer satisfaction is an ongoing process and therefore the elements of satisfaction may change from time to time, we believe that this research is useful for managers in evaluating the elements of visitor satisfaction. Of course, we note that the elements of satisfaction differ from one cultural organization to another, but this study provides empirical evidence that certain elements of the museum environment influence the satisfaction of visitors with museum exhibitions as previous studies also showed (Kuo et al., 2018; Mavragani, 2018; Ferilli et al., 2017). So, managers' concern about the quality of exhibits must be doubled by a continuing concern about customer satisfaction as this influences the very perception of the museum collection itself. Having well-kept exhibits does not guarantee the success of a museum as there are other elements related to the museum environment and which can contribute to creating a certain perception of the customer on the entire organization, some of the elements of customer satisfaction being highlighted by this work.

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