

# The impact of online recommendations on tourist's decision-making during the COVID-19 pandemic

Утицај онлајн препорука на доношење одлука туриста током пандемије COVID-19

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**Abstract:** Electronic word-of-mouth recommendation system (eWOM) has been present since the emergence of the Internet, and it was preceded by the long-term use of the traditional recommendation system (WOM). Interaction between consumers can result in a positive and/or negative impact on their further behaviour on the market. Tourism industry attaches particular importance to the analysis of decision-making, given that the intangible nature of services makes the entire process difficult for tourists. Therefore, the aim of the paper is to examine the impact of online recommendations on the behaviour of tourist consumers in the decision-making process during the period of the COVID-19 virus pandemic. The subject of the paper is the electronic word-of-mouth recommendation system, with a special focus on tourism. During the pandemic, the consumers' lifestyle was altered enormously, while tourism was affected by restrictions and difficult business operations. Empirical research, conducted on the territory of the Republic of Serbia, included a sample of 268 respondents with different socio-demographic characteristics. The analysis of the obtained data was performed using the statistical software platform IBM SPSS Statistics and the Pearson's Correlation test, after which hypotheses 1, 2, 3 and 4 were accepted.

**Keywords:** recommendations; eWOM; decision-making process; tourism; COVID-19.

**JEL classification:** M31, L83

**Сажетак:** Електронски систем препорука потрошача од уста до уста (eWOM) заступљен је од појаве интернета, а претходи му дуговремена употреба традиционалног система препорука (WOM). Међусобна интеракција потрошача може резултирати позитивним и/или негативним утицајем на даљи ток њиховог понашања на тржишту. Туристичка индустрија придаје посебно велики значај анализи доношења одлука, с обзиром да неопипљив карактер услуга отежава туристима целокупан процес одлучивања. Према томе, циљ рада је испитати утицај онлајн препорука на понашање потрошача туриста у процесу доношења одлука током периода пандемије вируса COVID-19, односно, предмет рада јесте електронски систем препорука потрошача од уста до уста, с посебним освртом на туризам. За време трајања наведене пандемије стил живота потрошача се модификовао у великој мери, док је туризам био погођен

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рестрикцијама и отежаним пословањем. Емпиријско истраживање спроведено је на територији Републике Србије на случајном узорку од 268 испитаника различитих социо-демографских карактеристика. Анализа добијених података вршена је путем статистичко-софтверске платформе IBM SPSS Statistics и Пирсоновог теста корелације, након чега су хипотезе 1, 2, 3 и 4 прихваћене.

**Кључне речи:** препоруке; eWOM; процес доношења одлука; туризам; COVID-19.

**ЈЕЛ класификација:** М31, Л83

## **Introduction**

According to Grubor et al. (2019), the influence of word-of-mouth communication (WOM) has enormously escalated through the expansion of the Internet, so it has influenced consumers' behaviour in significant directions. If consumers are not able to observe the true attributes of a product, it can impact on difficulties in decision-making process (Jalilvand, Esfahani, & Samiei, 2011). Thus, because of the intangible nature of tourism services, WOM has been accepted as the most useful source of information among travel consumers. An electronic word-of-mouth (eWOM) is innovated version that provides new possibilities, especially in reaching unapproachable market segments (Grubor, Leković, & Tomić, 2019). All information can be found online, making it simple to share and reach a huge audience of potential visitors. Due to the fact that social networks play an increasingly significant role in consumers' lives and act as informational systems for them, marketers and managers must be sufficiently familiar with new technologies and the alternatives they offer (Petronijević, & Janičić, 2021).

Therefore, the subject of the paper is the eWOM recommendation system, with a special focus on tourism.

As well as the other industries, tourism has been especially interesting for researchers due to COVID-19 virus pandemic. The first indications of the pandemic were visible at the end of 2019, while the consequences are still evident. The COVID-19 has been powerful enough to bring the tourism industry almost to an absolute halt. In order to re-establish their image and rebuild connections with the tourists, destinations have implemented crisis measures (Aktan, Zaman, Farías, Raza, & Ogadimma, 2022). According to Luković and Stojković (2020), the quick spread of COVID-19 has had a negative impact on international travel, especially on popular tourist locations like France, Italy, and Spain, as well as to nations where outbound travel is extremely common, such China and the United States.

Therefore, the aim of the paper is to examine the impact of online recommendations on the behaviour of tourist consumers in the decision-making process during the specific period of the COVID-19 virus pandemic.

## **1. Literature review**

Tourism is the world's largest industry and is growing rapidly. Tourism is becoming a popular leisure activity globally, since millions of people travel from one place to another on daily basis. There is intense competition in tourism environment, and because of the tourists' increased knowledge, destinations face competitive threat to be replaced by other destinations. Therefore, it is essential for the destinations to maintain their competitiveness

by understanding the potential tourist behaviour in the process of choosing the destination (Dahiya & Batra, 2016).

Even though it is important to focus on the revisit of each of the tourists, there are also other factors to consider regarding the tourists' decisions. "Willingness to recommend the destination" has been referred by various authors as an indicator of travel destination loyalty. Tourists can recommend the destination to their families, friends, and the environment, regardless of revisiting it by themselves (Agapito, Oom Do Valle & Da Costa Mendes, 2011).

In industries like tourism, information can be especially recognized as the key factor influencing consumer behaviour. WOM is one of the available strategies referred to information transfer because it is communication that involves consumers discussing their experiences after service consumption (Grubor, Leković, & Tomić, 2020).

Tourists are in search process for various information on destinations or travel topics (explanations, recommendations, ratings, pictures, etc.). The process is referred to as the stage of collecting the information, which is usually before any decision has been made by the consumer. In this stage, communication between tourism providers and potential tourists is crucial because superior quality communication through a travel website should make an impact on the tourists' decision making (Nor Azazi & Shaed, 2020). According to Ismagilova et al. (2020), information is regarded as helpful if the information can be used in making a purchase decision. Also, when electronic word-of-mouth communications are being useful, they can remarkably influence an individual's purchase intention.

According to Dwityas & Briandana (2017), there are three phases of travelers' decision-making. Phase 1 is called "before the travel". This phase consists of the introduction of wants/demands to go traveling, gathering information and evaluation, and the travel decision making, which includes purchasing some products that should be carried out before the travel (tickets, booking of hotel rooms, etc.). "When travelling" represents Phase 2, which consists of the consumption of products in the scope of tourism (such as food, attractions, transportation, etc.), and searching for additional information. Finally, Phase 3, called "after the travel", consists of evaluating travel experiences and rating the satisfaction level. Travellers are going to save the impression of their experiences to embark on further travel activities in the future, depending on the rate of satisfaction they feel.

Marketers should do their research for each of these phases, because of the industry's significance. Radović, Pejanović, & Kosić (2013) state that the significance of tourism is multiple:

- Economic: direct economic impacts (impact on social product and national income, impact on the employment level of the local population and the level of their living standards, etc.) and indirect economic impacts (agriculture, mining, etc.);
- Social: cultural, educational, health effects, etc. are significant;
- Political: tourism has been seen as a factor of preserving peace in the world.

Despite all the advantages, the policy of restricting visits to tourist destinations because of the COVID-19 pandemic has had an effect on the management of tourist areas experiencing losses (Yan Syah, Rianto Rahadi, & Farid, 2021). COVID-19 is a global pandemic that appeared first in China but started to spread quickly across the entire world through human-to-human transmission (Rahman, Gazi, Bhuiyan, & Rahaman, 2021). The main effect of COVID-19 on the world is a tragedy for individuals, affecting the health of hundreds of thousands of people, but it is also having a growing effect on the economy and the global economy (Gajić et al., 2021). International travel restrictions, as well as the implementation of quarantine to combat the spread of the COVID-19 pandemic, cause significant losses in the tourism industry. It should be noted that the current crisis is biological in nature, and no effective vaccine to prevent the COVID-19 virus has been developed. In order to tackle COVID-19, widespread quarantine and extensive self-isolation have emerged as the key strategies. Consequently, most governments strongly restrict the freedom of travel for residents (Lyulyov et al., 2020). Most nations have implemented short-term travel restrictions to prevent the spread of disease, raising concerns about the COVID-19 pandemic's impact on the global tourism industry (Rahman, Gazi, Bhuiyan, & Rahaman, 2021).

Also, WOM communication becomes interesting in promoting a product or service because consumer behaviour in relation to traditional advertising and other marketing communications is less responsive. Thus, in the conditions of the COVID-19 pandemic, eWOM is a solution in conveying something without direct interaction with consumers (Yan Syah, Rianto Rahadi, & Farid, 2021).

## 2. Methodology

Regarding the aim of research, the survey was conducted in the post COVID-19 period (from July to September 2022) on the territory of Serbia. In line with post-pandemic consequences, respondents received a questionnaire through social media platforms Facebook and LinkedIn. It was filled in by 268 respondents in total, who have been using travellers' websites.

For the purposes of writing this paper, the convenience sample has been narrowed down to respondents who had read online recommendations of other tourists specifically during the COVID-19 pandemic, i.e., from 2020 to 2022.

Table 1: Number of consumers who had read online recommendations during the COVID-19

"I read online recommendations of the other tourists during the pandemic."				
		Frequency:	Percentage:	Cumulative percentage:
Valid:	Yes	132	49.3%	49.3%
	No	136	50.7%	100.0%
	Total:	268	100.0%	

Source: the authors' research

Table 2 gives the presentation of the sample, since the tourist consumers have different socio-demographic profiles regarding genders, age groups, education levels, etc. This structure is visible in the first section of the questionnaire.

Table 2: Socio demographic structure of the participants (N = 132)

Feature:	Item:	Frequency:	Percentage:
Gender:	Female	82	62.1%
	Male	50	37.9%
Age:	18 - 20	6	4.5%
	21 - 30	78	59.1%
	31 - 40	25	18.9%
	41 - 50	19	14.4%
	50+	4	3.1%
Education level:	Secondary school diploma	31	23.5%
	Bachelor's degree	57	43.2%
	Master's degree	29	22.0%
	Ph.D.	15	11.4%
Employment status:	Student	29	22.0%
	Employed	86	65.2%
	Unemployed	7	5.3%
	Retired	1	0.8%
	Employer	9	6.8%
Marital status:	Married	101	76.5%
	Single	31	23.5%
Mode of travel:	Solo	5	3.8%
	Friends	44	33.3%
	Family	34	25.8%
	Partner	49	37.1%
Frequency:	Once a year	37	28.0%
	Twice a year	44	33.3%
	Several times a year	51	38.6%
Usage of travellers' website:	0-2 years	61	46.2%
	3-6 years	50	37.9%
	More than 6 years	21	15.9%

Source: the authors' research

In addition to socio-demographic parts, the questionnaire contained the second section, i.e. 17 constructs modified by the authors and originally created by Nilashi et al.

(2022). The respondents in the convenience sample were asked to rate the set of statements through a Likert scale.

The paper presents a part of research testing correlations of tourist destination choice and several variables related to eWOM and the source of the eWOM, presented in Table 3.

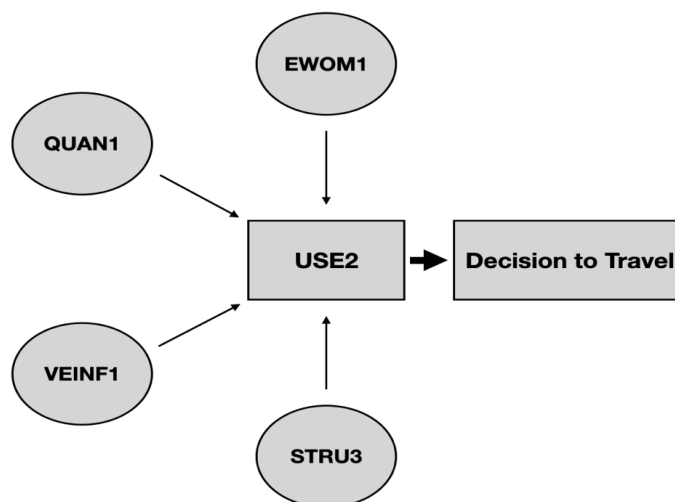
Table 3: Survey items significant for the paper

Factor:	Items:	Survey questions:
eWOM usefulness	USE2	I have chosen travel destination based on the online recommendations.
Visual and external information	VEINF1	Many reviewers take photos of the destinations.
Source trustworthiness	STRU3	I think the source of the comments is accurate and reliable.
Existing eWOM	EWOM1	The website presents WOM in a clear way.
eWOM quantity	QUAN1	I have found many reviews on the website.

Source: the authors' research based on the survey originally created by Nilashi et al. (2022)

The significant items were processed using IBM SPSS Statistics, a statistical software platform. According to International Business Machines Corporation - IBM (2021), the platform offers a user-friendly interface and a robust set of features that enable the rapid extraction of useful insights from data.

Figure 1: Research framework



Source: the authors' research

In order to analyse the impact of online recommendations on tourists' decision making during COVID-19, the variables were tested through Pearson's Correlation test.

Pearson's Correlation is a measure of the linear association between 2 normally distributed random variables (Schober, Boer, & Schwarte, 2018).

### 3. Results and discussion

The following hypotheses were set based on literature overview and research objectives:

H<sub>1</sub>: Visual and external information has a positive influence on decision to travel

Table 4: Correlation of eWOM usefulness and visual and external information

Correlations			
		USE2:	VEINF1:
USE2:	Pearson correlation	1	.298**
	Sig. (2-tailed)		<.001
	N	132	132
VEINF1:	Pearson correlation	.298**	1
	Sig. (2-tailed)	<.001	
	N	132	132

\*\* . Correlation is significant at the 0.01 level (2-tailed).

Source: the authors' research

The obtained data have a statistically significant correlation, given the fact that  $p$  is  $< 0.001$ , which is lower than the significance limit, i.e.,  $p < 0.01$ . Since the coefficient  $r$  is equal to 0.298, the statistical relationship is characterized by low intensity, i.e., intensity in the set 0.1 - 0.3. The positive sign testifies that the increase of one of the variables will affect the increase of the other. In other words, if online recommendations contain more photos and visual information, it is more likely that tourist consumers are going to choose a travel destination based on it.

H<sub>2</sub>: Source trustworthiness has a positive influence on decision to travel

Table 5: Correlation of eWOM usefulness and source trustworthiness

Correlations			
		USE2:	STRU3:
USE2:	Pearson Correlation	1	.340**
	Sig. (2-tailed)		<.001
	N	132	132
STRU3:	Pearson Correlation	.340**	1
	Sig. (2-tailed)	<.001	
	N	132	132

\*\* . Correlation is significant at the 0.01 level (2-tailed).

Source: the authors' research

The obtained data have a statistically significant correlation, given the fact that  $p$  is  $< 0.001$ , which is lower than the significance limit, i.e.,  $p < 0.01$ . Since the coefficient  $r$  is 0.340, the statistical relationship is characterized by medium intensity, i.e., intensity in the set 0.3 - 0.5. The positive sign testifies that the increase of one of the variables will affect

the increase of the other. In other words, if tourist consumers start to think more that the source of the comments is accurate and reliable, it is also more likely that they are going to choose a travel destination based on it.

H<sub>3</sub>: Existing eWOM has a positive influence on decision to travel

Table 6: Correlation of eWOM usefulness and visual and existing eWOM

Correlations			
		USE2:	EWOM1:
USE2:	Pearson correlation	1	.383**
	Sig. (2-tailed)		<.001
	N	132	132
EWOM1:	Pearson correlation	.383**	1
	Sig. (2-tailed)	<.001	
	N	132	132

\*\* . Correlation is significant at the 0.01 level (2-tailed).

Source: the authors' research

The obtained data have a statistically significant correlation, given the fact that  $p$  is  $< 0.001$ , which is lower than the significance limit, i.e.,  $p < 0.01$ . Since the coefficient  $r$  is equal to 0.383, the statistical relationship is characterized by medium intensity, i.e., intensity in the set 0.3 - 0.5. The positive sign testifies that the increase of one of the variables will affect the increase of the other. In other words, the more clearly a website presents WOM, the more likely it is that tourist consumers are going to choose a travel destination based on it.

H<sub>4</sub>: eWOM quantity has a positive influence on decision to travel

Table 7: Correlation of eWOM usefulness and eWOM quantity

Correlations			
		USE2:	QUAN1:
USE2:	Pearson Correlation	1	.321**
	Sig. (2-tailed)		<.001
	N	132	132
QUAN1:	Pearson Correlation	.321**	1
	Sig. (2-tailed)	<.001	
	N	132	132

\*\* . Correlation is significant at the 0.01 level (2-tailed).

Source: the authors' research

The obtained data have a statistically significant correlation, given the fact that  $p$  is  $< 0.001$ , which is lower than the significance limit, i.e.,  $p < 0.01$ . Since the coefficient  $r$  is 0.321, the statistical relationship is characterized by medium intensity, i.e., intensity in the set 0.3 - 0.5. The positive sign testifies that the increase of one of the variables will affect the increase of the other. In other words, if a website contains more reviews, it is more likely that tourist consumers are going to choose a travel destination based on it.



## Conclusion

With the aim of contributing to the recovery of the tourism industry from COVID-19 restrictions, electronic word-of-mouth recommendation system (eWOM) has been presented as a powerful weapon by many authors.

In this paper, it has been proven by testing the set of variables that there are significant correlations between existing eWOM, its quantity, source trustworthiness and visual information with eWOM usefulness in travel. All of the correlations are positive, which results in accepting the established hypotheses:

- H1: Visual and external information have a positive influence on decision to travel.
- H2: Source trustworthiness has a positive influence on decision to travel.
- H3: Existing eWOM has a positive influence on decision to travel.
- H4: eWOM quantity has a positive influence on decision to travel.

Similar results were presented by Nilashi and associates (2022): The results in both stages of data analyses indicated the significant role of the eWOM during the current COVID-19 pandemic for the decision to travel. The authors suggested that there is a positive impact of source trustworthiness on e-trust (H<sub>3</sub>) and that the quantity of eWOM has a huge impact on e-trust (H<sub>4</sub>). According to them, the number of eWOM on the electronic portal is a significant factor, as the volume of the online reviews reflects the popularity of the seller or the product. The authors also suggested that there is a positive impact of existing eWOM on e-trust (H<sub>1</sub>). When a person utilizes an online portal, he or she evaluates the feedback left by other users to get over any uncertainty regarding the calibre of the services being offered. Internet reviews that are present on the online portal are regarded as the face of the company's online reputation. Customers can advertise for the company online, which helps it rank higher in search results, increase sales, provide managers feedback, and encourage customers to make a purchase.

However, this study has a limitation of quite a small number of significant respondents out of the total number. Future research should utilize a wider range of databases. The second limitation of this study is also linked to the respondents, i.e., their place of residence. During the COVID-19, different countries implemented different forms and degrees of restrictions, not also generally but also in terms of measures related to tourist industry. Thus, there is an assumption that travellers from different countries had different perceptions of eWOM and tourism at the same time. Future research of international character should deal with this issue.

Despite the limitations, this study can make a significant contribution because the survey was conducted in 2022, which means it represents a sample of the most recent pattern of consumers' extremely variable behaviour. The findings should help travel managers and marketing experts better understand the significance of eWOM.

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