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VIRTUAL TOUR AS AN ALTERNATIVE TO TOURISM DURING COVID-19: A CASE STUDY AT THE ACEH TSUNAMI MUSEUM

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Abstract

The spread of the coronavirus has had a major impact on the education and tourism sectors, so lockdowns and travel restrictions have prohibited people from traveling. This lockdown policy calls for all activities to be carried out from home, such as work, travel and other outside activities. One of those affected is the Museum, where the Museum as one of the tourist destinations and also education places is affected because it cannot operate. As more and more people stay at home due to the coronavirus pandemic, the need for alternative ways of traveling becomes important. The rapid use of the internet during the pandemic, so that an alternative virtual tour as a substitute for traveling to a place directly becomes a solution. This study aims to evaluate the use of Tsunami Museum virtual tour uploaded in YouTube in 2020 as digital media during the pandemic. This research was conducted using a quantitative-qualitative method with a descriptive approach. Data were obtained from interviews, questionnaires, field observations, photo documentation of activities and literature studies. The results showed that the pandemic made Tsunami Museum manager carry out a digital transformation in educating the public. Virtual Tour uses the zoom application and utilizes social media to promote it. The results of the questionnaire distributed to the virtual tour participants of this museum showed above average of mean standar response from the respondents and were supported by the results of the committee's interview, mentioning that Virtual Tour can help disseminate information on the value of museums related to disaster even during Covid-19.

Keywords**: *Virtual tour, Corona, Tsunami Museum, Education***

1. INTRODUCTION

The COVID-19 pandemic has forced people to stay away from each other and also reduced face-to-face communication among people. The impact of the pandemic makes it difficult for humans to interact with each other, which is basically humans as social creatures. Moreover, the spread of the virus is so fast to all parts of the world that coronavirus also causes death (Harahap, 2020). The spread of the virus is a potential threat of disaster not only a danger to human interests but also to country order (Samudro & Madjid, 2020). Due to the threat and danger continuing to spread, Covid-19 was announced as a Global Pandemic by the World Health Organization (WHO) on 11 March 2020. Furthermore, Indonesian President Joko Widodo also declared Covid-19 as a public health emergency based on Presidential Decree Number 11 of 2020. Most countries experienced an uncertain situation during the pandemic so the government also issued a Work from Home (WFH) policy as an effort to be applied to the community.

As a result, people are able to work or do other activities from home. Thus, the government decided to set all activities with an online system, as social interactions such as online tourism caused by social distance (Covid-19) (Wibowo, 2020; Tunnikmah, 2020). The impact of these limitations, internet usage has increased significantly to 15% of each individual based on a survey conducted by ICOM (2020) and also based on BPS stated that 78,18% of Indonesian people used the internet dramatically. As a result, people can work or do other activities from home. This includes the advantage of using technology in accessing museum tours to be able to holiday even

though just staying at home during Covid-19. During pandemic, many museums initiated to push for more digital content creation, either through a new website, new interactive media or increasing awareness of the digital usage (Morse et.al, 2022). Moreover, the use of technology is very helpful in maintaining visitors during the Covid-19 period in museums (Akhtar, et al., 2021). In a disaster like a pandemic, digital media can become an alternative due to the massive use of technology today as well as some media. Thus, Disaster Risk Reduction (DRR) is highly essential in disaster management. In Law No. 24 of 2007, disaster management is a series of activities carried out to reduce or eliminate disaster risks, both through disaster threat reduction, emergency response, and rehabilitation.

Based on previous research, the role of technology in preventing the spread of Covid-19 and keeping promoting and educating about Museum's program is very essential for keep maintaining disaster education from museum (MacDonald, at, al. 2017). Moreover, it shows that some museums have used a variety of technologies such as 3D Virtual Reality (VR) (Caciora, 2021) and Mixed Reality (Hammady, 2020), as well as using the Zoom application (Wulandari, 2020) in order to maintaining museum program. Moreover, learning contained in museums, especially about disaster education, must continue to be disseminated to all groups so that it must not stop (Yudiawan, 2020; Rahma, 2019). Prevention of disasters through a disaster awareness program is very important and must be done as soon as possible. As mentioned by Johnson et., al. (2014), to increase knowledge about disaster risk, and provide knowledge into actions of emergency response, and preparedness of disaster is through disaster education. Based on the explanation of the study above, this study is intended to investigate the effectiveness of virtual tours using the Zoom application at the Aceh Tsunami Museum 2020 which has been held during the pandemic period and organized by the committee as a means of sustaining tourism services and learning disaster mitigation. Therefore, this research aims to evaluate and analyze the effective virtual tour as an alternative tourism for disaster learning based on the evaluation results during pandemic.

2. RESEARCH METHODS

2.1 Data collection techniques

This research used mixed methods (Koskey and Stewart, 2014; Lim et al., 2019). This method combines two forms of research that have existed before, namely qualitative and quantitative research. This study evaluates the implementation of the Zoom virtual tour of Aceh tsunami museum during the pandemic 2020 uploaded in YouTube. The data used in this study is primary data through interviews with museum committee and tour guide and questionnaires with including qualitative interviews and a quantitative survey with respondents selected through purposive sampling this sampling is based on respondents who are familiar with technology such as the Zoom application and also recognize the use of google forms to be able to represent the community. The questions in the questionnaire will be arranged on a scale of 1-4 strongly agree, agree, disagree and strongly disagree based on the Linkert scale (Pranatawijaya et al., 2019).

2.2 Population, Sample, and Sampling Technique.

According to Arikunto (2006), said that purposive sampling is a data collection technique based on certain considerations to achieve certain goals. The population in this study consisted of 2 groups of participants, namely respondents of the Aceh Tsunami Museum Virtual Zoom and staff of the Aceh Tsunami Museum. In this study, the authors used a limited population type so that the

population in this study was 100 people. Furthermore, in determining the sample, the author took a sample where for a population of 100 people and based on the Krejcie and Morgan table then the sample is 80 people.

Tabel 1 Socio-demographic Characteristics of Respondents

GENDER	FREQUENCY	PERCENTAGE
Male	38	48%
Female	42	53%
TOTAL	**80**	**100%**
AGE	**FREQUENCY**	**PERSENTASE**
>20-30	46	57%
>31-40	26	33%
>41-50	4	5%
>51-60	4	5%
TOTAL	**80**	**100%**
OCCUPATION	**FREQUENCY**	**PERSENTASE**
Agen Travel	5	6%
Guru/Dosen	13	16%
PNS/Karyawan	13	16%
Pelajar/Mahasiswa	28	35%
Tour Guide	5	6%
Wiraswasta	16	20%
TOTAL	**80**	**100%**

Based on table 1 above, the characteristics of respondents based on gender are divided into women and men, each of which has 38 male respondents and 42 female respondents. The characteristics of respondents based on age group are divided into ages between 20-30 years, 31-40 years, and 41-51 and 51-60 years. The largest age group is respondents between 20-30 years, total 46 people with a percentage of 57%. Based on the results of the analysis that has been carried out, the largest number of respondents in students age with a total of 28 people (35%).

3. RESULTS AND DISCUSSION

3.1 Interview Response

In the interview session, measuring how the implementation of Tsunami Museum Virtual tour has been uploaded in Youtube in 2020. Furthermore, researchers conducted interviews with two informants who were the organizers of the Tsunami Museum Virtual Tour. The chairman of the committee and a tour guide from the Virtual Tour of Aceh Tsunami Museum were interviewed. The interview process was done online zoom for both informants either chairman and tour guide.

In the implementation of the virtual tour carried out by the Tsunami Museum, the assessment will be seen from the development of the display and preparation carried out by the committee for the virtual tour as a medium for disaster science information at the Tsunami Museum which is divided into several aspects. In assessing virtual videos as information media, Thorn (Munir, 2010) explains that there are several criteria in assessing media: (1) material content, (2) media usage, (3) information presentation. In addition, media quality factors according to Jung, kim & chung, (2004) include the following quality characteristics: (1) reliability, (2) functionality, and (3) usability.

A. Material

Analysis of the content for the zoom virtual tour as a medium for disaster value information at the Tsunami Museum requires an analysis of the right material or content. The material is used as a script delivered by presenters who have been trained in virtual tours. This zoom Virtual Tour material as media information on the area of the museum rooms into several parts.

In material preparation, based on the committee's interview results regarding material preparation, as follows: "Before we make a video, there must be preparation and for the information material, everything is prepared by the museum to ensure that all information is not known to many people and also the uniqueness of the tsunami museum so that information is conveyed from disaster values". Said by the committee. After the preparation of the material, the material is adjusted to the places that the guide will go through. Furthermore, the stage of material delivery was also carried out from the lower floor (main lobby) to second floor and the last is the upper floor, namely evacuation floor which is not usually access to public.

"The presentation of information by the presenter is very good about the existing rooms using good and correct Indonesian language in the Tsunami Museum supported by good shooting/angels by ILATeam in collaboration with the Tsunami Museum". Said by the committee. The committee also added that this virtual tour has a different explanation than before, namely there is an explanation of the rooms on each floor of the museum which are usually not all open to the public. "In delivering the virtual tour, there are several different materials, namely the presenter delivering the evacuation site if a tsunami occurs and explaining the evacuation route. In general, this evacuation route is not open to the public on a normal day to the evacuation site".

B. Media

In the media aspect, the quality of the images in analyzing the virtual tour that has been carried out at the Tsunami Museum has 3 principles developed by Nicolas, (2022) in making a good virtual tour content, namely, lighting, angles of pictures, and background images.

1. Lighting

Nicolas, (2022) explained that a good virtual tour video is shot between morning and evening. Taking in that time range there is not too much light so the video shooting becomes more natural and good. Furthermore, the virtual tour of Tsunami Museum was also held in the afternoon from 17.00-18.00 pm.

Figure 1. Poster Virtual Tour Tsunami Museum

In Figure 1 in the poster is written the schedule for the implementation of the Tsunami Museum activities where the time selection was made with several considerations. Based on the explanation from the committee regarding the description of Virtual Tour implementation time. "Virtual Tour is done at 5-6 pm due to good lighting and showing relaxation time in general activities by many people. In addition, to get sunset light from the rooftop of the Tsunami Museum ". Explained by committee. Based on information from the committee that the time chosen is very good in terms of lighting the picture. When doing a virtual tour, there are a few important factors to consider for the best photos. Firstly, it is important to choose a time with good lighting as too much or too little light can change the impression of the space. Mornings or evenings usually provide the best natural light for photography.

2. Angle Perspective

A good looking of virtual tour is highly dependent on angle video shooting. The camera shot that is chosen can become a complete image that can convey a message so that the shots to be taken have a cinematic feel (Mascelli, 1965). Moreover, shooting video is an actor in the success of a live video such as Virtual Tour Zoom. As mentioned in Nicolas, (2022) tips, good shooting is able to provide comfortable angle of images and presentations that are able to make the audience feel like they are in the venue.

Figure 2. The right picture shows the guide explained objects from afar. The left picture shows a closer view of PLTD generator ship.

Figure 2 shows the benefits of interesting angles and perspectives. Get closer to your subject and experiment with different angles. If the Virtual Tour video display shows that there is a guide in the frame of this video explaining the information widely, both the place and the information provided. While the closer view of the object shows a specific and more detailed explanation of the object. "Because we (Tsunami Museum Committee) work with a professional camera team, therefore they are able to take good pictures such as taking objects closer or further away to illustrate information about the objects described".

3. Background Image

In addition, the important thing in taking pictures is to avoid backgrounds that can interfere with taking pictures such as crowds of people and unwanted objects that can interfere with taking virtual tour videos in general. Thus, make sure the picture taken is quite harmonious from the object and also the subject so that the video image will be balanced. Next, some things that are often forgotten are the sound disturbances that exist around the appropriate location. Giving an explanation in a crowded place and loud music will disturb not only the presenter's concentration but also the listeners. For example, the image below with a different background.

Figure 3. Exhibition of Temporary Shelter, Barracks Housing

In Figure 3 above shows the presenter is giving an explanation of the exhibition space that will be explained later on. Moreover, as we can see that there is no crowd of people behind her so the audience will focus on the situation in the virtual tour video. The picture shows the presenter explaining the Barracks on display while the atmosphere is light enough to illuminate the object being explained so that the audience's attention will be focused on the object of the explanation. The committee added in its explanation that: "Due to the shooting of the virtual tour during the Covid-19 period, there were no visitors because it was closed to the public, so there was no interference with the virtual tour shooting. Thus, this shooting was very well done at that time".

C. Presentation of The Information

A presentation is considered effective when the presenter is able to convey the message well and can be understood by the interlocutors, both groups and individuals. Furthermore, the use of good language in presentations, and mastering the material is very important. Thus, the value of good communication is that two parties provide a response, either in the form of questions or providing criticism, or suggestions. The presentation in this virtual tour conveys the value of disaster education in the covid-19 period. The delivery of disaster values must continue even though there is a pandemic. The use of the zoom application is very appropriate in disseminating information because it chooses the effectiveness of communication such as direct interaction and good images. As explained by the presenter about his experience.

"I think this zoom application is very interactive and effective in conveying disaster value information because of the questions and answers and direct feedback from participants. The use of formal Indonesian language is very important because the audience is from all over Indonesia region. Besides that, I am happy to be able to share knowledge and experience. even though at first I was a little afraid that some information would be left out or wrong. but with a question and answer session it can clarify and emphasize the information that has been conveyed assisted by the head of the Tsunami Museum at that time.

D. Reliability

Reliability is the ability of software to maintain a certain level of performance when used under certain conditions. In this study is using the Zoom device in the implementation of virtual tours. Overall application of Zoom is more reliable than other apps. This is seen for several reasons. First, one of the reasons why Zoom is more reliable to use is that it is able to cover many more participants than other applications that limit participants to small groups only so that the

Zoom application offers more massive numbers. Second, zoom application also has good image quality by providing full HD video with 720p and full features such as a recorder and also a recording screen that helps in archiving documents.

In addition, Zoom is supported by good quality and clear image quality; it is very helpful in implementing this virtual tour. The importance of good quality is very helpful in taking pictures both outdoors and indoors so, this Zoom application is very reliable in this implementation. Besides, Zoom provides features like screen sharing and annotation tools, which can be useful for guiding virtual tours. Alternative virtual tour platforms: While Zoom can serve as a quick and convenient option for virtual tours, there are dedicated virtual tour platforms available that offer more specialized features and functionalities. These platforms may provide better reliability and customization options specifically tailored for virtual tours. This is also supported by the results of the committee interview: "The implementation of the Virtual Tour Museum activities was carried out smoothly, the use of quality cameras, reliable cameramen and also the use of a good application (Zoom) also suwpports when the virtual tour takes place such as supporting features in communicating with participants".

E. Functionality

Functionality describes the function of the Zoom application tool according to user needs when used in certain conditions. Focus on the display function and also the function of the application buttons in Zoom. The use of the zoom function in the virtual tour runs well as the function of the buttons in supporting the virtual tour. This virtual tour will certainly have an interaction like questions and answers so an icon for raising a hand is needed and also a screen display that supports camera images so it is important that this function runs well. According to the committee's interview results: "The function of the Zoom application is running well. The function of the image display is good and also all functional zoom devices work well, it can be seen from many participants asking questions by easily operating the buttons of this zoom device such as the symbol of raising hands to ask questions and turning on the camera when asking questions".

However, there are obstacles where zoom aplication does not run smoothly because of the internet connection. as the result, the voice connection from the committee to the participants is intermittent and also the image is unstable. This is because connectivity is the main thing in using applications like this zoom. As conveyed by the committee and also the guide that: "When this virtual tour starts from outside the Tsunami Museum, all connections and devices from this zoom work well. However, after the presenter and camera entered together into the room, there was a technical problem, namely the connection so that the images and sound did not enter the Zoom.

F. Usability

The use of software to be understood, learned, used, and interesting for users, when used in certain conditions. Zoom is an online meeting platform that has been widely used during the COVID-19 pandemic, whether for learning during school, college, or gathering virtual tours. The usability of the Zoom Virtual Tour shows a positive response, as many participants are satisfied and like this program, this can be seen from the VT Video recordings that many participants want to go to Aceh to come directly and also want to adopt this tsunami museum virtual tour in several other museums. This shows the function of the Zoom virtual tour device used in the Virtual Tour is able to represent its usefulness well and triggers others to come in terms of promoting the museum. According to the tour guide:

"By displaying that can be brought closer and further away, the use of zoom in delivering more interesting information material can be realized." In addition, the function of making this museum VT is also a means of promoting the museum during a pandemic with disaster science content such as earthquakes and tsunamis". said the committee chairman. Based on interviews with the committee as follows "It is important that the Virtual tour program is held if there is an outbreak that hits the world in the future. However, the existence of a virtual tour has not been able to replace direct visits so visitors are more interested in visiting the tsunami museum directly but this program is very reliable for conditions during a pandemic, said the head of the committee.

3.2. Responding from respondents

Data will be analyzed by using the percentage method, and the results of mean and standard Deviation. Data will be discussed below:

Tabel 1. Response to the Effectiveness of Virtual Tour in Aceh Tsunami Museum.

Descriptive Statistics		
	Mean	**Std. Deviation**
1).I have watched the virtual tour conducted by Tsunami Museum Aceh during the 2020 pandemic through the YouTube channel provided above (on Google Form)..	3.45	0.63
2). I have participated in virtual tours held by other museums/organizations.	2.71	0.86
3). Saya sudah pernah mengikuti virtual tour yang diadakan oleh Tsunami Museum Aceh selama pandemi 2020.	2.63	0.83
4). I have participated in a virtual tour organized by the Tsunami Museum Aceh during the 2020 pandemic.	3.16	0.72
5). I know how to use all the features of all Zoom apps, such as turning on the mic, camera, and commenting by typing in the comment field during the virtual tour.	3.39	0.74
6). In the 2020 Tsunami Museum Aceh virtual tour video, the organizers have conveyed information about the value of Tsunami and earthquake disasters.	3.31	0.52
7). Virtual tours can and do provide a good alternative to in-person visits to the Museum during the pandemic.	3.45	0.55
8). The organizers of the Tsunami Museum Aceh virtual tour have prepared a guide who is reliable in explaining various information about the museum.	3.38	0.54
9). The presenter of the Tsunami Museum Aceh virtual tour explained information related to the earthquake and tsunami in a systematic (sequential) manner.	3.33	0.52
10). The presenter of the Tsunami Museum Aceh virtual tour explained information related to how to respond to earthquake and tsunami disasters in a clear and easy-to-understand manner.	3.38	0.51
11). The suitability of guide's explanation and shooting was efficient and appropriate.	3.29	0.62
12). I am satisfied with the utilization of the Tsunami Museum Aceh virtual tour so that I have no problems (such as the Internet, image display, presenter, detailed information) in running the YouTube Zoom.	3.17	0.71
13). I gained a new experience in participating in virtual tour activities during restrictions from the risk of spreading Covid-19.	3.35	0.70
14). The use of virtual tours can reduce the risk of spreading Covid-19.	3.44	0.61
15). Virtual tours can be a solution to overcome social restrictions and movement restrictions during the Covid-19 pandemic.	3.40	0.61
16). Tsunami Museum Aceh should continue to provide virtual tours even though the Covid-19 pandemic has ended.	3.36	0.64
17). Virtual tour at Tsunami Museum Aceh is an alternative media that has learning on disaster value.	3.49	0.53

Table 1 shows that overall the respondents gave a positive response in this questionnaire. It appears from the table above that most of the data is above 3 points and the highest mean score is 3.49 with the statement Virtual tour at the Aceh Tsunami Museum is an alternative media that teaches disaster values. This shows that the Virtual Tour Museum is a medium for preventing

Covid-19 spread and also learning online about the value of disasters like Tsunami and Earthquake effectively to respondents. By using this Zoom Virtual Tour, it becomes easier to interact and also travel by using this Virtual tour. This virtual tour is a promotion of the Museum program but also helps in educating the people of Indonesia, especially Aceh where Indonesia is surrounded by the Ring of Fire. As a result, the VT Zoom disaster education program can be implemented even during a disaster (pandemic).

The lowest mean value is 2.6 with the statement that I participated in a virtual tour of the Aceh Tsunami Museum during the 2020 pandemic. These results indicate that many people do not know about Virtual Tour, especially at Virtual Tour Aceh Tsunami Museum. Thus, there are many functions of virtual tours that people are not yet familiar with. However, after watching this virtual tour Zoom that they feel impressed to see and watch because they are curious about it. According to Prentice (2014), there are several types of familiarity, namely informational which is related to the source of information used, experimental which is related to experience, self-rated is how familiar respondents are based on their own opinions, and the last type added by Prentice is educational, where a person's educational involvement affects their feelings of familiarity, which can be formal or informal education.

A. Informational

Informational, which is related to the source of information used, can be a source of information that comes from one source of information or comes from different sources (Prentice, 2014). Based on the processed results of the questionnaire with a population of 100 respondents and a sample of 80 people, there is a mean of 2.71 who know information about the Zoom virtual tour. In addition, this is clarified by the mean data of 2.63, almost of respondent does not know about the virtual tour Museum activities held by Tsunami Museum. On the other hand, the mean data of 3.45 indicates that participants are able to watch the video provided in the questionnaire. These participants can find out about the virtual tour museum even though this is the first time for them. This shows that there is limited information about the virtual tour event and VT program created by the Aceh Tsunami Museum for the community. There is less familiarity with the program, so not many respondents know about the virtual tour event. Even though most of the respondents are not familiar with virtual tour, but most of them understand about information regarding the use of the Zoom virtual tour which can be used to follow/access the features of the Zoom virtual tour as shown by mean data 3.39. This is driven by Zoom, which is often used during a pandemic known by 90% of productive age respondents from 20-40 years. From the processed results of the questionnaire above, it can be seen that the majority of the public do not recognize much about the virtual tour event held by the tsunami museum. However, the majority of respondents know about Zoom use.

B. Experimental

Experimental is the respondent’s experience participating in virtual events, whether it is the first time or as a repeater or repeated experience (Prentice, 2014). From the 80 respondents, there is a mean of 3.45 respondents having experienced both the first time and several times having participated in virtual tour event activities. From mean 3.16 easily access the Zoom virtual tour application without any obstacles. This is because many have participated or in Zoom meetings for other purposes such as conferences, training, and lectures. Based on the results of this data, it can be seen that the majority of respondents have participated in virtual event activities 1 time or more.

From a mean of 3.29, the respondent's experience said that the suitability of the image and information was quite efficient and appropriate. In addition, some data collected from the comments on virtual tour on YouTube Aceh Tsunami Museum that some participants, who took part in the virtual tour for the first time, were interested in coming directly to Aceh Tsunami Museum to see and feel.

C. Self-Rated

Self-rated is how familiar the respondent is based on the respondent's own perspective (Prentice, 2014). Based on the processed results of the questionnaire, there is a mean of 2.71 respondents who have not seen the Virtual tour zoom before. On the other hand, after being given a video of the Virtual tour which has been provided by the committee in Google form, there is a mean of 3.45 stating that they are familiar with the virtual tour event. Regarding the software (Zoom Application) used, the majority of respondents stated that they were familiar with the percentage of the mean of 3.39. In addition, with a mean of 3.35 respondents gained many new experiences from participating in the Virtual Tour of the Tsunami Museum. It can be seen that the majority of respondents considered that they were familiar with the Zoom virtual tour that was shared, but it's just that there were still some respondents who were still in doubt regarding their knowledge of the virtual tour event. Furthermore, there is a mean of 3.44 respondents who stated that the use of virtual tours organized by the Tsunami Museum can reduce the risk of spreading Covid-19 during social distancing. Besides, there are 3.17 mean that most respondents are satisfied with the utilization of the Aceh Tsunami Virtual Tour such as the internet and images. In addition, there are comments taken from the YouTube Virtual Tour Museum. Some participants shared this VT experience as a reference to be implemented in their workplace (Museums in Indonesia).

D. Educational

Educational is a person's educational involvement that affects their feelings of familiarity with virtual tour events. This can be in the form of formal or informal education (Prentice, 2014). Based on the results of the processed questionnaire, the majority of respondents with a mean of 3.38 stated that the guide conveyed knowledge/information about disasters clearly and easily the Earthquake and Tsunami in the virtual tour. From the mean of 3.49, the majority of respondents stated that the Zoom virtual tour at the Tsunami Museum was not only learning the value of disaster. It was an alternative to learning at the Tsunami Museum during the pandemic.

Most of the respondents with an average score of 3.36 stated that learning about disasters organized by the Tsunami Museum was not only limited to the pandemic period but could continue into the future even though the pandemic had ended. From the mean 3.33 respondents got information from the first room of the tsunami hallway to the other rooms gradually guided by a professional guide by inviting the audience to feel the atmosphere of the Tsunami Museum. Thus, there is the value of disaster education to at the last room of Tsunami Museum namely the evacuation space located on the rooftop of the tsunami museum. In addition, there are several comments taken from the YouTube Virtual tour of Aceh Tsunami Museum that many people just found out that the function of the Museum is not only for disaster education and exhibitions but also for evacuation in the event of tsunami in the future.

3.3 Effectiveness of Virtual Tour

According to informants, the level of expertise demonstrated enhanced the delivery of virtual tour details, resulting in an enjoyable, educational, and thorough experience. From the results of the respondent's responses to the question "Virtual tour at Aceh Tsunami Museum is an alternative media that has learning on disaster values. Figure 4 below illustrates the process in diagram format.

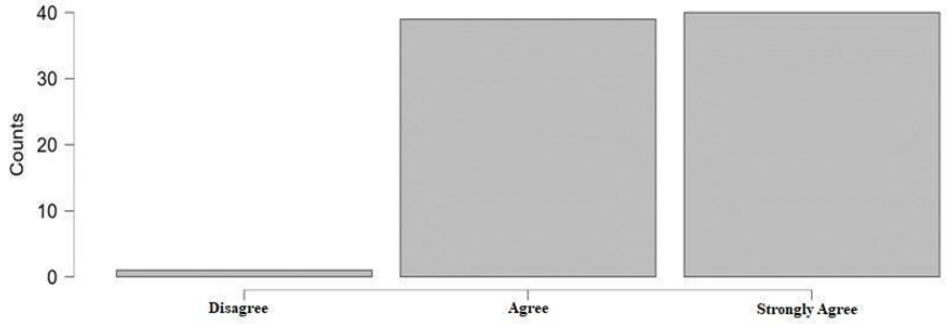

Figure 4 diagram of the effectiveness of Virtual Tour as a media to promote disaster value. The diagram above shows that respondents stated that Virtual Tour Zoom was effective at 99%, while respondents who disagreed were around 1%. In fact, there is a mean result of 3.36 indicating that respondents want virtual to continue to exist if the pandemic is over. Furthermore, virtual tour has encouraged to develop innovative ways to engage audience to come the museum. In the tourism, hospitality, and real estate sectors have leveraged virtual tours as a powerful marketing tool. It is not only safety and convenience to explore different locations without the need to travel physically but also virtual tours have been extensively utilized by educational values about disaster management to enhance remote learning.

3.4 Obstacles in Virtual Tour Implementation

There were several obstacles/ challenges that occurred during the implementation of the 2020 tsunami museum virtual tour include:

1) Limited Immersion: participants may not be able to fully engage their senses, missing out on the authentic experiences that come with physically visiting a location.
2) Lack of Physical Interaction: Virtual tours conducted through Zoom generally lack the opportunity for physical interaction with the surroundings or objects being showcased. Participants are unable to physically touch, feel, or actively explore the space.
3) 3). Lack of stable internet connection which made several obstacles occur during event.
4) This is what the committee AY said that:

"In general, the implementation of virtual tours is smooth, but in my opinion, there are a number of things that must be considered, especially the internet. The lack of network stability makes the image and sound in the video a little disjointed during implementation. This network limitation makes comfort also disturbed.

4. CONCLUSION

Based on the discussion of the issues raised, the results show that virtual tours can be used as an alternative for people to travel during the COVID-19 pandemic. This technology allows people to be able to travel without having to be at a tourist attraction. Although many of the participants had just known about Virtual Tour, it was a first-time experience for them. In addition,

virtual tours during a pandemic are not only interesting and new but it can also help the government in implementing physical restrictions and social restrictions because these activities do not cause crowds because they can be accessed privately. Moreover, the value of disaster can also be acquired informally through the Tsunami Museum combined with technology such as virtual tours during Covid-19. The results or findings from existing research at the tsunami museum mention the interest of visitors which is quite high and is expected to be the basis for programs and sustainable development in the field of tourism in Banda Aceh. Apart from being an alternative to traveling, Zoom virtual tour can also be developed as a means of promoting destinations in Banda Aceh city in general.

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