# ECOTOURISM, A RESILIENT SOLUTION IN THE CONTEXT OF THE COVID19 PANDEMIC?

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#### **Abstract**

This research examined the intention of Romanian tourists to travel nationwide in natural areas based on an extended TPB (Theory Perceived Behavior) model, in the context of the COVID-19 pandemic. Thus, the premise was that people would prefer less risky experiences and would see ecotourism in protected areas as a form of resilient tourism that reduces the threat of infection with the SARS-COV-2 virus or its mutations. This study tested a conceptual model that showed that this intention was influenced by the three variables of the TPB model attitude, subjective norms and perceived behavioral control, complemented by other variables such as the feeling of security offered to tourists by natural areas in the context of the Covid-19 pandemic, the motivations of tourists that involve ecotourism in nature and cultural activities in Romanian natural areas, personal values in travel in Romanian natural areas, civic attitude to support national tourism. The proposed research model incorporated the construct of the feeling of security offered to tourists by Romanian natural areas as a result of the Covid-19 crisis, as a mediator between the attitude of traveling at national level and the motivations of tourists involved in ecotourism in nature and cultural in the Romanian natural areas. In this context, the proposed model explains a substantial proportion of the total variance of the intent-dependent variable in this study. In the long run, the promotion of ecotourism, as a resilient form of tourism, in a pandemic context, could reduce the risk of spreading the virus and contribute to supporting Romanian Eco destination so that national tourism recovers from the economic crisis caused by the COVID pandemic 19.

#### **Keywords:**

ecotourism; protected areas; tourism after COV19, civic attitude, motivations

JEL Classification: L15, L83, Q20, Q50

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### 1. Introduction

In addition to the growing pharmaceutical industry, the SARS-CoV-2 pandemic has had a major impact on the tertiary sector as well. Tourism, regardless of its typology, is recognized as one of the economic activities that has the greatest impact on the income and quality of life of the local population (Brida et al., 2020). The tourist activity has undergone significant and complex changes, in this sense it has gone from mass tourism to alternative tourism, in which respect for the environment occupies a privileged place, while offering tourists new experiences, based on contact with nature and culture of the local population of the tourist destination (Ghoddousi et al., 2020).

In this article we will refer to the influence of the SARS-CoV-2 virus on tourism, more precisely to the changes in the behavior of tourists by orienting them towards ecotourism during the pandemic and after it.

On December 31, 2019, an outbreak of 45 cases of atypical pneumonia was reported to the World Health Organization. The first cases were hospitalized in China in early December 2019, when the SARS-CoV-2 Beta coronavirus was identified, which has a genetic similarity of approximately 76% with SARS-CoV. Most of the cases identified at the beginning were associated with a market where live animals,

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animal products and seafood were sold, hence the belief that the virus had a zoonotic transmission (UMFCD, 2021). In the days when distances were measured in hours and not in kilometers, in which air travel was a habit, in which life expectancy was increasing, humanity could not imagine that it would face this scourge.

The estimated economic growth for Romania in 2020 was between 4 and 6 percent, but suddenly the entire economy of our country was facing the prospect of a decline. These aspects were obviously reflected in the behavior of Romanian tourists. Their fears about the possibility of illness have had an impact on the hospitality industry. After the lock-down period in which not only tourism in Romania was blocked, but also world tourism, with the relaxation of restrictions and this field began to recover timidly.

A very interesting thing, however, is that ECOTOURISM has become the main option for many Romanian tourists, and thus what has meant being a negative factor for the hotel industry, has become a challenge for improving services in Romanian ecotourism. In recent years, ecotourism has emerged as a new form of sustainable alternative tourism, in which the elements related to rest, relaxation, nature protection and knowledge of culture, are generating new sustainable models of local development, thus attracting tourists who are interested in environmental conservation and respect for the local population, with a significant impact on improving the quality of life and reducing the level of poverty of the local population in protected areas (Ashok et al., 2017; Bluwstein, 2017; Walter et al., 2018). The nature sector, which is primarily driven by the development of ecotourism, is estimated to "grow by 4% to 6% per year after the pandemic, compared to less than 1% for agriculture, timber and fishing".

# 1.1 Pandemic and tourism: historical context and global consequences

Throughout history, global medical disasters, such as the Spanish Flu pandemic of 1918, have generated caution when it comes to pandemic travel and economic shocks. The symptoms of CoVID-19, including cough, runny nose or stuffy nose, sore throat and high fever are similar to those of seasonal colds and the disease is transmitted mainly by air from person to person. Scientists are worried that it is a critical virus that could turn into a deadly virulent virus like the H1N1 flu that devastated the globe after World War I. That deadly strain of the flu, known as "avian", killed up to 100 million people between 1918 and 1920.

The first case of coronavirus confirmed in Romania was announced on February 26<sup>th</sup> 2020 and until March 30<sup>th</sup> 2022 were confirmed 2,850,598 cases of disease, of which 64,994 deaths (2.28%). Most cases were found in urban areas, which led to Romanians' preferences for holidays to go to less crowded areas and especially to ecotourism.

According to www.statista.com, around the world in 2019, 1.46 billion passengers traveled with the help of over 35,000 commercial airlines connecting the world's major cities. A highly contagious disease can be easily spread worldwide. Travel restrictions have reduced people's travel options, and the difficulty with which they have led many tourists to get to spend their stays in Romania.

However, little is known about the attitude, intention, motivation of potential tourists. By studying the behavior of tourists, ecotourism businesses could find effective ways to cope with a crisis and provide quality services tailored to the needs and desires of consumers and help travelers plan their stays. Understanding the behavior of travelers gives predictability, and it can be very helpful for tourism service providers to improve the quality of services so that their guests can enjoy a quality experience. This can be achieved by having a good knowledge of the disease, improving personal hygiene practices, but especially by using social distancing and avoiding suspicious people and places (Choong-Ki Lee et al., 2010).

### 2. Literature review

# 2.1 Choosing a sustainable way of tourism

The development of tourism in protected areas and adjacent areas must be carried out by applying unitary principles, which has led to the emergence of ecotourism as a distinct form of tourism. Ecotourism aims to respect the integrity of natural landscapes, ecological biodiversity, in accordance with the demands of certain categories of tourists, who want to spend their holidays as close to nature

as possible and at the same time create opportunities for local development of communities. In order to keep the tourists' interest in ecotourism, it is necessary that the natural resources be as variable as possible and unaltered by anthropogenic activities, responding to many tourist motivations.

Although from the point of view of biodiversity, Romania has a varied ecotourism heritage that has a great potential for capitalization (the 27 natural and national parks, as well as the over 350 sites belonging to the Natura 2000 network, together with local traditions and culture), this segment is facing problems such as: poor local cooperation, modest promotion at national and international level, poor development of ecotourism-specific infrastructure, labor migration, low number of well-trained people in the field, an unresponsive legal framework sufficient to the needs of local services (National Strategy, 2019).

This study is an assessment of consumer behavior when it comes to national ecotourism. Their attitude is related to their own values and beliefs and they are almost always subjective.

#### 2.2 Context theoretical

The Theory of Planned Behavior has been frequently used in previous studies to understand the intentions or behavior of travelers. Theory Perceived Behavior is the most applied context to research the sustainable behaviors of consumers in the field of tourism. The premise of the TPB is that people who intend or plan to take action will do so (Ajzen, 1991). This theory proposes 3 independent variables: attitude, subjective norms and perceived behavioral control.

In this study we will integrate the personal norms, activism, motivations as well as the feeling of security offered by natural areas to tourists in combating SARS-CoV-2 disease in addition to the 3 original variables of the theory mentioned above, with the intention of proving that the effect Common predictor of predictors will be useful in understanding the future intention of consumers to choose ecotourism services.

### 2.3 The relationship between attitude and intention

Attitude is defined by Jeong et al. (2014) as the general assessment of consumers about a particular restaurant in positive or negative terms. Consumers are turning their attention to sustainable services, which have little impact on the environment. Many consumers preferred tourist units (boarding houses and local kitchens) that have organic products as the pandemic shifted the focus to health (Barone et al., 2019; Garnett, 2014. Mohamed, I. et al. 2016). Of course, the costs, time, effort required are commensurate with the quality of the experiences, and these issues can lead to negative beliefs about ecotourism (Kwok et al., 2016; Shin et al., 2018).

### 2.4 The relationship between norms subjective and intention

Subjective norms translate into perceived social pressure. They have the ability to affect or not a certain behavior (Ajzen, 1991). Consumer choices are influenced by important people around them. Thus, the recommendations of the relatives also work in the field of sustainable tourism, respectively ecotourism. If someone in your group considers it fair to become a consumer of ecotourism services, they will most likely be willing to engage in such activities. At the same time, if groups of relatives perceive that this type of tourism is not beneficial, they will be less likely to engage in the consumption of such a tourism product. Subjective norms also take into account people's motivation to conform to the views of their social circle and perceptions, which vary depending on the situation and the motivations of the individual.

### 2.5 The relationship between control perceived behavioral disorder (PBC) and intention

The concept of perceived behavioral control represents the perceived ability of the individual to act (Ajzen, 1991). From the point of view of experience, the role of perceived behavioral control is considered important in the development of sustainable habits. The number of factors that influence behavior can lead to both positive actions but can also be factors such as barriers to knowledge, availability, distance, higher prices and customer skepticism can negatively influence consumer behavior (Mohamed et al., 2016).

# 2.6 The relationship between personal norms and intention

When not constrained by social norms, people are free to choose whether or not to engage in environmentally friendly activities (Kin et al., 2013). Knowing the beliefs that guide a person, it is very easy to predict the pro-average behavior of a potential guest (Elhoushy S., 2020). If attitudes are based on the analysis of anticipated gains or losses, personal norms come from one's own moral obligations and judgments about what is right or wrong (Stern et al., 1999). The tourist does not differ from consumers in other fields, and personal values play an important role in choosing the activities they choose to carry out.

# 2.7 The relationship between activism and intention

In the literature it is specified that a pro-environmental behavior can be used as a predictor of the specific intention of an ecological product in the hospital field. It has been shown that if a person acts "green" at home (recycles, prefers public transport, etc.), there is a high chance of choosing an ecotourism product (DiPetro et al., 2013) as there are real chances that a person at home does not has a penchant for respecting the environment, choosing destinations where comfort takes precedence over any experience in which anthropogenic influence is limited.

Activism is an attitude that reflects the conscious mentality of individuals (Elhoushy and Jang, 2019). We can expect thus that at a higher level of activism we can associate higher intentions to choose sustainable tourism products (Elhoushy S., 2020).

# 2.8 The relationship between motivation and intention

According to Spark et al. (2001), people may have conflicting or even mixed feelings. Motivation is defined as the totality of factors (conscious or not) that determine someone to perform an action or to aim for a certain goal. Thus, motivation influences the choices we make, including when we choose how to spend our holidays. This mental process differs from individual to individual and can manifest differently in stages of a person's existence. It is interesting that in different countries the choice of organic food is based on different reasons. Consumers in the UK chose this type of food for intrinsic reasons - their own health - while those in Germany made the same choice but for extrinsic reasons - environmental protection (Baker et al., 2004).

### 2.9 The relationship between feeling of safety and intention

During the pandemic, the attention of tourists shifted to destinations where health safety was a priority. As the recommendation in the EU Guide for the gradual resumption of tourism services and for sanitary protocols in tourist reception facilities included maintaining a social distance of at least 1.5 meters, as well as avoiding crowded places, the trend has been to choose agro-tourist boarding houses, cottages and less hotels that have an increased number of guests but also a number of employees directly proportional to the accommodation capacity. Another aspect is the low number of SARS-CoV-2 virus diseases due to the fact that the local population is not very large in the destinations suitable for ecotourism.

In this context, the following research hypotheses have been developed and the following research model is proposed (Figure 1):

- H1. Attitude to travel (AT) at national level after the Covid-19 crisis has a positive influence on the motivations that involve ecotourism activities in nature in Romanian natural areas.
- H2. Attitude to travel (AT) at national level after the Covid-19 crisis has a positive influence on the motivations that presuppose cultural ecotourism activities in the Romanian natural areas.
- H3. The subjective norms (SN) have a positive influence on the motivations that presuppose ecotourism activities in nature in the Romanian natural areas.
- H4. Subjective norms (SN) have a positive influence on the motivations that presuppose cultural ecotourism activities in the Romanian natural areas.
- H5. Attitude to travel (AT) at national level after the Covid-19 crisis has a positive influence on the sense of safe offered by the Romanian natural areas.

- H6. Subjective norms (SN) after the Covid-19 crisis have a positive influence on the feeling of security offered by the Romanian natural areas.
- H7. The sense of safe (SS) offered by the Romanian natural areas after the Covid-19 crisis has a positive influence on the motivations that presuppose ecotourism activities in nature in the Romanian natural areas.
- H8. The sense of safe (SS) offered by the Romanian natural areas after the Covid-19 crisis has a positive influence on the motivations that presuppose cultural ecotourism activities in the Romanian natural areas.
- H9. Motivations involving ecotourism activities in nature (MN) in Romanian natural areas have a positive influence on the intention to travel nationally after the COVID-19 crisis.
- H10. Motivations involving cultural ecotourism activities (MC) in Romanian natural areas have a positive influence on the intention to travel nationally after the COVID-19 crisis.
- H11. Perceived Controlled Behavior (CC) has a positive influence on the intention to travel nationally after the COVID-19 crisis.
- H12. Personal Values in travel in the Romanian natural areas (VP), after the Covid-19 crisis have a positive influence on the civic attitude to support national tourism.
- H13. The Civic Attitude of supporting national tourism (AC) has a positive influence on the intention to travel nationally after the COVID-19 crisis.
- H14. SS mediates the relationship between AT and MN.
- H15. SS mediates the relationship between AT and MC.

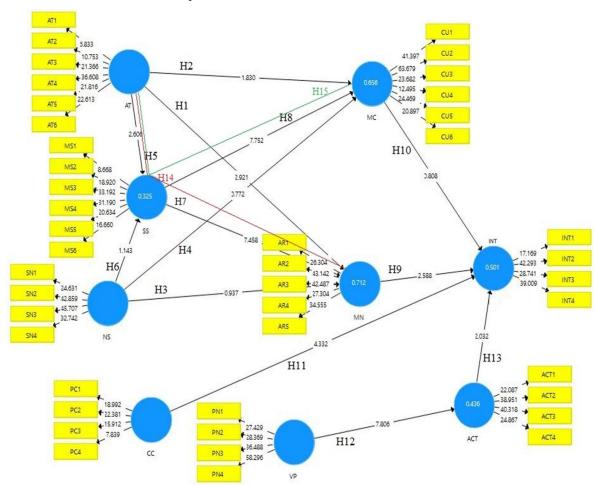


Fig. no. 1. Proposed research model Source: Developed by the author

# 3. Methodology

### 3.1 Data collection

A preliminary list of measurement elements was generated after a broad review of the literature on the behavior of international tourists, theories of human behavior, information on COV19 respiratory flu and measures to prevent influenza diseases (Ajzen, 1985; Ajzen and Madden, 1986; Bagozzi, Baumgartner and Pieters, 1998; Bentler and Speckart, 1981; Brug et al., 2004; Carrus et al., 2008; Lam and Hsu, 2004; Ministry for Health, 2006; Welfare and Family Affairs, 2009a, 2009b; Oh & Hsu, 2001; Perugini & Bagozzi, 2001; Reisinger and Mavondo, 2005; Sonmez and Graefe, 1998; UNWTO, 2009; WHO, 2009).

With the development of the Internet, some hospitality and tourism researchers are using online surveys to reach wider populations of interest effectively (Han, Hsu, and Lee, 2009; Kim and Ok, 2009). This study used data collected by an online survey platform (Google forms), and addressed undergraduate and master students studying tourism. This procedure collected 102 questionnaires and after excluding five questionnaires as aberrant values, 97 were coded for analysis. The study data were collected from March 30, 2022 to April 06, 2022, when all restrictions imposed due to the Covid19 pandemic were lifted in Romania. The questionnaire used a seven-point Likert scale from "1" to "total disagreement" to "7" referring to "total agreement".

The constructs Attitude (AT), Subjective Norms (SN), and Perceived Controlled Behavior (CC) and intention were adopted after Lee, 2014. The attitude of the subjects toward travel in protected areas has been operationalized with six items, as previous research suggests (Ajzen and Madden, 1986; Bagozzi et al., 1998; Lam and Hsu, 2004; Oh & Hsu, 2001). Subjective norms (NS) have been measured using items such as: Most people who are important to me support me to travel nationwide, and most people who are important to me understand my desire for domestic travel. The perceived controlled behavior variable (CC) contains 4 items. Intention (INT) is composed of 4 items. The constructions of personal values and civic attitude were taken after the model of Elhoushy (2020). The personal values building (VP) has a total of four elements that include the choice to support Romanian ecotourism so that national tourism can recover from the economic crisis caused by the COVID 19 pandemic is in line with my moral principles. The Civic attitude (AC) construct consists of 4 items, among which I try to convey the knowledge gained from my experiences in supporting Romanian ecotourism so that national tourism can recover from the economic crisis caused by the COVID-19 pandemic.

The construction of motivations that involve ecotourism activities in nature in the Romanian natural areas MN is composed of 5 items and the construction of motivations that involve cultural activities in nature in the Romanian natural areas MC contains 6 items. The sense of safety SS that travels in protected natural areas are made up of 6 items such as wide and spacious destinations, reducing congestion and interaction with other tourists, are destinations that they can frequent during off-season periods (spring, autumn, etc.).

As a first step in assessing the measurement model, exploratory factorial analysis identified the structure of systematically measured factors and variables in the underlying constructs. This reduced the multicollinearity or variance correlations of errors between indicators (Bollen, 1989; Yoon and Uysal, 2005). Modeling the structural equation used a two-step hybrid method by specifying a measurement model in confirmatory factor analysis and testing a latent structural model developed from the measurement model (Anderson & Gerbing, 1988; Hatcher, 1994; Kline, 2005).

# 3.2 Profile respondents and measurement model

The proportion of male and female respondents was 36,2% and 63,8%, respectively, with the average age being 23 years, predominantly students with work experience (54,6%). Respondents plan to travel to Romania (95,8%) and their favorite ecotours included the Danube Delta (28.8%), Maramureş (25.7%), Transylvania hills (11,3%), Piatra Craiului (10.3%). The model was analyzed using SmartPLS 3.3.9 to determine the reliability and validity of confirmatory factorial analysis.

### 4. Results

### 4.1 Measurement model

The measurement model displays the relationships between constructs and variable indicators. The first component of the measurement model is the reliability analysis that includes composite reliability. The desirable limit value for composite reliability is 0,60 (Ringle et al., 2018). As a result, all latent designs of the model possess composite reliability (Table 1). The second component of the measurement model is convergent validity. The measure of convergent validity is Average Variance Extracted (AVE) for which the limit criterion value is 0,50 (Ringle et al., 2018). The construction works therefore have convergent validity (see Table 1).

Table no. 1. Factor loadings, reliability and validity

Attitude AT1	0.947 0.947 0.947 0.824 0.911 0.930	0.930 0.962 0.886 0.937	0.789
NT2	0.947 0.947 0.947 0.824 0.911 0.930	0.886	0.664
CT3	77	0.886	0.664
CT3	77	0.886	0.664
CT4	0.947 0.947 0.947 0.824 0.824 0.911 0.930 0.930	0.886	0.664
Care	0.947 0.947 0.947 0.824 0.824 0.911 0.930 0.930	0.886	0.664
Cate	0.947 0.947 0.824 0.824 0.911 0.930 0.930	0.886	0.664
	0.947  0.947  0.824  0.824  0.911  0.930  0.930	0.886	0.664
SS	0.824 0.824 0.90 0.911 0.930	0.886	0.664
SS2	7	0.937	0.789
SS3   0.948   0.938   0.938   0.948   0.938   0.948   0.938   0.948   0.958   0.858   0.858   0.868	0.824 0.824 0.90 0.911 0.930 0.930	0.937	0.789
Columb   C	0.824 0.824 0.83 0.911 0.930 0.930	0.937	0.789
Col	0.824 0.824 0.90 0.911 0.930 0.930	0.937	0.789
CC1	0.911 0.911 0.930 0.930	0.937	0.789
CC2	0.911 5.0 0.911 5.0 3.3 4.0 0.930 3.3		
CC3	0.911 0.911 0.930 0.930		
CC4	0.911 0.911 0.930 0.930		
NT1	0.911 5 9 3 4 0.930 3 3		
NT1	0.930		
NT2	0.930	0.950	0.826
NT3	0.930	0.950	0.826
NT4	0.930	0.950	0.826
Personal value         0.883           IP2         0.90           IP3         0.92           IP4         0.92           Civic attitude         0.86           AC2         0.92           AC3         0.91           AC4         0.87           MN1         0.87           MN2         0.92           MN3         0.93	0.930	0.950	0.826
Description	3	0.950	0.826
CP2     0.90       CP3     0.92       CP4     0.92       Civic attitude     0.86       AC2     0.92       AC3     0.91       AC4     0.87       Motivations that involve activities in nature     0.87       MN1     0.87       MN2     0.92       MN3     0.93	3		
P3	ו		
Description			
Civic attitude			-
0.861	3		
AC2 0.928 AC3 0.918 AC4 0.87 Alotivations that involve activities in nature  AN1 0.87 AN2 0.92 AN3 0.93	0.915	0.940	0.797
0.91	ו		
AC4 0.87  Motivations that involve activities in nature  MN1 0.87  MN2 0.92  MN3 0.93	ו		
And of ivations that involve activities in nature         0.87           AN1         0.87           AN2         0.92           AN3         0.93	)		
MN1     0.870       MN2     0.92       MN3     0.93:			
MN2 0.92 MN3 0.93	0.950	0.961	0.833
MN3 0.93	5		
	5		
ANA	3		
U.9U	2		
MN5 0.92	L		
Notivations for cultural activities	0.948	0.959	0.796
AC1 0.929			
AC2 0.94			
AC3 0.89°			
AC4 0.83			
AC5 0.88			
AC6 0.86		İ	
ense of safety	0.918	0.937	0.712
S1 0.76		0.937	0.712
		1	
S4 0.88°			
\$5 0.86 \$6 0.80	7	1	-

Source: Developed by auto based on SmartPLS calculations

The component used to access discriminant construct validity is the Heterotrait Monotrait (HTMT) Ratio procedure. As indicated by Henseler et al. (2015), in order to verify the discriminant validity, the most conservative threshold values of the HTMT ratio are less than or equal to 0.90. In this study, all HTMT values are below the 0.90 threshold value (see Table 2).

Table no. 2. Discriminant validity using HTMT

	AC	MN	ΑΤ	MC	INT	SS	CC	VP	NS
AC									
MN	0.402								
AT	0.181	0.702							
MC	0.487	0.850	0.627						
INT	0.481	0.565	0.500	0.465					
SS	0.537	0.852	0.595	0.837	0.581				
CC	0.368	0.542	0.639	0.479	0.722	0.479			
VP	0.712	0.471	0.346	0.501	0.524	0.572	0.442		
NS	0.234	0.546	0.675	0.502	0.465	0.474	0.700	0.351	

Source: Developed by auto based on SmartPLS calculations

#### 4.2 The structural model

The structural model displays the relationships (pathways) between the constructs in the proposed study model. The results showed that AT has a significant impact on MN ( $\beta = 0.275$ , t = 2.877, p < 0.05). Therefore, H1 was accepted. H2 assesses whether TA has a significant impact on MC. The results showed that it does not have a significant impact on MC ( $\beta = 0.186$ , t = 1.747, p = 0.081).

Consequently, H2 was rejected. H3 assesses whether NS is positively bound to MN. The results showed that NS does not have a significant impact on MN ( $\beta$  = 0.072, t = 0.877, p = 0.376). Consequently, H3 is rejected. Also, NS does not have a significant impact on MC ( $\beta$  = 0.071, t = 0.718, p = 0.473), so H4 is also rejected. H5 assesses whether AT has a significant impact on SS; the results indicated that its roughness has an impact ( $\beta$  = 0.442, t = 2.544, p < 0.05), so H5 is accepted. SN is not positively bound to SS ( $\beta$  = 0.176, t = 1.037, p = 0.300), so H6 is rejected. SS has a significant positive impact on MN ( $\beta$  = 0.615, t = 7.736, p < 0.001); in this case H7 is accepted. SS also has a significant positive impact on MC ( $\beta$  = 0.651, t = 7.983, p < 0.001); in this case H8 is accepted. MN has a significant positive impact on INT ( $\beta$  = 0.651, t = 7.983, p < 0.001); in this case H9 is accepted. MC is not positively bound to INT ( $\beta$  = 0.117, t = 1.799, p = 0.424), so H10 is rejected. CC has a significant positive impact on INT ( $\beta$  = 0.451, t = 4.280, p < 0.001); In this case H11 is accepted. VP also has a significant positive impact on AC ( $\beta$  = 0.660, t = 7.993, p < 0.001); In this case H12 is accepted. AC has a significant positive impact on INT ( $\beta$  = 0.230, t = 2.018, p < 0.05); in this case H13 is accepted (see table 3).

Table no. 3. Hypothesis testing

	Path Coeff	Standard Deviation	T Statistics	P Values	
AC -> INT	0.230	0.114	2.018	0.044	
MN -> INT	0.317	0.122	2.592	0.010	
AT -> MN	0.275	0.095	2.887	0.004	
AT -> MC	0.186	0.106	1.747	0.081	
AT -> SS	0.442	0.174	2.544	0.011	
MC -> INT	-0.117	0.147	0.799	0.424	
SS -> MN	0.615	0.080	7.736	0.000	
SS -> MC	0.651	0.082	7.983	0.000	
CC -> INT	0.451	0.105	4.280	0.000	
VP -> AC	0.660	0.083	7.993	0.000	
NS -> MN	0.072	0.081	0.887	0.376	
NS -> MC	0.071	0.099	0.718	0.473	
NS -> SS	0.176	0.170	1.037	0.300	

Source: Developed by auto based on SmartPLS calculations

#### 4.3 Mediation analysis

H14 assesses whether SS mediates the relationship between AT and MN. The results show that the total effect (H1) was found to be positive and significant ( $\beta$  = 0.548, t = 3.697, p < 0.01). When the mediator was introduced into the model, the direct effect remained significant ( $\beta$  = 0.275, t = 2.877, p < 0.05), while the indirect effect with the inclusion of the mediator in the analysis was found to be significant ( $\beta$  = 0.273, t = 2,490, p <0.05). Therefore, the results reveal a partial mediation. This shows that the effect of AT on MN partially passes through SS. Therefore, H14 is accepted.

H15 assesses whether SS mediates the relationship between AT and MC. The results show that the total effect (H2) was found to be positive and significant ( $\beta$  = 0.474, t = 2.844, p < 0.05). When the mediator was introduced into the model, the direct effect decreased, the relationship becoming insignificant ( $\beta$  = 0.186, t = 1.747, p = 0.081), while the indirect effect with the inclusion of the mediator in the analysis was found to be significant ( $\beta$  = 0.288, t = 2.370, p <0.05). Therefore, the results reveal a total mediation. This shows that AT directly influences the variable MC through SS. Consequently, H15 is accepted (see Table 4).

Table no. 4. Mediation analysis

	Total Effects			Effects		Indirect Effects			
Hypothese	Coeff.	t- value	Coeff.	t- value	Hypothese	Coeff.	t-value	p value	
AT->MN	0.548	3.697	0.275	2.887	AT->MS ->MN	0.273	2.490	0.013	
AT->MC	0.474	2.844	0.186	1.747	AT->MS ->MC	0.288	2.370	0.018	

Source: Developed by auto based on SmartPLS calculations

#### 5. Conclusions

# 5.1 Implications notional

Knowledge is limited on how the COVID-19 pandemic affected the decisions of potential domestic tourists, although it is alleged that the fear of tourists contracting the virus while traveling has negatively affected the tourism industry nationally and internationally. We mention that this is the first study that focused on improving the predictions regarding the travel intention of Romanian tourists at national level, after the COVID-19 crisis and making decisions using an extended model of TPB (Theory of Planned Behavior). Specifically, this approach included the feeling of security (SS) offered to tourists by Romanian natural areas after the COVID-19 crisis, the motivations of tourists that involve ecotourism in nature (MN) and cultural activities in Romanian natural areas (MC), personal values in travel in the Romanian natural areas (VP), and the civic attitude to support national tourism (AC). Thus, the proposed model incorporated the construct of the feeling of security (SS) offered to tourists by Romanian natural areas after the Covid-19 crisis, as a mediator between the attitude of traveling (TA) at national level after the Covid-19 crisis and the motivations of tourists involved in ecotourism. in nature (MN) and cultural in the Romanian natural areas (MC). The introduction of these new constructs was supported by the increased power of the model to predict the intention of potential tourists to travel nationally. Showing superior predictive validity, the proposed model represented an important variation in travel intention than TPB, which is an improvement in explaining the intentions of potential tourists wishing to travel nationally in Romanian natural areas. Demonstration, in this context, that the extension and deepening of the theory described by Perugini and Bagozzi (2001) is reasonable, by integrating new constructs or by modifying the paths to be more appropriate in the model.

In this context, the proposed model explains a substantial proportion of the total variance of the intent-dependent variable in this study. Also, in accordance with previous studies on the extension of the TPB model, the motivations of tourists that involve ecotourism in nature (MN) and cultural activities in Romanian natural areas (MC) have a sufficient impetus to form the intention to travel nationally, being the most important latent variable. In the model, the most important determinant of motivations was the feeling of security (SS) offered to tourists by Romanian natural areas after the Covid-19 crisis, while other determinants, such as the subjective norm, are less important for predicting the motivations of tourists. They involve ecotourism activities in nature (MN) and cultural activities in

the Romanian natural areas (MC). The correlation coefficient between perceived controlled behavior (CC) and intention to travel nationally is comparable to the results obtained by Shin et al. (2018). It is not problematic that all antecedent variables in the TPB do not make a significant contribution to behavioral intent, as the relative importance of individual antecedent variables in a model may differ depending on given contexts (Sparks and Pan, 2009).

The proposed model suggests that the intention to travel nationally in the post-pandemic context is not restricted among potential tourists, because they have in mind an adaptive behavior by their intention to travel in Romanian natural areas, because they give them a sense of security which reduced the threat of infection to a level acceptable to them. In fact, trips to the Romanian natural areas in a pandemic and post-pandemic context represent an adaptive behavior that strengthens the motivations of tourists that involve ecotourism activities in nature (MN) and cultural (MC).

This study also examined the common effect of two constructions – personal values in travel in Romanian natural areas (VP) and civic attitude to support national tourism (AC) – that precede the intention to travel at national level after the COVID-19 crisis. Consistent with previous studies showing that extensive TPB models have superior explanatory power in decision-making contexts in sustainable md (Jang et al., 2015; Kim et al., 2016; Shin et al., p. 2018), the results of this study support the proposed model, which incorporates personal values (VP) - which encourages tourists to support Romanian eco destinations, So that national tourism can recover from the economic crisis caused by the COVID 19 pandemic – and the civic attitude to support tourism and the national economy (CA) expressed through additional efforts by tourists to support Romanian ecotourism as additional predictors of the intention to travel nationally after COVID-19 crisis. This is probably due to the nature of sustainable behavior, which involves not only rational but also moral and altruistic actions. At the construction level, the results provide further evidence that the higher the sense of safety (SS) offered to tourists by the Romanian natural areas after the Covid-19 crisis, determined by the fact that they are wide and spacious destinations, reducing the congestion and interaction with other tourists, The attitude to travel (AT) at national level after the Covid-19 crisis has a more significant influence on the motivations of tourists that involve ecotourism in nature (MN) and cultural activities in the Romanian natural areas (MC).

It should be noted that the respondents intend to travel to the Romanian natural areas for activities involving observation, discovery and appreciation of nature, hiking, trails, riding, cycling, photographing and admiring landscapes, sports fishing, boat rides, skiing, rafting, not attracted by Romanian customs and traditions, culture and living of local communities, local gastronomic specialties, demonstrations on the practice of crafts preserved for generations (smiting, pottery, weaving, sewing, egg painting, wood carving, belts, wickerwork and wicker braids, hay making, etc.). This shows that tourists prefer not to interact with other people to maintain social distance, thus reducing the threat of infection with the SARS-COV-2 virus.

#### 5.2 Implications management

Attitudes and activism have shown a superior role in shaping the behavior of the intention to travel nationwide in natural areas after the COVID-10 crisis. This result is of interest to ecotourism stakeholders who aim to attract new customers to this resilient form of tourism.

Thus, in their advertising strategies, ecotourism operators should emphasize the self-associated benefits of this form of tourism, for example:

- accommodation spaces pensions, cottages, guest houses in the Romanian natural areas that
  provide increased security because they have a small number of places (thus avoiding
  congestion) and their owners can quickly implement measures to prevent / control the spread of
  new forms coronavirus (sanitation and disinfection of accommodation);
- the fact that they are easily accessible destinations by personal car, thus reducing contact with other people by using alternative means of transport (train, plane, bus);
- natural areas are isolated places where tourists can spend their holidays with family or close friends; natural areas are destinations that can be frequented during the off-season (spring, autumn, etc.), thus avoiding congestion and contact with other tourists.

In advertising strategies, ecotourism stakeholders should also mention the associated benefits (e.g., supporting local communities to recover economically from the COVID-19 crisis, reducing waste, etc.).

The cultivation of the two sides in the minds of consumers should exert a substantial influence on their intention to travel nationally in natural areas. Efforts can also be directed toward participatory approaches. For example, involving consumers in creating and/or sharing knowledge gained from their experiences in supporting Romanian ecotourism so that national tourism can recover from the economic crisis caused by the COVID 19 pandemic on their social networks can energize their activism and commitment

#### Refrences

- Anderson, J. and Gerbing, D. (1988). Structural equation modeling in practice: a review and recommended two-step approach. *Psychological Bulletin*, 103 (3), pp. 411-423.
- Ajzen, I. (1985). From intentions to actions: a theory of planned behavior. In J. Kuhl, & J. Beckman (Eds.), *Action-control: From cognition to behavior*. Heidelberg: Springer, pp. 11.
- Ajzen, I. and Madden, T. (1986). Prediction of goal-directed behavior: attitude, intentions, and perceived behavioral control. *Journal of Experimental Social Psychology*, 22 (5), pp. 453-474.
- Bagozzi, R., Baumgartner, H. and Pieters, R. (1998). Goal-directed emotions. *Cognition and Emotion*, 12 (1), pp. 1-26.
- Bentler, P. and Speckart, G., (1981). Attitudes "cause" behaviors: a structural equation analysis. *Journal of Personality and Social Psychology*, 40 (2), pp. 226-238.
- Bentler, P. and Wu, E. (1995). EQS for windows: User's guide. Encino, CA: Multivariate Software, Inc.
- Bollen, K. (1989). Structural equations with latent variables. NY: Wiley.
- Brug, J., Aro, A.R., Oenema, A., De Zwart, O., Richardus, J.H. and Bishop, G.D. (2004). SARS risk perception, knowledge, precautions, and information sources, The Netherlands. *Emerging Infectious Diseases*, 10(8), pp. 1486-1489.
- Byrne, B. (1994b). Testing for the factorial validity, replication, and invariance of a measuring instrument: a paradigmatic application based on the Maslach burnout inventory. *Multivariate Behavioral Research*, 29(3), pp. 289-311.
- Carrus, G., Passafaro, P. and Bonnes, M. (2008). Emotions, habits and rational choices in ecological behaviors: the case of recycling and use of public transportation. *Journal of Environmental Psychology*, 28 (1), pp. 51-62.
- Elhoushy, S. (2020). Consumers' sustainable food choice: Antecedents and motivational imbalance. *International Journal of Hospitality Management*, pp. 89.
- Fornell, C. and Larcker, D. (1981). Evaluating structural equation models with unobservable variables and measurement error. *Journal of Marketing Research*, 18 (1), pp. 39-50.
- Hair, J.F., Black, W.C., Babin, B.J., Anderson, R.E. and Tatham, R.L. (2006). Multivariate data analysis. *Upper Saddle River*, NJ: Pearson Education.
- Han, H., Hsu, L. and Lee, J. (2009). Empirical investigation of the roles of attitudes toward green behaviors, overall image, gender, and age in hotel customers' ecofriendly decision-making process. *International Journal of Hospitality Management*, 28 (4), pp. 519-528.
- Kim, W. and Ok, C., 2009. The effects of relational benefits of favorable inequity, affective commitment, and repurchase intention in full-service restaurants. *Journal of Hospitality & Tourism Research*, 33 (2), pp. 227-244.
- Lam, T. and Hsu, C. (2004). Theory of planned behavior: potential travelers from China. *Journal of Hospitality and Tourism Research*, 28 (4), pp. 463-482.
- Ministry for Health, Welfare and Family Affairs (2009a). The growth trend of Influenza A (H1N1). Available at: http://www.mw.go.kr/front/al/sal0301vw.jsp? [Accessed 4 April 2022].
- Ministry for Health, Welfare and Family Affairs (2009b). The code of preventing Swine Flu. Available at: http://online.mw.go.kr/influenza/01 01.jsp [Accessed 4 April 2022].

- Oh, H. and Hsu, C. (2001). Volitional degrees of gambling behaviors. *Annals of Tourism Research*, 28 (3), pp. 618-637.
- Perugini, M. and Bagozzi, R. (2001). The role of desires and anticipated emotions in goal-directed behaviors: broadening and deepening the theory of planned behavior. *British Journal of Social Psychology*, 40 (1), pp. 79-98.
- Reisinger, Y. and Mavondo, F. (2005). Travel anxiety and intentions to travel internationally: implications of travel risk perception. *Journal of Travel Research*, 43 (3), pp. 212-225.
- Sonmez, S.F. and Graefe, A.R. (1998). Determining future travel behavior from past travel experience and perceptions of risk and safety. *Journal of Travel Research*, 37 (2), pp. 171-177.
- UNWTO. (2009). Influenza A (H1N1): No restrictions on recommended travel. Available at: http://www.unwto.org/media/news/en/press det.php?id<sup>1</sup>/<sub>4</sub>4071 [Accessed 3 April 2022].
- Yoon, Y. and Uysal, M. (2005). An examination of the effects of motivation and satisfaction on destination loyalty: a structural model. *Tourism Management*, 26 (1), pp. 45-56.
- World Health Organization (2009). Global alert and response (GAR): Travel. Available at: http://www.who.int/csr/disease/swineflu/frequently\_asked\_questions/travel/en/index.html [Accessed 30 March 2022].