# Virtual and hybrid event: how Indonesian event organizers adapt during the COVID-19 pandemic

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**Abstract:** This study suggests how adaptive event organizers should be toward virtual and hybrid events, explore the constraints, and recommend policies to support virtual and hybrid events in Indonesia. It uses a quantitative descriptive method, and data are collected through an online survey using the Survey Monkey application. The survey was conducted from August to September 2021, involving 170 event organizer managers. The result shows that they mostly earn income from management fees during the pandemic. Event organizers also take several ways to increase engagement in virtual events, such as combining internal and external resources to serve personnel and technical equipment and to keep the events productive. Policy support through capacity building in some aspects is highly recommended to increase the managerial skills of event organizers to produce higher quality outputs of the event. The suggested training materials cover how to monetize virtual events, how to improve skills in the technological aspects, and how to increase engagement for participants. This research provides an overview of virtual and hybrid events in Indonesia so that the government can take the necessary policies in creating quality events, especially during the pandemic.
**Keywords:** Event Organizers; Virtual Events; Hybrid Events; COVID-19 Pandemic

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## Introduction

The Accepted Practices Exchange (APEX) Industry Glossary of terms (cited in Bowdin et al., 2006) defines event as an organized activity in the form of meetings, conventions, exhibitions, and special events. The term "special event" refers to certain ritual activities, performances, or celebrations held to commemorate an important occasion or to attain certain socio-cultural goals (Bowdin et al., 2006). Event planning contributes to the economy and job opportunities in tourism destinations (Jackson, 2008; Jago & Shaw, 1998). The contributions include boosting the sales of tourism products, stimulating local economies, raising hotel occupancy (Oklobdzija, 2015), attracting tourist visits during low season (Jago & Shaw, 1998; Oklobdzija, 2015), linking the destination's image with that of the event (Satriya, 2014), strengthening the image of tourist destinations (Getz, 2008; Destari, 2017), and whipping up tourist interest in visiting and returning to the destination (Pakarti et al., 2017; Simanjuntak et al., 2018; Sa'diya & Andriani, 2019).

Business events (MICE) stimulate visitation during the low season for some tourists do not follow a regular cycle, such as leisure tourists. Business tourists spend seven times as much as leisure tourists, despite being fewer in number (Suryadana, 2018). The event offers the community social benefits in addition to economic ones, for instance, reinforcing local values and tradition (Getz, 2008), promoting cross-cultural interaction (Jackson, 2008), and increasing communal pride (Jago & Shaw, 1998). In the long run, events also contribute to the development of the destination infrastructure (Oklobdzija, 2015).

These findings highlight the importance of events in tourism and the necessary to ensure their long-term viability. However, the task is not easy. Despite the socio-economic benefits of

tourism, this industry is extremely susceptible to the global crisis (Uğur & Akbıyık, 2020), such as terrorism-related crises, pandemic outbreaks, and natural disasters (Hajibaba, Gretzel, Leisch, & Dolnicar, 2015; Mylonopoulos, Moira, & Kikilia, 2016). COVID-19, which was later designated a pandemic by WHO in March 2020, was one of the crises that disrupted the tourism business ecosystem (Lewis et al., 2020; Sharma et al., 2020). It has wreaked havoc in every corner of the globe (Maneenop & Kotcharin, 2020).

The pandemic has significantly impacted travel and tourism industry sectors, such as airlines, transportation, cruise lines, hotels, restaurants, attractions (e.g. national parks, protected areas, and cultural heritage sites), travel agencies, and tour operators (Aburumman, 2020; Foo et al., 2020). The main consequence of the pandemic on tourism-related businesses is client loss, leading to mass layoffs and unemployment (Yeh, 2021). During the pandemic, mass activities are either prohibited or extremely restricted. It affects the event industry, which relies on human mobility in the practice. The biggest effect of the pandemic is widespread cancellations and delays in the event business (Madray, 2020; Bartis et al., 2021). Hundreds of events in various regions of the world have been canceled since the beginning of the pandemic in 2020 (Congrex Team, 2020). The potential loss from event cancellations or postponements in Indonesia is estimated at 6.94 trillion rupiahs (IVENDO cited in Kumparan.com, 2020).

The pandemic demands adaptation from the event organizer (EO) as a part of the event industry. EO, as a professional service provider appointed by the client to organize the entire series of events, from planning, preparation, implementation, and evaluation (Fadillah, 2015) has to employ innovative strategies, including the use of virtual technologies, to keep attendees linked to one another and engage in events (Madray, 2020). The key learning curve for this industry is the shift from live events to virtual and hybrid (Lekgau & Tichaawa, 2021). Actors in this industry need to come up with new strategies for event planning due to COVID-19 restrictions (Bukovska et al., 2021).

The pandemic offers five options regarding the organization of the event: postpone, cancel, relocate, arrange online, or host it in a hybrid format (Congrex Team, 2020). During the pandemic, the two priorities of EO are maintaining participant and organizer health and safety and avoiding pandemic-related losses. Participants of virtual meetings/events do not need to go to a real site to attend the event; instead, they use video, text, and/or voice to connect with others (Nilsson, 2020). The hybrid event, on the other hand, is a more complicated format since it combines technology and conventional techniques (face-to-face), allowing attendees to physically engage virtually with attendees in several locations.

The area of event studies will continue to expand along with the alternative reality, virtual reality, and other technological advancements (Dolasinski et al., 2021). In the academic realm, several articles related to virtual and hybrid events have been published, including those by White (2014), Porpiglia et al., (2020), Rubinger et al., (2020), Jauhiainen (2021), Sox et al., (2014), Sox et al., (2017b), Sox et al., (2017a), Pakarinen (2018), Nilsson (2020), and Hameed et al., (2021). None of these papers addressed adaptation to virtual and hybrid events, particularly from an EO standpoint during the COVID-19 pandemic (March 2020-October 2021).

Even though COVID-19 vaccinations for tourism workers have been administered since March 2021, no timetable is set for the end of the COVID-19 pandemic. Vaccines and the COVID-19 outbreak remain fraught with uncertainties (Su et al., 2021). Therefore, virtual and hybrid events remain an alternate option for event organization. Based on this context, the research has three objectives: first, to investigate how EOs adapt to virtual and hybrid events during the pandemic; second, to explore the constraints in organizing virtual and hybrid events; and third, to recommend policy to improve the quality of virtual and hybrid events in Indonesia.

## Methodology
### Research Instruments

This study employed a descriptive quantitative approach. The questionnaire was formulated with exploratory approach to present an overview of the EO's measurements on several aspects of event organizations that require different adaptations during the COVID-19 pandemic. The questionnaire was organized into three sections. The first section included the profiles of

respondents, companies, and events. The second section demonstrated the adaptation to virtual and hybrid events, and the third section was an open-ended question about the constraints of virtual and hybrid events.

The items in the questionnaire focused on four aspects of event management that required adaptation to the pandemic situation. Some of these management aspects were derived from The Event Management Body of Knowledge (Silvers, 2003) covering financial management, entertainment, technical, and health, and safety management. The four aspects were chosen according to the findings of InEvent (2021) regarding trends and challenges in virtual events during the COVID-19 pandemic. These challenges include the rise of hybrid events; ideas to generate revenue from virtual events; ways to improve experience and engagement in virtual events; adaptation to technology; and the importance of security and safety factors. The answer design for the second part of the questionnaire adopted a multiple-choice format and checkboxes with a nominal data scale. The answer options were adapted from InEvent (2021, p. 10), EventMB (2021, p. 49), Personify (2020, p. 24), and the CHSE (Cleanliness, Health, Safety, and Environment Sustainability) guidelines by the Ministry of Tourism and Creative Economy. The questionnaire included some items constructed by the authors.

## Sampling and Data Collection

The study population includes those who have been assigned as project managers for virtual and hybrid events during the COVID-19 pandemic or have held managerial roles in EO companies. Using the Lemeshow formula (Lemeshow et al., 1990), a total sample size of 384 respondents was determined. The sample size indicated a margin of error of 5% and a confidence level of 95%. The formula of Lemeshow is as follows:

$$n = \frac{Z_{1-\alpha/2}{}^2 P(1-P)}{d^2}$$

n = minimum sample size
Z = confidence level
α = error value (5%/0,05)
P = population proportion (using a maximum estimate of 0.5)
d = error sampling limit

The survey successfully obtained a total of 435 respondents, and after going through the cleaning process, 170 respondents completely filled out the necessary questions, allowing the data to be processed further. This number was feasible with a confidence level of 99% and a sampling error of 10%. The survey was conducted online using the Survey Monkey application from August 23 to September 30, 2021. The survey link was distributed through WhatsApp groups and Instagram. Data analysis employs descriptive quantitative techniques, presenting information in the form of tables and graphs with accompanying explanations.

## Results and Discussions

## Results

### Respondent Profile, Company, and Event

The respondent profiles (table 1) consist of gender, position, event format, age, and education. They are mostly event project managers (75%) and men (81.8%). The majority of them have managed virtual or hybrid events (70.6%), aged 35-44 years old (45.3%) with a bachelor's degree (59.4%).

**Table 1.** Respondent Profile

| Variable | N | % |
|---|---|---|
| *Gender* | | |
| Male | 139 | 81.8 |
| Female | 31 | 18.2 |
| *Position* | | |
| *Event Project Manager* | 128 | 75,3 |

| Variable | N | % |
|---|---|---|
| Other Managerial Positions | 42 | 24,7 |
| *Event Format* | | |
| Hybrid | 10 | 5,9 |
| Virtual | 40 | 23,5 |
| Both | 120 | 70,6 |
| *Age* | | |
| 18-24 | 6 | 3.5 |
| 25-34 | 50 | 29.4 |
| 35-44 | 77 | 45.3 |
| 45-54 | 34 | 20.0 |
| ≥ 55 | 3 | 1.8 |
| *Education* | | |
| High School | 22 | 12.9 |
| Diploma | 24 | 14.1 |
| Bachelor | 101 | 59.4 |
| Master/Doctor | 23 | 13.5 |

Table 2 indicates that most event businesses are based in Java and Bali islands (84.1%) with less than 10 full-time workers (71.8%) and 4-10-year experience in the event industry (50.6%).

**Table 2.** Company Profiles

| Variable | N | % |
|---|---|---|
| *Location of companies* | | |
| Java and Bali | 143 | 84,1 |
| Outside Java and Bali | 27 | 15,9 |
| *Number of full-time employees* | | |
| <10 people | 122 | 71.8 |
| 10-25 people | 36 | 21.2 |
| 25-40 people | 5 | 2.9 |
| >40 people | 7 | 4.1 |
| *Involvement in the event industry* | | |
| 1-3 years | 33 | 19.4 |
| 4-10 years | 86 | 50.6 |
| 11-20 years | 35 | 20.6 |
| >20 years | 16 | 9.4 |

Table 3 shows that virtual event is the most frequently held program during the COVID-19 pandemic (68.2%). Meetings are the type of event typically held in both virtual and hybrid format (65.6% and 61.5%). Corporations and domestic State-Owned Enterprises (SOEs) make up the majority of event service consumers (74.1%). The participants reveal that most events are hosted at a national level (60.0%). Zoom is the most popular platform for both virtual and hybrid events (84.1%).

**Table 3.** Event Profiles During The COVID-19 Pandemic

| Variable | N | % |
|---|---|---|
| *Event Format most frequently held* | | |
| Virtual Event | 117 | 68,8 |
| Hybrid Event | 39 | 22,9 |
| Face-to-face Event | 14 | 8,2 |
| *Event Period* | | |
| Virtual: | | |
| Before March 2020 | 29 | 18,1 |
| March-Juni 2020 | 47 | 29,4 |
| After June 2020 | 84 | 52,5 |
| Hybrid: | | |
| Before March 2020 | 18 | 13,8 |

| Variable | N | % |
|---|---|---|
| March-June 2020 | 31 | 23,8 |
| After June 2020 | 81 | 62,3 |
| *Type of Event* | | |
| Virtual: | | |
|     Meetings | 105 | 65,6 |
|     Conference/convention | 92 | 57,5 |
|     Special Event | 87 | 54,4 |
|     Exhibition | 37 | 23,1 |
| Hybrid: | | |
|     Meetings | 80 | 61,5 |
|     Conference/convention | 77 | 59,2 |
|     Special Event | 71 | 54,6 |
|     Exhibition | 34 | 26,2 |
| *Event Organizer User* | | |
|     Corporate/BUMN (Domestic) | 126 | 74.1 |
|     Government (Central and Regional) | 124 | 72.9 |
|     Organization/Association (Domestic and Overseas) | 107 | 62.9 |
|     Corporate (Overseas) | 34 | 20.0 |
|     Community/Individual | 7 | 4.1 |
| *Origin of participants* | | |
|     Local | 41 | 24.1 |
|     National | 102 | 60.0 |
|     International | 27 | 15.9 |
| *Hosting Platform* | | |
|     Zoom | 143 | 84,1 |
|     Youtube | 10 | 5,9 |
|     Instagram | 7 | 4,1 |
|     Others | 102 | 60.0 |

## Adaptation to Virtual and Hybrid Events

### 1. Financial Management

Financial adaptation (Table 4) covers the way to generate revenue and the criteria used to set event package prices. Most of them earn income from customers by charging the management fee (78.8%). Regarding the normal price for event packages, the majority of respondents determine the price based on the number and type of services provided (84.7%).

**Table 4**. Adaptation to Financial Aspect

| Answers | N | % |
|---|---|---|
| *Was to Earn Income* | | |
|     Charging customers management fees | 134 | 78.8 |
|     Finding sponsor | 17 | 10.0 |
|     Selling products and services related to the event content (article, podcasts, ebooks) | 8 | 4.7 |
|     Selling merchandise | 5 | 2.9 |
|     Selling tickets/subscription fees | 4 | 2.4 |
|     Renting equipment | 2 | 1.2 |
| *Pricing Standard of Event Package* | | |
|     Based on the number and type of services | 144 | 84.7 |
|     Based on the quality of the speaker/talent | 25 | 14.7 |
|     Refering to the market price | 1 | 0.6 |

Generating income through management fees is highly popular from a financial standpoint. As the number of independently initiated events is still relatively low, it may be predicted that during the pandemic, EOs rely more on income from events organized by third parties. The level of EOs' innovation must rise if they are to improve the share of income from sources other

than management fees. In addition, corporations/SOEs and governmental organizations make up the majority of the service user profiles (>70%). The funds of government agencies have been heavily refocused on dealing with COVID-19 throughout the pandemic, so there will be fewer opportunities to plan diverse activities, including events.

## 2. Entertainment Management

Adaptation in the entertainment aspect (Table 5) comprises methods to improve engagement and networking. To enhance engagement, majority of respondents conducted discussion sessions (65.5%). Besides, a few respondents have not made any efforts to promote engagement (3.8%). Despite the low percentage, the data demonstrate that EO's capacity to promote engagement has not been dispersed equitably. Most respondents provide group chat to expand the network (61.9%). On the other hand, several respondents have not made any attempts to expand the network (15%).

**Table 5.** Adaptation to Entertainment Aspect

| Answers | N | % |
|---|---|---|
| *Was to Increase Engagement* | | |
| Holding discussion sessions for participants | 105 | 65.6 |
| Providing Question and Answer (Q&A) Feature | 101 | 63.1 |
| Providing giveaway/door prize | 91 | 56.9 |
| Integrating social media into the event | 86 | 53.8 |
| Implementing gamification | 53 | 33.1 |
| Conducting live survey (live polls/survey) | 47 | 29.4 |
| Making no efforts to promote engagement | 6 | 3.8 |
| *Was to Increase Network among participants* | | |
| Providing group chat | 99 | 61.9 |
| Providing chatroom (video) for a smaller group | 71 | 44.4 |
| Displaying participant profiles | 64 | 40.0 |
| Providing private chat between participants | 42 | 26.3 |
| Making no efforts to increase network | 24 | 15.0 |

Engagement with online content and effective communication affect customer online experience and has a positive effect on event-related behavioral intentions (Kharouf et al., 2020). When an EO holds a virtual event, engagement is vital. Although the questions regarding engagement management are provided to the respondents who organize virtual events, it is obvious that the implementation will be more challenging when the event is carried out hybrid. The focus of the organizers will shift between those who attend in person and those who do so virtually. Ensuring balance in engagement is not easy. The attention of virtual event participants is very susceptible to being distracted by anything outside the event. Face-to-face meetings, especially conferences, are still regarded as the ideal event format even after the COVID-19 pandemic because they take into account a lot of aspects, including participant engagement (Hamm et al., 2018).

## 3. Technical Management

Figure 1 indicates that most respondents combine their own equipment and the rented one from other vendors for information technology (IT) support and internet installation in virtual events (46.9%). In the hybrid event, the majority also combine their equipment and that rented from a vendor (49.2%). A physical venue is required for a hybrid event, thus there is an additional answer option "using venue services" and 10.0% choose this option when providing IT supports and internet installation during the event. They pose similar tendency for both virtual and hybrid events to fulfill the requirements of audiovisual technology infrastructure. The vast majority of respondents also decide to combine equipment they own with that they rent from other vendors.
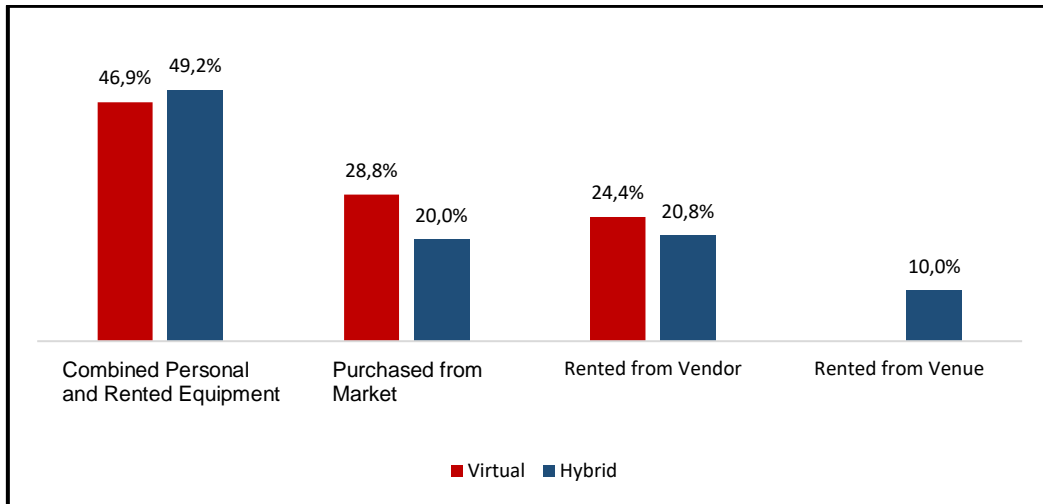
(Source: Author, 2022)
**Figure 1.** IT and Internet Installation Support

Most respondents select a combination of internal and external personnel as operators (figure 2). The major hurdles in the transition to digital events are internet speed and coverage, access to advanced technological equipment, and competent support staff (Bukovska et al., 2021). It can be inferred that the lack of qualified internal human resources is the primary factor why most respondents decide to combine equipment.
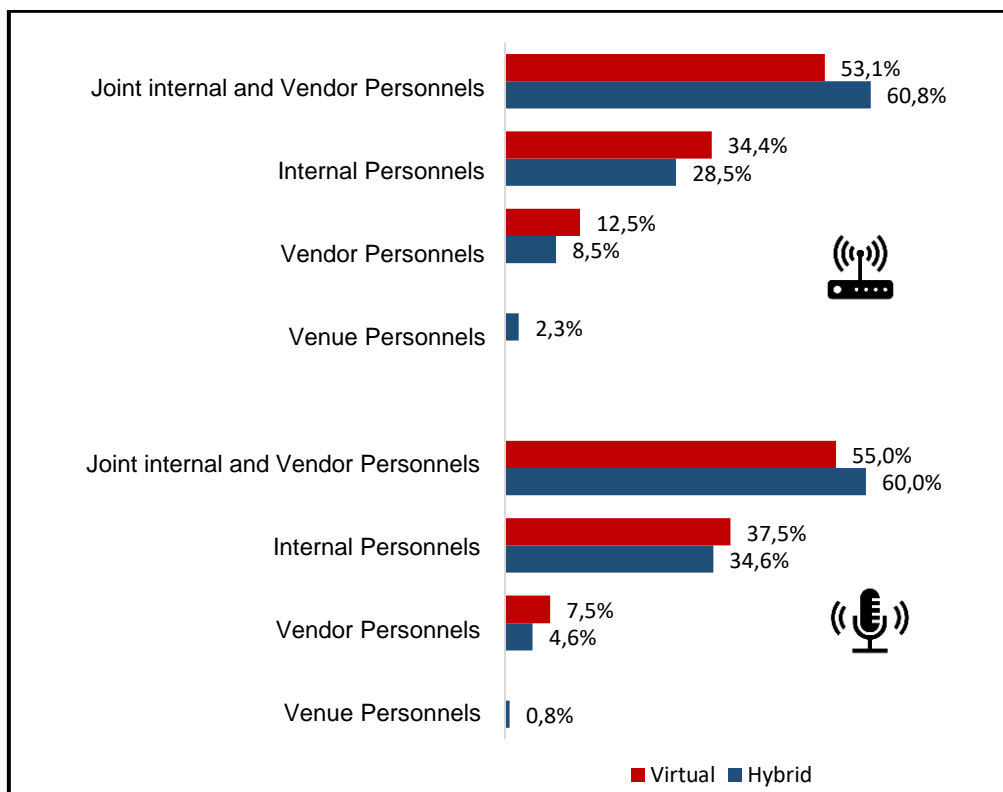


(Source: Author, 2022)
**Figure 2.** IT and Audiovisual Operator Support

As a result, they require operator assistance from other vendors to operate virtual and hybrid event support equipment. Some managers also admit that vendors require the rental of IT equipment or audiovisual equipment in a package with the operator. The vendors object if the equipment is operated by incompetent personnel since it is costly and prone to damage. Figure 3 shows an example of the equipment used by the EO during the hybrid event.



(Source: Author, 2022)
**Figure 3.** Equipment Used in the Hybrid Events

## 4. Health and Safety Management

The items in this aspect cover the standard implementation and types of health protocols implemented in the hybrid events. Table 7 shows that most respondents combine venue SOPs and those issued by the government (65.4%). A small number of respondents use standards other than the venue and government standards (0.8%).

**Table 6.** Health protocol Standards for Hybrid Events

| Answers | N | % |
|---|---|---|
| *Health protocol standards used* | | |
| The combination between venue SOP and SOP from government | 85 | 65.4 |
| CHSE MICE and event guidelines | 42 | 32.3 |
| SOP of the venue | 2 | 1.5 |
| Other standards | 1 | 0.8 |
| Total | 130 | 100.0 |

In terms of health protocol implementation (table 7), putting on masks for EO personnel and body temperature checks are the two health protocols most frequently implemented in hybrid events (78.5%). Some respondents have selected every item in the response selection (19.2%).

**Table 7.** The Impelemented Health Protocols during the Event

| Answers | N | % |
|---|---|---|
| *Health protocols that have been implemented* | | |
| – Body temperature checks | 102 | 78.5 |
| – Mask for EO personnels | 102 | 78.5 |
| – Disinfect rooms and equipment | 100 | 76.9 |
| – Seat arrangements to support physical distancing | 99 | 76.2 |
| – Providing hand sanitizer for every participant | 91 | 70.0 |
| – Mask distribution to participants | 87 | 66.9 |
| – Assigning health protocol supervisor | 74 | 56.9 |
| – Providing a special container to put masks to be reused after eating and drinking for a speaker at MICE events | 31 | 23.8 |
| – Partitioning with acrylic and indoor bulkheads | 13 | 10.0 |
| – Implementing all health protocols | 25 | 19.2 |

Health protocol is a major concern for hybrid events during the pandemic. The implementation of proper health protocols attempts to prevent the spread of the virus so that the event may go off without a hitch. Health protocol standards must be clearly understood by stakeholders involved in event planning. According to the survey findings, there are no issues with the implementation of the health protocols. Each EO has properly followed health protocols when planning the events. Figure 4 shows an example of a venue adopting CHSE health protocol by the government.
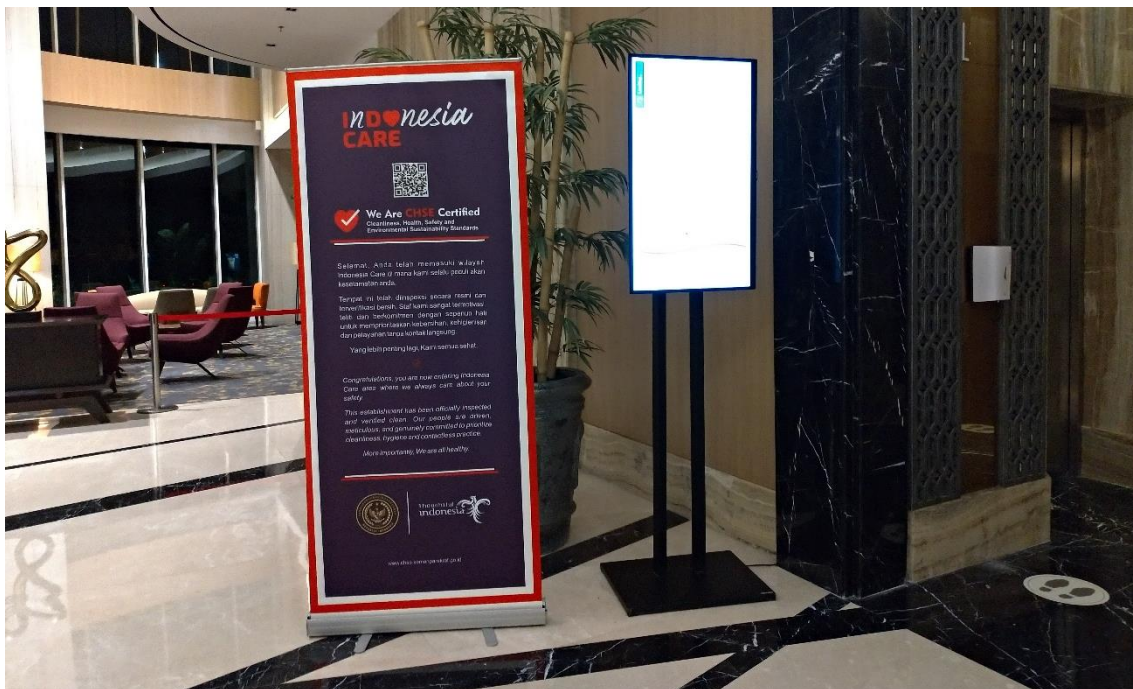


(Source: Author, 2022)
**Figure 4.** CHSE Protocol implementation by One of the Venues

## Constraint in Virtual and Hybrid Events

Constraints in virtual and hybrid events are openly asked to the respondents. The responses are then grouped into six categories. Constraints related to the internet network account for major responses (45.5%), followed by adaptation (19.3%), knowledge (17.1%), costs and benefits (12.3%), regulations and permits (4.3%), and venues (1.6%). The following is a description of each category:

**Table 8.** Constraints in Virtual and Hybrid Events

| Themes | Description |
|---|---|
| 1. Internet Networks | (a) unstable connection, (b) Remote locations still lacking of internet access, and (c) high costs of internet packages. |
| 2. Adaptation | (a) character differences between types of events, (b) some events are not suited to be hosted virtually or in a hybrid format, (c) ambiance, euphoria and engagement are not as good as face-to-face events, (d) time zone differences among event participants. |
| 3. Knowledge | (a) lack of technological expertise from EO, (b) lack of participant awareness of virtual and hybrid events, (c) lack of community access to online events, and (d) lack of participant adherence to health protocols. |
| 4. Costs and Benefits | (a) limited EO budget, (b) non-optimal profit, (c) low purchasing power of customers, (d) production costs that frequently rise for hybrid events, and (e) lack of government funding. |
| 5. Regulations and Permits | (a) excessive administrative rules, and (b) rapidly changing COVID-19-related policies. |
| 6. Venue Management | (a) lack of venues with outdoor areas, (b) a lack of venues capable of effectively implementing the CHSE protocol, and (c) many venues are insufficient with virtual/hybrid event support infrastructure. |

## Discussions

EO has made several adaptations while organizing virtual and hybrid events. Assistance from the government (Ministry of Tourism and Creative Economy) through capacity-building initiatives is required to increase the management competence of EO. Capacity-building activities may cover training programs or workshops with virtual or hybrid event materials. Training in financial management focuses on how to make profit on virtual and hybrid events. The training is extremely crucial to help the EOs find new and innovative methods to generate income from sources other than the customer. They are expected to have additional competence to lower production costs and boost revenue from virtual or hybrid events. The training materials on entertainment management cover how to boost engagement in virtual or hybrid events. Raising engagement aims to enhance the quality of the participants' overall experience. Project managers with high expertise boosting engagement may be involved in capacity-building activities.

Technology plays a vital role in the event industry during a pandemic. To accelerate adaptation to the technological aspect, training support is required to improve knowledge and abilities in operating information technology and audiovisual equipment, which play an essential part in virtual and hybrid events. The suggested training resources include how to utilize hardware and software for hybrid and virtual events, such as the v-mix program, multi-camera switchers, video splitters, lighting, and sound cards, green screens, as well as a technical breakdown of equipment based on event requirements.

Furthermore, the condition of the internet network in Indonesia requires particular consideration. Most respondents claimed that the biggest challenge to planning virtual and hybrid events is the unstable internet network. To address this, training on how to deal with internet connection instability during virtual or hybrid events is required. This skill comes in extremely handy when the EO must host an event around the location where the internet network is unreliable or takes a lot of bandwidth since it involves participants from many different areas and must activate the camera simultaneously.

Events can be planned, particularly those with a hybrid format, to indirectly move tourists to sign up as event participants, resulting in a larger tourism multiplier effect than virtual events. The multiplier effect is included in the economic aspect for a greater chance that transactions will rise as visitor numbers rise. Most respondents complained about the difficulties of obtaining an event holding permit as an impediment to the hybrid event. It also requires government's concern. Therefore, it is necessary to disseminate the SOP for hybrid event permission. This effort must include the authorized persons in charge of issuing permits for pandemic-related activities, such as the COVID-19 task force.

Each respondent has properly followed health protocols in terms of health and safety aspects. However, the CHSE standards for EOs still need to be widely disseminated. As long as transmission is rising in Indonesia, the COVID-19 virus will continue to evolve and produce new forms. It is critical to keep updating the health protocol guidelines to increase the chances of zero transmission in Indonesia.

## Conclusions

During the COVID-19 pandemic, event organizers continued to host events while making several adjustments. The government needs to focus on several adaptation-related issues, including how to monetize virtual events, how to boost engagement, how to adjust to the use of new technology, and how to apply health protocols to hybrid events. The Ministry of Tourism and Creative Economy's policy assistance is required to help with quality improvement in some of these sectors. The government must take initiatives to enhance the capacity of EO human resources as one of the industry actors involved in the tourism business sector as stated in Law Number 10 of 2009 concerning Tourism.

Capacity-building efforts might cover training to improve the EO's technical and management capabilities for virtual and hybrid events. The EO will be more equipped to arrange the technical specifications required to plan virtual or hybrid events as their expertise grows. The technical specifications for arranging events vary depending on the type of event, size, location, and other user-requested requirements. Uncertainty over the pandemic's termination is brought on by the COVID-19 virus's ongoing mutation. Future studies on the effects of virtual and hybrid events on the resiliency of the event.

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