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# Understanding prevention measures and tourist behavior in Croatia during the COVID-19 pandemic. A mixed-method approach

Maja Šerić<sup>a</sup> , Josip Mikulić<sup>b</sup>  and Đurđana Ozretić Došen<sup>c</sup> 

<sup>a</sup>Department of Marketing and Market Research, Faculty of Economics, University of Valencia, Spain;

<sup>b</sup>Department of Tourism, Faculty of Economics & Business, University of Zagreb, Croatia and Institute for Tourism, Croatia; <sup>c</sup>Department of Marketing, Faculty of Economics & Business, University of Zagreb, Croatia

## ABSTRACT

This study investigates the adoption of prevention measures in Croatia during the COVID-19 pandemic and its relationship with tourist behavior. The research adopts a mixed-method approach as it examines both practitioners' and tourists' viewpoints. A qualitative study was conducted with eight destination service providers, while the quantitative study took place among 333 international tourists during their stay in the country. Results from the qualitative study show that the most frequently employed prevention measures are cleaning and disinfection of customer-use spaces, the use of hand sanitizers, mandatory face masks for employees and guests, and social distancing. Tourism service providers observed that international tourist behavior changed significantly from 2020 to 2021. Findings from the quantitative study show relatively high levels of perception of adoption of prevention measures among tourists, low levels of the perceived risk of COVID-19, and high levels of tourist satisfaction. Some differences in tourist behavior related to gender and destination type are also observed. Positive correlations are found between tourists' perceptions of prevention measures and their satisfaction level, while the correlations between perceived risk of COVID-19 and prevention measures on one hand and perceived risk of COVID-19 and tourists' satisfaction on the other are found to be negative.

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## JEL CLASSIFICATION

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## 1. Introduction

The COVID-19 pandemic has turned the entire travel and tourism industry upside down, provoking significant shifts in tourist behavior (Abraham et al., 2020; Li et al., 2020; Šerić & Šerić, 2021). In assessing the potential effects of the COVID-19 pandemic on the tourism industry, Škare et al. (2021) concluded that the impact has

**CONTACT** Maja Šerić  [maja.seric@uv.es](mailto:maja.seric@uv.es)

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been more destructive than previous predictions and that the recovery will take longer than the average 10-month recovery. Therefore, researching changes provoked by a global pandemic that will likely affect the tourism industry in the long run, represent topics of contemporary and abiding research concerns.

Recent research findings indicate different effects of COVID-19: tourists changed their preferences (Kim & Lee, 2020; Planinc & Kukanja, 2022), became more sensitive to prevention and safety measures (Wang et al., 2021), and started to perceive an increased travel risk because of the pandemic (Neuburger & Egger, 2021). More specifically, it seems that people now prefer to travel to destinations closer to their homes (Li et al., 2021), use the private car instead of public transport (Abdullah et al., 2021), and stay in more expensive hotel properties (Kim et al., 2021). Recent findings also suggest that people who attribute the spread of the pandemic to their own countries show more propensity to travel abroad (Abraham et al., 2020). Li et al. (2020) proposed a conceptual framework reflecting the transformation of tourist behavior upon the COVID-19 pandemic and suggested three major patterns in tourist behavior: 1) from general trip purpose to more elaborate destination selection, 2) from open-hearted and friendly attitudes to closed and unwilling to interact tourists, and 3) from radical tourist, who seek novelty and adventures to conservative tourists, who attempt to reduce their risk of being infected by COVID-19 and behave accordingly.

Furthermore, evidence points out that satisfaction was generated in different ways before and after the quarantine, suggesting that the pandemic had an impact on the significance of potential drivers of satisfied customers (Belarmino et al., 2021). Also, while reopening tourism facilities, authorities in many countries show and communicate at the same time through both regulations and crucial protective measures (Quan et al., 2022) that they safeguard different stakeholders, including tourism service providers and tourists (Kang et al., 2021). Safety measures have, however, already been found to improve the quality of the tourist experience (Hamm & Su, 2021) even in pre-pandemic times, with intensifying importance during the current health crisis (Nagaj & Žuromskaitė, 2021). Tourists' perceptions of hospitality firms' reactions to the pandemic (Jiang & Wen, 2020) and emotional responses based on their expectations (Radic et al., 2021) are brought to light as research problems and call for new contributions in the recent tourism and hospitality literature.

The current paper addresses these research calls and aims to further understand COVID-19 outbreak effects on tourism by analyzing the adoption of prevention measures in a tourism destination, i.e. Croatia, and its relationship with tourist behavior, examined in terms of the perceived risk of COVID-19 and satisfaction. To the best of the authors' knowledge, no prior study examined tourist satisfaction in relation to the adoption of prevention measures and perceived risk in a destination during the COVID-19 pandemic. In addition, this study looks at examining whether tourists' assessment of the variables examined changes according to the sociodemographic profile of the respondents and typology of the destination they visited, as the most recent studies suggest that they both might impact tourist behavior (e.g. Carvache-Franco et al., 2020; Kang et al., 2021).

Therefore, this study's contribution relies on analyzing prevention measures adopted in this destination during the COVID-19 outbreak and how they affected

tourist behavior. Thus, closing the research gap through revealing and recognizing the underlying relationships between the variables that affect behavior during times of uncertainty provoked by the pandemic and tourist satisfaction represent novelty and will bring important implications for further theory development in tourism marketing. In addition, there is a need to offer managers in destination paths to create practical approaches for doing business in pandemic times and, more importantly, for the revival and recovery of tourism and hospitality from negative economic trends caused by lockdowns in post-pandemic times. Furthermore, one of the objectives of this paper is to understand the adoption of prevention measures in a tourism destination through a mixed-method approach, i.e. considering both the opinions of tourism service providers and international tourists. Approaching this research topic from a double practitioners-tourists perspective provides meaningful insights on the variables examined and several relevant implications for tourism service providers. Including consumers in research on prevention measures is of particular importance, because the adoption of prevention measures contributes to the development of social sustainability in tourism and hospitality (Šerić & Šerić, 2021). Consumers are not only at the core of marketing research but are also key players in embracing sustainable practices (Jones et al., 2008). Accordingly, the most recent studies from tourism and hospitality literature (e.g. Abraham et al., 2020; Jiang & Wen, 2020) call for new contributions that will analyze tourist behavior during the COVID-19 pandemic. Finally, conducting this type of research in Croatia is of particular interest, considering that the country showed remarkable results during the COVID-19 pandemic in terms of arrivals of international tourists. More specifically, according to the recent UNWTO release, Croatia posted the best results worldwide in the third quarter of 2021, as it recorded the lowest drop in international tourist arrivals (-19%) compared to 2019 (UNWTO, 2021).

This paper consists of five sections. After this introductory section, the literature review is presented in the second section, focusing on the adoption of prevention measures and tourist behavior, examined in terms of the perceived risk of COVID-19 and tourist satisfaction. The third section explains the research objectives, questions, and methods. Research findings from both qualitative and quantitative studies are discussed in the fourth section. Conclusion, implications, limitations, and future research possibilities are provided in the final section.

## **2. Literature review**

### **2.1. Prevention measures**

The adoption of prevention measures has been an object of research in the latest tourism literature as governments worldwide were faced with a new unknown global health threat that required various measures that severely impacted travel flows and the whole tourism and hospitality industry. Within the European Union, member countries did not respond uniformly, but during the containment stage in March 2020, countries imposed home confinement, restricted outdoor activities, and closed non-essential services for several weeks. Some countries had more strict measures than others, among them those whose economy strongly depends on international

tourism, like Italy, from where the virus first spread within the EU, and Spain, which, e.g. prohibited any form of outdoor exercise during the first wave of the virus and had the longest closing of non-essential services (Cifuentes-Faura, 2021; Goniewicz et al., 2020).

In Croatia, whose economy heavily depends on tourism with a share of 16.9% in total value-added according to the tourism satellite account (Croatian Bureau of Statistics, 2019), and a share of international tourism receipts in the gross domestic product surpassing 20% (Croatian National Bank, 2022), prevention measures were implemented with a countrywide lockdown. After the reopening of Croatia's borders at the end of May 2020, Croatia had an outstanding performance in terms of infection numbers compared to other Mediterranean competitors like, e.g. Italy and Spain, and safe stay standards had been implemented in accommodation capacities in the meantime ready to receive tourists (Mikac & Kravaršćan, 2021). Moreover, the geographic location of Croatia, close to most of its important generating markets, i.e. Germany, Slovenia, Austria, and Italy, makes Croatia conveniently accessible by car, with road transportation having a share of more than 80% of overall tourist arrivals even in pre-pandemic times (Institute for Tourism—Zagreb 2020). Since traveling by personal car is the most flexible mode of transportation, requiring the least personal contact with other travelers, this was also the most preferred mode of tourist transportation during the pandemic. In addition, Croatia has a very high degree of tourism seasonality, even compared to its Mediterranean peers (Kožić et al., 2013), with approximately the same volume of overnights in August as in the first six months of the year (eVisitor, 2022). Accordingly, the opening of the border in 2020 coincided with the start of Croatia's tourism season and lasted until mid-August, when the second Covid wave started to escalate. Still, this relatively short period was sufficient to achieve 50% of overnight stays at the annual level compared to the previous year and even 74% in 2021 (eVisitor, 2022).

In the context of the ongoing COVID-19 pandemic, prevention measures typically involve public health measures such as regular hand washing and disinfection, physical distancing, and the use of face masks. Here, studies have shown that psychological reactance negatively affects adherence to such measures and public health guidelines, in general, thus potentially triggering non-prosocial behavior (Kang et al., 2021; Kukanja et al., 2021). In a recent study set within a restaurant setting, Kang et al. (2021) focused on descriptive versus injunctive normative appeals related to COVID-19 prevention measures. These authors found that injunctive appeals caused increases in freedom threat, while, interestingly, their findings did not support a significant effect on negative cognition, meaning the study population understood the emergency of current circumstances related to COVID-19.

Based on the social exchange theory, which suggests that individuals' behavior is influenced by analyses and comparisons of benefits and costs, Pérez et al. (2021) focused on prevention measures as pull factors for hotel customers during the COVID-19 pandemic, referring to companies with high levels of implemented measures as *safe hotels* (Atadil & Lu, 2021; Yu et al., 2021). Pérez et al. (2021) distinguished between three components of prevention measures, i.e. measures related to employees (e.g. employees wear masks all the time), measures based on technologies

(e.g. availability of auto check-in and auto check-out), and measures in the facilities (e.g. availability of hand sanitizer dispensers throughout the facilities). These authors found that the majority of surveyed potential customers are attracted by COVID-19 prevention practices, in particular, those that were related to employees and facilities, while customers who are willing to pay a premium were especially attracted by technology-based measures like, e.g. service robots (e.g. Romero & Lado, 2021). An important implication thus is that hospitality enterprises should generally embed such prevention practices in their market communication activities to build a favorable image during the pandemic and potentially post-pandemic times.

## **2.2. Tourist behavior**

### **2.2.1. Perceived risk of COVID-19**

As a key variable influencing attitudes and behaviors, perceived risk has been the central construct in studies focusing on the consumer-side impacts of COVID-19 on hospitality service consumption and travel intentions already during the early stage of the pandemic (Chemli et al., 2022; Ozbilen et al., 2021; Sánchez-Cañizares et al., 2021; Seyfi et al., 2021; Toanoglou et al., 2021). Rather predictably, several investigations were rooted in Ajzen's Theory of planned behavior (Ajzen, 1991), like the studies by Chen et al. (2021) on the Chinese market, Hamid and Bano (2022) on the Indian market, or Cabeza-Ramírez and Sánchez-Cañizares (2022) on the Spanish market. According to this theory, individuals' behavioral intentions are shaped by their attitudes, subjective norm, and perceived behavioral control (Ajzen, 1991).

As one of the first studies, based on attribution theory and set within the context of Chinese incoming tourism, Abraham et al. (2020) investigated the effects of internal and external locus of control, previous travel experiences, animosity towards Chinese nationals and government, and perceived travel risks on future travel intentions. Zhan et al. (2022) developed a risk perception scale in the context of Chinese domestic travel intentions to Wuhan consisting of four dimensions, i.e. performance risk, health risk, financial risk, and social risk.

Several studies analyzed the negative effects of individual risk dimensions, like, e.g. health risk perceptions, thereby focusing both on antecedents (e.g. cognitive, individual, affective, and contextual factors; Godovykh et al., 2021) and outcomes like travel intentions (e.g. Chua et al., 2021; Li et al., 2020). Other authors focused on financial risk perceptions related to the pandemic (e.g. Quan et al., 2022). Moreover, some studies extended their perspective specifically to the post-pandemic era and anticipated the effects of travel risk perceptions on post-crisis behavior (e.g. Matiza, 2022; Matiza & Kruger, 2021). Finally, it is noteworthy that several studies focusing on risk perceptions were related to the cruise market as one of the most affected travel sub-segments (e.g. Holland et al., 2021; Tapsall et al., 2022).

### **2.2.2. Tourist satisfaction**

Customer (tourist) satisfaction is a layered and multidimensional construct that is well documented in the tourism marketing and management literature (e.g. Chi, 2008; Oh & Kim, 2017). Lovelock and Wirtz (2007, p. 627) define customer

satisfaction as ‘a short-term emotional reaction to specific service performance’. A more extensive definition by Antón et al. (2017, p. 241) states that ‘satisfaction refers to the feelings generated by cognitive and emotional aspects of the goods and services, as well as an accumulated evaluation of various components and features’. In the tourism context, tourist satisfaction, according to Rodríguez del Bosque and San Martín (2008, p. 553), is ‘an individual’s cognitive-affective state derived from a tourist experience’. Satisfaction and its measurement are discussed extensively, especially the causal relationship between satisfaction and quality. While there is no consensus on whether quality precedes satisfaction or vice versa, researchers agree that the expectancy disconfirmation theory represents the most used starting point (Oh & Kim, 2017) and that both constructs affect behavioral intentions, too. Also, researchers agree that the authenticity of experiences has an essential, antecedent role in generating satisfaction (Muskat et al., 2019).

Dmitrović et al. (2009) highlight that tourist satisfaction is of paramount importance for the destination attractiveness and its positioning while achieving and enhancing it in practice is a difficult task that requires close collaboration of many service providers in the destination. According to San Martín et al. (2019), tourist satisfaction as a critical variable for loyalty formation represents a direct antecedent for the desirable consequence of a tourist’s loyalty toward the destination. In addition to the willingness to return (De Nisco et al., 2015), the consequences of tourist satisfaction are a willingness to pay a higher price (López-Sánchez & Pulido-Fernández, 2017) and a willingness to recommend the destination (Vieira et al., 2021), all of which point to the importance of satisfaction for a tourism destination’s successful and profitable business. Furthermore, a conceptual model developed by Wang and Hsu (2010) showed that a destination’s image indirectly affects behavioral intentions through satisfaction, while Prayag et al. (2017) found that tourists’ emotional experiences play an antecedent role in perceived overall image and satisfaction. Besides being a strategic goal of destination marketing, tourist satisfaction, as reported by Shi et al. (2022), is directly related to destination brand equity and brand authenticity and mediates both between brand equity and revisit intention and between brand authenticity and revisit intention.

In the context of the COVID-19 pandemic, tourists’ satisfaction has been examined as a result of its potential drivers, such as well-being perception, environmental value (Cai et al., 2021), sharing economy ethos, price-value, food quality, service speed, perceived ease of use, and confirmation of beliefs (Belarmino et al., 2021), among others. A plethora of valuable findings was brought to light through further research. A high level of tourists’ satisfaction due to disinfection, hygiene, and temperature measurement and a low level of satisfaction with social distance and mask usage were revealed by Davras and Durgun (2022) while investigating how the prevention measures against COVID-19 contribute to tourists’ satisfaction in Turkish hotels. Authors pinpoint the latter as a warning signal since the World Health Organization predicts that keeping the social distance and the obligation to wear a mask will lead to substantial changes in future tourism marketing strategies, considering that tourism involves high socialization.

Srivastava and Kumar (2021) investigated how thirty different hotel attributes contributed to guest satisfaction in COVID-19 disease conditions and showed that the importance of specific attributes changes during a pandemic, pointing to the need to observe the significance of hotel-related features dynamically. Sun et al. (2022) examined the preferences and satisfaction of hotel guests before and after the COVID –19 pandemic in China and confirmed that health risk and related elements lead to differences in the perception of guest satisfaction with hotel services and hotel ratings. They found a change in the guests' focus while assessing satisfaction; more attention is paid to disease prevention measures and their own safety than basic hotel services.

Applying a new sequential mixed method approach, i.e. a two-step combination of machine learning (text mining) and survey in investigating travelers' perceptions from two different perspectives, Nilashi et al. (2022) confirmed that hotel guest satisfaction during the COVID-19 pandemic is significantly affected by the quality of services provided. Exploring tourists' satisfaction (Chinese, Japanese and Korean) and their psychological needs in the context of ERG (Existence, Relatedness, and Growth) theory, Cheung et al. (2021) found differences during the three phases (before, during, and perceived after) the pandemic; the findings offer paths for better understanding of post-pandemic behavior and might facilitate future endeavors in creating satisfying travel experiences. Tourists' satisfaction and recovery of their trust and loyalty in the global tourism industry is, according to findings of Han et al. (2021), positively and significantly influenced by the tourism public health service quality (TPHSQ); and satisfaction mediates the relationship between the TPHSQ and loyalty.

### 3. Research objectives, questions, and methods

The main objective of this paper is to examine the adoption of prevention measures and how these measures affect international tourist behavior while visiting a tourism destination during the COVID-19 pandemic. This research objective is addressed through a mixed-method approach, i.e. a qualitative inquiry with tourism service providers on one hand and a quantitative study with international tourists on the other. The two empirical studies took place in Croatia mainly in the fourth quarter of 2021.

#### 3.1. Qualitative study

The qualitative inquiry was conducted through in-depth interviews with eight tourism and hospitality practitioners who represented this study's target population and were operating in all regions of the country. The following questions were posited to the participants:

*RQ1. Which prevention measures have you adopted during the COVID-19 pandemic?*

*RQ2. How do you think that the prevention measures adopted by tourism and hospitality businesses and Croatian authorities have affected international tourists' behavior?*

The participants were owners/directors/managers of different tourism and hospitality businesses, namely: three-, four- and five stars national and international hotel

brands, hotel resorts and campsites, hospitality firms with food and beverage outlets (restaurants and bars), and destination management companies.

### 3.2. Quantitative study

The quantitative study was conducted among 333 international tourists during their stay in Croatia. Initially, 600 international tourists were asked to participate in the research, and 371 of them agreed. After quality control screening, 38 unqualified answers were removed, thus obtaining a final response rate of 55.5%.

Respondents were approached through convenience sampling in the regions of Dalmatia, Istria and Kvarner, the city of Zagreb, and Continental Croatia. More than half of the respondents (52.6%) were approached in world heritage destinations, 34.8% were in sun and sea destinations, and the rest (12.6%) were in mainland Croatia.

The purpose of the survey with international tourists was to provide answers to the following questions:

*RQ3. How do international tourists perceive the adoption of prevention measures in Croatia during the COVID-19 pandemic?*

*RQ4. How do international tourists perceive the risk of COVID-19 in Croatia during the COVID-19 pandemic?*

*RQ5. What is the satisfaction level of international tourists with their stay in Croatia during the COVID-19 pandemic?*

*RQ6. Do perceptions of prevention measures, perceived risk of COVID-19, and satisfaction level of international tourists change according to their sociodemographic profile and typology of the destination they visited?*

*RQ7. What is the relationship between tourist perceptions of prevention measures, perceived risk, and satisfaction with their stay in Croatia during the COVID-19 pandemic?*

A structured self-administered questionnaire was employed for data collection. The original version of the questionnaire was written in English and was further translated into German, Italian, and Spanish by academics and native speakers or bilinguals in these languages. Several modifications were needed to adjust each version to the respective language during forward and backward translation, establishing consistency and uniformity between all versions. Examined variables were measured based on previous tourism literature on perception of prevention measures during the COVID-19 pandemic (Hsieh et al., 2021), perceived risk of COVID-19 (Kang et al., 2021), and tourist satisfaction, by taking some items from various studies (Boo et al., 2009; Wang et al., 2006). The study variables were measured through a five-point Likert-type scale, ranging from 1 (strongly disagree) to 5 (strongly agree). Data on the socio-demographic profile of the respondents and typology of destination were also collected.

The quality of the employed measurement scales was first tested, and validity and reliability were examined for all measures. Item-to-dimension total score correlations were calculated for each scale to corroborate validity. The obtained p values for each measure equaled .000, meaning they were highly significant. This demonstrates that

the corresponding items correlate very well with their respective scale, thus confirming the measurement tool validity. For reliability, Cronbach alphas were calculated. All values met the threshold of 0.7 (Nunnally & Bernstein, 1994) and equaled 0.799 for prevention measures, 0.725 for perceived risk, and 0.897 for satisfaction. Thereby, the measurement scales used in this study are found to be valid and reliable.

Once the quality of the measurement tool has been assured, data were subject to two normality tests, i.e. Kolmogorov–Smirnov and Shapiro–Wilk tests, to determine data distribution. The obtained significance levels equaled .000 for all variables, which reveals that data do not have a normal distribution (Razali & Wah, 2011). This means that nonparametric measures need to be employed for further analysis. Thereby, for data analysis, descriptive statistics were used to examine customers' perceptions of prevention measures and risk of COVID-19, as well as customer satisfaction. Correlation analysis was employed to test the relationships between variables examined, more specifically the Spearman's rho nonparametric measure.

Regarding international tourists' profile, 47.7% were women, 50.8% were men, while 1.5% did not specify their gender. The participants' average age was 44 years old (and more specifically 43.97). Twelve respondents preferred not to specify their age. Most of the respondents held a college (40.5%) or a master's degree (36.6%). As for the occupation, they were mainly employed (50.2%), self-employed (20.1%), and retired (15.9%). The participants mostly had personal net monthly incomes over 3000 euros (33.6%) or between 2001 and 3000 euros (25.8%). Most of them were from the United States (18.9%), Germany (18%), the United Kingdom (13.5%), Austria (7.5%), Italy (4.5%), Serbia (3.9%), and Spain (3.0%), while the rest (30.7%) came from 30 other countries.

## 4. Research findings

### 4.1. Qualitative study

#### 4.1.1. Findings for RQ1

When answering the question 'Which prevention measures have you adopted?', most of the tourism service providers referred to the 'Safe Stay' program that was designed by the Ministry of Tourism and Croatian Tourist Board. This program contains a set of prevention measures that all companies working in tourism and hospitality must implement, including those operating in the MICE (Meetings, Incentives, Conferences, and Exhibitions) sector. The prevention measures that were adopted both in 2020 and 2021 by all service providers are as follows:

- hygiene of customer-use spaces (i.e. disinfection of guest accommodation and common areas, with a strong focus on tables and chairs in hotels, restaurants, and bars, put in place immediately once the guest leave);
- use of hand sanitizers (i.e. gels for hand disinfection placed throughout hotels, restaurants, bars, etc.);
- mandatory face masks for employees and guests for indoor spaces (except in their rooms and when they consume food and/or beverage); and

- social distancing (in the reception, in all food and beverage outlets, by the pool, on the beach, in the fitness centers, in facilities for children, etc.).

One respondent pointed out that ‘Besides these standard prevention measures, we also try to accommodate specific needs of our customers. For example, some customers want to sit farther, even several meters away from the next table, so we always give them the table somewhere in the end and place it as much farther as we can’.

In addition to those measures, some other brand or service-specific measures were also adopted. Some of them concerned employees, such as mandatory use of gloves, mandatory frequent washing of hands, measuring of the employees’ temperature on a daily basis, employees’ testing, and, in some cases, mandatory COVID-19 certificates for employees. While at the beginning the COVID-19 certificate for employees was not mandatory for all companies, it was highly recommended and financially stimulated. Initially, COVID-19 certificates were also sometimes required among customers (although usually for big groups), while later they were introduced as mandatory (except for children).

As for customer-related measures, face masks were available on every corner in some establishments, as well as instructions on what to do in the case of having the symptoms. Mandatory measuring of the temperature of customers upon each entry into the establishment was also implemented by some providers. Some establishments prohibited entries to persons who were not employees or guests, with strict control of entries and exits.

Other measures implied some new services for customers, with important implications for all tourism service providers. These are online reception/self-check-in to reduce social contact, organization of testing for guests (both for rapid antigen tests and PCR tests, some at very competitive prices), online purchase, and delivery of freshly prepared meals and food products through a webshop. Some measures were created specifically for guests infected by COVID-19 during their stay. For example, some service providers created a figure of Health and Safety Managers, which provided assistance to infected guests and were available 24/7. Others offered infected guests the possibility of completing the quarantine in their hotel room, usually for ten days under specific conditions: with daily room service (for meals), but without daily housekeeping (i.e. cleaning the rooms), and on guests’ cost. Finally, some providers decided to cover the costs of longer stays of their guests if they get infected by COVID-19 during their stay in the establishment, as well as costs of transportation for those guests.

#### **4.1.2. Findings for RQ2**

The second question looked at examining how prevention measures adopted by tourism service providers and authorities in Croatia affected international tourists’ behavior, considering practitioners’ viewpoints. The respondents agreed that prevention measures were generally well accepted by tourists and that their implementation resulted in a high level of tourists’ satisfaction with their stay in the country.

Almost all respondents pointed out differences in consumer behavior between 2020 and 2021. In 2020, tourists were more afraid and were paying more attention to prevention measures, while in 2021, they were more relaxed and less scared. For example, one practitioner observed: ‘In the first year of pandemic I noticed our guests taking much more care in terms of social distancing, hand disinfection, and face masks, but this year

they felt more relaxed even though we have more or less the same prevention measures as before, and especially those that I have just mentioned. However, this year and especially during the summer I had the feeling that nobody actually cared about the pandemic anymore. I noticed that a lot of customers did not want to talk about the pandemic or be reminded of it'. Another participant pointed out that 'Last year many foreign customers were afraid, and I think that for many of them the level of implementation of prevention measures was the important factor affecting their decision'. Other respondents stated that 'last year was "pandemic year 1.0" with its own special characteristics, while this year was "pandemic year 2.0" and it was more productive for our business. The only common thing between these two business years is the virus, while almost all other things were quite different, particularly related to consumer behavior. I hope next year will be "post-pandemic year 1.0" with even better results than this year'.

Overall, respondents agreed that prevention measures in Croatia were not as strict as in other Mediterranean countries, meaning that tourists could walk outdoors without face masks and move freely from one region to another. As there were no strict curfews and travel restrictions within the country, tourists could spend their time more relaxed, which finally increased their satisfaction with their stay. Furthermore, since most leisure activities took place outdoors (dining, bar hopping, sightseeing, sunbathing, swimming, etc.), 'many foreign tourists were even asking employees if there was the pandemic in Croatia at all because they felt as if everything has returned to normality'. One practitioner concluded that 'I had the feeling that the whole world has come to Croatia as if there is nothing else out there'. This might actually be the key to successful performance in terms of arrivals of international tourists in the country during 2021.

Some respondents stated that they have been promoting continuously their prevention measures to their customers. While most of them agreed that this contributed to the decrease of customers' perceived risk of COVID-19, one respondent from the restaurant industry believed that while promotion of adoption of prevention measures might have worked in 2020, it could have been counterproductive in 2021 owing to changes in the behavior of tourists. This is why all promotion activities related to prevention measures in that specific company were interrupted in 2021. The respondent added: 'of course that we continued implementing the prevention measures required by our government, but frankly speaking, most of our customers (equally foreign and local) were not paying attention to them anymore. They were all sitting closer to each other, frequently entering indoor spaces and toilets without face masks, not using our gels for hand disinfection as much as before, etc. I think there are two reasons for this: many customers were double vaccinated, so they felt more relaxed (for example, American customers who liked to say this), while there were many who did not travel for two years, so they "went crazy" on their holidays'.

## **4.2. Quantitative study**

### **4.2.1. Findings for RQ3-RQ7**

Regarding the third research question, which aimed at analyzing international tourists' perceptions of the adoption of prevention measures in Croatia, tourists were asked to evaluate the most frequently employed prevention measures, i.e. hygiene of

**Table 1.** International tourists' perceptions of the adoption of prevention measures in Croatia.

Perception of prevention measures (PM)	Mean	SD
PM1. Hygiene of customer-use spaces (hotel room, restaurant table, taxi seat, etc.)	4.38	.750
PM2. Availability of hand sanitizers.	4.54	.758
PM3. Employees wearing masks.	4.32	.939
PM4. Other people wearing masks.	3.53	1.134
PM5. Social distancing.	3.62	1.085

Source: own elaboration.

**Table 2.** International tourists' perceived risk of COVID-19.

Perceived risk of COVID-19 (PRC)	Mean	SD
PRC1. In general, I am worried about COVID-19.	3.06	1.169
PRC2. I think it is likely that I will be infected by COVID-19 in Croatia.	2.21	1.095
PRC3. I think it is likely that other people will be infected by COVID-19 in Croatia.	2.53	1.085

Source: own elaboration.

**Table 3.** International tourists' satisfaction with a stay in Croatia during the COVID-19 pandemic.

Satisfaction (SAT)	Mean	SD
SAT1. Croatia met my expectations during the COVID-19 pandemic.	4.44	.748
SAT2. I enjoyed visiting Croatia during the COVID-19 pandemic.	4.59	.682
SAT3. Overall, I am satisfied with my stay in Croatia during the COVID-19 pandemic.	4.52	.688

Source: own elaboration.

customer-use spaces (hotel room, restaurant table, taxi seat, etc.), availability of hand sanitizers, employees wearing asks, other people wearing masks, and social distancing. Findings show rather high levels of perception of availability of hand sanitizers ( $M = 4.54$ ), hygiene of customer-use spaces ( $M = 4.38$ ), and employees wearing masks ( $M = 4.32$ ). Other people wearing masks ( $M = 3.53$ ) and social distancing ( $M = 3.62$ ) received relatively moderated mean values (see [Table 1](#)).

The purpose of the fourth research question was to examine international tourists' perceptions of the risk of COVID-19. Three aspects of the perceived risk of COVID-19 were analyzed, i.e. tourists' general concerns about COVID-19, the likelihood of being infected by COVID-19 in Croatia themselves, and the likelihood of other people being infected by COVID-19 in Croatia. Data reveal that the respondents were not that concerned about COVID-19 in general ( $M = 3.06$ ). The perceived risk of being infected by COVID-19 in Croatia was rather low, both when respondents were asked about the possibility of being infected in Croatia themselves ( $M = 2.21$ ) and the possibility that other people will be infected in the country ( $M = 2.53$ ) (see [Table 2](#)).

The fifth research question analyzed international tourists' satisfaction with their stay in Croatia during the COVID-19 pandemic. Meeting tourists' expectations, enjoying Croatia, and overall satisfaction were examined. Data show that international tourists were very satisfied with their stay. The item with the highest mean value was 'I enjoyed visiting Croatia during the COVID-19 pandemic ( $M = 4.59$ ), followed by tourists' overall satisfaction level with the stay in Croatia during the COVID-19 pandemic ( $M = 4.52$ ), and Croatia meeting tourists' expectations during the COVID-19 pandemic ( $M = 4.44$ ) (see [Table 3](#)).

The sixth research question aimed at examining whether the sociodemographic profile of tourists and the destination type they visited influenced their perceptions and satisfaction. Regarding participants' sociodemographic profile, we examined

**Table 4.** Prevention measures, perceived risk of COVID-19, and satisfaction according to the socio-demographic profile of respondents and destination type.

Items	Gender		Age		Destination type	
	Sig.	Diff.	Sig.	Diff.	Sig.	Diff.
PM1	.006**	Higher for women	.651	No	.291	No
PM2	.001**	Higher for women	.783	No	.278	No
PM3	.695	No	.715	No	.733	No
PM4	.377	No	.359	No	.169	No
PM5	.190	No	.161	No	.626	No
PRC1	.149	No	.073	No	.603	No
PRC2	.098	No	.390	No	.086	No
PRC3	.048*	Higher for men	.581	No	.730	No
SAT1	.033*	Higher for women	.451	No	.049*	Higher for CH
SAT2	.047*	Higher for women	.564	No	.011*	Higher for CH
SAT3	.067	No	.439	No	.094	No

Notes: PM = Prevention measures, PRC = Perceived risk of COVID-19; \*\* Difference is significant at the .01 level; \*Difference is significant at the .05 level.

Source: own elaboration.

gender and age, considered among the most influential sociodemographic variables in consumer behavior research, which require further attention in hospitality (Okumus et al., 2018). As for the destination type, because of a small sample size of the respondents that visited mainland Croatia (N = 42), we compared only those visiting cultural heritage (N = 175) and sun and sea destinations (N = 116) to obtain more representative and meaningful findings.

As reported in Table 4, the nonparametric Mann-Whitney U tests showed some significant differences in the case of gender and destination type. More specifically, female respondents perceived to significantly higher extent hygiene of customer-use spaces and availability of hand sanitizers, whereas male participants were more likely to think that other people could be infected by COVID-19 in Croatia. Women also seemed to be more satisfied than men, especially when they had to assess whether their expectations were met as well as their level of enjoyment in Croatia.

Regarding age, no significant differences are found for any of the variables examined among younger (below 44 years old) and older respondents (aging 44 years old or above, established according to the average age of the sample).

Finally, while destination type did not have any significant influence on tourist perceptions, it was confirmed to have some effects on their satisfaction level. In particular, international tourists who visited cultural heritage destinations seemed to be more satisfied, compared to those who were in sun and sea destinations (see Table 4).

The objective of the seventh research question was to observe whether there are significant relationships between the adoption of prevention measures and tourist behavior, more specifically between prevention measures, perceived risk of COVID-19, and satisfaction.

Regarding the relationship between perception of prevention measures and perceptions of risk of COVID-19, correlation analysis suggests the existence of a

**Table 5.** Correlations between prevention measures and perceived risk of COVID-19.

	PRC	PRC1	PRC2	PRC3
PM	−.270**			
PM1		−.129*	−.270**	−.231**
PM2		−.103	−.294**	−.224**
PM3		−.120*	−.266**	−.262**
PM4		−.017	−.093	−.218**
PM5		−.051	−.133*	−.224**

Notes: PM = Prevention measures, PRC = Perceived risk of COVID-19; \*\* Correlation is significant at the .01 level; \*Correlation is significant at the .05 level.

Source: own elaboration.

weak negative correlation, as the correlation coefficient of  $-.270$  fits in the range of  $-.100$  to  $-.390$  (Schober et al., 2018) between the two factors (significant at the .01 level). When item-to-item correlations are observed, negative differences are found between all prevention measures items and the item 'I think it is likely that other people will be infected by COVID-19 in Croatia'. The same findings are obtained for the correlations between the three prevention measures (i.e. hygiene of customer use spaces, availability of hand sanitizers, and employees wearing masks) and the item of the perceived risk that measured the likelihood that tourists themselves will be infected by COVID-19 in Croatia. No correlation is found between the 'other people wearing masks' item and the 'I think it is likely that I will be infected by COVID-19 in Croatia' it, while the negative correlation between social distancing and the possibility of being infected by COVID-19 in Croatia was significant only at the .05 level. Finally, no significant relationships are found between most of the prevention measures items and the item of the perceived risk that reflected tourists' being worried about the COVID-19 pandemic in general. The correlations between that item of perceived risk and two prevention measures (i.e. hygiene of customer-use spaces and employees wearing masks) were negative and significant at the .05 level (see Table 5).

Somehow different findings were obtained when the adoption of prevention measures and tourists' satisfaction were considered. The correlation between the two factors is found to be highly significant and, with the correlation coefficient of  $.413$ , rather moderate (Schober et al., 2018). All the item-to-item correlations are weaker, although significant at the .01 level. This means that tourists' perceptions of prevention measures resulted in meeting their expectations, enjoying their visit to the country during the COVID-19 pandemic, and finally, being satisfied with their stay (see Table 6). According to these results, the implication is that all prevention measures are equally important in generating tourist satisfaction.

As for the relationship between the perceived risk of COVID-19 and satisfaction, a rather weak negative correlation (Schober et al., 2018), is also found between tourists' perceptions of the risk of COVID-19 and satisfaction with their stay (with the correlation coefficient of  $-.297$ ). All the item-to-item correlations were negative, except for the one between tourists' general concern about the COVID-19 pandemic and meeting their expectations during their visit, which was found to be insignificant (see Table 7).

**Table 6.** Correlations between prevention measures and satisfaction.

	SAT	SAT1	SAT2	SAT3
PM	.413**			
PM1		.361**	.331**	.348**
PM2		.371**	.381**	.395**
PM3		.308**	.309**	.392**
PM4		.299**	.176**	.245**
PM5		.272**	.156**	.258**

Notes: PM = Prevention measures, SAT = Satisfaction; \*\* Correlation is significant at the .01 level; \*Correlation is significant at the .05 level.

Source: own elaboration.

**Table 7.** Correlations between perceived risk of COVID-19 and satisfaction.

	SAT	SAT1	SAT2	SAT3
PRC	-.297**			
PRC1		-.102	-.176**	-.108**
PRC2		-.287**	-.281**	-.325**
PRC3		-.208**	-.222**	-.250**

Notes: PRC = Perceived risk of COVID-19; SAT = Satisfaction; \*\* Correlation is significant at the .01 level; \*Correlation is significant at the .05 level.

Source: own elaboration.

## 5. Conclusions, implications, limitations, and future research possibilities

This paper attempted to examine the adoption of prevention measures and their relationship with international tourist behavior through a mixed-method approach. To the best of our knowledge, this is the first study to examine the influence of prevention measures and perceived risk on traveler satisfaction during a tourist's actual stay at the destination. In this regard, our findings extend those of previous studies that relied on tourists' pre-trip perceptions and intentions.

From the practitioners' viewpoints, the most frequently employed prevention measures were cleaning and disinfection of customer-use spaces, gels for hand disinfection, mandatory face masks for employees and guests, and social distancing. Tourism service providers have adopted all prevention measures defined by authorities, in addition to some measures specific to their brands and businesses.

From the tourists' responses, it is evident that prevention measures were highly relevant in decreasing the possibility of other people being infected by COVID-19. On the other hand, the role of prevention measures in tourists' own protection was not that strong, especially when the prevention measure related to other people wearing masks was considered. As for the relationship between the perceived risk of COVID-19 and satisfaction, our results show that the lack of perceived risks of being infected by COVID-19 in the destination is significantly related to tourist satisfaction.

These research results further support well-established assertions about the complex nature of tourists' satisfaction (Oh & Kim, 2017), providing new evidence of the importance of prevention measures as one more satisfaction initiator in health crises. As such, findings supplement the existing satisfaction research streams (e.g. Belarmino et al., 2021; Cai et al., 2021) in the COVID-19 pandemic. Furthermore, they corroborate and enrich the findings of Davras and Durgun (2022) and Sun et al. (2022), related to the hotel context only, by revealing more different aspects and attributes related to prevention measures in the destination, which are essential for

tourist satisfaction during the global pandemic. Also, research results validate those of Srivastava and Kumar (2021), showing that a dynamic approach to identifying and assessing different drivers of satisfaction during crisis times is essential.

However, when testing the role of age and gender, some of our findings are rather different from those obtained in previous studies. While our study shows that men were more concerned with the perceived risk of COVID-19 than women, the study of Neuburger and Egger (2021) revealed that risk perceptions of COVID-19 were higher for female than for male participants. Moreover, while our study does not reveal any difference in the examined variables when age was considered, the study of Kang et al. (2021) found that during the COVID-19 pandemic, younger people were more likely to perceive stronger freedom threat than their older counterparts. Different from Kang et al. (2021), Neuburger and Egger (2021) concluded that risk perceptions of COVID-19 increased with tourists' age.

On the other hand, higher levels of satisfaction obtained in our study among female respondents match those from the study of Bendall-Lyon and Powers (2002), who argued that, in general, women are likely to be more satisfied with services than men. Finally, differences in tourist satisfaction obtained across different types of destinations are also in accordance with the previous research (e.g. Carvache-Franco et al., 2020).

### **5.1. Theoretical implications**

Academic researchers have been dedicating growing attention to gaining a better understanding of the impact of the COVID-19 pandemic on tourism. The present paper attempted to address the issue of how prevention measures adopted in the tourist destination during the COVID-19 outbreak affected tourist behavior, with a specific focus on Croatia, which proved to be a thriving tourist destination in 2021 (UNWTO, 2021).

Although there seems to be a consensus about the importance of prevention and safety measures and their positive implications for tourist behavior in times of health crisis, contributions that provide empirical evidence regarding their impact on tourist behavior outcomes are still insufficient. More specifically, the evidence showed no prior research on the effect of the adopted prevention measures in the destination and perceived risk on tourist satisfaction during the COVID-19 pandemic. Therefore, this study relied on mix method approach and a) qualitatively examined practitioners' viewpoints regarding how prevention measures adopted by authorities and providers in Croatia affected international tourists' behavior and b) quantitatively examined the relationships between international tourists' perceptions of prevention measures, perceived risk and their satisfaction level with their stay in Croatia during the COVID-19 pandemic.

The qualitative study findings disclosed the most frequently used prevention measures and pointed to the noticed changes in international tourists' behavior. The quantitative study results revealed relatively high levels of perception of adopting prevention measures among tourists, low levels of the perceived risk of COVID-19, and high levels of satisfaction. Furthermore, positive correlations were found between tourists' perceptions of prevention measures and their satisfaction levels. In contrast,

the correlations between the perceived risk of COVID-19 and prevention measures on one hand and the perceived risk of COVID-19 and tourists' satisfaction, on the other, were found to be negative.

Overall, this study explored the prevention measures from a practitioner's and tourists' perspectives, oriented on tourist behavior and focusing on the perceived risk and tourist satisfaction. Theoretically, the findings are significant because they highlight the importance of employing a holistic approach to the prevention measures when researching their influence on tourist behavior in a crisis such as the COVID-19 pandemic. Differences obtained among tourists according to their gender and type of destination they visited provide additional insights on the role of sociodemographic and geographical factors in the transformation of tourist behavior during the COVID-19 outbreak. However, owing to rather inconsistent findings regarding the role of age and gender in the most recent tourism literature dealing with the COVID-19 pandemic in general, future research on the impact of these variables on tourist behavior is necessary.

Finally, our findings suggest that the prevention measures can encourage tourist satisfaction, despite the negative correlations between the perceived risk and prevention measures and the perceived risk and tourists' satisfaction. This research contributes to the broader knowledge and theoretical understanding of prevention measures potential in general. It adds to the existing knowledge with insights from the context of a successful tourist destination management during the global pandemic. Therefore, we conclude that understanding the prevention measures' role is essential in developing tourist satisfaction during the pandemic.

## **5.2. Practical implications**

Findings from this study provide important implications for authorities and tourism and hospitality service providers. The pandemic has obviously intensified the necessity of anticipating clients' needs and providing highly customized and novel services. Customers' attitudes and preferences have changed and tourism and hospitality managers and marketers need to adjust their services accordingly.

Our findings suggest that the hygiene of customer-use spaces and employees wearing masks are the most influential prevention measures in the decrease of tourist perceptions of the risk of COVID-19. On the other hand, other people wearing masks and social distancing were found to be the least relevant in the context of the creation of tourists' safety as they did not seem to contribute to decreasing the perceived risk of COVID-19 as other three prevention measures did (i.e. hygiene of customer use spaces, employees wearing masks and availability of hand sanitizers). Thereby, tourists place more importance on cleanliness and hygiene aspects, as well as the employees' responsible behavior, rather than whether other people wear masks and how close they are. However, this doesn't mean that some preventive measures can be neglected, as our findings also reveal that all prevention measures are positively related to tourist satisfaction.

The insignificant relationship obtained between tourists' general concern about the COVID-19 pandemic and meeting of their expectations during their visit shows that

tourists did not seem to associate their general concerns about the pandemic with the fact that Croatia would meet their expectations. However, negative correlations between their general concerns about COVID-19 and other satisfaction aspects suggest that during their stay in Croatia, international tourists were not that worried about the pandemic and managed to enjoy themselves despite it. Tourism and hospitality practitioners should consider these findings when providing their services and do their best in making customers forget about the pandemic by satisfying their hedonic needs related to pleasure and enjoyment.

Moreover, tourism and hospitality marketers should have in mind that tourists' behavior has changed dramatically during the COVID-19 outbreak and that roles that were traditionally assigned to customers according to their sociodemographic profile may no longer be valid. Significant differences obtained in this study among female and male tourists showed that women perceived higher adoption of prevention measures and were more satisfied, while men were more concerned with the likelihood of other people being affected by COVID-19. This is contrary to the general belief according to which women process information in a comprehensive way and pay attention to subtle cues, while men process information in a selective way and tend to miss subtle cues (Meyers-Levy, 1989). However, it has also been suggested that these gender-specific differences in information processing will disappear in certain circumstances, when situational factors are so strong that they manage to involve men in comprehensive information processing (Darley & Smith, 1995). Marketers should therefore bear in mind that critical situations, as the COVID-19 outbreak, actually provoked different responses to stimuli perception and information processing among men and women and consider these changes in their segmentation strategies.

Finally, although no significant differences are obtained for prevention measures and perceived risk of COVID-19 across cultural heritage and sun and sea destinations, tourists in the first type of destinations were more satisfied. Tourism and hospitality service providers in sun and sea destinations should work on increasing tourist satisfaction levels, potentially by a higher quality of their services and a differentiated offer that will exceed customers' expectations.

### **5.3. Limitations and future research**

This research has some limitations which need to be addressed in future works. Firstly, the paper is limited in examining only some facets of tourist behavior during the COVID-19 pandemic. Future works should therefore address other variables, different from consumers' perceptions and satisfaction, such as motives, attitudes, and intentions.

Furthermore, although our sample was composed of a number of different nationalities, it is not representative enough in terms of specific national culture(s), which is why we could not perform meaningful cross-cultural comparisons. New contributions should overcome this limitation, considering the significant role that national culture plays in consumer behavior.

In addition, future works might examine the role of other variables in tourist behavior during the pandemic, such as COVID-19 vaccination. We did not collect this type of data in this study, because respondents were mostly approached in hotel establishments during their stay and hoteliers advised not to ask for that type of information to their guests owing to privacy issues. This is because they requested their guests having the COVID-19 certificate, without needing to know how it was obtained (through vaccination, recovery, or tests). Thereby, we did not have information regarding the vaccination status of the respondents, which might provide additional insights in future studies.

Moreover, other stakeholders should be investigated in future works, such as residents, as their perceptions and attitudes are highly relevant in the context of the development of a tourism destination. Finally, other destinations should be included in the study, especially leading tourist destinations in the Mediterranean, such as Spain and Italy, which were harshly affected by the pandemic.

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### ORCID

Maja Šerić  <http://orcid.org/0000-0002-7799-2592>

Josip Mikulić  <http://orcid.org/0000-0001-7079-668X>

Đurđana Ozretić Došen  <http://orcid.org/0000-0001-5976-5866>

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