

## Conference Paper

# Design of a Virtual Tour as a Solution for Promoting the Tourism Sector in the Pandemic Period

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**Abstract**

The COVID-19 pandemic has had a significant impact on the tourism sector. Tourism businesses must adapt to new conditions and rearrange their promotional strategies so that they can survive in the new normal era. Since the pandemic started spreading in early 2020, the Government has recommended a new promotional initiative for the tourism sector through the use of technology that can be accessed remotely via the internet. One of these approaches is the presentation of virtual tourism in various ways to strengthen the brand and promote tourism, for example, through virtual reality. The aim of this research was to increase tourist visits to Kajoetangan Heritage Village through applying technology to create a virtual tourism portal application, thereby raising the attractiveness of thematic village tourist destinations in Malang City. Using the virtual reality design as a form of marketing communication could be an alternative solution to tourism promotion during the pandemic. A Research and Development approach was used in this study in the following order: (1) conducting product analysis to be developed; (2) developing initial products; (3) expert validation and revision; (4) small-scale field trials and product revisions; (5) field trials and final product. The results from the field test showed that users can gain awareness about tourism activities through this virtual reality product, which can therefore be effective in supporting tourism promotion during the pandemic period.

**Keywords:** virtual reality, COVID-19

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Malang is an area that has many tourist attractions. There are natural tourism, thematic village tours, culinary and shopping tours as well as artificial tours that are continuously being developed. In the framework of supporting Creative Cities, the Government of Malang City creates Thematic Villages in almost every region. Several Thematic Villages that were created because of the ideas of the community have now become tourist destinations and bring benefits to the community. One of the most potential creative villages is the Kajoetangan heritage village.(Kampoeng heritage Kajoetangan)

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The corona virus outbreak that has been designated by the World Health Organization (UN) as a global pandemic has spread to almost all countries in the world. The SARS-CoV-2 virus that causes COVID-19 has spread since the end of December 2019. A number of countries are just starting to approach the peak of the pandemic, such as in Indonesia, The outbreak of the new corona virus or Corona Virus Disease 2019 (COVID-19) is increasingly felt in the domestic economy, especially in terms of consumption, corporations, the financial sector, and Micro, Small and Medium Enterprises (MSMEs). Not least that, the tourism sector has also experienced quite a massive impact.

The COVID-19 pandemic has hit the tourism sector massively. The tourism sector, which absorbed a lot of jobs, was badly hit due to the COVID-19 pandemic. While it is difficult to predict when the pandemic will end. However, the tourism industry must continue and enter a new normal era. The new normal era brings new roles, new roads and expectations in the tourism sector. Digitalisation is growing rapidly beyond expectations. The tourism business must adapt to new conditions and rearrange the business model strategy so that it can survive in the new normal era, by adjusting technological developments. The government recommends a new promotional activation through the use of technology that can be accessed remotely via the internet network. One of them includes virtual tourism. Malang city as a creative city has been launched since 2018, the thematic village tourism sector is a vital access for the creative industry in it. This means that if tourism is affected, the creative industry will also be affected. There is a need for branding recovery so that post-pandemic, the tourism sector can rise as soon as possible and also the creative industry in it

Kajoetangan Malang Heritage Village is located around the center of Malang City, namely on Jalan Jend Basuki Rachmat Gg. VI, Kauman, Klojen Malang, East Java. Since it was officially opened on April 22, 2018, Kayutangan Village has been designated as a cultural area (heritage) by the government of Malang City. Kayutangan can indeed be said to be a historic area because in the Dutch colonial era, this area became the central road. This is evidenced by the legacy that can now be found in this area, namely the Dutch heritage buildings are still preserved in their original form, especially the original form of the houses in the Kayutangan village. Kayutangan Village offers cultural tourism that contains historical education by showing the architecture of the Dutch colonial heritage house which is still preserved to this day.

The marketing and promotion segments of the tourism sector have most often been used with the assistance of visual imagery [1]. The intangible properties of tourism, as a service, constantly reminds the marketers that there is a need to continuously innovate the forms of visual imagery with the objective to promote a positive destination image

[2]. Virtual tourism is a way of promoting and providing travel experiences using digital-virtual reality tools technology. A Virtual tourism promotion can also be designed through the concept of tourism by showing videos guided by tourism guides.

VR is often defined as the technology using the computer-generated 3D environment often referred to as “virtual environment.” The real-time simulation of one or more of the five senses of the user is often a result of navigation through this virtual environment and interaction with it [3].

Through this concept, virtual tourism is expected to help Kampoeng Kajoetangan branding efforts as well as become a digital “museum” that can be archived on the website platform and directly integrated as promotional activities for the creative industry sector that are impacted on such as culinary, performing arts and crafts. It is hoped that this platform will become a prototype that can be duplicated to support creative village-based tourism for all of Indonesia

General tools for Virtual Reality (VR) for the implementation of virtual tourism require input tools such as software to display Virtual Tourism visualizations as well as output devices such as the resulting VR Viewer that run synchronously or asynchronously. While the output can be made a real impression through video visualization.

The opportunities of VR in regard to destination marketing organizations are found in the way in which marketing messages are targeted to specific markets, whilst capturing the attention of potential visitors and giving assistance in relevant factors identification that essentially create motivations for those that engage in any form of VR and awareness development in reference to future travel decision-making processes. [4].

VR is being developed as a part of smart tourism to provide information about destinations

and attractions while showing its potential to become a new tourism service. Nonetheless, the trend has proven to be very useful, however slow, because of the difficulties of tourists to keep up with new technologies. Thanks to VR, tourists are able to experience a destination in advance and to preview local attractions. Interactive, realistic, easy and detailed VR navigations help tourists in the trip-planning processes and activity planning [5].

Researchers see optimism in increasing tourist visits to Kajoetangan Heritage Village through the use of technology and its application to a virtual tourism portal application. By bringing back the attractiveness and protocol Health and safety travel in a creative village. the Kajoetangan Heritage village tour because since 2017 it has been declared a potential village to support tourism which has implications for the creative industry

sector. This is considered very important, to raise the concept of educational tourism in the Kajoetangan heritage village.

## 1. Method

The research method is the stages of work or the research process used to design or examine an object. To achieve the planned outcome, research methods are needed to make it easier for researchers to develop research. According to Borg and Gall in simple terms this development research method consists of 5 main steps, namely:

1. Conduct a needs analysis for the design basis to be developed
2. Develop the initial product
3. Expert validation and revision
4. Small-scale field trials and product revisions
5. Trial of the final product

## 2. Results

This research begins with the process of analyzing needs and recording facts that occur at the research location. From the data obtained, the main information in tourism management during the pandemic is: (1). The decrease in visitors which results in a decrease in tourism management revenue (2) There is a lack of “fear” mindset from visitors since the pandemic, so there is a need for optimism to return to travel during post-pandemic (3). There has been no branding activity at all to promote tourism since the pandemic (4) There is enthusiasm and hope for restructuring the image of tourism so that it gets a good reception after the pandemic (5). The formation of a tourism management task force to support tourism branding and help all support for tourism promotion in the heritage village of Kajoetangan (6). There is a government directive to create a virtual tour strategy (7). A new branding strategy is needed, namely; rindoe kenangan in kajoetangan, means calling memory to the this place (Kajoetangan) (8) There is a need for a virtual tour promotion for education and to provide a promotional “teaser” to return to the heritage village of Kajoetangan (11) The public’s desire to visit heritage village tourism which has decreased drastically needs to be raised again through a series of virtual promotions to encourage the desire to return to post-pandemic tourism visit.

From the data obtained, it is known that the condition of decreasing visits and worries about the spread of the COVID-19 virus has influenced changes in tourism management patterns. Tourism managers do not have a strategic plan in promoting their tourism because they are constrained by technology developers and virtual promotion planning during a pandemic that does not yet exist. However, there is still hope and enthusiasm from the managers to rise. Therefore, the concept of virtual tours is a solution to support the branding efforts of Kajoetangan heritage village tourism to encourage an increase in tourist visits. After concluding a strategy is needed to develop the virtual tour concept in the following phases:

Phase 1: Designing Virtual Guide Video Teaser

Phase 2: Designing The Virtual Tour video uses the concept of viewing the Kajoetangan Village heritage profile video in the festival using a tour guide

Phase 3: Designing Virtual Tour walkthrough using impressions of Virtual Reality

The development of Virtual Reality begins with the creation of a virtual guide launch using video format and giving broadcasts as a “launcher” to the public. This launcher broadcast serves as a reminder / “reminder” in the promotional concept. In this phase the expected impact is that kajoetangan tourism is comparable organically even though the pandemic period is also expected to launcher impressions to “deliver” to the new normal tourism activities in 2021 and finally be able to give a sense of optimism towards the rise of tourism.

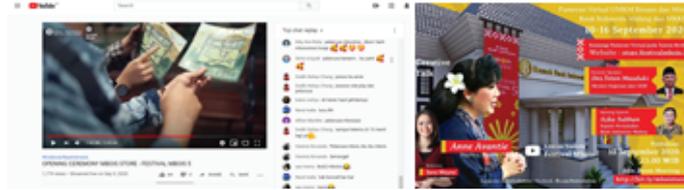
The second phase is to strengthen branding using the theme #rindoe kenangan di kajoetangan. In this phase, the optimization of social media-based digital promotions is starting to be carried out again, in addition to optimizing the function of the official website as a promotional platform needs to be made, especially the implementation of virtual tours. In phase 2, it is also hoped that the impression of the mass media about kajoetangan tourism will increase



**Figure 1:** The Video Teaser Website developed as a promotional platform and official link for virtual tours.

The second phase is also equipped with the implementation of a virtual tour that is packaged through impressions on social media platforms through participation in online festival activities. Video shows are guided by a tourism guide and narrative which is

broadcast live streaming. This can increase the promotional teaser impression on social networks.



**Figure 2:** Virtual tour broadcast using the live streaming method through participation in online festivals

The third phase is the development of a virtual tour that is developed using 360 camera technology and given a plot in the show. As a continuation of this phase, the development of Virtual Reality will create an application that is connected to a web-based display reference that can also be accessed on a smartphone so that it can be viewed using a vr box or without a vr box. This is considered in order to make it easier for users



**Figure 3:** The Virtual Reality with VR Box tool

The video on VR video shows that are presented include 360 technology videos that present important spots with infographic instructions as guides to the locations of places in the Kajoetangan heritage village which are the leading tourist tours. Thus the sensation of presence can be directly felt by the user.

### 3. Conclusion

From the data obtained, it is known that the condition of decreasing visits and worries about the spread of the COVID-19 virus has influenced changes in tourism management patterns. Tourism managers in Kampoeng Heritage Kajoetangan do not have a strategic plan to promote their tourism because they are constrained by technology developers and virtual promotion planning during a pandemic that does not yet exist. The hopes and enthusiasm of the managers (tourism awareness group) of Kampoeng Heritage Kajoetangan are quite large and have a commitment to carry out branding recovery in order to appear prime after the pandemic. The Virtual Tour is structured using a

branding recovery strategy in 3 phases, namely: (1) Virtual Guide Launch which was developed jointly in the Mbois 5 festival in Malang, (2) Branding Strengthening Phase with the hashtag #rindoe memories in kajoetangan as a form of longing back to the pre-pandemic tourism atmosphere. and (3) virtual experience development using a virtual reality approach. Seeing the high potential of the viral effect of digital media, virtual tours should be developed further with local virtual event content as a “teaser” for tourism promotion. Virtual Tour Development in phase 3 (virtual experience development with a virtual reality approach) can be developed into a virtual form reality with a game experience approach, especially with an educational mission about the history of the heritage village

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