

# Utilization Of Virtual Tours as An Effort to Improve the Indonesian Tourism Sector in The New Normal Era

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**Abstract.** The tourism and creative economy sectors in Indonesia have been heavily affected by the Covid-19 pandemic. The number of foreign tourists entering Indonesia has decreased drastically. This encourages technological innovation in creating a digital platform as a step to increase tourism attraction data in Indonesia, one of which is through Virtual Tours to advance the Indonesian tourism sector. The purpose of this research is to systematically examine the virtual tour of the tourism sector. The research method uses a qualitative research approach with research methods based on descriptive literature review by analyzing using the Publish or Perish application and VOS Viewer. Both are applications used to conduct bibliographic research. The results show that between the virtual tour variables and the tourism sector from 2010 to 2022 based on the disbursement of Scholar, there are 420 papers, this is indeed a large number of papers from each of these variables, it's just that the relationship between tourism, virtual tours, pandemics and covid just a little, and the relationship between these variables is very reliable for research. Based on the results of the analysis, it is shown that in this new normal era, virtual tours as one of the promotional media to increase the attractiveness of virtual tour places are better presented in the form of images, videos, even more interestingly presented in 3 dimensions. tourist attraction.

**Keywords:** Virtual Tour; Tourism Sector; New Normal

## 1 Introduction

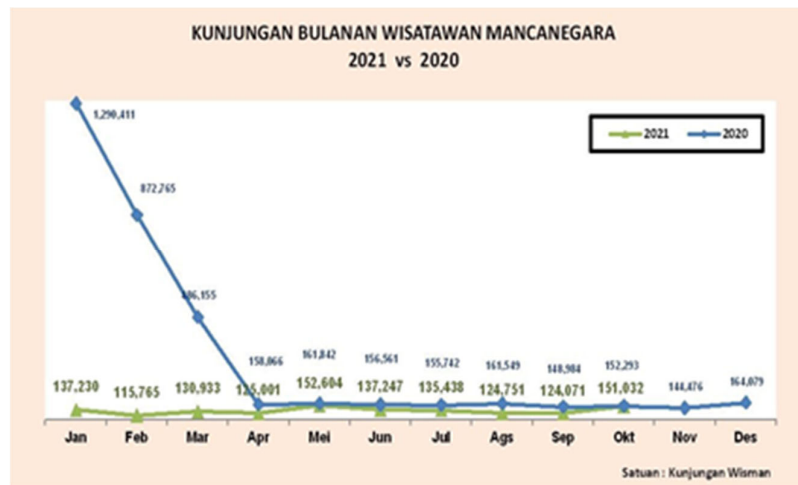
The Covid-19 pandemic is still ongoing and sweeping the world, this condition has caused a world economic recession. In Indonesia, the spread of this virus has hampered economic growth from 2019 to 2020, of course, Indonesia has experienced a decline. The success of a country's development can be seen from several indicators. One of the important indicators in the success of a country's development is economic growth. Economic growth is the state's income which has an aggregate national increase or an increase in output in a certain period. (Indayani, 2020).

The tourism sector and creative economy in Indonesia since February 2020 have been heavily affected by the Covid-19 pandemic. The number of foreign tourists entering Indonesia experienced a very drastic decline, and the peak occurred in April 2020 with only 158 thousand tourists. This of course causes a decrease in state revenue in the tourism sector by Rp. 20.7 billion. (Kemenparekraf, 2021).

Tourism developments, the number of foreign tourist visits to Indonesia in August 2021 decreased by 21.19 percent compared to the number of visits in August 2020. Likewise, when

compared to July 2021, the number of foreign tourist visits in August 2021 decreased by 6.00 percent.

Cumulatively (January–August 2021), the number of foreign tourist visits reached 1.06 million visits, a decrease of 69.17 percent when compared to the number of foreign tourist visits in the same period in 2020 which amounted to 3.44 million visits. The Room Occupancy Rate for star classification hotels in Indonesia in August 2021 reached 25.07 percent, down by 7.86 points compared in August 2020 which was recorded at 32.93 percent. On the other hand, the Room Occupancy in August 2021 increased by 2.69 points compared to July 2021.



**Fig.1.** Foreign Tourist Visits in Indonesia  
Year 2020-2021

Source: <https://kemenparekraf.go.id/>

Based on the Data and Information System (Kemenparekraf/Baparekraf, 2021) shows that foreign tourist visits to Indonesia through all entrances in November 2021 totaled 153,199 visits or grew by 6.04% compared to November 2020 which amounted to 144. The number and growth of foreign tourist visits in 3 (three) large doors from the 25 main entrances in November 2021 compared to November 2020, namely:

1. Ngurah Rai totaled 6 visits, grew by 200.00%,
2. Soekarno-Hatta totaled 18,971 visits, experienced a growth of 32.58%, and
3. Batam totaled 234 visits, decreased by -48.46%.

Based on the data, the number of tourist visits is still not optimal and still not normal as before the pandemic, this encourages technological innovation in creating a digital platform to advance the Indonesian tourism sector.

Kemenparekraf/Baparekraf currently supports tourism places in Indonesia to innovate and utilize digital as a step to increase tourism attraction data in Indonesia, one of which is through the virtual tour digital platform. (Kemenparekraf, 2021)

Virtual tour is a new concept/trend in visiting and exploring various tourist destinations digitally so that it can be accessed on a smartphone without traveling straight to the location. This virtual tour can be used as a cure for homesickness for tourists as well as a means of

entertainment and promotion. virtual tours can be done by utilizing images or videos, besides that, they can use 3-dimensional models (Wulur H, 2015).

## 2 Research Methods

This study uses a qualitative research approach with research methods based on a systematic descriptive literature review of the virtual tour of the tourism sector. Qualitative research raising the problem under study requires research studies that are descriptive, intensive, thorough, detailed, and produce in-depth analysis. (Solihat, Hakim, Rahmayani, & Trijumansyah, 2021). To analyze the literature using the Publish or Perish application and Vos Viewer. Both are applications used to conduct bibliographic research.

Publish or Perish is designed to help individuals academically conduct analysis on the impact of research. Publish or Perish can describe citation metrics in a variety of forms. Meanwhile, the VOS viewer is used to visualize bibliographies, or data sets containing bibliographic fields (title, author, author, journal name, and so on). In the world of research, Vos viewer is used for bibliometric analysis, looking for topics that still have opportunities to be researched, finding the most widely used references in certain fields and so on. (Khaeril, Mohungo, Laela. 2021)

Articles reviewed are from online national journals with various publishers obtained through the Publish or Perish application. Here are the steps:

1. Downloading journal articles using Publish or Perish with keywords virtual tour and tourism sector sourced from Google Scholar with a span of 2010-2011 and the results collected are 830 journals.
2. Data is stored in RIS format
3. RIS data is analyzed using the Vos viewer application to get a visual
4. Results of analysis with Vos viewer to get visual data.
5. Analysis

## 3 Results and Discussion

### Research Results with Perish Publish

#### Stage 1

Based on the analysis results of the Perish Publish program, data on articles that can be collected related to virtual tours and tourism are obtained as follows.

**Table 1.** Perish Publish – Google Scholar

<b>Item</b>	
Publication Years	2010 – 2022
Paper	420
Citations	3331
Citation/years	302.82
Citation/paper	7.93
Author/Paper	2.14
H-indeks	27
G indeks	48

hI-norm	22
HI-Annual	2.00
hA-indeks	16
Paper with ACC>=	1,2,5,10,20;190,126,50,27,9

Source :Author 2022

### Stage 2

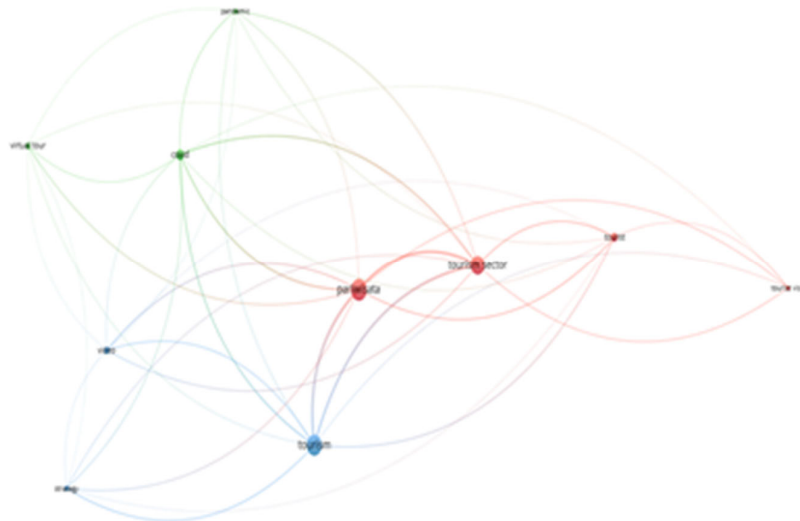
The second stage of analysis is to analyze the data collection obtained from Perish Publish with the VOS viewer program, the results obtained are as follows;

**Table 2 .** Perish Publish - Program VOS viewer

Cluster	Item dalam Kluster
1	Periwisata, tourism sector, tourist, tourist visit
2	Covid, pandemic, virtual tour
3	Strategy, tourism, video

Source :Author 2022

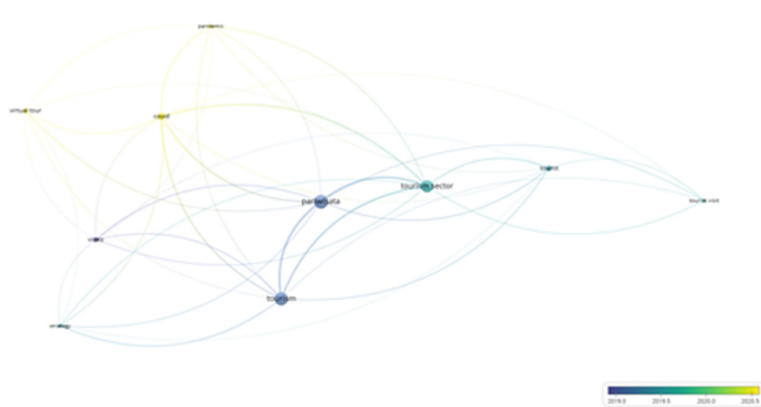
The results of the Vos Viewer Networking Analysis are as follows;



**Fig.2.** Vos Viewer Networking Analysis Results

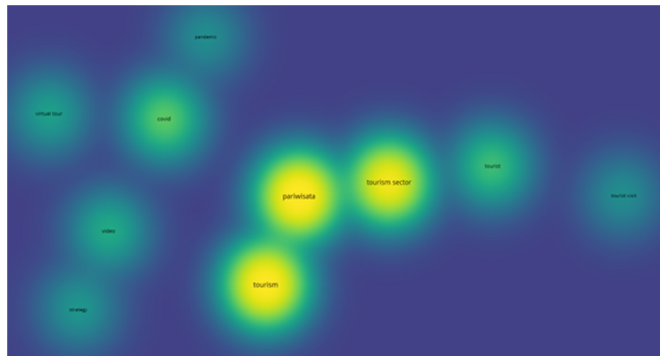
Source: Author 2022

Based on the output shown in Figure 1, it shows that the network of research themes results in several clusters and the themes that have been widely studied are tourism, the tourism sector (tourism sector), and tourism, this is marked by a larger circle in Bandung than the others. Based on the network image, it also implies an opportunity to explore the research theme with smaller circles and thinner and green lines including covid, virtual tours, and pandemics.



**Fig.3. Overlay**  
Source: Author, 2022

Based on Figure 3 shows the output results of Vos Viewer which illustrates the periodization of the themes of this research, which illustrates that between 2019-2020, including research linkages between tourism, strategy, video, tourism, tourists, tour visits. While in 2020 tourism is connected with virtual tours, covid, pandemic.



**Fig.4. Image Density**Source : Author 2022

Figure 4 Density shows which themes have the opportunity to become gaps for further research, this can be seen by paying attention to the color and size of the circle in the image, the theme circles whose space is getting bigger shows that the medium tends to be central, such as tourism, tourism, and the tourism sector. then the month is moderate and tourist green, covid provides conditions/like that these themes have been glimpsed and have seized the attention of scientists, while small green circles such as strategy, video, virtual tours, pandemics, and tour visits provide clues that the material for this study is still scanty and under-studied.

### Discussion

Based on the results of the Vos Viewer Literature study, it was found that the theme network had become a concern and the periodization of article publications, opportunities for further research were about virtual tours, tourism, pandemics and covid.

The issue of the Covid-19 pandemic is a serious threat to all countries in the world. It is necessary to adapt new habits in the entire structure of the state sector in order to maintain the National Defense of the State. The Covid-19 pandemic has created conditions of uncertainty for the tourism industry.

According to the Law of the Republic of Indonesia No. 10 of 2009 concerning Tourism. Conveying that tourism is a variety of tourism activities and is supported by various facilities and services provided by the community, businessmen, government and local governments. Globally and on a national scale, tourism is an important economic sector. Therefore, environmental damage such as domestic waste pollution, slum areas, disturbances to tourists, unfriendly or unfriendly residents, traffic chaos, crime, and others, will be able to reduce the number of tourists visiting a tourist destination. Therefore, tourism development must maintain the quality of the environment (Soemarwoto, 2001).

This affects visitors (consumers) as well as managers. Gita Paramita Djusal et al (2020). Currently, Indonesia has been greatly affected by the covid-19 pandemic, various sectors have decreased over the past 2 years, but currently it is considered a new normal era, meaning that this country will provide a policy for its people to adapt to new habits, this is an effort to restore in various sectors, including the tourism sector which was very highly affected by the pandemic.

This is in accordance with the statement of Betty SilfiaAyuUtami (2021) who said that the "covid-19 pandemic that occurred had a decreasing impact on the tourism sector. The existence of a large-scale social restriction (PSBB) policy has a fairly large economic impact on the tourism sector. This is very true, because as long as due to the decline in the tourism sector, one of which is the limitation of mobility restrictions on the community, and the closure of tourism places at the beginning of the pandemic, this is attempted to reduce the spread of the covid-19 virus, in addition there are restrictions on transportation. But in this new normal era, of course, it is more flexible, where the tourism sector has re-opened, including the capacity of tourist attractions and modes of transportation have also started operating as usual, only limited to 50%. This is sought as an increase in the tourism sector in the new normal era.

Although this pandemic has brought back the boundaries between countries that had previously been blurred, it cannot be denied that other aspects of globalization remain unavoidable, such as advances in technology and information. So it is necessary to take innovative steps to strengthen the resilience of the Indonesian economy, especially in the tourism sector. The use of information technology with the digital economy is a new step that has the potential to get a good response from the community, such as the implementation of the New Normal Tourism policy (Ajeng Maharani1, Faula Mahalika, 2020). Technological developments are increasingly rapidly making the emergence of new innovations. Virtual Tour can be a medium of information and e-Tourism is the integration between technological developments and tourism (Maria Ursula Kawulur, et al (2018).

Another step taken in this new normal era is that we have to adapt to technology, and currently a lot of technology is being developed to develop the tourism sector, namely virtual tours. Virtual tours are an effective strategy for the tourism sector industry players, this is used to maintain economic stability during the pandemic (Kinanthi Harumni Jagadtya, et al. 2020). The Virtual Tour Reality application is expected to increase the interest of potential tourists to visit and increase tourism potential (Yulia Fatma, et al. 2019) Virtual tour applications as a promotional medium for tourist objects (Ade Yuliana, 2017)

Based on the theory of Cooper et al in Amanda M (2019) that in increasing the attractiveness of tourist attractions, of course, it must have four components including Attraction, Accessibility, Amenity, and Ancilliary, the virtual tour, it becomes an additional facility provided by the tour manager to attract tourists.

The managers of tourist attractions should present a virtual tour in the form of images or videos, or it will be even more interesting if you use a 3-dimensional model. It utilizes the virtual world like the real world. If the virtual tour is presented more attractively then potential tourists will also be interested in visiting it.

## 4 Conclusion

The virtual tour and tourism sector variables from 2010 to 2022 based on the search for Perish Publish Scholar amounted to 420 papers, this is indeed a large number of papers from each of these variables, it's just that the relationship between tourism, virtual tours, pandemics and covid is still small, and the relationship between these variables is very reliable for research. Based on the results of the analysis, it is shown that in this new normal era, virtual tours as one of the promotion media to increase the attractiveness of virtual tours are better served in the form of images, videos, even more interestingly presented in 3 dimensions tourist attraction.

## References

- [1] Ayu Utami, B.S., Kafabih, A., (2021). SektorPariwisata Indonesia Di Tengah PandemiCovid 19.JurnalDinamikaEkonomi Pembangunan (JDEP). JDEP Vol. 4, No. 1, pp 383 - 389, FEB UPNVJT. All right reserved e-ISSN - 2614-2546)
- [2] Djausal., GP., Larasati, A., Mufliah, L. (2020). Strategi Pariwisata Ekologis Dalam Tantangan Masa Pandemi Covid-19. Jurnal Perspektif Bisnis Volume 3, Nomor 1, (57-61). P-ISSN: 2338-1115. E-ISSN: 2721-1363
- [3] Fatma, Y., Hayami, R., Budiman, A., Rizki, Y. (2019). Rancang Bangun Virtual Tour Reality Sebagai Media Promosi Pariwisata Di Propinsi Riau. Jurnal fasilkom. ISSN : 2089-3353 Volume 9 No. 3 November 2019: 1-7
- [4] <https://kemenparekraf.go.id/>
- [5] Jagadtya, K.H., Aisyianita, R.A . (2020). VIRTUAL TOUR : Strategi Industri Pariwisata Selama Pandemi Covid-19 (Studi Kasus Jakarta Good Guide) Jurnal Perjalanan Wisata, Destinasi, dan Hospitalitas, 3 (1): 48-60. ISSN: 2621-6701
- [6] Khaeril, K., Mohungo, Y., Laela. (2021) Rural Tourism, Agri Tourism; Sebuah Penelusuran Literatur. Public Policy, Jurnal Aplikasi Kebijakan Publik & Bisnis. LPPM STIA Said Perintah Volume 2 No 1 Maret 2021. <https://stia-saidperintah.e-journal.id/ppj>
- [7] Maharani, A., Mahalika, F. (2021) New Normal Tourism Sebagai Pendukung Ketahanan Ekonomi Nasional Pada Masa Pandemi. Peneliti Pusat StudiKemanusiaan dan Pembangunan. volume 8 nomor 2.
- [8] M. Tingginehe, A.,O. Waani, J., E.V Wuisang, C. (2019). PerencanaanPariwisataHijau Di DistrikRoonKabupatenTelukWondama, Papua Barat.JurnalSpasial Vol 6. No. 2. ISSN 2442-3262
- [9] Soemarwoto. (2001). AturDiriSendiri. CetakanKedua. Gajah Mada University Press. Yogyakarta
- [10] Solihat, A., Hakim, L., Rahmayani, R., & Trijumansyah, A. (2021). Strategi Promosi Melalui Public Relations Kebudayaan Mapag Menak, 3(1), 13–18.
- [11] Ursula Kawulur, M., Y. Rindengan, YD., B. N. Najoan, X.. (2018). Virtual Tour e-TourismObjekWisataAlam di Kabupaten Biak Numfor. Jurnal Teknik Informatika Vol 13, No 3, ISSN : 2301-836
- [12] H. S. Batubara, M. Giatman, W. Simatupang, and R. Watrianthos, "Pemetaan Bibliometrik Terhadap Riset pada Sekolah Menengah Kejuruan Menggunakan VOSviewer," *EDUKATIF : JURNAL ILMU PENDIDIKAN*, vol. 4, no. 1, pp. 233–239, Dec. 2021, doi: 10.31004/edukatif.v4i1.1818
- [13] WulanratuWulur, UH., Sentinuwo, S.,Sugiarso, B., (2015). Aplikasi Virtual tour TempatWisataAlam di Sulawesi. E-journal Teknik Informatika, Volume 6, No. 1, ISSN : 2301-8364
- [14] Yuliana, A., Lisdianto, E. (2017). Aplikasi Virtual Tour sebagai Media Promosi Objek Wisata di Stone Garden Kabupaten Bandung BaratKOPERTIP: Jurnal Ilmiah Manajemen Informatika dan Komputer ISSN: 2549-211X Vol. 01, No. 01, Februari 2017, pp. 19-24

