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Investigation of Consumer Reviews on Social Media for Five-Star Hotel Enterprises in Istanbul: A Case of TripAdvisor

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Abstract

Today, access to social media on the internet is becoming easier and the number of active users on social media is increasing day by day. This mobility causes social media platforms to become a frequently used source of information. In this context, the importance of online consumer reviews of hotel enterprises on social media is increasing in the tourism industry. The aim of this study is to investigate the consumer review scores of the five-star hotel enterprises in Istanbul on social media by comparing them in terms of some operating features such as location, number of rooms, number of reviews, room rate, and environmental awareness. Accordingly, a total of 101 five-star hotel enterprises with tourism operating certificates have been examined. Within the scope of the research, consumer review scores were discussed in terms of five criteria; location, cleanliness, service, price-performance value and general performance. The data was analyzed with the help of descriptive statistical methods, Kolmogorov-Smirnov, Mann-Whitney U and Kruskal-Wallis tests. In the study, it is concluded that five-star hotel enterprises have various statistically significant differences in consumer review scores in terms of some operating features such as location, number of reviews, room rate and environmental awareness.

Keywords

Social media, TripAdvisor, Consumer reviews, Hotel enterprises, Istanbul

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Introduction

The development of digital technology and social media offers numerous benefits to human society (Nilashi et al., 2018, p. 168). Thanks to these developments, it is easier for people to explain and share their views about the products and services they prefer. Indeed, these views can be expressed in various ways such as ratings, texts, expressions, images, and videos (Balbi et al., 2018, p. 674). As travelers book hotels, they are becoming increasingly dependent on their friends' opinions and consumer ratings on social media (Casalo et al., 2015, p.28). In this respect, consumer reviews on social media have become one of the most useful and effective information sources in consumer purchasing decisions (Filieri et al., 2018, p. 122).

TripAdvisor, one of the most common online review sources for touristic consumers available today, provides an abundant supply of information on tourism and travel, especially reviews, which are rich in quality and qualification (Ak & Surucu, 2018, p. 530). TripAdvisor is increasingly becoming a reliable mediator for consumers who want to make their own holiday arrangements instead of choosing traditional travel agency services (Jeacle & Carter, 2011, p. 293). Reviews about hospitality enterprises on the Internet affect the purchasing decision of consumers (Alrawadieh & Demirkol, 2015, p. 132). In addition to affecting consumers' decisions, another subject is related to protecting the image of the enterprise. Furthermore, the financial performance of an organisation can be affected by online customer ratings (Torres et al., 2015, p. 77).

Istanbul is recognized as a strong card for the development of tourism in Turkey (Kladou & Mavragani, 2015, p. 188). Hotel enterprises have a large share in the development of tourism in the country and city. Previously, almost all the hotel enterprises in Istanbul were on the European side. In recent years, however, hotel investments on the Anatolian side have increased with the construction of Sabiha Gokcen Airport. Kadikoy, Atasehir and Pendik districts on the Anatolian side are important in terms of the number of hotels, while Besiktas, Sisli and Beyoglu districts are important on the European side (Republic of Turkey Culture and Tourism Ministry, 2019). In this context, it may be beneficial to consider the hotel enterprises in Istanbul in terms of their location.

This study also focuses on the green star certificate issued by the Republic of Turkey Ministry of Culture and Tourism, which has been regarded as an important influencing factor in recent years by both tourists and hotels. Of late, the number of green star hotel enterprises in Istanbul has increased with the ministry's focus on this issue (Republic of Turkey Culture and Tourism Ministry, 2019). The increasing sensitivity awareness of hotel enterprises' target market is the driving force that pushes hotel enterprises to be green conscious (Altunoz et al., 2014, p. 157). At this point in time, it is also thought that environmental awareness can affect the reputation

and management of hotel enterprises on social media. For instance, Accor Group Hotels has spent millions of dollars on Search Engine Optimization and invested in sustainability programs, which allows them to increase their brand equity and save energy. Furthermore, Accor Leading Digital Hospitality Program will help Accor Group Hotels to increase guest satisfaction and generate more income from online channels (Demirciftci & Kizilirmak, 2016, p. 54).

In the cities where touristic movements are quite abundant, tourist consumers' comments about hotel enterprises on social media platforms are becoming more important. Accordingly, it may be possible to examine the hotel reviews on social media in terms of quantity and quality. Also, it can be thought that room capacities also affect hotel reviews on social media. On the other hand, since one of the factors affecting satisfaction is price (Radojevic, 2015, p. 13.), it can be thought that room rate also affects hotel review scores.

Considering all these issues, the aim of this study is to investigate the consumer review scores of the five-star hotels in Istanbul on social media by comparing them in terms of some operating features such as location, number of rooms, number of reviews, room rate, and environmental awareness. Within the aim of the research, consumer review scores in terms of five criteria were discussed; location, cleanliness, service, price-performance value and general performance.

Literature Review

Social media sites are environments in which individuals can express themselves in a limited system through their personal profiles and see the shared posts of other individuals (Boyd & Ellison, 2007, p. 211). TripAdvisor, a social media platform running on user-generated content and rated as the world's largest travel site (TripAdvisor, 2019), allows tourist consumers to share their views on various aspects of hotel and tourism enterprises (Nilashi et al., 2018, p. 168). While TripAdvisor users actively pass on experience through reviews, they may passively use information sent by others in decision-making processes (Molinillo et al., 2016, p. 16). In this regard, the consumers who purchased services on TripAdvisor may also affect the image of hotels in potential tourists (Kladou & Mavragani, 2015, p. 189).

In the related literature Casalo et al. (2015) has investigated the impact of online hotel review scores on consumer attitudes towards hotel enterprises and on booking intentions. The results showed that online review scores are a more useful and reliable source when published by well-known social media travel platforms such as TripAdvisor. Torres et al. (2015) examined the hotel enterprises' revenues obtained by their online transactions. The results of the study showed that the number of reviews, as well as the review scores on TripAdvisor, had a positive relationship with the average quantity of each online booking process. Chan et al. (2017) determined that consumer

review scores on social media have a significant impact on the intention of booking for hotel enterprises. Verma et al. (2012) found that positive reviews about hotel enterprises increased the probability of making a room reservation at the hotel to between 70.0% and 80.0%, while the negative reviews reduced the probability of booking to 40.0%. Sparks and Browning (2011) concluded that consumers are more affected if general comments and reviews are negative. On the other hand, they observed that positive comments increase both the intention of booking and consumer confidence. Phillips et al. (2017) expressed that higher review scores increase room sales and revenues in hotel enterprises. Gavilan et al. (2018) revealed that social media users think that low scores rather than high scores reflect reality when examining social media reviews. According to the results of the study, low scoring is reliable regardless of the number of reviews, whereas high scoring is only reliable when supported by a large number of reviews. Park and Nicolau (2015) found that people evaluated extreme scores (positive or negative) as more beneficial than moderate scores and negative scores were found to be more useful than positive scores.

Molinillo et al. (2016) found a relationship between the size of hotel enterprises and the average online consumer rating scores. They also proved that there was a relationship between the general review score and the number of reviews per room. Anderson (2012) observed in his research that the number of touristic consumers who made TripAdvisor reviews increased before booking hotel enterprises. Cuhadar et al. (2018) showed that there are differences between the type of hospitality enterprise and online consumer review scores. Cuhadar and Akcil (2018) found differences between the type of enterprise, the room price level and online customer reviews. Akgoz and Temgilimoglu (2016) found that the average online consumer review scores of fivestar hotels are different according to the price level. Another finding in this study was that the average satisfaction scores of five-star hotels vary according to their regions. Ak and Surucu (2018) reported that the total number of online reviews of green star thermal hotel enterprises, i.e., the number of online reviews per room and the general rating scores, were higher than non-green star hotels.

Soler et al. (2019), in their study that examined reviews of hotels on social media, found that the hotel enterprises in Barcelona were more dependent on external conditions than hotel enterprises in Madrid. Gungor et al. (2018), in their study of four and five-star hotels in Barcelona and Antalya, showed that tourists were more satisfied with the service offered by the staff of the accommodation companies in Barcelona. On the other hand, tourists were more satisfied with the sports and entertainment services offered by the accommodation enterprises operating in Antalya. Cenni and Goethals (2017), in their work, confirmed that consumers have dealt with similar issues with positive and negative comments. However, "accommodation" and "services" elements were the most frequently commented-on issues in negative comments, and

"location" was the most frequently evaluated subject in positive reviews. Sahin et al. (2017) examined online reviews for hotel enterprises in Bishkek and found that the most recurring factor (35.4%) in reviews was product-related problems. And it was determined that hotel enterprises responded to these complaints to a great extent (69.7%). Alrawadieh and Demirkol (2015), on the other hand, stated that only 42% of the complaints received for the hotel enterprises they have dealt with in the scope of their studies were responded to and therefore the accommodation enterprises within the research were not aware of the importance of e-complaint management.

In the literature review above, it is seen that there are many studies on online consumer reviews of hotel enterprises. However, the fact that online consumer review scores for five-star hotels in Istanbul were not studied in terms of score criteria, this constitutes the starting point of this study. Specifically, in this study, the evaluation of hotel enterprises in Istanbul in terms of location, room rate and the green star certificate will contribute to the relevant literature.

Methodology

In this study, data obtained from TripAdvisor and the Republic of Turkey Ministry of Culture and Tourism were analyzed. First of all, according to data shared on January 2, 2019 by the Republic of Turkey Ministry of Culture and Tourism (2019), there were 101 five-star hotel enterprises with a tourism operation license in Istanbul. Based on investigations of this data, it was seen that all of the hotel enterprises were advertised in TripAdvisor. Thus, 101 five-star hotel enterprises with a tourism operation license in Istanbul were chosen as the sample for research. Data on the number of consumer reviews of the hotel enterprises, consumer review scores and room rates from TripAdvisor, data on the hotels' room capacities from Istanbul Provincial Directorate of Culture and Tourism (2019), and data on the hotels' locations and whether they have environmentally sensitive facilities from the Republic of Turkey Culture and Tourism Ministry (2019) were obtained. Scoring in consumer reviews was made between 1 and 5; 1 terrible, 2 bad, 3 average, 4 very good, 5 perfect. There was no time limit in which consumer reviews were not considered. All consumer reviews rated until January 5, 2019, of the hotels within the scope of the research, were analyzed.

The data was analyzed by using descriptive statistical methods. In the study, it was tested whether the data used was normally distributed using the Kolmogorov-Smirnov test. As a result of the test, it was determined that all the research data did not show normal distribution and therefore, non-parametric tests were used in the analysis of the research data. In this context, Mann-Whitney U (if there were two groups) and Kruskal-Wallis (if there were more than two groups) were used in the study. In addition, when the Kruskal-Wallis test revealed a significant difference between the groups, differences between groups were determined by the Dunn-Bonferroni tests.

Findings

Descriptive statistics for five-star hotel enterprises examined within the scope of the study are presented in Table 1 below. When the five-star hotels in Istanbul were analyzed according to their locations, it was seen that 81.2% of the enterprises are located on the European side and 18.8% are on the Asian side. Considering the room capacity of the hotel enterprises, it is noteworthy that 14.9% of the enterprises had 150 or less, 57.4% had between 151 and 300, and 27.7% had 301 or more rooms. When the hotel enterprises were grouped in terms of average daily room rates, 29.7% of them were 300 TL or less, 27.7% were 301-400 TL, and 27.7% were 501 TL or more. Besides this, it was seen that 14.9% of them were distributed in the rate ranges of 401-500 TL.

When considering the total number of reviews of hotel enterprises, it is noteworthy that 28.7% of the hotels had between 501 and 1000 reviews, 27.7% had 250 or less, 24.8% had between 251 and 500, and 18.8% of them had 1001 or more reviews. Finally, it was seen that 38.6% of the five-star hotel enterprises in Istanbul had the green star, whereas 61.4% did not have the green star.

Table 1

	General Features	n	%
	European	82	81.2
Location (Side)	Anatolian	19	18.8
	Total	101	100.0
	150 or less	15	14.9
Total Number of Rooms	151-300	58	57.4
Total Number of Rooms	301 or more	28	27.7
	Total	101	100.0
	250 or less	28	27.7
	251-500	25	24.8
Total Number of Reviews	501-1000	29	28.7
	1001 or more	19	18.8
	Total	101	100.0
	300 TL or less	30	29.7
A Minimum Daile	301-400 TL	28	27.7
Average Minimum Daily	401-500 TL	15	14.9
Room Rates	501 TL or more	28	27.7
	Total	101	100.0
	Green Star	39	38.6
Environmental Awareness	Not Green Star	62	61.4
	Total	101	100.0

Information on General Features of the Hotel Enterprises

The Mann-Whitney U and Kruskal-Wallis tests were applied in order to determine whether there was a statistically significant difference between customer review scores of the hotel enterprises and their operating features. The analyzed results are presented in Table 2 through Table 6 in the following part of the article.

According to the results of the Mann-Whitney U tests presented in Table 2, it was determined that there was a statistically significant difference (p=0.048) between the

consumers review scores and the locations of the hotel enterprises. According to this, the hotel enterprises, which are located on the European side, had a higher rating in terms of location compared to the hotels on the Asian side. On the other hand, as a result of these tests, no statistically significant difference was found between the general consumer review scores and consumer reviews, cleanliness, service, price-performance value criteria or their location.

Mann-Whitney U Analy	sis Regarding the Co	onsumer l	Review Score	s and the Regions	of the Hotel	Enterprises
Criteria	Location (Side)	n	Mean Rank	Mann Whitney U	Z	р
Location	European	82	53.66	561.000	1.075	0.048*
Location	Anatolian	19	39.53	301.000	-1.975	0.040
Cleanliness	European	101	52.11	688.000	-0.907	0.364
Cleanniness	Anatolian	82	46.21	088.000		0.304
Service	European	19	51.96	700.000	-0.737	0.461
Service	Anatolian	101	46.84	700.000		0.461
D	European	82	51.11	770.000	0.094	0.022
Price/Performance	Anatolian	19	50.53	770.000	-0.084	0.933
General	European	101	51.60	720 500	-0.460	0.646
	Anatolian	82	48.39	729.500		0.646

Table 2

*: Significant at p<0.05 level

The results of the Kruskal-Wallis tests presented in Table 3 show that there was no statistically significant difference between the total number of rooms and the consumer review scores of the hotel enterprises. In other words, the consumer review scores of the enterprises did not differ according to the room capacity of the enterprises.

Table 3

Kruskal-Wallis Analysis Regarding the Consumer Review Scores and the Total Room Capacities of the Hotel Enterprises

Criteria	1	Fotal Number of Rooms	n	Mean Rank	X ²	Mann Whitney U	р
	а	150 or less	15	57.53			
Location	b	151-300	58	51.96	1.944	-	0.378
	с	301 or more	28	45.52			
	а	150 or less	15	52.60			
Cleanliness	b	151-300	58	53.34	1.949	-	0.377
	с	301 or more	28	45.29			
	а	150 or less	15	54.40			
Service	b	151-300	58	53.84	3.085	-	0.214
	с	301 or more	28	43.30			
	а	150 or less	15	57.43			
Price/Performance	b	151-300	58	54.00	5.026	-	0.081
	c	301 or more	28	41.34			
General	а	150 or less	15	55.27			
	b	151-300	58	51.84	1.026	-	0.599
	с	301 or more	28	46.96			

In the results of Kruskal-Wallis tests presented in Table 4, it was determined that there was a statistically significant difference between the consumer review scores and total number of reviews of hotel enterprises in all criteria except price-performance value. In other words, the consumer review scores of the enterprises differed according to the total number of consumer reviews they had. The differences were determined by applying Dunn-Bonferroni tests. According to this, in general, location and service criteria for hotel enterprises with consumer review scores of 250 or less were statistically significantly lower than consumer review scores between 501 and 1000, and 1001 or more.

Table 4

Hotel Enterprises							
Criteria	Т	otal Number of Reviews	n	Mean Rank	X ²	Mann Whitney U	р
	а	250 or less	28	36.79			0.000**
Location	b	251-500	25	44.16	18.503	a <c, d<="" td=""></c,>	
Location	с	501-1000	29	59.09		b <d< td=""></d<>	
	d	1001 or more	19	68.61		b su	
	а	250 or less	28	41.34			0.016*
Cleanliness	b	251-500	25	48.68	10.294	a <d< td=""></d<>	
Cleaniness	с	501-1000	29	53.00	10.294 a<d< b=""></d<>		
	d	1001 or more	19	65.24			
	а	250 or less	28	34.18	17.061 a<c, b="" d<=""></c,>		
Service	b	251-500	25	51.00		a <c, d<="" td=""><td rowspan="2">0.001**</td></c,>	0.001**
Service	с	501-1000	29	59.29			
	d	1001 or more	19	63.13			
	а	250 or less	28	46.79	1.140 -		
Price/Performance	b	251-500	25	53.70			0 767
r nee/r er tot mance	с	501-1000	29	53.33		0.767	
	d	1001 or more	19	50.11			
	а	250 or less	28	35.64			
General	b	251-500	25	48.22	17.458 a<c, b="" d<=""></c,>	0.001**	
General	с	501-1000	29	57.50		0.001^^	
	d	1001 or more	19	67.37			

Kruskal-Wallis Analysis Regarding the Consumer Review Scores and the Total Number of Reviews of the Hotel Enterprises

*: Significant at p<0.05 level;

**: Significant at p<0.01 level

In the results of the Kruskal-Wallis tests presented in Table 5, it was determined that there was a statistically significant difference between the consumer review scores of all criteria except the price-performance value of the hotel enterprises and the average lowest daily room rates. In other words, the consumer review scores of the enterprises varied according to the average daily room rates. The differences were determined by applying Dunn-Bonferroni tests. Accordingly, all criteria except price-performance for hotel enterprises with consumer review scores of 501 TL or more were statistically significantly higher than consumer review scores between 300 TL or less, and between 301 and 400 TL.

Table 5

Kruskal-Wallis Analysis Regarding the Consumer Review Scores and Average Daily Room Rates for Hotel Enterprises

Criteria	Av	erage Daily Room Rates	n	Mean Rank	X ²	Mann Whitney U	р
	а	300 TL or less	28	35.62		d>a,b c>a	
Location	b	301-400 TL	15	39.66	32.710		0.000**
Location	с	401-500 TL	28	62.47	52.710		0.000***
	d	501 TL or more	30	72.68		€~a	
	а	300 TL or less	28	43.42		d>a,b	0.000**
Cleanliness	b	301-400 TL	15	41.64	20.898		
Cleanniness	с	401-500 TL	28	49.40	20.898		
	d	501 TL or more	30	69.34			
	а	300 TL or less	28	39.15	19.012	19.012 d>a,b	0.000**
Service	b	301-400 TL	15	44.70			
Service	с	401-500 TL	28	53.47			
	d	501 TL or more	30	68.68			
	а	300 TL or less	28	47.03	7 (02	-	0.053
Price/Performance	b	301-400 TL	15	42.73			
rrice/reriormance	с	401-500 TL	28	54.47	7.692		
	d	501 TL or more	30	61.66			
General	а	300 TL or less	28	37.53			
	b	301-400 TL	15	41.23	29.085 d>a,b	0 000*4	
	с	401-500 TL	28	55.23		u~a,D	0.000**
	d	501 TL or more	30	72.93			

**: Significant at p<0.01 level

According to the results of the Mann-Whitney U tests presented in Table 6, it was determined that there was a statistically significant difference between the general and service criteria of the consumer review scores of the hotel enterprises and their environmental sensitivity. According to this, hotel enterprises with a green star had a higher rating in general compared to non-green star hotel enterprises. On the other hand, as a result of the tests performed, no statistically significant difference was found between the location, cleanliness and price-performance value criteria of the consumer review scores and the environmental awareness.

Table 6

Mann-Whitney U Analysis Regarding the Consumer Review Scores and Environmental Awareness of the Hotel Enterprises

Criteria	Environmental Awareness	n	Mean Rank	Mann Whitney U	Z	р
T	Green Star	39	56.87	980.000	1 ((5	0.000
Location	Not Green Star	62	47.31	980.000	-1.665	0.096
Cleanliness	Green Star	39	57.04	072 500	-1.884	0.0(0
	Not Green Star	62	47.20	973.500	-1.884	0.060
Service	Green Star	39	59.23	888.000	-2.403	0.016*
	Not Green Star	62	45.82	888.000		0.010"
Price/Performance	Green Star	39	55.59	1020.000	-1.338	0.181
	Not Green Star	62	48.11	1030.000	-1.556	0.181
General	Green Star	39	60.47	839.500	-2.756	0.006**
	Not Green Star	62	45.04	639.300		0.000**

*: Significant at p<0.05 level

**: Significant at p<0.01 level

Discussion and Conclusion

According to the results of the study, the hotel enterprises located on the European side had higher consumer review scores than the hotel enterprises located on the Asian side in the location criterion of consumer reviews. This study is partially consistent with the study of Akgoz and Temgilimoglu (2015) in which the average satisfaction levels of the five-star hotel enterprises in Antalya differed according to their regions. In this context, regardless of sample, it can be said that geographical location is taken into consideration when reviewing hotels by tourists. The fact that this result can partly be supported on the basis of the difficulties of access to hotel enterprises on the Asian side is a clue to the validity of consumer reviews on social media for touristic consumers, hotel enterprises and tourism researchers. In this context, transportation may need to be improved by the authorities on the Asian side of Istanbul.

As a result of the research, it can be said that as the total number of consumer reviews of hotel enterprises decreased, the consumer satisfaction in general, the location, cleanliness and service criteria also decreased. It should also be pointed out that whether this differentiation was due to room capacity of hotel enterprises was also investigated within the scope of the research. In this respect, it was seen that these differences did not change in the analyses suggested by Molinillo et al. (2016) where the number of reviews per room of the hotel enterprises were converted into data. This result is similar to the study of Molinillo et al. (2016) in which the overall online score for this hotel increased as the number of online comments posted per room increased. As a result of this situation, it can be expressed as "the number of reviews increases as the level of satisfaction increases". Nevertheless, it should be remembered that people will also evaluate after dissatisfaction. However, scoring of reporting satisfaction is common for hotel enterprises in Istanbul on platforms such as TripAdvisor. In fact, scoring of the reporting of satisfaction can be explained by the fact that higher scores are more common than lower scores on TripAdvisor. In this respect, it can be suggested that the hotel enterprises, which have been reviewed 250 or less times, should encourage their guests to give positive reviews on social media.

In this study, it can be said that as the average daily room rates of hotel enterprises increased, the consumer review scores in general, location, cleanliness and service criteria also increased. Here, it is likely that hotel enterprises with room rates of 501 TL or more will provide higher quality services compared to cheaper hotel enterprises and result in higher satisfaction. This study is consistent with the study by Akgoz and Temgilimoglu (2015) in which the general consumer review scores of the five-star hotel enterprises differed according to their room rates. However, it may be useful to emphasize that there is no difference in all criteria. In this context, the lack of a difference in the price-performance value criterion may indicate that hotel enterprises should criticize themselves. As a matter of fact, it can be said that high rates cause

lower price-performance satisfaction and increase consumer expectations. In both cases, control of rate policies and target audiences may help to ensure consumer satisfaction on price-performance value. However, it should be remembered to focus on pricing that could continue to serve the same target market. In this way, a possible decrease in other criteria' values will be prevented.

Lastly, the review scores of the environmentally friendly hotel enterprises in Istanbul in terms of general and service criteria were higher than other hotel enterprises. This result supports the study of Ak and Surucu (2018) that showed the general rating of the green star thermal hotel enterprises in Turkey is higher than the non-green star hotels. In this context, future research can investigate whether the satisfaction of consumers in terms of general satisfaction and service is directly or indirectly caused by green star policies. The fact that review scores of the environmentally friendly hotel enterprises were higher than other hotel enterprises may be related to increased environmental awareness and responsible tourist behavior within the scope of sustainable tourism.

When the results of this research are considered, it was evident that the scores for the hotel enterprises in Istanbul differ in terms of some features discussed in the study. This research was conducted only on five-star hotel enterprises in Istanbul. In following studies, it may be suggested for researchers to examine three and four star hotels in Istanbul. Also, in subsequent studies, five-star hotel enterprises located in other provinces may be considered in order to make comparisons with five-star hotel enterprises located in Istanbul. In addition, in this study, green star hotel enterprises were compared with other hotel enterprises and it was revealed that green star status is an important factor in terms of review score. In this context, expanding the research parameters may allow generalizations to be made within the scope of all hotels in Turkey. It would also be possible to compare this study's results with respect to those who comment on green star hotel enterprises versus those who comment on nongreen star enterprises. In this way, it could help to reveal the profile of responsible tourists on social media.

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