

CHANGES IN TOURIST BEHAVIOR IN THE CONTEXT OF THE COVID-19 PANDEMIC

Nicoleta CRISTACHE¹, Sabin MURARIU², Alexandru Sebastian CHIHAIA³

Abstract: *The tourism industry has been seriously affected by the COVID-19 pandemic, both from a social and from an economic perspective. Despite showing signs of resilience, the negative repercussions on tourism-related activities have been serious, the hospitality industry proving to be the most sensitive in the face of the sanitary and economic crises which started more than a year ago. Even though the full (and cumulative) impact of the events which shaped the current global situation cannot be quantified without a high degree of uncertainty, the negative effects are visible in the economies of many countries, around the world, at microeconomic, macroeconomic, and behavioural levels (for businesses and individuals). Usually, such economic, social, sanitary crises or other extreme circumstances (terrorism, natural disasters) trigger a change in the behaviour of tourists, the differences being dependent on region, country, etc. Thus, given the current economic and social context, the current paper focuses on the behavioural change of the Romanian tourists. The practical purpose of this research is to show the agents working in the tourism industry on which aspects to focus more and how to diversify their offer based on the change in demand specific to the "new normal". The most recent research conducted by experts have shown that the pandemic has negative effects on travel intention for multiple reasons, among them being the selectivity in choosing the destination based on criteria such as the increased need for hygiene and healthcare conditions, for travel insurance, etc.*

Keywords: tourist consumer behavior, tourist attitude, covid-19 pandemic, quantitative analysis, managerial implications

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Introduction

Tourism represents an important industry for the economy of any country through its contribution to GDP, job creation, and consumers represent the demand,

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thus all parties involved must adapt to their needs. However, tourism is one of the most vulnerable sectors to natural or man-made crises and disasters [1]. A crisis in the field of tourism means any unforeseen event that can prevent the normal functioning of the activity and negatively influence the confidence of tourists in a certain tourist destination. Recently, tourism had experienced crises ranging from natural disasters (volcanic eruptions, tsunamis) to man-made disasters: terrorist attacks, health crises (SARS), but despite all this, this industry has managed to recover.

According to COMCEC [2] tourism crises are divided into five categories: in this first category we find the environmental crisis which includes events caused by people, but also meteorological and geological extremes that cannot be controlled and anticipated. The second category includes social and political crises that include terrorist acts, wars, political imbalance, and the third is the economic crisis - the most recent economic crisis is the one in 2008. The fourth is the technological crisis that can affect the same measure tourism. Health crises include hygiene issues, food poisoning, epidemics such as SARS, Ebola and now COVID-19, which has affected the global population in the long term. Understanding tourist consumer behavior and attitudes during the COVID-19 pandemic is crucial for the tourism industry to adapt and thrive. Conducting quantitative analysis on these aspects can provide valuable insights for managers and policymakers. The elements that define the behavior of tourists in this dynamic context are:

1. Increasing safety and health concerns - tourists are much more attentive to the safety measures taken by destinations and accommodation units. They were targeting destinations and services that implemented strict hygiene and social distancing protocols.
 2. Preference for less crowded destinations - during this period, tourists avoided very crowded tourist destinations and went to less populated places to avoid the risk of exposure to the virus.
 3. Less international and long-distance travel – in general, shorter-distance car travel was preferred given the uncertainty associated with travel restrictions and rules.
 4. Booking flexibility – there was a tendency to seek more flexible booking conditions, such as more permissive cancellation policies, to cope with sudden changes in their travel plans caused by the pandemic.
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5. Travel experiences in nature – outdoor activities and natural destinations were preferred, as they offer an alternative to urban congestion and provide the opportunity to maintain social distancing.

6. Adoption of technology for planning and travel – tourists are using technology more to plan their trips, checking real-time information on restrictions, safety measures and updates related to the pandemic.

7. Increasing preference for private accommodations - The search for private accommodation options such as vacation homes and apartments has increased because they give tourists more control over their environment and reduce interactions with other people.

8. Increased focus on sustainability - The pandemic has also brought increased awareness of sustainability in travel, and tourists are more interested in green and responsible practices.

9. The trend towards virtual business travel - business travel has decreased significantly, and many people prefer virtual meetings and conferences to avoid the risk of exposure to the virus.

2. Literature review

Consumer behavior involves ideas, decisions, activities, or experiences that satisfy their needs and desires [3]. Consumer behavior is an often-researched topic in the field of tourism and marketing, with the terms "tourist behavior" and "travel behavior". Tourist behavior [4] is primarily to be analyzed for tourism businesses and their sustainability. Tourist behavior can be analyzed based on socio-demographic factors (age, education, personal values), specific factors (tourism resources, services and facilities, accessibility of the destination) and situational factors, which include meteorological events, health, and socio-political crises.

Tourist behavior derives from a series of internal and external factors - attitudes, motivations, intentions, respectively security, the economic and cultural environment, personal values, affinity groups (family, friends, colleagues, etc.) that can help or affect the perception of tourists for a journey [5]. The external factor due to the lack of safety in the event of a health crisis may cause changes in tourism behavior for most consumers compared to the habit they had before the pandemic, as the authors state in

this study. According to the European Commission [6], the Covid-19 crisis has implications for consumer behavior and choices regarding tourism. The choices are based on economic and psychological factors. Regarding the economic factors, the basis of the influence on the choices and tourist behavior are the reduction of incomes, the increase of unemployment or the reduction of working hours. In terms of psychological factors, it is related to the fear of contamination, treatment, conditions and preferences for the tourist destination and the desire to travel. The studies carried out by the European Commission following the health crisis showed that this situation produced changes in consumer patterns [7]. The changes were observed in the short term, but experts predict that they will persist in both the medium and long term. As a result of the research, it was found that changes in consumer behavior will be reflected in the desire to travel and preferences for certain destinations that meet essential conditions for the current situation. The criteria underlying the preferences are sanitary conditions and destinations with low tourist density. There could also be changes regarding the duration of the trips, which could be for shorter periods of time and more often, and the trips should be carried out by personal means of transport. Business tourism is more affected than leisure tourism since telework has replaced office work during the pandemic, and this has produced changes in the business model, customer relationship and work organization [8].

Other studies that considered tourist behavior referred to their intentions to avoid group travel and during the season, paying more attention to sanitary services at the host destination and changes in reducing expenses [9]. To capture the way in which the phenomenon of tourists' behavior affected by the pandemic was studied by researchers, a comprehensive bibliometric analysis of the academic literature on tourist consumer behavior, tourist attitude, covid-19 pandemic, quantitative analysis, managerial implications, the database used to be the Web of Science.

Qualitative-interpretive research focused on a bibliometric approach was carried out with the help of the VOSviewer software, through which the common concepts, ideas and findings in the specialized literature were explored, especially regarding the behavior of tourists. The present research focused on publications in the field of interest, the behavior of tourists in the context of the Covid-19 pandemic, in the period 2020 - 2024. We observed a significant increase in the number of publications in 2021 in the specialized literature. I have also noticed an increased attention paid in the last two years to publications that address the changes in the tourism industry. Several

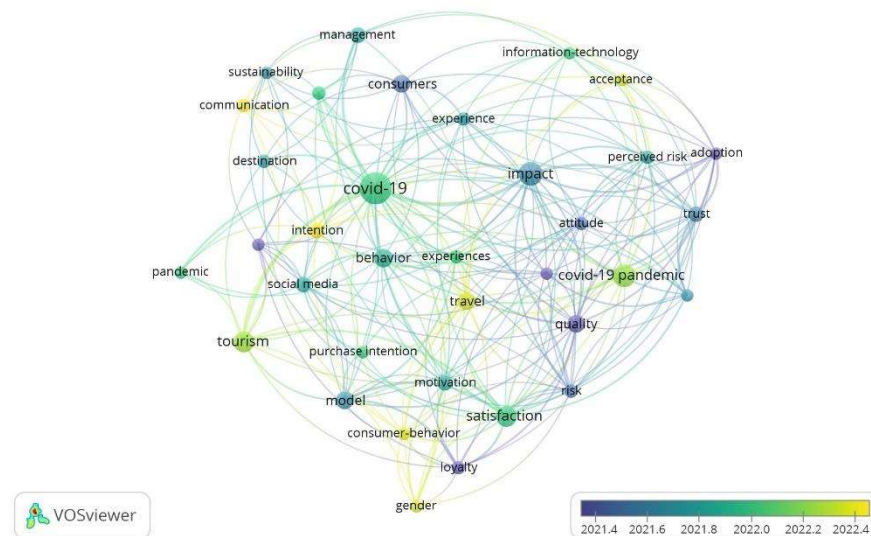


Figure 2 - Network Overlay View

Source: processing authors through VOSviewer software version 1.6.19 - Web of Science database

Overlay visualization is a similar approach to network visualization. Interpreting the colors in the overlay visualization representation is necessary to identify the score and understand the specific meaning. The color bar used in the overlay visualization representation reflects the scores corresponding to the color set. Thus, the color of an item is determined by its score, where blue indicates a low score, while green and yellow indicate higher and very high scores. Analyzing figure 2, we note that the links between the key concepts are colored in both blue and green, as well as yellow, suggesting moderate scores tending to high. This figure indicates that the associated articles had a significant impact in the journals in which they were published, with a considerable impact factor. The low score for certain concepts, those colored in blue, indicates a lower frequency or relevance in the analyzed literature compared to other concepts, those represented by the nodes colored in green and yellow.

In other words, travel, gender, sustainability, perceived, attitude is less highlighted or less frequently mentioned in the analyzed sources compared to other concepts. Terms colored in green and yellow, such as: covid -19, travel, intention, communication, behavior, social media indicate a high level of attribute associated with these nodes. Which means that these concepts represented by the green and yellow nodes have a higher frequency, importance or relevance within the analyzed literature compared to those colored in blue.

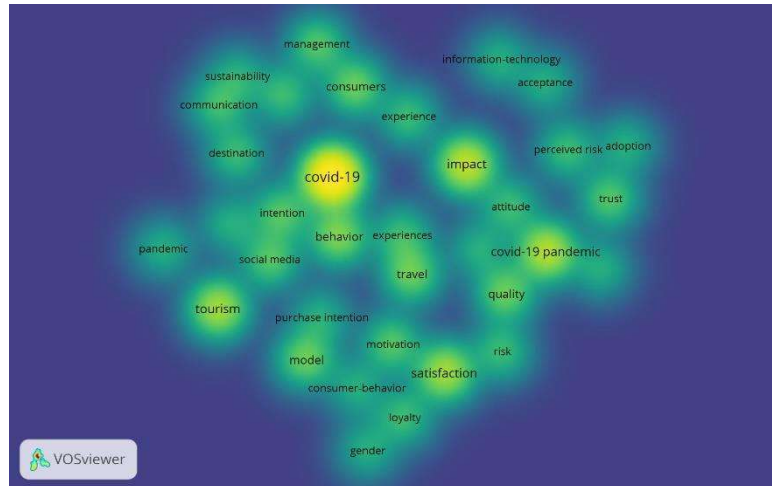


Figure 3- Element density visualization

Source: processing authors through VOSviewer software version 1.6.19 - Web of Science database

In VOSviewer the density of clusters can be visualized, the condition is that all elements are grouped. This option is like item density visualization, the main difference being the separate presentation of items (keywords) in specific groups. The color of each point was obtained by combining the colors of different keyword unit groups. The color weight of each group is determined by the number of items that are part of the same group and that are found in the vicinity of that point, considering the weight of each element, as in the case of the element density visualization. In figure 3, the groups with the highest weights include: covid-19, impact, pandemic, tourism, satisfaction, behaviour, loyalty.

The table below shows an analysis cluster in which it is observed that the term impact has the highest total link strength, respectively 47. Other concepts analyzed in the link are satisfaction (total link strength = 40), trust (total link strength = 30) and covid 19-pandemic (total link strength = 29). The importance given to Satisfaction by the authors of the articles in this cluster focuses on the stages and how this satisfaction is built and maintained in the context of the covid-19 pandemic. To achieve this degree of satisfaction, it is necessary to pay attention to the behavior of tourists, the level of trust, the way they perceive the risks associated with travel and various tourist destinations, the quality of the services offered.

Tabel nr.1 - Cluster

Keyword	Cluster	Links	Total link strength	Occurrences
covid-19	1	18	29	10
impact		24	47	11
tourism		13	24	9
covid 19 pandemic		18	29	10
satisfaction		22	40	9
behaviour		16	21	7
risk		19	23	4
quality		19	27	6
travel		20	25	6
trust		16	30	5

Source: processing authors

In conclusion, this analysis cluster indicates a holistic approach to the behavior of tourists, a process that involves not only practical and strategic aspects, but also aspects related to quality, risks, trust. Moreover, the use of the terms suggests that there is an awareness of the influence of the pandemic context on the behavior of the consumer of tourism services.

This research sought to obtain a detailed analysis using a prestigious database, Web of Science, to bring out some essential concepts. The importance of developing policies in the tourism sector and implementing strategies to support the quality of tourist services was noted. Moreover, trust is vital in ensuring the quality of tourism services.

The study of consumer behavior in the tourism services sector can be a complex challenge because it involves both administrative and operational aspects, as well as specific interactions in the sphere of international relations and foreign policy. Thus, the efficient management of resources and international relations is extremely important because aspects such as: satisfaction, behavior, quality, trust are necessary aspects to guarantee success in the tourism sector.

The most effective approach to the changes that appear in the behavior of tourists, generated by various factors, aims at measuring and constantly improving performance. Relevant performance indicators and the implementation of evaluation actions and processes contribute to the achievement of target objectives and the optimization of resources. The quality of tourism services can be understood as the mission of tourism operators aimed at the benefit of tourists.

3. Research methodology

The objective of the research is to identify the changes in attitude and behavior of Romanian tourism consumers, following the new economic and social context generated by the COVID-19 pandemic. In order to answer the research objective and the questions, a series of general hypotheses were defined, starting from the results of the analysis of the specialized literature [9] and the particular characteristics of Romanian tourism:

H1: Tourists will intend to travel more near the residence.

H2: Tourists will tend to shorten their holiday stay.

H3: Tourists will choose more than ever as a means of transport, road transport and especially their own cars.

H5: Tourists are willing to pay more to stay in locations that have taken additional protection measures.

H6: Travel decisions are influenced by the number of cases.

H7: Tourists will travel to Romania more than they did before, with the aim of supporting Romanian tourism and local entrepreneurs.

Statistical assumptions:

1) H0: Respondents in the age group of 40-55 years and over 55 years do not prefer road transport.

H1: Respondents in the age group 40-55 years and over 55 years prefer road transport.

2) H0: Older people are not more influenced by the disease rate than younger people.

H1: Older people are more influenced by the disease rate than younger people.

To achieve the objective of the paper and to test the general and statistical hypotheses, quantitative research was carried out using the survey method, using the self-administered questionnaire as an instrument. The questionnaire contained 20 closed questions, measuring the research variables on a nominal scale with single or multiple answers and ordinal, likert scale or semantic differential.

The questions were factual and opinion, as follows:

- Questions from 1-16 concern the attitude and behavior of tourism consumers in the current situation.
- Questions 16-20 characterize the profile of the respondents.

The survey was carried out between March and April 2021, on a sample of 106 people. The sampling was non-probability, and the results are indicative.

The questionnaire was uploaded to the Google forms platform, and for viewing and completion it was distributed via a link through social networks, e-mail, and messaging applications. The questionnaire was substantiated based on interdisciplinary works, considering aspects of behavior, but also of perception and attitude, based on the elements of the relationship between tourism and the health crisis. The sample and the structure of the respondents is presented in the following table:

Table 3 - The structure of the respondents

1. Gender	%	2. Number of respondents	3. Occupation	%	4. Number of respondents
Male	35,8	38	Student	15,1	16
Female	64,2	68	master	29,2	31
2. Age category			Employed in the public sector	14,2	15
18-25 years	60,4	64	Employed in the private sector	34,9	37
26-39 years	23,6	25	Entrepreneur	5,7	6
40-55 years	12,3	13			
over 55 years	3,8	4	Freelancer	0,9	1
3. Recently graduated studies					
High School/Vocational School	10,4	11			
Post-secondary studies	2,8	3			
Undergraduate studies	57,5	61			
Masters	28,3	30			
Other postgraduate studies	0,9	1			

Source: made by the authors, based on the results obtained from the research using SPSS

As can be seen in the previous table, most of the respondents to the questionnaire were female, representing a percentage of 64.2% of the total, and they mainly fell into the 18-25 age group. Also, 57.5% of all participants in the questionnaire had a bachelor's degree as their last completed level and of the 106 respondents, they are mainly

employed in the private system (34.9%), then they are master's students (29.2%) and public sector employees (14.2%).

4. Results and Comments

The first objective of the study was to identify how the outbreak of the COVID-19 pandemic influenced the way respondents travel. Thus, following the analysis, it was found that 5.66% have not been on any trip since the beginning of the pandemic, the same percentage was recorded for trips outside the country. 24.53% traveled both in Romania and abroad, and 64.15% on the domestic territory.

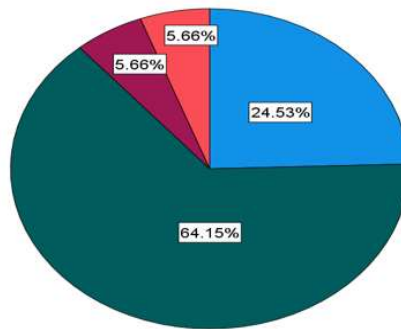


Figure 4 – Domestic and international tourism consumption since the beginning of the pandemic

Source: made by the authors, based on the results obtained from the research using SPSS

Analyzing the length of stays, a decrease can be observed during the pandemic period, thus the percentage of stays of 5-7 days decreases from 50% to 22.6%, and that of stays of 1-4 days, increases from 37.74% to 50.94% for the group of 106 people analyzed. This may be a consequence of restrictions imposed at certain times of the year and in certain locations. Thus, we can state that the hypothesis "Tourists will tend to shorten their vacation stay" is true.

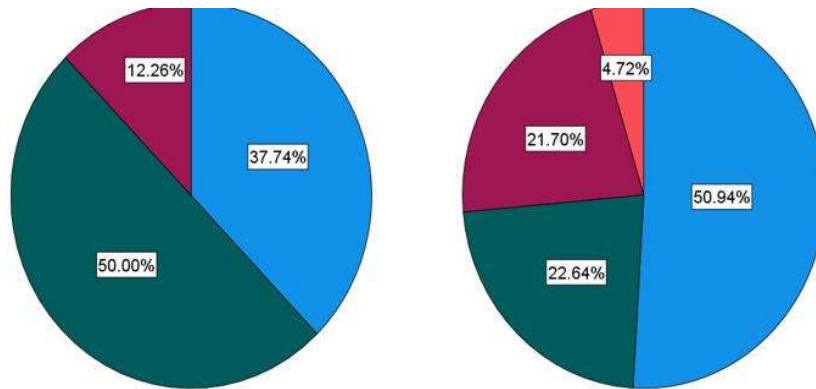


Figure 5 – Comparison chart on average trip duration before/during the pandemic
 Source: made by the authors, based on research using SPSS

The second objective is to identify whether the pandemic has changed the way people travel.

Table 4 - Distribution of the use of the means of transport before and after the pandemic

		Male				Female			
		18-25 years	26-39 years	40-55 years	Over 55 years	18-25 years	26-39 years	40-55 years	Over 55 years
Means of transport before the pandemic	railway	4	0	0	0	8	2	0	0
	road	5	9	8	3	31	3	4	1
	air	1	6	1	0	15	4	0	0
	naval	0	1	0	0	0	0	0	0
Means of transport during the pandemic	railway	3	0	0	0	2	0	0	0
	road	6	10	9	3	49	7	4	1
	air	1	5	0	0	3	2	0	0
	naval	0	1	0	0	0	0	0	0

Source: made by the authors, based on the results obtained from the research using SPSS

As can be seen from the previous table, regardless of the gender and the age segment in which they are, on average they opted for the use of road transport, more precisely the personal car to the detriment of the other means of transport. Thus, road transport has a significant increase from 60.37% to 83.96%, while rail transport has a decrease of 64.29% compared to the option they had before the pandemic. Thus, the hypothesis "Tourists will choose more than ever as a means of transport, road transport and especially their own cars".

Additionally, by means of a Chi-square statistical test, the existence of a statistically significant relationship was tested between the option of tourists to choose a certain means of transport during the pandemic (rail transport, road transport, air transport and maritime transport), on the one hand, and the age segment of the respondents.

Table 5 - Statistical Chi-squared test on means of transport during the pandemic

Variables	Age segment		
	Chi-Square	df	Asymp. Sig
Means of transport during the pandemic	18,127	9	0,034

Source: made by the authors, based on the results obtained from the research using SPSS

Since $p=0,034$ is less than the threshold of 0.05, in this case the test is rejected, so there is a significant relationship between the mode of transport chosen during the pandemic and the age segment of the respondents. Thus, by analyzing the cross table between the age category and the preferred means of transport during the pandemic, we can state that "respondents in the age category 40-55 years and over 55 years prefer road transport". This is demonstrated by the analysis of the difference between the actual value obtained from the questionnaire and the predicted value, which in the case of the 40–55-year-old category is 10.9 and 3.4 for the over 55-year-old category.

Regarding the influence of the disease rate in that area on the decision to travel to a certain location, most respondents (36.8%) believe that this influences their choice "to a great extent", verifying the hypothesis: "Travel decisions are influenced by caseload." We can also carry out an analysis between the level of influence of the

disease rate and the age segment of the respondents, starting from the following assumptions:

- Null hypothesis H0: People in the older age category are not more influenced by the disease rate.
- Alternative hypothesis H1: People in the older age category are more influenced by the disease rate.

Table 6 - One-way ANOVA statistical test regarding the influence of the disease rate on the choice of location

Variables	Age category				
	Sum of squares	df	Mean Square	F	Sig.
Influence of location choice on disease rate	9,493	3	3,164	3,318	0,23

Source: made by the author, based on the results obtained from the research using SPSS

For this, we applied a One-Way ANOVA test, from which the F-value of the test is 3.318, greater than the critical value and the critical probability value Sig. 0.023 is less than the significant threshold of 0.05, all of which led to the conclusion that the infection rate affects age categories differently.

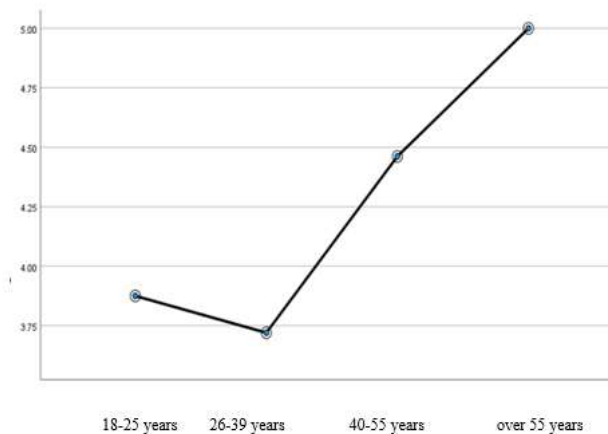


Figure 6 – Distribution of the influence of the choice of destination on the disease rate by age

Source: made by the author, based on the results obtained from the research using SPSS

From the previous graph the null hypothesis H_0 is false, i.e., "Persons in the older age category are more susceptible to the disease rate". Starting from the hypothesis that: "Tourists are willing to pay more to stay in locations that have taken additional protection measures", following the questionnaire, which was based on grades from 1 to 5, grade 3 obtained a percentage of 34.9%, grade 4 a percentage of 30.2% and grade 5 a percentage of 28.3%. Following this result, we can say that the previously stated hypothesis is true.

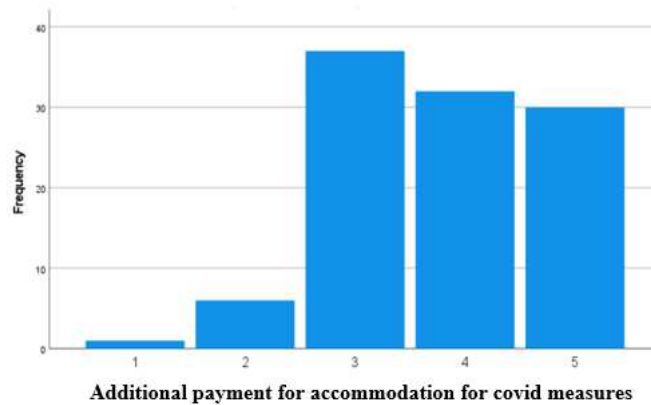


Figure 7 – Availability to accept the payment of additional rates for protective measures in accommodation units

Source: made by the author, based on the results obtained from the research using SPSS

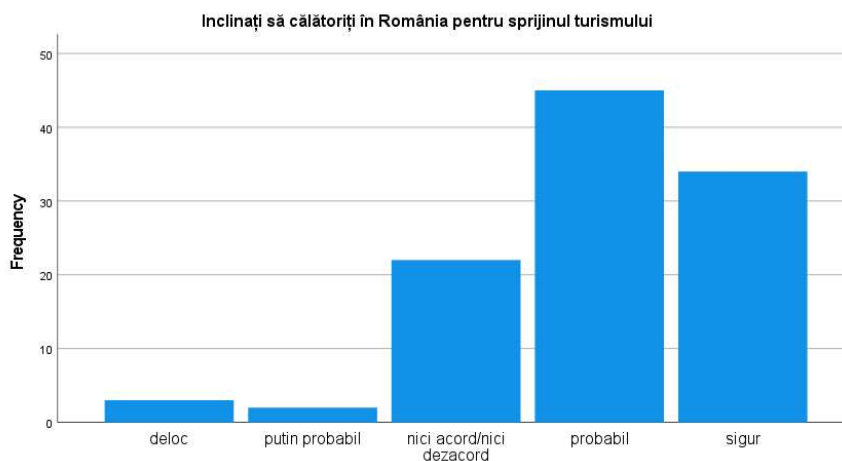
Regarding the criteria for choosing future holiday destinations, the questionnaire showed that the main criterion is "information on the pandemic situation in the destination town" (with an average of 3.94), followed by "avoiding means of transport in common" (average 3.91) and "choosing a less known destination" (average 3.62). The criterion that supports "choosing a destination near the residence" has an average of 2.52, obtaining a percentage of 45.1% for the votes "to a very small extent" and "to a small extent", thus the hypothesis "Tourists will intend to travel more in proximity of residence" is rejected.

Table 7 - Criteria for choosing a holiday destination in the future

	Choosing a destination near your residence	Choosing a lesser-known destination	Avoid traveling with public transport	Information on the pandemic situation	Purchase comprehensive travel insurance
Average	12,52	3,62	3,91	3,94	2,98

Source: made by the author, based on the results obtained from the research using SPSS

To be able to confirm the hypothesis that "Tourists will travel to Romania more than they did before, with the aim of supporting Romanian tourism and local entrepreneurs" we can analyze their answers in levels from 1 to 5. Thus, we obtain an average of the answers 3,99, which means a percentage of 74.6% opted for "safe" and "very safe".

**Figure 8 – Travel attitude in support of Romanian tourism**

Source: made by the author, based on the results obtained from the research using SPSS

5. Conclusions

Following this research, changes in attitude and behavior of tourists were identified in the context of the COVID-19 pandemic. These changes have affected the way Romanian tourists plan their vacations, the duration of their stay, the choice of transportation methods, but also the factors and criteria that influence their decisions. We also found a willingness to pay more for increased safety measures, but also to travel on Romanian territory to help domestic tourism.

Following the analysis of the answers, the general hypotheses issued on the basis of the specialized works studied and the particularities of Romanian tourism, were tested, and it was concluded that the first hypothesis formulated: "Tourists will intend to travel more near the residence" is not confirmed, but all the others that refer to shortening the length of stay on vacation, choosing road transport more than any other type of transport, paying extra for extra protection measures, the influence of caseload on travel decisions and the intention to more trips to Romania to support domestic tourism, have been verified and confirmed.

To validate the statistical hypotheses, two tests were performed. One that aimed to demonstrate the existence of a significant link between the means of transport chosen and the age category of which the respondents belonged, thus confirming the hypothesis according to which "Respondents in the age category 40-55 years and over 55 years prefer road transport" and another that aimed to test the existence of a significant link in the different way in which the age categories are influenced by the infection rate. Thus, the hypothesis was confirmed: "Persons in the older age category are more influenced by the disease rate than younger people".

Usefulness and implications of research - The novelty element of the research is conferred by the application on a sample of Romanian tourists, and the applicability of the research is essential for the Romanian managers in the field, who must adapt their offer of tourist services according to the new market requirements. Considering the new context generated by the pandemic, tourism operators can take advantage of the opportunity created, because tourists who preferred foreign tourist destinations, can now opt for the offer from Romania, considering that the current situation forces them to a certain extent to travel on distances shorter, closer to the place of residence, by personal car. Thus, by offering adequate value for money services and attention to safety and security requirements, they can retain their customers in the long term.

Limits and future research directions - The limits of the research are determined by the non-probability sampling and the limited number of respondents who participated in the survey, due to the pilot study nature of the work. As future research directions, the results of the pilot study can be tested on representative samples and the analysis of consumption behavior by association with perception and attitude variables.

Bibliografie

- [1] Pforr Christof and Hosie Peter *Crisis Management in Tourism: Preparing for Recovery* [Journal] // Journal of Travel & Tourism Marketing. - [s.l.] : Journal of Travel & Tourism Marketing, 2008.
- [2] COMCEC *Risk and Crisis Management in Tourism Sector: Recovery From Crisis in the IOC Member Countries* [Report]. - Ankara : COMCEC COORDINATION OFFICE - Standing Committee for Economic and Commercial Cooperation of the Organization of Islamic Cooperation, 2017.
- [3] Cohen Scott A., Prayag Girish and Moital Miguel *Current Issues in Tourism* [Article] // Consumer behaviour in tourism: Concepts, influences and opportunities. - Octombrie 29, 2013. - p. 2.
- [4] Wachyuni Suci Sandi and Kusumaningrum Dewi Ayu *The effect of COVID-19 Pandemic: How are the Future Tourist Behavior?* [Journal] // Journal of Education, Society and Behavioural Science. - 2020. - pp. 67-76.
- [5] Andrades Lidia, Dimanche Frederic and Ilkevich Sergey *Tourist Behaviour and Trends* [Journal] // Tourism in Russia: A Management Handbook. - 2015.
- [6] Comisia Europeană *COVID-19, tourist behaviour, jobs and policy options* [Report]. - Uniunea Europeană : Comisia Europeană, 2020.
- [7] Chebli Amina and Said Foued Ben *The impact of Covis-19 on tourist consumption behaviour: a perspective articole*. [Journal]. - [s.l.] : Journal of Tourism Management Research, 2020. - Vol. 7.
- [8] Gössling Stefan, Scott Daniel and Hall C. Michael *Pandemics, tourism and global change: a rapid assessment of COVID-19* [Journal] // Journal of Sustainable Tourism. - 2020.
- [9] Wachyuni Suci Sandi and Kusumaningrum Dewi Ayu *The effect of COVID-19 Pandemic: How are the Future Tourist Behavior?* [Journal] // Journal of Education, Society and Behavioural Science. - 2020. - pp. 67-76.
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