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Assessing satisfaction of tourists visiting Italian museums: evidence from the eWOM

Valutare la soddisfazione dei turisti che visitano i musei italiani: evidenze dall'eWOM

Daria Mendola and Valentina Oddo*

Abstract Museum visitors' satisfaction is a priority asset for those museums aiming at being competitive in the cultural tourism sector. In this study, evaluations by visitor-tourists, left in their reviews on museums on the TripAdvisor platform, are analysed. Through web scraping, we collected comments for twelve Italian museums left during the year 2019. The content analysis focussed on components of the tourists' satisfaction among Italian and foreign museum visitors, with emotional response, management, and exhibitions emerging as key concepts in museum's evaluation. Noticeably, some elements emerged as divisive: i.e., they appeared both among less and most satisfied tourist-visitors.

Abstract *La soddisfazione dei visitatori dei musei è un asset prioritario per quei musei che vogliono avere una posizione dominante nel turismo culturale. In questo studio vengono analizzate le valutazioni del visitatore-turista rilasciate come recensioni sulla piattaforma TripAdvisor. Attraverso il web-scraping, abbiamo raccolto i commenti su dodici musei italiani per l'anno 2019. La content analysis ha consentito l'esplorazione delle componenti di soddisfazione di visitatori italiani e stranieri. Le componenti emozionale, di management e le mostre hanno evidenziato un ruolo chiave. Sorprendentemente, alcuni elementi sono apparsi divisivi in quanto compaiono tra i principali motivi sia di soddisfazione che di insoddisfazione.*

Key words: Satisfaction, eWOM, Web-Scraping, Content Analysis, TripAdvisor.

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1 Introduction

Cultural tourism is one of the main drivers of the Italian tourism flows and plays a crucial role in smoothing tourism seasonality [3]. Moreover, as from Ministry of Culture and Heritage data [9], richness of Italian artistic and cultural heritage is mainly concentrated in museums.

Museum managers have often to deal with the scarceness of funds and need to implement funding initiatives to meet conservation and maintenance costs. A recent trend is to base those strategies on visitors and their needs [4].

Satisfaction of visitors develops loyalty, increases museum reputation (e.g., through word-of-mouth among visitors), and is strictly linked to prospective revenues and funding opportunities [11]. Therefore, monitoring visitors' satisfaction provides museums with tools to plan competitive strategies, and to increase museums' attractiveness. Hence, the satisfaction of visitors is crucial to museums' survival over time.

Social media have dramatically changed the way the reputation of museums build itself. Visitors are currently able to exchange information, experiences, and emotions and communicate their satisfaction in a very easy and globally widespread way. At the same time, or consequently, social media have renewed the museum's approach to communication and marketing, besides revitalizing the learning, entertainment, and fundraising activities [1, 8].

In the last decade, user-generated content (UGC) has been gaining reliability for consumers, thus becoming an important input in their decision-making process, especially for the museum sector [8]. By producing UGC, e.g., via the so-called electronic word-of-mouth (eWOM), non-professional reviewers can influence stakeholders' opinions and share their views on products, services, and other commercial aspects. Museums' performances are continually affected by (and have real effects on) positive and negative eWOM, with a complex interplay still under-investigated. However, although studies using UGC for assessing tourism satisfaction are recently increasing, a relatively small number deal with museum visitors' satisfaction [1,11]. The relevance of opportunities raised by UGC and eWOM and the scarceness of studies on museums visitors' satisfaction through user-generated content were among the main motivations to undertake the present study.

This paper focuses on twelve Italian museums and their tourists-visitors' satisfaction, relying on comments left on the TripAdvisor platform during 2019 (the last year before the start of the pandemic crisis of the Covid-19 virus).

2 Data and Sample Selection

TripAdvisor (TA) is the largest travel site on the web which collects more than 860 million reviews. Through web-scraping, which is the process of extracting data from a website [5], it is possible to download visitors' reviews. Reviews are made by text

Assessing museum visitors' satisfaction in Italy: a "social media" investigation
describing the visit and the museum facilities, refer to a specific year (the one of the visit), and are associated to an overall rating of the experience (on a 5-point scale).

We evaluated TA as a proper source for the aim of this study: it allowed us to study the attributes associated with the museum visitors' satisfaction by harvesting the information directly from the visitors.

In this study, we selected twelve museums¹ from six well-known Italian cultural tourism destinations, spread over the country: Turin, Venice, Florence, Rome, Naples and Palermo. For each city, museums were chosen from the top of TripAdvisor's ranking. The availability of an adequate number of tourists' comments for the year 2019 was also considered as a selection criterion.

Our target population is made up of comments left on the TA website. We restricted our analysis to those comments left by tourists who visited the twelve Italian museums in 2019. Given that the motivation of the trip/visit is unknown, we assumed as tourists those living outside the city where the museum is. The frame list obtained is made of 9,212 reviews. The frame population was stratified, first by the museum and then by the comment language. Particularly, two lists have been identified for each museum: one for reviews written in the Italian language and one for those in the English language. Hence, a probability sample of reviews (comments) for the twelve museums was drawn ($n=1,200$).

3 Methods

The research aims were addressed via "content analysis" [6] and "word frequency analysis" [6, 10]. The former proved to be useful to detect areas of satisfaction and dissatisfaction with museums, gathering comments into nodes. The latter defines the main attributes that generate satisfaction or dissatisfaction by counting how many times a word is present in comments previously arranged by the overall museum experience rating. Hence, through the information collected, we assessed which concepts/words of the UGC are the most nominee in the museum evaluation.

In performing content analysis, we defined six *nodes*, that are logical containers where data is collected and coded following the specific core concept based on the existing literature [2]. Based on the existing literature [4,7], the following nodes have been defined:

- 1) Permanent and temporary exhibition: this category includes impressions related to exhibitions;
- 2) Museum management: this category highlights the visitor evaluation of museum management (ticket price, queue, marketing actions, etc.);
- 3) Staff: this category includes visitors' impressions of the staff competence (e.g., the front desk staff's ability to provide personalized information or the guides' competency in interpreting artworks);

¹ The selected museums are: *Egyptian Museum, Cinema Museum, Doge's Palace, Uffizi, Accademia Gallery, Vatican Museum, Castel S. Angelo, Borghese Gallery, Archaeological Museum, San Severo Chapel, Bourbon Tunnel, Norman Palace.*

4) No-core services: this category collects the impressions given to side-services (shops, cafes, restaurants, etc.);

5) Motivation: this category collects the reasons why the tourist-reviewer visited that museum (to spend time with family, to see a specific exhibition, etc.);

6) Emotional response: this category describes the visitors' feelings, their visit experience, and the assessments of the overall museum product.

The coding procedure (through the NVivo 12 software) worked on the assignment of parts of the comment's text to the specific node [2].

In addition, the word frequency analysis was useful to assess which attributes were more recurrent by the level of the overall rating that tourists gave to museums on the TripAdvisor platform.

Finally, coding of the 1,200 comments and their division according to the museum's final rating between the Italian and English samples gave us information on the opinion expressed by visitors on each specific node.

4 Results and Discussion

For the sake of brevity, this section reports content analysis results only on a selection of six major museums spread over all Italy. One hundred reviews (50 in Italian and 50 in the English language) were randomly drawn for each of the following museums: Turin Egyptian Museum and Venice Doge's Palace (Northern Italy), Florence Uffizi and Vatican Museum (Central Italy), Naples Archaeological Museum and Palermo Norman Palace (Southern Italy). For this comparison, the number of "references" (i.e., how many times an aspect has been mentioned in the overall comments) has been used. A chi-squared test for the homogeneity between the two linguistic groups of comments with respect to the node distribution was done on the pooled sample of the six museums. It assessed that there is no statistically significant difference between the two groups at 1% ($\chi^2=13.03$, p-value=0.02). Table 1 shows the percentage distribution of references by node and museum, pooling together the two languages.

Table 1: Percentage distribution of the number of references by node (column percentage by museum)

<i>Node</i>	<i>Egyptian M.</i>	<i>Doge's Palace</i>	<i>Uffizi</i>	<i>Vatican M.</i>	<i>Archaeo- logical M.</i>	<i>Nor- man Palace</i>
Emotional response	30.65	32.14	30.85	29.29	30.6	38.81
Management	29.65	31.12	22.34	33.33	23.28	21.39
Exhibition	19.10	25.51	23.40	18.69	29.74	31.84
Staff	9.55	7.14	9.57	12.12	5.60	3.48
Motivation	7.54	1.02	8.51	3.54	8.62	3.48
No-core services	3.52	3.06	5.32	3.03	2.16	1.00
Total	100.00	100.00	100.00	100.00	100.00	100.00

Hence, the content analysis showed that, regardless of the museum, aspects most frequently mentioned in tourists' comments are those related to emotional response, management, and exhibitions.

When it comes to the word frequency analysis, Tables 2 and 3 show the most common (key)words (respectively in the Italian and the English language comments) mentioned in comments divided by rating.

Table 2: Most common concepts found in Italian comments by rating (expressed in row percentage) assigned to the museum visit

<i>Keyword</i>	<i>Rating</i>					<i>n</i>
	<i>*</i>	<i>**</i>	<i>***</i>	<i>****</i>	<i>*****</i>	
Visit	13.10	21.82	31.34	29.20	33.79	233
Guide	7.14	14.55	11.94	10.95	16.78	111
Tour	4.76	10.91	14.93	10.22	17.01	109
Exhibition	3.57	10.91	5.97	5.84	7.71	55
Queue (short)	1.19	0.00	2.99	7.30	8.16	49
Ticket (booked)	9.52	12.73	0.00	13.14	3.63	49
Queue (long)	19.05	9.09	11.94	4.38	1.13	40
Staff (bad service)	19.05	3.64	4.48	2.92	0.91	29
Staff (good service)	3.57	0.00	2.99	2.92	4.31	28
Ticket (expensive)	11.90	7.27	2.99	2.92	1.81	28
Audio guide	5.95	1.82	5.97	4.38	2.04	25
Crowded	0.00	7.27	1.49	1.46	1.59	14
Cafeteria	0.00	0.00	1.49	4.38	0.91	11
Shop	1.19	0.00	1.49	0.00	0.23	3
Total	100	100	100	100	100	784

Among Italian comments, the three more frequently reported sources of maximum dissatisfaction (one star) are, in decreasing order: the long queue, bad service from the staff and visits. Noticeably, "visit" is also the most frequently reported word in comments of most satisfied tourists (five stars), immediately followed by tour and guide. A similar ranking was found in English comments of most satisfied tourists: tour, visit, guide. While for the worst rating (one star), English comments focus on bad service from the staff, long queues, and tour.

In the end, the contribution of this paper was to assess the museum tourist-visitors' satisfaction via comments released on TripAdvisor. Although selection bias issues for web-based data are widely acknowledged in literature [1, 10, 11], among their advantages, is the possibility for managers to quickly and easily monitor the museum's performance very frequently and at a relatively low cost.

Further development of this study will regard the assessment of the post-pandemic period to investigate the evolution of visitors' experience.

Table 3: Most common concepts found in English comments by rating (expressed in row percentage) assigned to the museum visit

<i>Keyword</i>	<i>Rating</i>					<i>n</i>
	*	**	***	****	*****	
Tour	14.71	17.33	18.00	20.67	27.17	221
Visit	11.76	13.33	17.00	20.67	22.08	187
Guide	8.82	6.67	15.00	10.00	16.04	129
Ticket (booked)	6.86	2.67	0.00	6.00	8.11	61
Audio guide	4.90	5.33	7.00	7.33	6.04	59
Ticket (expensive)	8.82	17.33	3.00	10.67	2.08	52
Queue (long)	14.71	8.00	12.00	2.67	1.89	47
Staff (good service)	1.96	8.00	9.00	6.00	3.96	47
Staff (bad service)	17.65	8.00	12.00	4.67	0.00	43
Exhibition	0.98	2.67	3.00	3.33	3.96	32
Queuc (short)	0.00	0.00	1.00	3.33	4.34	29
Cafeteria	0.00	0.00	3.00	4.00	2.83	24
Crowded	7.84	10.67	0.00	0.00	0.38	18
Shop	0.98	0.00	0.00	0.67	1.13	8
Total	100	100	100	100	100	957

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COVID-19 pandemic and tourism demand: a comparison between Spain and Italy

La pandemia da COVID-19 e la domanda turistica: un confronto tra Spagna e Italia

Caterina Sciortino, Ludovica Venturella, Stefano De Cantis

Abstract Studies relating to the COVID-19 pandemic and its effects on tourism demand have been widely described in the literature. The main objective of this work is to quantify the drop in tourism demand, the drastic reduction in travel and changes in travel behavior. In order to undertake this task, a comparison between two important European countries is made: Spain and Italy. The impact of the pandemic on the tourism demand of residents was analyzed by using the two main surveys linked to tourism demand (*Viaggi e Vacanze in Italia e all'Estero* and *Encuesta de turismo de residentes*). Departing from an analysis of micro-data, an overview of the data obtained is also included in the work. The results demonstrate a significant reduction in demand with a consequent change in travel behavior.

Abstract *Gli studi relativi alla pandemia da COVID-19 e i suoi effetti sulla domanda turistica sono stati ampiamente descritti in letteratura. L'obiettivo principale di questo lavoro è quello di quantificare il calo della domanda turistica, la drastica riduzione dei viaggi e i cambiamenti nel comportamento di viaggio. Per fare questo, viene fatto un confronto tra due importanti paesi europei: Spagna e Italia. L'impatto della pandemia sulla domanda turistica dei residenti è stato analizzato utilizzando le due principali indagini legate alla domanda turistica (Viaggi e vacanze in Italia e all'estero e Encuesta de turismo de residentes). Partendo da un'analisi dei microdati, nel lavoro è inclusa anche una panoramica dei dati ottenuti. I risultati dimostrano una significativa riduzione della domanda con un conseguente cambiamento nel comportamento di viaggio*

Key words: Tourism demand; pandemic; microdata; Italy; Spain

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