

# **Virtual Tour “*Batik Tiga Negeri*” As Innovation of Tourism Sustainability During the Outbreak of Covid-19 In Lasem, Rembang, Indonesia**

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## **Abstract**

The Pandemic of Covid-19 affects several sectors, mainly tourism. The tourism entrepreneur should innovate and adjust to the current situation. It is necessary to maintain the sustainability of his enterprise. However, the number of visitors declined dramatically, but the tourism products can be sold online. Lasem, situated in Rembang Regency in Central Java, has some cultural tourism potential, especially the local creation of *Batik Tiga Negeri* (three Countries Batik). This study aims to describe the virtual tour of *Batik Tiga Negeri*, initiated by a Lasem heritage foundation collaborate with tourist agency, and the effect of its innovation in maintaining the sustainability of cultural tourism in Lasem. Three categories of social resilience based on Keck and Saktapolrak's theory were used to analyze this result. This study found that (1) the virtual tour of *Batik Tiga Negeri* narrates the story of its batik and the process of colouring Lasem Batik in three areas so that it might attract the virtual tourists to donate as they wish; and (2) the contribution of tourists could help the sustainability of the batik maker in Lasem. The batik makers faced a declined income during the pandemic.

## **Keywords**

Innovation, Virtual Tour, Tourism Sustainability, *Batik Tiga Negeri*, and Covid-19.

## **1. Introduction**

The outbreak of Covid-19 has mainly decreased the economic sector mainly in tourism between 2020 and 2021. Most of countries close the foreigner visit and forbid its inhabitants to go to overseas. This similar policy is also taken by Indonesia, where the foreign tourist visit is limited or forbidden. This affects to the decline of International and domestic visitors (Afriana and Widiyanto 2021). The mobility of domestic tourist is limited and even static because of the locked-down policy in many provinces and cities, in the form of PSBB (*Pembatasan Sosial Berskala Besar* or Large Scale Social Restriction) and PPKM Mikro (*Pemberlakuan Pembatasan Kegiatan Masyarakat* or Public Activity Restriction Implementation). These data show the significant decline on the foreign tourist visit to Indonesia in 2020 and 2021 based on Central Bureau of Statistics, as in:

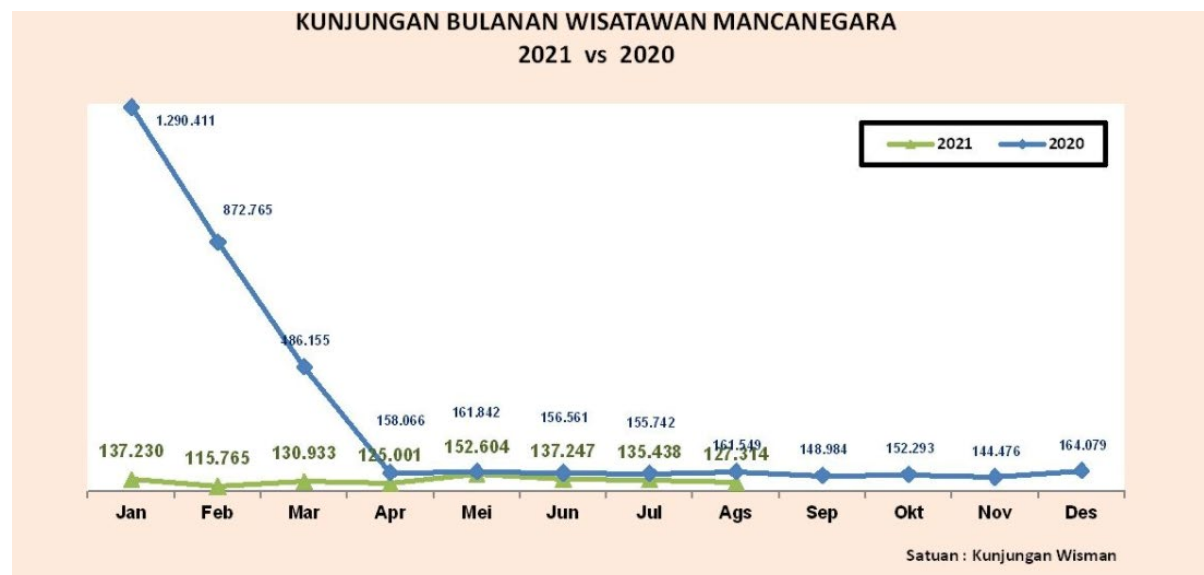


Figure 1. The number of foreign tourists in Indonesia  
Source: (BPS, 2021)

In general, the arrival of foreign tourists in 2021 has decreased compared to 2020. The increase in Covid-19 cases is one of the reasons for the decline in foreign tourists. Furthermore, complicated travel requirements becomes another reason. Prospective tourists are required to pay more to carry out a series of Covid-19-free tests. This also applies to domestic tourists. In Bandung, the pandemic situation affects the tourism sectors. Therefore, several stakeholders in Bandung require comprehensive and sustainable efforts, for example by communicating and coordinating between the city government and tourism business actors. The recovery of the tourism sector requires adaptation in policies and strategies. Some efforts that can be done, such as, the city government seeks an easing policy for tourists or tourism promotion that is continuously carried out by tourism business actors (Herdiana 2020).

Comparative studies in some tourism attractions, for instance The Bromo Tengger Semeru National Park (TNBTS) and the Savana region of Ghana areas, are also experiencing similar problems. Communities in the TNBTS area are trying to condition so that the impact of Covid-19 can be minimized, therefore there is a need for innovation to immediately be able to restore such conditions. Wulung (2021) explains that Covid-19 has both positive and negative impacts to TNBTS area. The positive impact is to force people to innovate and create new strategies in terms of marketing tourist destinations. The goal, after the pandemic is over, aims to attract the tourists to visit the TNBTS area. On the other hand, the community in the area also improves hygiene, health, safety, and environmental sustainability so that potential tourists believe in visiting TNBTS. In the Savanna region of Ghana, people who depend on tourism have lost their livelihoods. Most of the community returned to their previous livelihood, namely farming to survive during the absence of tourist visits. A short-term solution, the government needs to step in to solve these problems by providing severance pay to affected residents. Meanwhile, the long-term solution needs to be to create diverse job opportunities for the people who live around the Ghanaian Savanna tourism area (Soliku et al. 2020). TNBTS and Savana Ghana do not have a strategy so that tourism can still exist during the pandemic.

In Lasem, Rembang Regency, it has also experienced the impact of the Covid-19 Pandemic. Tourist destinations in Lasem, which are usually visited by tourists, have become deserted since the pandemic hit. This has an impact on the livelihoods of the Lasem batik artisans, who are elderly workers with daily wages. A group of young people in Lasem who are members of the Lasem Heritage Foundation and Kesengsem Lasem adapts to this condition. They collaborate with the travel agents, namely traval.co, to provide virtual tourism alternatives for tourists. The tourist attraction that is appointed is the virtual tour of *Batik Tiga Negeri*, which is the typical batik of Lasem.

### 1.1 Objectives

The innovations made by the Lasem people are interesting to be investigated further. Therefore, this study will discuss the virtual tour of *Batik Tiga Negeri* and its contribution to Lasem batik in the Covid-19 era.

## **2. Literature Review**

This section discusses (1) tourism adaptation and virtual tourism' application and (2) social resilience theory as the strategy of tourism sustainability.

### **2.1 Tourism Adaptation and Virtual Tourism Application**

The pandemic situation forces the tourism actors to adapt in order to survive. One of the adaptation is to look for another work due to the decrease of visitors. Sing et al. (2021) explains that the locked down policy during the pandemic determines the tourism sector in Kashmir Valley, India. During 2020, the number of visitors decrease significantly, therefore tourism stakeholders abandon their works and try to find available work in their areas. Lower class society encounters significant impact. They should know the pandemic effect earlier so they could recover tourism sector in Kashmir. In Ghana, the government has long-term and short-term policies to encounter the pandemic situation (Soliku et al. 2021). Sing et al. (2021) and Soliku et al. (2021) have similar finding that all tourism stakeholders change their works soon to adapt the pandemic situation. However, they did not explain any innovation in the field of tourism sector. Afriana and Widiyanto (2021) point out that the tourism actors in Dieng, Central Java have closed all tourism attraction until they could adapt new habit to re-open tourism destination in Dieng. They hope that they could recover tourism sector after adapting to the new situation.

Herdiana (2020) argues that government engagement in term of policy is needed to recover tourism sector. Government and tourism actors should coordinate to recover tourism. She also argues government should issue internal policy of disaster management dan capacity building of organization; and external policy of tourism relaxation policy and tourism promotion. Gegung (2021) suggests the use of virtual reality (VR) to sustain tourism during the pandemic. VR could direct the visitors to feel the real nuance in the tourism destination. VR could give income for tourism actors and is conducted virtually therefore VR could also minimize the spread of the outbreak of Covid-19. Lu et al. (2022) argues that the use of VR in China during the pandemic could entertain and persuade people to visit their tourism destination after the pandemic ends. VR also helps to promote tourism destination and sell tourism souvenir virtually during the pandemic. In the environment sustainability, VR also encourages the decrease of carbon emission after the mobility of tourist transportation reduces significantly.

Yang et al. (2021) points out that the use of 360° virtual tour could decrease stress, caused by the pandemic. According to a survey from 235 people, telepresence by 360° virtual tour could satisfy the virtual tourists. When attending the virtual activity, the virtual tourists could see all tourism destinations via their gadgets.

### **2.2 Social Resilience Theory**

The Covid-19 pandemic is the crisis situation forcing all social elements to be able to cope and adapt with the situation. This social phenomena could be seen from social resilience theory. Adger (2000) argues that social resilience is the social capability to handle the external threat or social-economic-political-environmental changes which change social structure. Maguire and Hagan (2007) describe social resilience as personal, communal, and social effort to adapt, transform, and have potential to be stronger when encountering environmental, social, economic, and political challenge. Keck and Sakdapolrak (2013) define social resilience as an ability to respond, an idea from learning and adaptation, and the pivotal role of power, politics and participation in the static situation. They also elaborate the capacity in social resilience into three indicators of coping, adaptive, and transformative capacities. Coping capacities measure how the society could cope any challenge by utilizing their supporting sources. Adaptive capacities are proactive activities when the society learn from their experience, anticipate the future risk, and have ability to adapt in their works during uncertain condition. Transformative capacities are the capability to access sources and aid from larger social-political networks, for instance formal and informal institution. In addition, Maclean et al. (2014) develop six indicators of social resilience of (1) knowledge, skills, and learning; (2) community networks; (3) people-place connection; (4) community infrastructure; (5) diverse and innovative economy; and (6) engaged governance. Those indicators are identified from various sources in the Wet Tropical Region of North Queensland. Therefore, multi-stakeholders partnership is encouraged to sustain its social resilience.

Those three indicators, based on Keck and Sakdapolrak's theory prioritize social capability to cope with their uncertainty. Therefore, the researchers used it to analyze the innovation of Lasem people to sustain tourism in Lasem during the pandemic.

### 3. Methods

This study used descriptive-qualitative method. We analyzed the data using the social resilience theory introduced by Keck and Sakdapolrak (2013). They explained that social resilience is the ability of individuals, communities, or organizations to tolerate, absorb, overcome, and adapt to various types of environmental and social challenges. Social resilience is often associated with the ability to survive in crisis conditions, both in crisis conditions due to natural, non-natural, and social disasters. Social resilience has three dimensions to explain that individuals, organizations, or communities have social resilience. The three dimensions include: (1) coping capacity, namely the ability to adapt and get out of a crisis situation; (2) adaptive capacity, namely the ability to adapt in the event of a similar crisis situation in the future; (3) transformative capacity, namely the ability to build networks that can help individuals, organizations, or communities to get out of crisis conditions and be able to recover themselves. This theory would be used as a framework for explaining the virtual innovation of the *Batik Tiga Negeri* tour as an effort to sustain cultural tourism in Lasem District, Central Java, Indonesia. There are some stages of social resilience dimension, used to analyze further, as follow: in Table 1.

Table 1. Three Capacities of Social Resilience

	<b>Coping Capacities</b>	<b>Adaptive Capacities</b>	<b>Transformative Capacities</b>
<b>Response to risk</b>	Ex-post	Ex-ante	Ex-ante
<b>Temporal scope</b>	Short-term	Long-term	Long-term
<b>Degree of change</b>	Low, status quo	Medium, incremental change	High, radical change
<b>Outcome</b>	Restoration of present level of well-being	Security of future well-being	Enhancement of present and future well-being

Source: (Keck and Sakdapolrak, 2013)

### 4. Data Collection

The data were collected by observing the batik virtual tour held by Lasem Heritage Foundation, Kesengsem Lasem, and traval.co. We also observed social media of Kesengsem Lasem and traval.co, and gathered some secondary information from online newspapers related to the *Batik Tiga Negeri* virtual tour. In this study, the researchers chose the informants by purposive sampling. We found the key informant who became a host in the virtual tour of *Batik Tiga Negeri* as member of Lasem Heritage Foundation. The key informant recommends other informants who could give further information. Those were some speakers in the virtual tour of *Batik Tiga Negeri*. Three speakers are the owners of batik houses of Maranatha Ongs; Kidang Mas Lasem; and Lumintu. All informants in this study did not use the real names. There are some informants and source of information to gather the research data, as follow in Table 2:

Table 2. Informant and Source of Information for Research Data

<b>Initiator</b>	<b>Social Partner</b>	<b>Governmental Partner</b>	<b>Technological Partner</b>
The members of Lasem Heritage Foundation and Kesengsem Lasem	The Batik's house of Lumintu	The ministry of tourism and creative economy	PT. Traval Tujuh Samudra (Traval.co)
	The Batik's house of Kidang Mas		
	The Batik's house of Maranata		

Source: (Researchers, 2021)

### 5. Results and Discussion

The virtual tour of *Batik Tiga Negeri* is organized by Lasem Heritage Foundation, Kesengsem Lasem, dan traval.co. The virtual tour not only directs the virtual visitors to see the destination objects using the 360° VR, but also explains the history of *Batik Tiga Negeri*, process of colouring the batik, and Lasem batik. This virtual tour is held tentatively and guided by a host. Each speakers explain the history of their batik houses and the process of colouring batik in three colours of red, blue, and brown. The virtual tour of Lasem batik entertains cultural and historical tourism enthusiasts during the pandemic. In line, Lu et al. (2022) and Yang et al. (2021) agree that virtual tour spread happiness to people when they are staying at home and decrease people's stress during the pandemic. The virtual tour of *Batik Tiga Negeri* is an innovation conducted by the tourism actors in Lasem to keep surviving during the pandemic.

## **5.1 The Strategy of Community in Lasem as Coping Capacity**

The Covid-19 Pandemic condition results in a significant decrease in the number of tourist visits in Lasem. All tourism actors, for example: tour guides, hotels, tourist attractions are affected. The group most affected by this condition are the Lasem batik makers, because they are elderly mothers who receive daily wages. When there are no batik sales due to empty orders, the batik workers do not work. Due to the uncertainty of the Covid-19 pandemic, Lasem batik artisans will increasingly experience welfare vulnerabilities. Therefore, young people who are tourism actors in Lasem, the Lasem Heritage Foundation and Kesengsem Lasem make innovations by organizing virtual tours. One of the founders of Kesengsem Lasem in the virtual tour said that: "...during the pandemic, Lasem batik experiences a decline of demand and even does not get an order. This condition threatens the batik makers and leads them to leave their job..." (AM in the virtual tour June 21, 2020). In line with the statement of AM, R explains that: "...in the early of Covid-19 pandemic, the batik selling decrease. I have 30 inner batik makers and 60 freelance batik makes. Due to the pandemic situation, I decide to reduce half of my workers to survive during the pandemic..." (Interview with R on November 28, 2021).

In building a resilience, Sharma et.al (2021) acknowledge that there are four determining factors, including: (1) government response; (2) technology innovation; (3) local belongingness; (4) consumer and employee confidence. In the case of historical and cultural tourism in Lasem, local belongingness has a major role in encouraging tourism actors to innovate for sustainable tourism in Lasem. The second factor is technology innovation, tourism actors dare to use digital technology in packaging their tourist attractions. These two factors are the key factors for Lasem tourism actors to be able to overcome this crisis problem.

According to Keck and Sakdapolrak (2013), coping ability is an ability to overcome challenges as soon as possible by utilizing existing resources. This capacity is short term. All tourist destinations are not able to cope with the situation during the pandemic, for example, marine tourism. Arumsari and Yoshinta (2021) explain that souvenir sellers at the marine tourism of Parangtritis Beach, Yogyakarta and Kuta Beach, Bali, complain on this condition. They have no income, so they have to change their livelihoods to become farmers, fishermen, seaweed farmers, and antiseptic gel makers. In line, Laksmi Singh et al. (2021) states that tourism in the Indian Kashmir Valley experiences a slump during the Covid-19 pandemic. Communities whose livelihoods depend on tourism must change their livelihoods to survive during the pandemic. Meanwhile, in contrast to Lasem, historical and cultural potential is a tourist attraction that can be utilized in this condition. The advantages of historical and cultural tourism, compared to marine tourism, historical and cultural tourism have stories of how the social, economic, political life of the people in the past formed the culture of the community to this day. An old building, art, customs, and cultural artifacts, each of which can be told orally to visitors either in person or virtually. Accordingly, the stakeholders of tourism do not need to change their livelihoods. The groups succeed to utilize their livelihood assets. Baiquni (2007) mentions five livelihood assets, consisting of human, social capital, natural capital, physical capital, and financial capital. The stakeholders of tourism in Lasem have human sources in which human beings have knowledge, skill, and capability to struggle for their life. Some of the historical and cultural potentials that become tourist attractions in Lasem, among others: (1) Ancient houses with Chinese architecture; (2) places of worship that have historical stories as symbols of tolerance in Lasem; (3) inter-ethnic community life that is mutually tolerant; (4) Batik Lasem which is called *Batik Tiga Negeri*; (5) The Opium House; (6) Lasem special foods; and (7) some nature tourism. Each tourist attraction has an interesting historical background to reveal, and Lasem tourism actors seize this opportunity. Therefore, they chose one of the interesting tourist attractions that could also help raise the livelihoods of the Lasem batik artisans, namely the *Batik Tiga Negeri* attraction. The stakeholders of tourism utilize cultural resources, *Batik Tiga Negeri* as a virtual tourist attraction in virtual tour activities.

"...*Batik Tiga Negeri* is chosen as the tourism attraction object because the virtual tour organizers have already studied all about the batik. Therefore, the organizers could tell the story chronologically and deeply. This story-telling could attract the virtual visitors. The virtual tour should also able to direct the visitors to interpret the tour, so the prospective visitors could have curiosity to join the tour. And, for us, the tour is interesting to be raised in the virtual tour..." (Interview with Y on November 28, 2021). "...the activity of the virtual tour of *Batik Tiga Negeri* helps to sell our batik during the pandemic. In my opinion, the virtual tour also increase the number of the batik sale during the pandemic..." (Interview with R on November 28, 2021).

*Batik Tiga Negeri* is still produced by the batik house in Lasem. Lumintu Batik House, Maranatha Batik House, and Kidang Mas Batik House are ancient batik houses that are hundreds of years old. The Lumintu Batik House, mentioned by Malagina (2019) is 200 years old, which is currently run by Ekawatiningsih who is familiarly called Eka. She

started to continue her family's batik business in 2016. “.....I do not continue my parent's batik enterprise because I work in a big city in Java. However, around in 2000, I want to continue this enterprise because I do not want to see my parent's enterprise stops. So, I come back to Lasem and continue my parent's enterprise .....” (Interview with E on August 20, 2019).

The batik business in Eka's family was started by her grandfather and then continued by her mother's sister. He is the third descendant who continues the batik business in the same house occupied by his grandfather. In addition to stories about *Batik Tiga Negeri*, stories about batik houses are an interesting attraction for virtual tourists. Between the batik house and his work, *Batik Tiga Negeri*, there is a continuous story, so this is the power of the virtual tour. The stakeholders of tourism in Lasem are tour guides when Lasem is visited by tourists so that this becomes an excess of strength for Lasem. The virtual tour is guided by some tour guides who are members of the Lasem Heritage Foundation as well as residents of Lasem.

The solidarity of the members of Lasem Heritage Foundation is social capital to cope the problem during the pandemic. They have a solid solidarity among the members and curiosity to learn the new thing. Wulandari et al. (2020) argue that Lasem Heritage Foundation empowers their members by working with academician and practitioner to organize the learning clinics. The learning material is how to preserve Lasem therefore becoming the cultural tourism object which is widely known by mass society.

## **5.2 The Batik Tiga Negeri Virtual Tour as Adaptive Capacity**

Adaptive capacity is the ability to act proactively, leveraging past experiences to anticipate future risks. This ability is long-term, because the community, individual, or organization has successfully overcome the crisis. So that adaptive capacity helps individuals, communities, or organizations to maintain their welfare (Keck and Saktapolrak 2013). Tourism actors in Lasem properly determine which people are the weakest affected by the pandemic, so that solutions are generated based on the problems they face. The virtual tour of *Batik Tiga Negeri* is one of the cultural tourism attractions that can be used as a commodity. If in the future the Covid-19 pandemic or other crisis conditions hit tourism in Lasem, then tourism actors there can take advantage of other potentials in virtual tourism activities.

“.....actually the appointment of this object, also helps the sustainability of the batik makers, because in the end of the virtual tour, the host promotes the Lasem batik in the form of mask, prayer rug, *mukena*, scarf, and batik cloth. He also invites the virtual visitors to shop. After the activity, the committee get huge profit after selling some products...” (Interview with Y on November 28, 2021). The *Batik Tiga Negeri* virtual tour tells about the history of the batik coloring process in three areas in Central Java, namely: Lasem, Pekalongan, and Solo. The red color in Tiga Negeri Batik was colored in Lasem, because the red color in the 17-19 centuries could only be colored in Lasem. The red raw material, namely noni fruit, can only be processed by the Lasem people. The red color of Lasem is called the red color of chicken blood, this color also symbolizes the Chinese ethnicity. Initially, at that time the Lasem Batik entrepreneurs were Chinese (AM in the virtual tour, 21 June 2020). Then, the blue color can only be colored in Pekalongan. So, after finishing red, the batik cloth was sent to Pekalongan. The blue color symbolizes the Dutch ethnicity, which in the 17-19 centuries Indonesia was under the Dutch colonial government (Kwan in Eddyhasby 2021).

Furthermore, the brown coloring process which is also known as “soga” is carried out in Solo. In the 17-19th centuries, the best brown color could only be colored in Solo (EK in virtual tour 21 June 2020). Kwan in Eddyhasby (2021) points out that in the Laweyan area, Solo is a place for brown coloring. This brown color symbolizes the Javanese ethnicity. Therefore, *Batik Tiga Negeri* is a batik that describes the tolerance between ethnic Chinese, Dutch, and Javanese during the reign of the Dutch East Indies. The virtual tour activity also tells the history of the ancient batik house in Lasem. “..... the colour of *Batik Tiga Negeri* consists of three colours of chicken-blood red representing Lasem, blue coming from Pekalongan, and brown coming from Solo. These colours have meaning and values describing how people interact in Java. From historical perspective, the 17<sup>th</sup>-19th centuries Indonesia encountered European colonization, and in Lasem, there were some people residing there. (1) Javanese; (2) Chinese; (3) Dutch. Those people are represented in the colours of *Batik Tiga Negeri*, red for Chinese, brown for Javanese, and blue for the Dutch....” (AM in the virtual tour on June 21, 2020).

On the virtual tour, the batik houses that become the tourist attractions are the Maranatha Batik House, Lumintu Batik House, and Kidang Mas Batik House. The house of Batik Kidang Mas, represented by R, tells the history of the batik business and how to use batik cloth as fashion. They also invites virtual tourists to practice how to use batik cloth, especially the Tiga Negeri Batik cloth.

In the virtual tour of *Batik Tiga Negeri*, at the end of the activity the tour guide invites tourists to shop at the virtual market, the Lasem People's Market. In the market, there are food, batik crafts, and handicrafts made by the people of Lasem. This is part of the adaptive capacity of tourism actors, even though virtual tours are carried out at certain times, sales of Lasem MSME (Micro Small-Medium Enterprise) products are still running. Furthermore, initially this virtual tour activity charged a sincere fee to tourists. However, due to the positive interest of tourists, the next virtual tour activity is charged Rp 90,000 per person.

### 5.3 The Networking of Community Tourism in Lasem as Transformative Capacity

Transformative capacity is described by Keck and Sakdapolrak (2013) as the ability to network with institutions or the ability to access assistance from the wider socio-political arena. This ability not only helps to get out of crisis conditions, but also is able to increase welfare in times of crisis. The stakeholders of tourism in Lasem take advantage of the pandemic opportunity by building connections with travel agents, namely *traval.co*. *Traval.co* is a travel agency that is technology literate and able to adapt during a pandemic. This platform is organized by PT. *Traval Tujuh Samudra* conducting trip virtually. Theoretically, cooperation among multi-stakeholders (in my case of study consists of Lasem Heritage Foundation, Kesengsem Lasem, and *traval.co*) could be seen as a community network which support each other so they could be able to encounter the uncertain condition (Pfefferbaum 2013; Maclean et al. 2014); Alshehri 2015; and Kwok et al. 2016. They continually engage and communicate to reach the shared purpose, which is the virtual tour event (Kulig et al. 2013; Saja et al. 2019; Sweya et al. 2021). On the other hand, the website of *traval.co* could be accessed in the link of <https://traval.co/home>. They not only network with the Lasem Heritage Foundation and Kesengsem Lasem, but also with other heritage tourism attractions in Indonesia, such as: (1) Potehi Wayang, (2) Kujawas Mollo Lakota, (3) Lepo Lorun Maumere, (4) Penyengat Heritage Island, (5) Sumba Weaving Exoticism, (6) Major House of Bangka, and (7) Jabu Sihol Heritage (kesengsem lasem, 2020). The *Batik Tiga Negeri* virtual tour schedule is provided several times every two weeks for 2 months on the *traval.co* website. Virtual tourists can freely choose the itinerary they want. Virtual tour activities are held every weekend (*traval.co*, 2020). Lasem tourism actors build networks with institutions, both public and private, so that the *Batik Tiga Negeri* virtual tour package is also held if there are government or private parties willing to sponsor. For example, on October 2, 2020 as a commemoration of national batik day, the Indonesian Ministry of Tourism and Creative Economy held a virtual tour of *Batik Tiga Negeri* in collaboration with the Lasem Heritage Foundation, Kesengsem Lasem, and *traval.co*. Activities are held through zoom meetings and live youtube. Live youtube takes place when the virtual tour at the zoom meeting takes place, then live youtube is deactivated. This is a strategy from Lasem tourism actors, so that in the future the *Batik Tiga Negeri* virtual tour can still be an attractive virtual tourist attraction commodity due to limited access (Pesona Indonesia Youtube Channel 2020).

Table 2. The theory of social resilience based on Keck and Sakdapolrak (2013) in the case of virtual tour *Batik Tiga Negeri*

No	The Main Actors	Coping Capacity	Adaptive Capacity	Transformative Capacity
1	The member of Lasem Heritage Foundation and Kesengsem Lasem	<ol style="list-style-type: none"> <li>1. The idea to organize virtual tour</li> <li>2. Knowledge about history of <i>Batik Tiga Negeri</i></li> <li>3. Empowering the house of ancient batik in the virtual tour.</li> <li>4. Engaging the batik house to make batik products which appropriate with the necessity during the pandemic.</li> </ol>	<ol style="list-style-type: none"> <li>1. <i>Batik Tiga Negeri</i> as a commodity.</li> <li>2. Promoting and selling batik products, batik handicrafts, and culinary in Lasem in the end of the virtual tour.</li> </ol>	<ol style="list-style-type: none"> <li>1. Cooperation with academicians.</li> <li>2. Cooperation with tourist agency to organize the virtual tour.</li> <li>3. Cooperation with the ministry of tourism and creative economy as one of the sponsorships to organize the virtual tour.</li> </ol>

Source: (Researchers, 2022)

### 5.4 The Contribution of Virtual Tour *Batik Tiga Negeri* for The Tourism Actors in Lasem

The virtual tour of Lasem batik during the pandemic gives remarkable experience and income for the tourism actors in Lasem. This activity trains tourism actors, especially Lasem Heritage Foundation to learn how to cope crisis condition which becomes barrier to develop tourism globally. This lesson learned gives experience for them, that if the same and unpredictable condition happens in the future, Lasem Heritage Foundation have the capability to organize the virtual tour with other destination in Lasem. It is also discussed by one of Lasem Heritage Foundation members: "...virtual tour of *Batik Tiga Negeri* makes us learn to survive during the pandemic. In the future, we have many vision and plan to organize other virtual tour with different destination. However, there is an obstacle, like other destinations are still needed to be studied therefore we could use it as an interesting story telling in the virtual tour..." (Interview with YA 28 November 2021).

In other side, the tourism actors also have a profit from virtual tour. The virtual tour of *Batik Tiga Negeri* provides several advantages for tourism actors in Lasem and Lasem batik, namely by selling virtual tour tickets, tourism actors in Lasem have income during the pandemic, besides that part of the income is given to house of Batik Lasem. The sale of batik increasing in the end of virtual tour also helps the batik makers to survive and work in the batik house. Most tourists are interested in buying mahakan products, batik products and their derivatives, and handicrafts through virtual markets. Batik products that are adapted to the needs of the pandemic, such as *Batik Tiga Negeri* masks attract tourists to buy them. The demand for batik products automatically maintains the livelihoods of the batik artisans who work in the batik house in Lasem.

## 6. Conclusion

The Covid-19 pandemic has paralyzed the world's tourism sector, including in Indonesia. Lasem District, Rembang Regency, Central Java Province, Indonesia which is recently promoted as historical and cultural tourism was affected by the pandemic. The absence of tourist visits in Lasem, result in the decrease of the batik sale so that the welfare of Lasem batik is threatened. The stakeholders tourism in Lasem who are members of the Lasem Heritage Foundation and Kesengsem Lasem have local belongingness to their area. This is a spirit for tourism actors in Lasem to cope this problem. They utilize the resources in Lasem as a commodity in maintaining sustainable tourism. This effort is the coping capacity of tourism actors in Lasem. The tourist attractions and history are used as the resources to attract the visitors. Adaptive capacity of tourism actors is the idea of a virtual tour of *Batik Tiga Negeri*. They choose one of the cultural tours where the perpetrators are mostly affected by the pandemic (old Lasem batik makers with daily wages). The virtual tour combines between technological innovation and Lasem tourism actors, as a result of collaboration with travel agents, namely travel.co. The virtual tour activity tells the history of the three basic colors of Lasem batik and the ancient batik house which is still operating. In the virtual tour, the tour guide offers tourists Lasem MSME products in its virtual market, namely the Lasem People's Market. The transformative capacity in this innovation is that tourism actors have the courage to network with various parties, such as: (1) travel agents; (2) government institutions; (3) private institutions in the implementation of virtual tours. The *Batik Tiga Negeri* virtual tour contributes to the sustainability of tourism actors in Lasem, especially the Lasem Heritage Foundation and the Lasem batik artisans.

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