MICE Tourism: How the Pandemic Has Changed It

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Received: 5 January 2022. Revision received: 28 March 2023. Accepted: 15 April 2023

Abstract  
COVID-19 has become a real challenge for the tourism sphere. The pandemic hit MICE tourism the hardest, as it is primarily associated with mass business events. Our research aims to understand market expectations and assess the readiness of participants and organizers of MICE events to meet the challenges of modern conditions and the prospects for further development of the MICE industry. If individual trips resumed in August 2020, holding exhibitions, conferences, and congresses has not fully resumed even until now. Even in 2022-2023, some exhibitions and conferences were held online. The active development of online technologies called into question the continued existence of traditional formats for holding exhibition events. In the research, we surveyed the participants of MICE events about their attitudes towards virtual and live events to get feedback on the advantages and disadvantages of different event formats and identify market expectations. Although virtual events have become widespread, aiming to replace traditional live formats of MICE events, the study showed that most respondents are not ready to abandon offline events completely and actively plan to participate in them in the future. At the same time, the younger generation turned out to be more prone to online events. The study showed that the most promising format for MICE events is Hybrid, combining the advantages of virtual and live events.

Keywords: MICE tourism, COVID-19, virtual events, hybrid MICE events

JEL Classification: Z30, Z31, Z32


1. Introduction

2020 was one of the toughest years for the tourism industry. The Covid-19 pandemic is one of the most impactful events of the 21st century (Zenker, Kock, 2020). International, regional and local travel restrictions immediately affected national economies (Gössling, Scott & Hall, 2020; Hall, Scott, & Gössling, 2020). Prior to the pandemic, travel and tourism accounted for one out of every four new jobs created worldwide (Hervie et al., 2021). But the virus's rapid spread has led to massive shutdowns of all commercial activities that could not have been predicted. According to UFI Global Barometer (UFI Global Barometer, 2021), the global revenues for the first half of 2020 dropped by two-thirds on average, compared with the previous year's period. The global tourism system moved from over-tourism (Amore, 2020) to non-tourism (Gössling, Scott & Hall, 2020).

The COVID-19 pandemic has imposed a number of significant long(er) term impacts (Jiang and Wen, 2020; Filimonau et al., 2020; Wicaksono et al., 2022). The long-term impacts of the pandemic are
still implicit but likely to be exemplified by the diminished consumer demand (Dube et al., 2020; Mao et al., 2020). Bartik et al. (2020) and Sobaieh et al. (2021) noticed that the pandemic pushed small enterprises for mass lay-offs and business closures in the first quarter of 2020. There is not a single country in the world that has not suffered from the restrictions associated with the pandemic: lockdown, curfew, closure of borders, and cancellation of mass events. Many hotels, restaurants and bars, theme parks, museums and other tourist attractions were closed.

Many studies have highlighted the effect of the COVID-19 pandemic on tourism (Altuntas & Gok, 2021; Štefko et al., 2022; de Bruyn et al., 2022), consumer behavior (Civelek et al., 2021), business strategies (Mallinugh et al., 2022; Lesnikova et al., 2022), sustainable development, hotel industry (Draskovic et al., 2022; Vavrova, 2022) and tourists’ perception (Devkota et al., 2022).

With the onset of the pandemic, it is even more apparent that the tourism sector is operating in an unstable environment (Vasanicova et al., 2021; Charala, Chochia, & Lashkhi, 2021).

Since early February 2020, more than fifty airline companies suspended or limited flights, and also imposed government issued travel restrictions (Chinazzi et al., 2020), all forms of travel had to be restricted (King, Iba & Clifton, 2021). During the first half of 2020, the business tourism market decreased by 95% (UNWTO World Tourism Barometer, 2021; Esquivias et al., 2021). From March to June 2020, air traffic among the countries was almost completely stopped, borders were closed, and international traffic was limited.

Similar to other tourism sectors, MICE has been strongly and directly affected by the disruptive consequences of COVID-19 (Ryan, 2002).

MICE is the acronym for Meetings, Incentives, Conferences and Congresses, Exhibitions (Graph.1) and is recognized as a significant segment of the tourism industry (Astroff & Abbey, 2006; Kim, Chon & Chung, 2003; UNWTO, 2006; Fenich, 2008).

Graph 1. Structure of the MICE tourism

The pandemic turned the tourism industry upside down in 2020, as travel bans and emergency measures disrupted normal travel. As a result of severe quarantine measures most of the MICE events...
have been cancelled. Even such important sporting events as the Euro 2020 football championship and the Olympic Games, have been postponed until 2021.

It’s not just companies that directly deal with events that suffer. Exhibitions are a huge industry for which many related sectors of the economy work. For example, regular suppliers of goods and services for the exhibition business: designers, advertisers, transport companies, catering, half-empty hotels, underutilized flights, and much more. Moreover, the exhibition business actively attracted students to work at its events - for them it was an excellent experience and good financial support. The global business travel spending dropped by 61 percent in 2020 over the previous year, reaching 504 billion U.S. dollars, whereas it amounted to 1.29 trillion U.S. dollars in 2019 (Business travel spending worldwide, 2021). Therefore, World Travel and Tourism Council (WTTC, 2021) estimated more than 50 million jobs in the travel and tourism sector could be at risk globally.

Fluctuations in the economy and competition from rivaling destinations always cause uncertain markets to a MICE destination. Unfortunately, the pandemic has brought the MICE industry to a standstill causing the most severe disruption of the global economy since World War II. The global association of the exhibition industry (UFI, 2021) recently released an updated COVID-19 damage assessment for the global exhibition and trade show industry. Graphs show that global industry revenues for 2020 dropped by 68%, compared to 2019. This result is based on regional data provided in the UFI Global Exhibition Barometer, which indicates that 2020 revenues represented only 23% of those from 2019 in Central and South America, rising to 24% in the Middle East and Africa, 27% in the Asia-Pacific region, 32% in Europe and 36% in North America. Experts noted that USD 224 billion of total exhibition-related output not generated, with 2.4 million jobs affected and USD 370 billion of business agreements between exhibition participants not generated.

None of the experts could have predicted this. If at the beginning of the pandemic everyone hoped that the quarantine would not last more than a few months and all activities could be carried out at a later date, then by the summer it became clear that the fight COVID-19 would take an indefinite time and it was necessary to somehow adapt to the existing conditions.

The relevance of the article is due to the need to analyze the changes that have occurred during the pandemic, study the preferences of business tourists and determine the further development of MICE tourism. Strict restrictions, the total cancellation of events and the closure of borders around the world had other consequences - the active development of online technologies has influenced the interaction of people, transferred communication to the virtual sphere, and showed the advantages of online events. Tourism experts expect that the preferences of tourists in the post-pandemic period will change and virtual MICE events will be preferable to live ones. And the preferences of business tourists are decisive in the development of MICE tourism.

The paper consists of four parts: literature review - using the bibliometric analysis to summarize the research background on statistical data, literature and papers on business tourism and the impact of the pandemic on tourism; methods - describes the hypothesis, sampling, data collection and research methods; results and discussion includes an analysis of the results obtained, a visualization of the respondents' answers, and a description of the study's findings; conclusion - includes a summary of the study, indicates limitations and directions for further research.

2. Literature review

Tourism is often seen as an important engine of economic growth and development in countries, helping to develop the economic well-being of local people (Tóth, Dávid & Bujdosó 2010; Mura & Kajzar, 2019; Vasanicova et al., 2022). According to Ranasinghe (2019) the tourism industry is one of the fastest-growing industries in the world. MICE tourism, as a sector that reacts to many external factors, requires constant dependent monitoring in order to better assess threats and quickly develop response measures and development strategies (Litvinova-Kulikova, Aliyeva, David, 2022).
The MICE tourism industry was hit the hardest during the pandemic, as it is directly related to organizing meetings for a large number of people.

This is a type of tourism, the main purpose of the trip which corresponds to the business and professional category of purpose. MICE tourism, which lies at the centre of the international tourism economy, focuses on business-to-business interactions (Rogerson, 2015; Davidson, 2019). Usually they have different requirements including high-speed internet, working place with technical equipment, conference room and so on. Globalization, growth of business activity, intensive exchange of experience and achievements make MICE tourism an important element of communication in the business sphere. MICE tourism has been widely considered a vital means of fostering knowledge creation, sharing, and trade within global economies (Davidson, 2019; Marques & Pinho, 2020; Lekgau & Tichaawa, 2021). Various studies on MICE tourism have shown the significance of the sector for destination development (Iacuone & Zarrilli, 2018; Trisic & Arsenov-Bojovic, 2018; Alananzeh, A-Badarneh, Al-Mkhadmeh & Jawabreh, 2019; Bueno, Urbistondo & Martinez, 2020). The development of MICE tourism does not require the presence of natural resources, historical attractions and access to the sea, therefore, new megacities aimed at intensive development have a chance for the development of business tourism.

During the pandemic, the MICE tourism industry has undergone significant changes. Closing borders, restrictions on holding mass events, lockdown, curfew and quarantine had an extremely negative impact on business activity. At the same time, there was an active growth of online events, the replacement of face-to-face communication with virtual meetings. Restrictions and quarantines, vaccination requirements, have affected the needs and motivation of tourists to travel (Lekgau, Harilal & Feni, 2021; Hellble, Park & Won, 2021; Wang, Kunasekaran & Rasoolimanesh, 2021; Kaewkitipong, Chen & Raetham, 2021; Bama & Nyikana, 2021) and has virtually eliminated the tourism economy in communities throughout the world (Goodwin, 2020; Ioannides & Gyimothy, 2020).

Tourism destinations need cooperation and innovations to recover from COVID-19 by planning and implementing health, economic and destination recovery solutions (Dávid, 2004; Kim, Chhabra & Timothy, 2022; Gavurova et al. 2023). The market has undergone changes that need to be analyzed in order to know what changes to expect in the future in the meeting industry. Even after the end of the pandemic, business tourism is experiencing the consequences of the changes that have taken place. Many events began to be held online.

Digital technologies began to influence and disrupt almost all industries even before the pandemic (Bergek et al., 2013; Evans, 2017, Reznakova & Stefankova, 2022) but during the lockdown, the use of online technologies has increased significantly. Pandemic is a change in people's lifestyles, including mobility and new preferences (Belas et al. 2022; Florek et al., 2022). Technology development, online platforms enabled connections between people, changed the way people communicate and interact in today's world (Srovnalíková et al., 2020). Firms need to comprehend in what way the consumers' tastes and consumption relatedly affect business profits (Kaufmann & Panni, 2014) as businesses must respond to the demands of the consumer which can be traced through environmental analysis (Ajaz Khan, Çera & Nětěk, 2019). The Internet has affected the tourism industry a lot by transforming the classic tourism business into online platforms (Ključnikov et al., 2020; Jibril et al., 2019). But during the COVID-19 pandemic, and due to the lockdown policies, both people and organizations have become more active on social media (Blažević Bognar and Pleša Puljić, 2022; Fedorko et al. 2021) and in using online meeting platforms. Digitalization has become a key component of the future development (Petkovski et al., 2022).

And in 2020, MICE events have become "Virtual". Some of the major MICE events that were not canceled were held online. In an attempt to withstand the pandemic the use of online technologies has become necessary (Lu, Xiao, Xu, Wang, Zhang & Zhou, 2021; Lu & Xu, 2021; El-Said & Aziz, 2021). According to Hootsuite & We Are Social (2021), there has been a "significant increase in digital activity, especially in countries that have the strictest COVID19 lockdowns". For example, on June 15, 2020, the largest Canton Fair in Guangzhou, China, held since 1957, opened entirely in virtual format for the first time. The mass holding of online business events has caused serious market concerns.
For organizers, these online initiatives reduce the costs of venue rental, catering, transportation, material supplies, and lodging, among other expenses. Delegates, sponsors, and exhibitors have the opportunity to participate in the events at the comfort of their homes, with possible access to archived presentations at their most convenient schedules (Disimulacion, 2020).

At the same time, the conversion to an online format of business meetings means a loss of income for transport and DMC companies serving participants, decline in hotel occupancy, reduced demand for restaurants and other related services (Pénzes et al., 2014).

Undoubtedly, virtual events have made it possible to maintain communication during the lockdown period. But the rejection of live events will have a negative impact on economic factors. May tourism has a large multiplier effect, and the absence of business tourists will negatively affect local business tourism. With the active development of virtual communication, there will be no need for conference centers, the demand for hotels, restaurants, event companies, etc. will fall.

3. Methods

The objectives of our research are to understand post-pandemic market expectations, analyze business traveler preferences, and explore the prospects for virtual and live events in the new environment.

The hypotheses that arise from the results of the literature review:

H1: The active development of Internet technologies and forced transition to online events will lead to the replacement of live MICE events with virtual ones.

H2: Holding mass MICE events will lose its relevance in the new post-pandemic conditions.

Primary statistic data were collected as a result of studying data from the World Tourism Organization, the International Congress and Convention Association, the International Association of Professional Organizers of Congress, Statista Research Department and specialized journals and periodicals, we have carried out quantitative research, studied the recent changes in the tourism industry and analyzed their relationship with economic and epidemiological changes taking place in the world. We analyzed MICE events held before and during the pandemic and examined how the lifting of restrictions affected the industry’s recovery.

Secondary data were obtained by the method of questioning the target audience. In the first stage, we sent questionnaires to business tourism professionals and business travelers and received 387 replies from respondents from 29 countries. Surveys were conducted over six-month period (February 2022 - July 2022) using the online survey techniques Google Forms and online survey forms on Survio.com.

In order to compare the obtained data with the actual conditions tested, we determined the representativeness of the sample. Since our goal was to identify the needs and behavior of business travelers in the post-pandemic period, we chose people who made and are making business trips as the target group for our study. During the pandemic, the number of business travelers dropped sharply, so the data for 2020-2022 is significantly lower than the number of business tourists in previous years. Therefore, for completeness of the sample, we used data on the number of business tourists in 2019. According to UNWTO data (UNWTO 2020), 1.5 billion International tourist arrivals (overnight visitors) were in the world in 2019, of which 11% were with business purposes (165 million).

To calculate representative sample size we will use following data:

\[
SampleSize = \frac{(z^2 \times p (1 - p))}{e^2} \times \frac{1}{1 + \left(\frac{z^2 \times p (1 - p)}{e^2 N}\right)}
\]

\[
N = \text{population size} \times \text{e = Margin of error (percentage in decimal form)} \times z = z\text{-score}, P = \text{standard of deviation}
\]

The z-score is the number of standard deviations a given proportion is away from the mean. To find the right z-score to use, refer to the table 1 below.
Table 1. The z-score

<table>
<thead>
<tr>
<th>Desired confidence level</th>
<th>z-score</th>
</tr>
</thead>
<tbody>
<tr>
<td>80%</td>
<td>1.28</td>
</tr>
<tr>
<td>85%</td>
<td>1.44</td>
</tr>
<tr>
<td>90%</td>
<td>1.65</td>
</tr>
<tr>
<td>95%</td>
<td>1.96</td>
</tr>
<tr>
<td>99%</td>
<td>2.58</td>
</tr>
</tbody>
</table>

Source: How to calculate sample size (www.surveymonkey.com)

Using following data (population size is 165 million of business tourist arrivals (overnight visitors); Margin of error is 5%; Confidence level 95%) and the formula below we get the required sample size of 384 respondents.

\[
\text{Sample Size} = \frac{(1.96^2 \times 0.5 (1 - 0.5))}{0.05^2} \times \frac{1}{1 + (0.05^2 \times 0.5 (1 - 0.5))} = 384.15
\]

For our survey, we received a sample size of 387 respondents. To collect data, we used Google forms and https://www.survio.com (for those who do not have a Google account). For statistical analysis of the perception of the situation in the business tourism market and obtaining the most objective information from a population group, we have identified Representative Samples. Since in the study we were interested in the perception of business tourism, we sent questionnaires to our partners from travel companies operating in the MICE tourism in different countries of the world. 15 years of experience in tourism has allowed us to make targeted mailings to business tourists from around the world. The main selection criterion for respondents was participation in virtual and live business events before, during and after the pandemic.

The English version of the questionnaire is available at: https://forms.gle/ad6P9hheCmX7VQFR7

The Russian version of the questionnaire is available at: https://forms.gle/yztK5xLA9fggXsde6

The questionnaire was consisted of 16 questions including 4 questions for demographic profile of the respondents; 3 questions to determine participation in online and offline activities before and during the pandemic; 1 question about the services used for online conferences; 2 questions about the advantages and disadvantages of online events with answer options, as well as the opportunity to write own options; 1 question that we decided to use in another paper; 5 questions aimed at determining the prospects for online and offline events. Respondents were asked to share their plans to participate in online and live events, assess the prospects for online events and the possibility of opting out of live events. Responses were measured on a five-point Likert scale from 1: strongly disagree to 5: strongly agree.

In order to minimize translation and linguistic misunderstandings, to limit linguistic bias, as well as to achieve the identity of questions in Russian and English, Back-and-forth translations are done at the stage of creating the questionnaire, as described in Leri (2020), Khoi (2021), and Izzo (2022).

We received through Google forms: 125 answers in the English version and 171 in the Russian version. Survio.com 52 questionnaires in English and 39 questionnaires in Russian. Which together amounted to 387 questionnaires (Table 2).

The research carried out allowed us to receive feedback from business tourists on virtual and live MICE events. Analyze the expectations and prospects of MICE events. This research is necessary in order not only to understand the current state of business tourism, but also to better prepare for such situations in future. This previous experiences should provided the required skillsets to withstand future
disasters (Jiang & Ritchie, 2017; Cioccio & Michael, 2007) such as COVID-19 (Bhaskara & Filimonau, 2021).

Table 2. Demographic profile of respondents (n = 387)

<table>
<thead>
<tr>
<th>Characteristics</th>
<th>Frequency</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Gender</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Woman</td>
<td>296</td>
<td>76.5</td>
</tr>
<tr>
<td>Man</td>
<td>77</td>
<td>19.9</td>
</tr>
<tr>
<td>Do not specify</td>
<td>14</td>
<td>3.6</td>
</tr>
<tr>
<td><strong>Age group</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Up to 25</td>
<td>28</td>
<td>7.2</td>
</tr>
<tr>
<td>26-35</td>
<td>177</td>
<td>45.7</td>
</tr>
<tr>
<td>36-45</td>
<td>114</td>
<td>29.5</td>
</tr>
<tr>
<td>46-55</td>
<td>37</td>
<td>9.6</td>
</tr>
<tr>
<td>56-65</td>
<td>27</td>
<td>7.0</td>
</tr>
<tr>
<td>Over 65</td>
<td>4</td>
<td>1.0</td>
</tr>
<tr>
<td><strong>Occupation</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Owner of a company</td>
<td>74</td>
<td>19.1</td>
</tr>
<tr>
<td>Employee</td>
<td>253</td>
<td>65.4</td>
</tr>
<tr>
<td>Individual Entrepreneur</td>
<td>31</td>
<td>8.0</td>
</tr>
<tr>
<td>Freelancer</td>
<td>26</td>
<td>6.7</td>
</tr>
<tr>
<td>Other</td>
<td>3</td>
<td>0.8</td>
</tr>
<tr>
<td><strong>Nationality</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Armenia</td>
<td>3</td>
<td>0.8</td>
</tr>
<tr>
<td>Austria</td>
<td>2</td>
<td>0.5</td>
</tr>
<tr>
<td>Azerbaijan</td>
<td>4</td>
<td>1.0</td>
</tr>
<tr>
<td>Belarus</td>
<td>12</td>
<td>3.1</td>
</tr>
<tr>
<td>Bulgaria</td>
<td>2</td>
<td>0.5</td>
</tr>
<tr>
<td>Canada</td>
<td>2</td>
<td>0.5</td>
</tr>
<tr>
<td>China</td>
<td>3</td>
<td>0.8</td>
</tr>
<tr>
<td>Egypt</td>
<td>1</td>
<td>0.3</td>
</tr>
<tr>
<td>France</td>
<td>9</td>
<td>2.3</td>
</tr>
<tr>
<td>Georgia</td>
<td>12</td>
<td>3.1</td>
</tr>
<tr>
<td>Germany</td>
<td>33</td>
<td>8.5</td>
</tr>
<tr>
<td>Great Britain</td>
<td>6</td>
<td>1.6</td>
</tr>
<tr>
<td>Greece</td>
<td>4</td>
<td>1.0</td>
</tr>
<tr>
<td>Hungary</td>
<td>5</td>
<td>1.3</td>
</tr>
<tr>
<td>India</td>
<td>11</td>
<td>2.8</td>
</tr>
<tr>
<td>Italy</td>
<td>24</td>
<td>6.2</td>
</tr>
<tr>
<td>Kazakhstan</td>
<td>117</td>
<td>30.2</td>
</tr>
<tr>
<td>Kyrgyzstan</td>
<td>7</td>
<td>1.8</td>
</tr>
<tr>
<td>Maldives</td>
<td>5</td>
<td>1.3</td>
</tr>
<tr>
<td>Portugal</td>
<td>3</td>
<td>0.8</td>
</tr>
<tr>
<td>Russia</td>
<td>24</td>
<td>6.2</td>
</tr>
<tr>
<td>Singapore</td>
<td>2</td>
<td>0.5</td>
</tr>
<tr>
<td>Spain</td>
<td>16</td>
<td>4.1</td>
</tr>
<tr>
<td>Sri-Lanka</td>
<td>2</td>
<td>0.5</td>
</tr>
<tr>
<td>Turkey</td>
<td>19</td>
<td>4.9</td>
</tr>
<tr>
<td>UAE</td>
<td>11</td>
<td>2.8</td>
</tr>
</tbody>
</table>
The data analysis technique proposed in this study is Excel and Spss statistical software for data analysis. A five-point Likert scale to measure satisfaction with virtual and live events. The Kruskal-Wallis test was used to analyze the relationship between age and loyalty to the new size of the MICE events. This statistical analysis allowed to study the relationship between perception variables and personal factors.

4. Results and Discussion

If we look at the global statistics we can see how much the pandemic has reduced MICE events. Many countries have closed their borders. Restrictions were even introduced on the movement of citizens to places of residence. The regime included the cancellation of all public events, the cancellation of flights, including domestic flights, and travel restrictions. All exhibition and congress events were cancelled, meetings were also moved online, as employees were transferred to remote work, and public movement was limited. All MICE events during the state of emergency have been cancelled. Only from July-August 2020, the restrictions were gradually lifted. Airplanes began to fly, movement was allowed in cities, employees returned to their offices. But until now, the strengthening and mitigation of quarantine is regulated by sanitary doctors of the countries, depending on the number of new infections, periodically banning mass events. If we take a look at the number of rotating international association meetings, we can see how fatal 2020 was for the industry (Graph. 2). According to the International Congress and Convention Association (ICCA, 2020), there were 13,254 events in 2019 and only 3,484 events in 2020, of which 2505 virtual. 71% of the events in 2020 were held in virtual mode. And this gave rise to great anxiety among tourism professionals, who suggested that, having appreciated the convenience and benefits of participating in online events, participants would not want to return to traditional live formats.

After the introduction of quarantine, exhibitions and conferences began to be postponed, and with the extension of the quarantine, they were cancelled or postponed until 2021. However, the quarantine was not limited to 2020, in 2021 year there is no certainty for the MICE industry. Individual meetings, teambuildings and incentive tours resumed, albeit with a limited number of participants and in compliance with sanitary standards. Until now, the strengthening and mitigation of quarantine is regulated by the sanitary doctors of the countries, depending on the number of new infections, periodically prohibiting mass events. And event organizers cannot be sure that the event will take place and will not be cancelled at the last minute due to newly introduced restrictions. Also, the participants of the events cannot be sure that they will be able to get to the event, since the entry rules are constantly changing; the borders continue to open and close depending on the epidemiological situation. For example, Thailand, after canceling all PCR test requirements and vaccination requirements in June 2022, will return to the vaccination requirement in January 2023. This situation raises serious and well-founded concerns on the business travel market.

The cancellation of MICE events negatively affects not only the tourism sector itself, but also the economy as a whole. The cancellation of exhibitions / conferences in 2020 affected not only event organizers, but the hospitality industry in general. Service providers also suffered: designers, advertisers, transport companies, catering, hotels, restaurants, food, drinks and much more (Tóth, Dávid & Vasa, 2012; Kassai et al., 2016). Taking all this into account, the industry, which has been paralyzed for a whole year, ultimately does not give taxes on exhibition activities to the country’s budget.

If we analyze the data on the spending of business tourists (Graph 3), we can see how large the decrease in business tourism spending was in 2020. If in 2019 business tourism spending amounted to 1294 billion US dollars, then in 2020 spending fell by more than 60% and amounted to only 504 billion.
The previous decline in business tourism spending is associated with the crisis of 2008-2009. Global business travel spending plunged by 15%. After the recession caused by the economic crisis of 2008-2009, it took the market more than two years to restore the pre-crisis indicators.

Graph 2. Number of rotating international association meetings

![Number of rotating international association meetings](source: own elaboration based on sources of ICCA (ICCA, 2020)).

The current situation on the business tourism market not only slowed down the growth rate, but also pushed the indicators back to the level of the 90s. Given that the situation with the COVID-19 pandemic is still uncertain in 2022, it is extremely difficult to predict the timing of the market recovery. In addition, the rapid development of online technologies and the active transition of companies to telecommuting and online meetings make the return to traditional forms of MICE events quite difficult.

Tourism cannot develop without a strategy. And, as Dvorský et al. correctly noted, even a good strategy can fail if the implementation is not appropriate and controlled (2020). There is a need to investigate the threat of any crisis or challenges, which can spoil the opportunities and can be a possible threat to the operations (Vrchota & Rehor, 2017; Mura et al., 2018). COVID-19 does present opportunities to rethink tourism (Everingham & Chassagne, 2020; Mair, 2020).

In order to understand how the pandemic affected the perception and prospects of formats of MICE tourism, we surveyed business travelers. The survey was carried out in the form of a questionnaire survey of representatives of different business spheres, who participated in live and virtual MICE events. As well as an assessment of the positive and negative aspects of virtual events and the traditional live format of MICE events.

In conditions of almost total closure of borders and cancellation of flights, businessmen had to continue working, look for new ways of business development and keep in touch with foreign partners and nonresident employees using online technologies. Of course, online technologies began to develop long before the pandemic, but they received the maximum boost to development precisely during the period of the strictest restrictions on movement, which no one could predict.

For example, In March 2020, Zoom (a cloud-based video conferencing service) reached more than 200 million daily meeting participants, both free and paid. This compares to 10 million in December 2019 (Yuan, 2020). In October 2020, Microsoft Teams had 115 million daily active users. That's more than 50 percent more than the 75 million Microsoft reported in early 2020. And that number continues to grow (Spataro, 2020). Thus, quarantine contributed to the involvement of people in the use of online technologies, without giving them the right to choose, since without online technologies people could not communicate and work.

And as our research showed, Zoom and Microsoft Teams were the most popular virtual business meeting apps among respondents (Graph 4).
This rapid growth in the use of online technology for meetings has caused concern among business travel professionals. According to Statista.com, daily Zoom Video Communications meeting participants worldwide from 2019 to 2020 increased from 10 million in December 2019 to 300 million in April 2020.

Microsoft Teams saw a huge uptick in users during the pandemic, rising from 20 million users in November 2019 to 44 million in March 2020, then 75 million by April. In 2022, Microsoft announced that Teams was used by 270 million users (Curry, 2022).

This giant leap in online platform users would not have been possible under other circumstances. The pandemic and lockdown have not only made online services a convenient means of communication, they have become the only means of communication, almost completely eliminating the possibility of personal communication. Serious fears of business tourism specialists began to be caused by the fact that, having massively appreciated the advantages of online technologies, businessmen, in order to save money and time, will begin to prefer online communication to in-Person communication.

Therefore, to study the preferences of business tourists, we included an assessment of the advantages and disadvantages of online events, as well as the desire of business tourists to further participate in in-Person business events. To evaluate responses, we used a five-point Likert scale regarding the level of satisfaction with attended online and in-Person events. Research results showed that all of the respondents indicated that in 2020-2021 they participated in online MICE events instead of traditional face-to-face events. As a positive aspect of online events, 88% of respondents noted the convenience of being able to participate in an online event from anywhere in the world. 43% indicated that the cost of participation in online events is much lower than in in-Person formats. The cost of participation in online events is an important component for the company, especially in the difficult economic conditions in the post-pandemic period. The difference in the cost of registration fees is also noted in the annual ICCA 2020 report (ICCA, 2020). If the average cost of registration fees original meetings is 525 USD, then the cost of participating in virtual meetings is only 211 USD, which is 60% less. Such data is a serious concern of the market, as in an effort to save money companies may prefer more cost-effective options for participating in MICE events.

More than a half of respondents (58%) noted the absence of the need for flights and visa formalities (38%) as an important positive factor. Taking into account the regular changes in visa formalities and entry rules, as well as the passing of regular PCR tests, online events gain a significant advantage over traditional MICE events taking place in other countries. Also, as an advantage, it was
noted that there was no need to order the design and installation of the stand. Undoubtedly this significantly saves money and time for the participants of the event.

Graph 4. Most popular apps for online business events 2020-2021

At the same time, 27% of respondents, on the contrary, noted the absence of the need to visit other countries and cities as a minus of online events. 41% noted the inconvenience of the online exhibition - the lack of live communication (Graph 5).

The survey has shown that replacing in-Person events with virtual ones has its positive and negative sides. Undoubtedly, the most significant advantages of virtual events are the ability to participate from anywhere, the absence of material costs for attending the event and, as a result, the cost of participation. It is very convenient to take part in a meeting with partners from anywhere in the world, and turn away from the computer to find yourself in your office. Virtual events, of course, significantly save time on flights, transport movements. During the week, you can visit several events in different countries of the world, while not feeling tired from flights and jet lags. In modern business conditions, when the transmitted information is extensive, conditions are constantly changing, and decisions must be made immediately, such time savings become more relevant than ever.

At the same time, despite the evolving technology and convenience of virtual events, respondents cited the lack of face-to-face communication as their most significant discomfort. Despite the ability to see and hear a person, this is not enough for communication.

In the study, it was important for us to understand whether business tourists are ready to return to the traditional format of meetings and exhibitions, or whether the advantages of virtual events prevail over the disadvantages and in the future live meetings will become less and less relevant.

While some online platforms provide private communication, respondents noted that it does not completely replace face-to-face communication in real life. 64% of respondents expressed a desire to participate in live events as soon as possible, 24% have not decided yet, and only 12% do not plan to take part in live exhibitions / conferences.

To determine the mood of business travelers, we asked questions using a Likert scale to allow a person to express how much they agree or disagree with a particular statement. Five possible responses to the question were given for each question, allowing respondents to indicate their positive-to-negative strength of agreement or strength of feeling regarding the question or statement (Likert, 1932). We decided to use the Likert scale because, in our opinion, it is one of the most understandable and comfortable ways to measure opinions and perceptions. Respondents have a range of answers that are more specific to how they feel about online events.
Graph 5. Advantages and disadvantages of online MICE events

- **Need of equipment**: 0.3%
- **Special programs**: 0.5%
- **Bad connection**: 0.3%
- **No after party**: 0.3%
- **Saving electricity**: 0.8%
- **No opportunity to travel**: 26.6%
- **The need for high speed internet**: 14.7%
- **Lack of “live” communication**: 41.3%

Source: Field Study

Table 3. Five-point Likert scale regarding the level of satisfaction with the virtual and live events

<table>
<thead>
<tr>
<th>Numbering</th>
<th>5</th>
<th>4</th>
<th>3</th>
<th>2</th>
<th>1</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Strongly Agree</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Do you agree that virtual exhibitions / conferences are a good alternative to in-Person events</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>Online meetings are more convenient than face-to-face meetings</td>
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<td></td>
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<tr>
<td>Traditional live exhibitions have no future</td>
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<tr>
<td>In the future, I plan to attend traditional in-Person exhibitions</td>
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<td></td>
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<tr>
<td>In the future, I plan to completely replace business trips with virtual meetings.</td>
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<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Agree</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Neutral</strong></td>
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<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Disagree</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Strongly Disagree</strong></td>
<td></td>
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</tbody>
</table>

Source: Field Study
After analyzing the results on the Likert scale and determining the average value of the scores for each question, we can see that although virtual exhibitions/conferences were a good alternative during a pandemic, most of the respondents still plan to return to the traditional live format of events. Few of the respondents preferred the virtual format of personal business meetings and do not plan to give up personal meetings in the future. All the same, if virtual exhibitions and conferences provide an opportunity to see market novelties and discuss topics with a large number of people, then personal contact is important in individual negotiations.

Graph 6. **Respondents' answer to the question "I plan to completely replace business trips with online meetings" based on age groups (%)**

Let's analyze the responses by age group. We will see that groups under 25 and 26-35 years old are more optimistic about virtual events and are ready for further replacement of live business meetings with virtual ones. The results of the Kruskall-Wallis test also show that the age factor significantly influences variables.

Table 4. **Kruskall-Wallis results test based on age**

<table>
<thead>
<tr>
<th></th>
<th>Virtual events are a good alternative to in-Person events</th>
<th>Virtual meetings are more convenient than live meetings</th>
<th>Live exhibitions have no future</th>
<th>I plan to attend live MICE events</th>
<th>I plan to completely replace business trips with virtual meetings</th>
</tr>
</thead>
<tbody>
<tr>
<td>Chi-square</td>
<td>17.596</td>
<td>19.233</td>
<td>23.32</td>
<td>17.40</td>
<td>99.047</td>
</tr>
<tr>
<td>df</td>
<td>5</td>
<td>5</td>
<td>5</td>
<td>5</td>
<td>5</td>
</tr>
<tr>
<td>asymptotic</td>
<td>.003</td>
<td>.002</td>
<td>.000</td>
<td>.004</td>
<td>.000</td>
</tr>
</tbody>
</table>

Note: The p < 0.05 value was significant in the SPSS v19 program.

Source: Field Study, processing in the SPSS software.

A p-value less than 0.05 was considered statistically significant. The p-value p < 0.05 confirms that age has an influence on perception of virtual MICE events.

Thus, it can be concluded that despite the unwillingness of business tourism to completely switch to virtual events, the further development of online technologies, possible epidemiological, political and
economic risks, as well as the younger generation, who are more actively using modern technologies, create prerequisites for the further development of virtual MICE events.

Graph 7. Aspects of different formats of MICE events

As can be seen from the survey, despite the fact that the virtual format of holding MICE events has been widely developed during the pandemic, nevertheless, this format cannot completely replace face-to-face meetings. Virtual events have a number of advantages, but live events will always be important for business tourists. Post pandemic period is a time to think about a different type of event - hybrid events.

The concept of hybrid events is not a new one. A classic example of hybrid events would be the televised sports events, concerts, and award shows (Bujdosó & Dávid, 2013; Akhtar, 2023). But now the hybrid format is gaining new importance for MICE tourism (Graph.7).

In 2020, the ICCA Annual Congress was held for the first time in a hybrid format on November 1-4 in person in Kaohsiung and simultaneously online for participants from all over the world. The hybrid format has shown good results, so in 2021 the 60th-anniversary congress was also held in a hybrid format, combining the traditional form of personal communication and using modern online technologies to attract more participants. The UNWTO-led committee held regular virtual meetings reflecting the need for coordinated and effective action (UNWTO, 2020).

Expo 2020 in Dubai, UAE the theme of which was "Connecting Minds, Creating the Future" is a prime example of the Hybrid format of the event. The grand event, postponed in 2020 due to the COVID-19 pandemic, did open in October 2021. In difficult conditions requiring close attention to epidemiological activities, the organizer of the EXPO managed to attract a huge number of participants, visitors, and visitors to the online platform https://virtualexpodubai.com. To attract visitors, Expo 2020 hosted a huge number of various conferences, meetings, presentations, seminars. Performances and concerts of stars from different countries, dance and vocal performances, concerts of world stars were held. During October and November, a total of 5,383 government leaders, including ministers, presidents, prime ministers and other heads of state, attended the exhibition to speak at official events and visits up to December 5 Expo 2020 Dubai records 6.3 million visitors (Halligan, 2021). Over the entire six months brought the total number of visits to 22,937,830. For those who could not visit the exhibition, an online broadcast of Virtual Expo World events was organized. On the Expo Online page,
one could see pavilions of countries; see conferences, seminars, etc. The possibility of online acquaintance with the exhibition made it possible not only to attend interesting seminars and discussions but also motivated potential visitors to visit the exhibition in person. Expo 2020 has become one of the brightest examples of the new format of Hybrid Events.

A hybrid format is a type of event that combines both live and virtual experiences. Hybrid events will be essential for the modern MICE industry. The hybrid format of MICE events will not only allow realizing the possibility of personal communication but will also provide an opportunity to participate in the event for those participants who, for one reason or another, cannot personally attend the event.

5. Conclusion

The pandemic hit MICE tourism the hardest, as it is primarily associated with mass business events. If individual trips resumed in August 2020, holding exhibitions, conferences, and congresses has not fully resumed even until now. Even in 2021, many exhibitions and conferences were postponed to 2022 or were held online. For almost two years of the pandemic and quarantine, people have become accustomed to online communication. In the future, returning to traditional in-Person MICE events will be problematic.

At the same time, virtual and hybrid events have become widespread, aiming to replace traditional formats of MICE events. The active development of online technologies called into question the continued existence of traditional formats for holding exhibition events.

We had two hypotheses, and the research shows that H1 was not confirmed. In the near future, online events will not replace live MICE events.

H2 was also not confirmed. Mass MICE events will not lose their relevance in the new post-pandemic conditions. 64% of respondents desired to participate in live events as soon as possible. And the success of such major exhibitions as the Expo2020 confirms the interest in such events.

However, the pandemic has significantly contributed to the change in MICE tourism and opened the way for virtual events. The obvious convenience of an online format, combined with the low financial costs of participation, has made business tourism managers consider virtual events' advantages. Virtual and hybrid MICE events have significant advantages, allowing attendees to access events in a public place using their gadgets. The new format of hybrid events provides great opportunities for organizers and participants and expands the scope of events.

As the research shows, people are not ready to completely abandon personal communication in favor of virtual. Participants in MICE events are ready to return to personal communication within the framework of MICE events since virtual events are not a way to replace personal communication fully. Participants of virtual exhibitions noted the positive aspects of this format: lower participation cost compared to traditional exhibitions/conferences, no need to travel to the event venue, and the ability to participate in the event from anywhere. But at the same time, many noted the lack of personal communication. Nevertheless, younger generations are more loyal to new technologies and virtual communication. The period of the pandemic gave a great impetus to the development of virtual communications and these technologies will not remain unclaimed in the future. A full transition to virtual events will negatively affect the region's economy, hotel occupancy, dining places, etc. Therefore, MICE tourism's main task is to offer virtual communication opportunities without compromising live events. And the best option is to switch to a HYBRID format for holding MICE events. The possibility of alternative participation in the MICE event will significantly expand the audience, increase participation availability, and help increase the event's financial profitability. And for personal participation in events to be no less preferable than virtual communication, the organizer must create comfortable and safe conditions for the event participants.

As a result of our research, we concluded that the COVID-19 pandemic had an extremely negative impact on MICE tourism. Despite opening borders, MICE tourism will need a lot of time to restore pre-pandemic indicators. It is also in the interests of the economy to attract business tourists to
attend business events in the country, stimulating the development of the service sector. The hybrid format of events will keep the need for tourism infrastructure and at the same time, attract new virtual participants. And there is no doubt that the format of the events will change. But at the same time, no matter how actively online technologies develop, they cannot completely replace live communication.

The pandemic period has brought significant changes to business tourism. Experts give different predictions about the future of tourism. In a period of uncertainty, it is necessary to know customers' preferences. Our research will allow organizers of MICE events to understand the expectations and requirements of potential customers, adjust the formats of events and offer services that correspond to the realities of the market.

The study’s limitations are the use of only a quantitative data collection method and a possibly uneven number of respondents from different countries. Considering the limitations of the study, future research could focus on interviewing respondents through in-depth interviews or focus groups, as well as expanding the number of respondents from different countries.

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