

## TECHNICAL UNIVERSITY OF CLUJ-NAPOCA

## ACTA TECHNICA NAPOCENSIS

Series: Applied Mathematics, Mechanics, and Engineering Vol. 67, Issue Special III, Jully, 2024

# APPLICATION OF QUALITY MANAGEMENT TOOLS IN THE USE OF PLATFORMS

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**Abstract:** This paper aims to answer research questions about what are the motivations of tourists for choosing natural tours, and if it is possible to consider these motivations as ecotourist motivations? The paper focuses on push and pull type motivations to study the experience of local natural tours. The qualitative research used in this paper presents a content analysis of 521 reviews of 61 tours posted on online platforms as Viator and TripAdvisor sustained in Brasov, Romania.

Key words: online platforms, Brasov, motivations, guided, tours, management.

## 1. INTRODUCTION

Technology is described as the new magic tool, and with rapid growth has substituted the way we live, learn, work and the industry of tourism [1,2]. The tourism operators must develop new relations with tourists to propose different services mediated by information and communication technology (ICT) [3].

"Today there is an unprecedented degree of interconnectivity as well as an infrastructure for participation" [4], as a result of internet evolution and adopting technology innovation to build online platforms [5]. Interactivity is described by Gruben as the core of an online platform, so every platform must increase the number of interactions, while increasing their quantity as well as their quality [6], to meet the tourists wants [5]. To fulfill the user experience there are supports for online interaction such as blogs, social media and online review websites, which allow consumers to interact virtually and share their experience, thus contemporary traveler seek to learn from the reviews left by other tourists on various platforms and find them useful [7,8,9].

Studies on online reviews in the sharing economy have become popular in recent years, but with major interest in hospitality industry. In this context some authors explored the "impact of online reviews" [10], "online purchase

intentions, volume of reviews" [11], the "actuality of the reviews" [12], "valence of reviews" [13]. However, there is a scant in research on tourists' motivations for local guided tours on online platforms. There are studies on tourist motivations and possible differences that may occur between traditional tourists and tourists who are directed to natural tourist attractions [14 3]. Specialized literature describes these motivations as push and pull type. Push motivations are related to emotions and pull motivations are about cognitive drivers [14]. Interest in local-guided tours has increased after Covid-19 outbreak, when tourists searched for virtual experiences, and prepared to do these tours in person [3].

## 2. MATERIALS AND METHODS

For the present study, we conducted qualitative research that aims to determine tourist motivations for natural tourist attractions in Brasov, through the reviews posted on the online platforms. The methodology used was divided into four phases. The research questions are: RQ1: What are the motivations of tourists for choosing natural tours? RQ2: Are these ecotourist motivations?

To answer these questions, in the first part, we identified the platform after which we performed the content analysis. The analyzed platform was selected according to popularity, so through Similar Web platform we find that the Viator.com platform is still used globally [15]. This platform is owned by TripAdvisor, so reviews are also posted through it. Therefore, the reviews posted through both Viator.com and TripAdvisor.com were analyzed. The research started from the moment when all tours in Brasov [16] were displayed, divided according to ten categories: art and culture, courses and workshops, food, and drink, likely to be sold, outdoor activities, occasions specials and seasonals, tickets, tours, excursions and cruises, travel and transport and unique experiences. A total of 281 trips are listed.

## 2.1 Sampling and data collection

The sampling process was based on the following:

- Reviews displayed in the nature and wildlife tour subcategory.
- Only those tours with a minimum one review and write-downs in English.
- Tours such as "Castles Tours form Brasov",
   "Small-Group Tour Sighisoara, Rupea
   Fortress and Viscri Day Trip" were excluded,
   in other words, we excluded those tours that,
   do not strictly target the subject of the
   research, that, of natural tourist attractions.

It is important to note that there were tours without reviews, while others are present on both platforms. There were situations in which the platform displayed a higher total number of reviews in contrast to what was displayed, thus calling them unidentified reviews. Table 1 and 2 show the sampling process.

To achieve the research objective, first we collected the reviews manually from both platforms, and introduced them into a word Microsoft document, written with Times New Roman font, 12 pp, justified, with a total of 72 pages.

Anaryzeu tours.					
Category	Nature and wildlife				
Total tours	61				
Excluded tours	8				
Tours without reviews	21				
Analyzed tours	32				

Analyzed reviews.

Category Nature and wildlife

Total reviews 521

Excluded reviews 25

Analyzed reviews 427

Unidentified 48
reviews



Fig. 1. Word frequency

#### 2.2 Methods

All the reviews and data were analyzed through the following steps: first step introducing data in NVivo program, by creating codes and to see the word frequency, the most repeated words express better experiences, concerns, and perceptions [3].

The second step was to identify the full meaning expression, creating word tree, for each of the frequent word and grouping all categories under sub-categories and see the repeated subject. Third step, specifying of sub-categories that are based on pushed or pulled motivations. The fourth step, specifying the problem using the cause-effect diagram.

#### 3. RESULTS

## 3.1 Frequency

Table 1

For this research we selected only those words with at least two letters and excluded articles, prepositions, and adverbs. Figure 1 Shows word frequencies.

## Word frequencies

Word	Count	Word	Count	Word	Count	Word	Count
bears	408	wild	57	lunch	37	wildlife	28
guide	321	walk	56	place	36	absolutely	27
experience	301	thank	54	recommended	36	super	27
tour	258	mountains	52	thanks	36	able	26
great	248	picked	49	close	35	guides	26
bear	210	natural	47	easy	35	hour	26
trip	182	people	46	food	35	informative	26
amazing	162	travel	46	lovely	35	kind	26
recommend	159	mountain	45	take	34	life	26
see	153	views	45	booked	33	want	26
hike	126	around	44	habitat	33	fun	25
saw	126	history	44	many	33	villages	25
Brasov	124	like	42	comfortable	31	highlight	24
Romania	113	local	42	knowledge	31	old	24
beautiful	105	safe	42	lucky	31	questions	24
hide	104	worth	42	seeing	31	couples	23
watching	96	different	41	group	30	English	23
good	93	helpful	41	sanctuary	30	know	23
knowledgeable	81	Romanian	41	told	30	fox	22
back	80	enjoyed	40	view	30	incredible	22
nice	79	excellent	40	friends	29	loved	22
hiking	77	fantastic	40	hotel	29	organized	22
contributions	75	park	40	passionate	29	point	22
friendly	74	professional	40	tours	29	quite	22
forest	73	perfect	39	visit	29	small	22
best	72	animals	38	drive	28	activity	21
definitely	70	interesting	38	everything	28	awesome	21
wonderful	69	ranger	38	felt	28	better	21
nature	68	active	37	happy	28	explained	21
highly	65	company	37	walking	28	landscape	21
area	59	information	37	watch	28	things	21

Table 3 shows word frequencies in verification of natural and wildlife tours on Viator and TripAdvisor platforms. The most frequent are "bears", "guide", and "experience".

# 3.2 Analysis of content units

We confirm that the words taken alone can have different meanings [3], because there are different combinations that can change the actual meaning. For that, in this step we combine the most frequent words, using NVivo, creating word tree, and see the frequent combinations before and after one desired word. We combined

two words with a minimum of 10 frequency. The frequency of both words taken together should be at least 10. The combinations with two words were sufficient to create categories, to be able to continue with the analysis and to create sub-categories. Table 4 provides the categories extracted from each tree word to answer the first question. In Table 4 the information is presented as follows, the column word with the categories and count for every category. The most frequent category is "our guide", "we saw", "the guide", "thank you", "bear watching", "highly recommend", "in Romania".

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Word	Count	Word	Count	Word	Count	Word	Count
Our Guide	98	Of bears	27	Knowledgeable about	17	For bears	12
We saw	92	Information about	27	Told us	17	Recommend trip	12
The guide	58	Picked up	25	Different bears	16	Really enjoyed	12
Thank you	52	Tour guide	23	History of	16	Through forest	12
Bear watching	47	Back to	22	Day trip	15	Easy to	12
Highly recommend	45	Very friendly	22	Our trip	15	Our hotel	12
In Romania	41	Great Guide	21	Well organized	15	Our questions	12
Amazing experience	40	Brown bears	20	Highly recommended	15	Bear sanctuary	11
This tour	40	Recommend tour	20	Well organized	15	Come back	11
In Brasov	40	Great time	20	Watching experience	14	Was super	11
See bears	38	Natural habitat	20	Bear watching	14	Wild bears	10
Great experience	34	Bear hide	19	About Romania	14	About bears	10
Active travel	34	From Brasov	19	Four Bears	13	About area	10
Trip to	29	Brown Bear	18	Wonderful experience	13	The local	10
About bears	28	Passionate about	18	Really nice	13		
Recommend	28	Our tour	17	Five Bears	12		

## 3.3 Grouping by sub-category

To answer the second research question, it was necessary to create subcategories. Common items were grouped, and their frequencies were summed see Table 5. Here are provided useful information to continue the analysis and to see which subcategories fit into the push and pull motivations to determine if there are ecotourism motives. These content units provide us lements, "guide", "experience", "nature", "nature experience", common elements, "learning", "organized", "recommendations". specialists described, motivations are also part of Maslow's pyramid, and the presence of the guide can influence the tours, because they know the destination and its characteristics [17]. 287 is the total with the highest frequency and intended for the sub-category "guide", verifying that guide being the actual motive. As well as the authors said that the essence of tourism are experiences [5], also experience is our second most frequent word with 271.

## 3.4 Cause-and-effect diagram.

We elaborate the cause-effect diagram to indicate the supposed reasons why tourists gave less importance to the nature category. We indicate the problem of why learning about nature is less frequent, and answer to the 5'Why.

- Why: They configured the route incorrectly
- Why: The platform made the mistake of creating multiple subcategories.
- Why: did not provide the routes corresponding to each subcategory.
- They assumed it was evident that they would use the appropriate filters.

#### 4. DISCUSSION

The frequency analysis conducted in the first step reveals that those who take the natural and wildlife tours are more interested in bears. The term "bears" is the most frequent word, with a frequency of 408. Nevertheless, there are many other words that can lead to the motivations for choosing natural tours, the first with at least 100

frequencies are: "guide", "experience", "tour", "great", "bear", "trip", "amazing", "recommend", "see", "hike", "saw", "Brasov", "Romania", "beautiful", "hide". In this first step

these words provide a perception of tourist motivations and the second step of analysis could appear, elaborating 62 different categories.

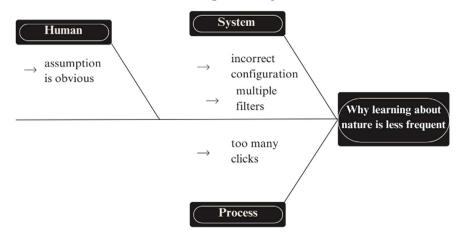


Fig. 2. Cause-effect diagram.

Table 5

Subcategories word

	Count	Sub category	* Total count
Our Guide	98	Guide	287
Great Guide	21		
Tour guide			
The guide	58		
Passionate about	18		
Knowledgeable about	17		
Told us	17		
Very friendly	22		
Really nice	13		
Four Bears	13	Experience	271
Bear watching	47		
We saw	92		
Amazing experience	40		
Great experience	34		
Wonderful experience	13		
Great time	20		
Was super	11		
Watching experience	14		
History of	16	Learning	144
About bears	10		
About Romania	14		
Our questions	12		
About area	10		
About bears	28		
Of bears	27		
Information about	27		
Wild bears	10	Nature	126
Five Bears	12		
For bears	12		
Different bears	16		
Brown bears	20		
Brwon Bear	18		
See bears	38		
Day trip	15	Nature experience	126
Our trip	15	runne experience	120
This tour	40		
Trip to	29		
Our tour	17		
The local	10		
Our hotel	12	Organised	117
From Brasov	19	Organiscu	117
Picked up	25		
Well organised	15		
Easy to	12		
Active travel	34		
Recommend trip	12	Recommendation	87
	12	Recommendation	8/
Really enjoyed			
Highly recommended	15		
Recommend tour	20		
Definitely recommend	28		
Natural habitat	20	Conservation	63
Bear hide	19		
Through forest	12		
For bears	12		
Bear sanctuary	11		
Thank you	52	Thaankfulness	52
Come back	11	Opinion	33
Back to	22		

These categories present common words, to understand better the expression used by tourists, hence, they were organized into subcategories of analysis which was made in the second step: "Guide", "Experience", "Learning", "Nature", "Nature experience", "Organized", "Recommendation", "Conservation", "Thankfulness", "Opinion". "Guide" has the highest frequency sub-category, of 287, verifying that this is the motivation for choosing natural local guided tours.

The second frequent sub-category is" experience" with 271 total, and third "learning" with 144, these sub-categories respond to the second questions if are ecotourists motivations and have push motivations as learning and pull motivations as experience. Interesting insights emerged from the results of this paper: we consider these ecotourist motivations.

Moreover, not all the sub-categories are ecotourists, but the guide mediated the experience of tourists. This is an important consideration knowing that these types of tours were in nature and learning about. To see why nature is less frequent, we conducted a cause-effect diagram and concluded that there are many types of categories and heavy processes to choose the right tour for every person in platform.

#### 5. REFERENCES

- [1] Mociulschi A.L, *Mic tratat de magie*, Curtea Veche, ISBN 978-606-44-0131-1, Bucuresti, pp. 23-24, 2017.
- [2] Agag G. M., Ahmed A.M. "Why do consumers trust online travel websites? Drivers and outcomes of consumer trust toward online travel websites." Journal of Travel Research 56.3, pp. 347-369, 2017.
- [3] Mastroberardino, P., Calabrese G., Cortese F., Petracca M., New perspectives of experiential tourism: an exploratory analysis of live virtual tours during the COVID-19 outbreak. The TQM Journal, (ahead-of-print), 2021.
- [4] Botsman, R., Rogers, R. *What's Mine Is Yours*. HarperCollins e-books, p. 78, 2010.
- [5] Zhang H., Gordon S., Buhalis D., Ding X., Experience value cocreation on destination online platforms. Journal of Travel Research 57.8, 1093-1107, 2018.
- [6] Gruben P. V., Design of the platform business,
  - https://www.youtube.com/watch?v=SvoVM nGcusY&t=343s
- [7] Xiang Z. Gretzel U. *Role of social media in online travel information search*. Tourism management 31.2: 179-188, 2010.

- [8] Zhang H. E, *Experience value cocreation on destination online platforms*. Journal of Travel Research, 1093-1107, 2018.
- [9] Ban O., Badulescu A. *Evaluarea online a calitatii serviciilor de cazare*. Romanian Journal of Marketing 4, 2015.
- [10] Book L. A. Online traveler reviews as social influence: Price is no longer king. Journal of Hospitality & Tourism Research 42.3, 445-475, 2018.
- [11] Zhao X. R. The influence of online reviews to online hotel booking intentions.

  Internationale Journal of Contemporary Hospitality Management, 2015.
- [12] Chen P. Y., Dhanasobhon S., Smith M. D. All reviews are not created equal: The disaggregate impact and reviewers at amazon.com, 2008.
- [13] Martin J. A Better Customer Experience Why Little Things, (2019, Oct 22).
- [14] Eagles P.F.J., *The travel motivation of Canadian ecotourists*. Journal of travel research 31:3, 1992.
- [15] https://www.similarweb.com/
- [16] https://ww.viator.com/
- [17] Massi M., De Nisco A. *The internet-based marketing of ecotourism: are ecotourists really getting what they want?*. Emerald Publishing Limited, Tourism Planning and Destination Marketing, 161–182, 2019.

## Aplicarea instrumentelor managementului calității în utilizarea platformelor

Această lucrare își propune să răspundă la următoarele întrebări care sunt motivațiile turiștilor pentru alegerea tururilor naturale, și dacă este posibil să considerăm aceste motivații drept motivații ecoturistice? Lucrarea se concentrează pe motivații de tip push și pull pentru a studia experiența tururilor naturale. Cercetarea calitativă utilizată în această lucrare prezintă o analiză de conținut a 521 de recenzii a 61 de tururi postate pe platforme online precum Viator și TripAdvisor susținute în Brașov, România.

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