SMART TOURISM ECOSYSTEM MODEL AND DIGITALIZATION IN PUBLIC ART AND CULTURAL HERITAGE IN HO CHI MINH CITY

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ABSTRACT

In the context of Vietnam's economic response and recovery after the COVID-19 pandemic, balancing the correlation between smart tourism ecosystem, digitalization in public art and cultural heritage performs and important role in the development strategy of tourism in particular and in general to the economic picture. The study was carried out in Ho Chi Minh City, a huge urban city in Vietnam, with the aim of assessing the role and the reality of smart tourism, digitalization in public art, cultural heritage, as well as overall relationship between the factors. On that basis, using the methods of analysis, synthesis, comprehensive history, field survey our research group proposed a number of solutions, following the study that has analyzed the status, relation and role of smart tourism and digitalization in public art Ho Chi Minh. Henceforth, the authors have found that tethering smart tourism and digitalization in public art should be considered an advanced solution and a turning point for promoting hidden cultural values and sustainable tourism development in Ho Chi Minh City.

Keywords: Smart tourism ecosystem, digitalization, public art, cultural heritage.

INTRODUCTION

Ho Chi Minh City is a smart urban city, which is associated with the development of high-tech trades and services in Vietnam. Not only playing the economic leading role of Vietnam, HCM City is also known for it's relatively young history with rich cultural heritage, unique and diverse architecture, as a mixture of European and Asian cultures. Before the COVID-19 pandemic, the economic heritage, trade, tourism and services in this city have always had a high growth rate. However, after the fourth wave of COVID-19 in Vietnam (April 2021), the economy and society of Ho Chi Minh City have been seriously affected, especially tourism. Faced with challenges and pressures to restore production and business, as well as balance and improve the material life, especially the spiritual life of the people during and after the pandemic, Ho Chi Minh City has focused on developing the digital economy in all the fields, taking

advantage of results of the industrial revolution 4.0. For tourism, in order to continue to maintain as the key economic role of the city, it is necessary for the city to digitalize and to focus on exploiting the art element in tourism.

With the digitalization strategy and featured art products, the city will be able to enhance visitors and managers can experience the facilities, promoting the level of competition in tourism in the post-COVID recovery process, and at the same time contribute to conveying the image of "Attractive – Friendly – Safe" Ho Chi Minh City. Therefore, the digitalization in public art and cultural heritage is the optimal advanced tool for building a smart tourism ecosystem that has an important strategic significance in the process of spreading the value of tourism, while setting the target of Ho Chi Minh City to be in the top 20 cities in the world in terms of international tourist arrivals, top 5 in Asia, and top 4 in Southeast Asia by 2030.

RESEARCH RESULTS AND DISCUSSION

1. Smart tourism ecosystem and how it is related with digitalization in public art and cultural heritage in Ho Chi Minh City, Vietnam

Tourism plays an important role in the national economic development and has become a spearhead economic sector of many countries around the world, including Vietnam. With Ho Chi Minh City, tourism is considered an integrated economic field, which creates a driving force for social-economic development, at the same time making positive contributions to the growth of the whole economy of Vietnam. According to the Vietnam National Administration of Tourism in 2019 (V. Le, 2020), the total number of international visitors to Ho Chi Minh City had reached 8.6 million, increasing 13.48%, domestic tourists reached the number 32.77 million, increasing 13% compared to 2018. Total tourism revenue is estimated at 140,017 billion VND, up to 10.15% compared to 2018, which reached 100% achievement of the year plan. With the advantages of geographical location, climate and being the center of culture, education, trade and traffic of the whole country, Ho Chi Minh City has not only contributed to development, but also has become one of the leading cities in Vietnam's tourism industry (Nguyen Lan Huong, 2013).

The COVID-19 pandemic has seriously affected all social-economic aspects of life, in which tourism was affected directly. After the outbreak of COVID-19 waves, the number of visitors as well as tourism revenue had a drastic drop, the growth of the tourism industry in 2020 also decreased deeply, which had a significant impact on GDP of each province and city, including Ho Chi Minh City. According to the report of the Department of Tourism of Ho Chi Minh City announced at the city's tourism industry summary Conference in 2020, the number of international visitors to the city was 1,303,750, decreasing 84.8% over the same period in 2019 (in 2019 was 8,600,000 arrivals), reaching nearly 14.5% of the 2020 plan. Domestic tourists had 15,879,000 arrivals, decreasing 51.5% over the same period of the last year (in 2019 it was 32,770,000 arrivals), reaching nearly 46.7% of the 2020 plan. As a result, the city's total tourism revenue reached 84,512 billion VND, decreasing 39.6% over the same period, reaching 57.4% of the 2020 plan (H. Thao, 2021). The peak was the 4th wave of COVID-19 epidemic, which is at the moment present in most of Vietnam's provinces and cities, which has become a fatal blow to

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Vietnam's tourism in general and to Ho Chi Minh City, which already has was struggled. At the time before October 2021, most travel businesses were forced to close to fight the epidemic; many businesses applied to withdraw their business licenses; empty restaurants and hotels; tourist vehicles lying in the parking lot all year, tourism calling for urgent help, presented the gloomy and alarming reality of Vietnam's tourism today. According to a report by the City Department of Ho Chi Minh City Tourism: In the first 9 months of 2021, there were 0 new international arrivals to Ho Chi Minh City; domestic tourists are estimated at 7,750,000 arrivals, decreasing 31% compared to 9 months of 2020 and decreasing 52% compared to 9 months of 2019. Total revenue from tourists in 9 months of 2021 reached 39,523 billion VND, decreasing 31% compared to 9 months of 2020, decreasing 62% compared to 9 months of 2019 (Minh Hiep, 2021). The above figures are milestones that marked the most difficult period in the history of global tourism in general and the tourism industry of Ho Chi Minh - Vietnam in particular.

When the industrial revolution 4.0 took place globally, Vietnamese Government actively built a digitalization strategy, smart governance, which both prioritized on the development of the digital technology industry, smart tourism and urban development (Prime Minister, 2017). This was the first time the term "smart tourism" was mentioned in Vietnam's legal documents. Under the impact of this revolution, information and communication have grown stronger than ever, allowing the creation of diverse application products for the tourism industry. Applying advanced technologies for the tourism industry such as artificial intelligence, Big data, 3D technology, virtual reality technology and augmented reality VR along with the explosion of the internet, social networks, Wi-Fi wireless sensor network system and mobile networks (4G, 5G), ... have changed the face of the tourism industry, which promoted tourism activities that are increasingly technologized, that are becoming more modern, smarter (Le Quang Dang, 2019). The combination of technology with tourism has formed "smart tourism" term and become an important component in a smart city, enhancing the development on the basis of applying the achievements of modern science and technology, which fortunately met the diverse needs of tourists, tourism businesses, tourism management agencies and the community. Vietnam's tourism industry is gradually applying modern technology to the industry and developing smart tourism should be considered as a major policy, widely deployed throughout the tourism industry through legal documents. The great contribution to the overall economy since Vietnam's economic opening has made Vietnam's tourism "become a spearhead economic sector that is an important strategic direction for the development of the country, creating a driving force to promote the development of other sectors and fields" (Politburo, 2017). In particular, in the period of adaptation and breakthrough in the general picture of the world tourism, Vietnam has increased priorities and encouraged support for activities of applying modern science and technology to serve management tourism development (Law on Tourism, 2017). Thus, it is clear that the policy system of the Government of Vietnam shows the initiative and sensitivity in the process of important strategic planning to implement the application of advanced technology for the development of the tourism industry.

On the basis of inheriting the above innovation orientation of the Government of Vietnam, the tourism industry in Ho Chi Minh City has promoted the achievements of modern science and

technology, which are strongly applied to create and develop smart tourism. Ho Chi Minh is a young city with a history of more than 300 years. The unique feature of this city's tourism resources is its rich, diverse and unique tourism and cultural resources, which blend Asian and European styles with "more than 200 physical resources and more than 100 artificial resources, museum of revolutionary relics systems" (V. Le, 2020). In addition, there are many attractive destinations that both bring the typical soul of the Southern tradition and modern Western style, giving visitors interesting experiences and discoveries. Besides rich and diverse tourism and cultural resources, Ho Chi Minh City is one of the important transit centers and focal points for receiving international and domestic tourists, with many accommodation establishments, catering services, shopping, organizing the leading Vietnamese tourism conferences. Along with the advantages of geographical location, infrastructure, capital and human resources, tourism in Ho Chi Minh City has made important contributions to Vietnam's tourism development. The number of tourists visiting the city contributes on average from 55% to 60% of the number of international visitors to Vietnam and accounts for nearly 40% of the country's tourism revenue (V. Le, 2020). The position of the city's tourism industry is increasingly affirm on the regional and world tourist map.

Tourism under the impact of the industrial revolution 4.0 along with its potential and strengths, helps Ho Chi Minh City to have new opportunities in developing the smart tourism ecosystem. From 2019, or earlier, Ho Chi Minh has advocated that smart tourism should be a component of the city's smart city planning (Gia Bach, 2021); also as a key economic sector, associated with the city's specific resources, contributing to the city's development. This is one of the localities that firstly announced the "Smart City Project" of Vietnam and in which smart tourism development is considered as indispensable component for sustainable development (Thai Phuong, 2019). Smart tourism is said to be the premise for new models to be formed in the future of Ho Chi Minh City, making it one of the Vietnamese cities that is on the right track to develop this tourism model with a new idea in deploying a smart tourism ecosystem to serve tourism (The Hoang, 2020). In addition, building a smart tourism ecosystem will solve the problem during the COVID-19 pandemic (Gia Bach, 2021). In the context of the complicated development of the COVID-19 pandemic, the world tourism industry in general is facing many difficulties, where promoting and developing smart tourism solutions can be an effective solution to help Ho Chi Minh not only overcome the immediate difficulties, but also made a dramatic change in the post-pandemic era.

After the pandemic Ho Chi Minh City has been controlled (the place had been heavily affected by the 4th COVID-19 wave of Vietnam in 2021), tourism is one of the sectors that have been reopened firstly and using smart tourism method to solve the problem, contributing to bringing new vitality to tourist destinations in Ho Chi Minh City (Gia Bach, 2021). With solutions such as: Launching the new version of Ho Chi Minh City Tourism application, with flexible and intelligent features, helping users to quickly access tourist destinations. City Tour Hop On-Hop Off service in Ho Chi Minh City Ho Chi Minh is the tour that combines transportation, visiting the city's highlights by car and even "bus on the river" service by boats using traffic and travel data, with the visitors interest, to design tours, sell tickets and pay online,

where all information is updated on the website of the unit, which has allowed tours to operate even during the epidemic. Even research groups or GIS solutions at the Center for Space Technology Application of Ho Chi Minh City - Vietnam Space Center have been implementing city tours in the form of virtual reality for many years at many locations in Ho Chi Minh City. In Ho Chi Minh City, visitors can sit at home, or anywhere and access the web to experience places through pictures, voiceovers and music without ever having to set foot.

Nowadays, tourism in many countries around the world has developed a fast and diverse smart eco-system, where the focus is on optimizing the application of art and science such as Japan, Korea, etc. Cheeskou Oussouman. When technology is applied, tourism appears not only as fragmented pieces, but becomes a diversified and attractive picture (Phuong Dung, 2020). Thanks to technology, tourists can find, discover and share essential travel information. According to research results at the end of 2018 by the Asia-Pacific Travel Association (PATA) and Oxford Economic sponsored by Google, in the Asia-Pacific region, travel planning and booking the direct online room was common variable with 80% of the tours using online activities, also 87% of the young generation think that smartphones are essential tools for tourism (HH Do, TH Phan, 2019), (Thanh Giang, 2019). This tool not only be used to the interface between people, but to manage information between them, opening the multitude of opportunities to quantify the growing clientele, beyond the borders of a single country. That has made smart tourism different from traditional tourism. Smart tourism focuses on the interests of tourists, while ensuring the lowest cost, safety and comfort on the basis of using technology and modern equipment, information, and global data (According to the Vietnam News Agency, 2019) while traditional tourism cannot promote those benefits, especially in the current volatile world. For that reason, many countries around the world have deployed smart tourism models to create highlights and competitive advantages in tourism, such as Europe being an advantageous and leading region in this development trend. In Asia, the countries such as Japan, Korea, Thailand, Malaysia and Singapore have also invested heavily in smart tourism by applying e-wallets, QR codes, using fingerprints for payment services, airport check-ins, and travel experiences based on virtual reality technology… (Pham Thi Thuy Linh, 2020). Thus, smart tourism has become a development criterion towards the development and improvement of tourism competitiveness and now acts as the general development trend of world tourism.

Although the main factor of Vietnam's tourism products is the attractiveness (history, culture, belief, religion, cuisine, architecture, etc.), in the landscape that requires the same acceptance as today, without applying modern science and technology, the tourism industry can hardly restart strongly, not to mention to bring tourism products to customers. Therefore, the city's tourism industry needs to quickly make digitalization, apply smart management to gradually integrate and develop, improve competitiveness by formulating strategies and applying information technology to establish a tourism eco-system. Thus, tourism can become a true spearhead economic sector, contributing to promoting the development of the industry, improving tourism competitiveness and urban development in Ho Chi Minh City

2. Building and developing the smart tourism ecosystem model associated with digitalization in public art and cultural heritage in Ho Chi Minh City, Vietnam

Ho Chi Minh City has an important position and role for the whole country and is the key in economy of the southern region, is the "nuclear" to create the driving force for the social-economic development process in Vietnam (According to Vietnam News Agency, 2020). In the general picture of the economic situation, tourism in Ho Chi Minh City occupies an important position: In 2019, contributing 6.9% to the gross domestic product, higher than the national average of 5.9% (Huu Long, 2020). The above development of city tourism, is mainly because of the attractive factor of the landmarks. Ancient architectural works combining with heritage symbols such as: Dragon House, Quoc To Temple, Xa Tay Palace (headquarters of the City People's Committee), Opera House, Post Office, system of ancient temples (Giac Lam, Ba Thien Hau Pagoda, Giac Vien temple ...), the system of ancient churches (Duc Ba, Huyen Sy, Thong Tay Hoi, Thu Duc...) (Le Thi Thuy, 2013). Or the road sections with historical value and high potential for tourism exploitation: The area from the intersection of Dinh Tien Hoang - Ton Duc Thang to Thu Ngu flagpole, Hoa Xa building (currently the headquarters of Railway Corporation), the neighborhood around Ben Thanh market (Phan Boi Chau, Phan Chau Trinh), "Special heritage area of old Saigon" including Thuong garden, Doi market and villas built before 1955.

With the strategic goal of becoming a smart city, Ho Chi Minh City has strongly promoted digitalization through the application of information technology (PV, 2021). Tourism is one of the industries tasked with pioneering digitalization and developing smart tourism on a digital platform to create breakthrough changes. By applying digitalization Ho Chi Minh City, enhances interaction with tourists and marketing of tourism services, which has opened up new and innovative challenges to provide an effective travel experience and as well as promote the image, people, cultural identity, etc… moreover, improve the connectivity of activities along the value chain and build on the foundation of a sustainable tourism ecosystem. However, the complicated situation of the COVID-19 epidemic has negatively impacted the industry of the city in particular and the world in general. The epidemic is a problem of globalization, where no one can confirm whether the epidemic will be controlled or changed quickly on a larger scale and that is the point to adapt as well as normalize economic activities, production and tourism needs. Therefore, new challenges and pressures from the impact of the COVID-19 pandemic will become the driving force for Ho Chi Minh City to promote digitalization in all fields, especially tourism. At the same time, to bring tourism products with bold cultural characteristics closer to visitors, the core values from public art and symbolic values from the cultural heritage of the city, developing on the basis of digital technology, is one of the new and core directions of the tourism industry. To increase effectiveness, some of the following recommendations can be applied:

Firstly, renovating the core values of public art works in Ho Chi Minh City

Compared to other major cities of Vietnam, the public art of Ho Chi Minh City is relatively diverse with the promotion of public space development. The study of the current state of public art in the city in particular and in the clusters of tangible cultural heritage in general in the period

2010-2020 has obtained important results, through the number of works of art, interactivity, public art perception of the residents (Hoang Thuy Linh et al., 2021). Most of the public art works in Ho Chi Minh is mainly based on historical war themes, honoring outstanding generals and national heroes. But in the development history of the heroic nation of Vietnam, in addition to praising talented leaders, the Vietnamese civilization was developed with countless quintessential values that today's administrators and planning experts have not yet applied or fully exploited. Therefore, exploiting the potential of public art to the fullest is a big challenge for this city, especially in the digital age, where superior intelligence of technology and of sophisticated electronic equipment are the most important factors.

In addition, the cultural heritages are famous tourist destinations that attract tourists and represent the unique and characteristic features of Ho Chi Minh City such as Duc Ba Cathedral, Opera House, City Post Office, etc. also other public art works have also contributed significantly to attracting tourists to visit, resulting in the development of the city economy (Hoang Thuy Linh and partners, 2021). However, public art works in Ho Chi Minh City still have few creative factors, mainly in the form of description (Hoang Thuy Linh and partners, 2021), with ineffectiveness in conveying information to tourists and not catching up with new technologies reduces tourist attraction, resulting in boredom and lack of emphasis in Ho Chi Minh public art.

Meanwhile, public art has important values and meanings in tourism development and represents the history and spirit of the city's cultural identity. Therefore, in order for public art to develop its potential, and for the public space to have unique artistic creations, creating a unique impression in the hearts of tourists, Ho Chi Minh City should focus on investing in renovating modernized public works, but at the same time not fading the soul of the community's cultural identity. In addition, the city also needs to focus on planning public spaces associated with the conservation, preservation and promotion of the value of tangible cultural heritage in order to connect and develop into a sustainable tourism ecosystem. Besides, combining and transforming digital technology applications to help increase flexibility and interact easily with tourists, keeping up with modern trends will make the heritage values and potentials of city's public art get promoted, creating a connection with the heritage spaces where it exists. In addition, for the smart tourism ecosystem and digitalization in specific tourism resources to be effective, Ho Chi Minh City needs to focus on how to operate smart tourism, where special attention should be paid to the balance between development, environment and heritage protection (The Hoang, 2020); at the same time building smart tourism on the basis of mass tourism development, which is a supporting tool for mass tourism to gradually approach smart factors; developing the elements of digital technology, digital infrastructure...

Secondly, it is necessary to create specialized tourism products on mobile applications through digitalization in public art and cultural heritage.

According to statistics of the Vietnam E-commerce Association (VECOM), the rate of domestic tourists booking hotels online and booking tours online reached more than 60%; the rate of international tourists using these two services reaches 75%, of which 70% of visitors

using online services are under the age of 35. Another survey with international tourists that visited Vietnam shows that, up to 71% of tourists refer to destination information on the internet; 64% book and purchase services online during a trip to Vietnam (Le Quang Dang, 2019). Building an online model platform applying travel destination on smartphones is a popular trend. However, at present, most tourism apps still focus on introducing famous tourist destinations without further exploiting the factor of popularity of cultural heritages or local public arts to introduce and promote the image in a practical way. In the Ho Chi Minh City, the public bicycle project has been piloted in the center of District 1. However, according to general assessment, it only serves for pure commuting activities, has not yet created high applicability in the smart tourism ecosystem. Therefore, in order for the public bicycle project to be widely deployed and highly effective, it is necessary to combine applications that introduce to tourists the attractions, cultural heritages, food courts and public art works to attract more domestic and foreign tourists. In addition, in order to build a smart tourism ecosystem, Ho Chi Minh City needs to build a digitized data system on cultural heritage, applying 4.0 technology in managing and exploiting cultural heritage, developing heritage tourism and improving connectivity among visitors (such as multi-language voiceover, automatic voiceover that introduces information, history, information about types of cultural heritage); focusing on sharing and exchanging data on visitor flows between heritage sites before/during/after the tour; building a tour on cultural heritage of standard and stable quality with typical products, and at the same time, complementing between destinations in the area as well as neighbor areas (Hoang Thuy Linh, Ngo Thi Kim Lien, 2020).

On a national scale, the tourism industry has built and put into operation many useful technology products, most notably the app "Safe Vietnam tourism" - a multi-utility integrated platform, that acts as digital map of safe tourism, linking medical data on epidemic situation in localities, providing information on safe tourism service facilities... where tourists even can immediately send feedback to the Vietnam National Administration of Tourism (VNAT, 2020). In particular, tourism communication on digital platforms is increasingly being promoted with projects such as: Google Arts & Culture - Wonders of Vietnam (VNAT, 2021), "Vietnam: Go to Love!" on YouTube, the Vietnam Yellow Page Tourism utility platform. Besides Ho Chi Minh City, a pioneering example in the application of technology platforms to develop tourism through tourism promotion activities, communication and propaganda following modern trends in Vietnam is Da Nang, the most living-worthy city in Vietnam. From 2015 to 2017, Da Nang built a website system, a tourist portal in 5 languages, deployed the application Da Nang Fantastic City, and deployed Chat bot – virtual assistant that interacts with tourists along with taking advantage of social networks Facebook, Instagram, YouTube... to promote tourism.

Thus, with the explosion of the Internet and the advent of smart devices, with just one smartphone, visitors can plan the entire trip from booking tickets, booking services to find the right place, to searching for information about places to visit, choosing a guide, ordering food for delivery, ordering some additional services in the hotel... during the trip without interacting directly with anyone. Therefore, creating utilities that run on mobile applications for visitors to access specialized tourism products through promoting images of public art works and cultural

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heritage surely will revive the tourism industry in Ho Chi Minh after the long pain of the COVID-19 wave.

Thirdly, promote the development of public art works and cultural heritages in Ho Chi Minh City through virtual reality.

In the context of current complicated pandemic, where it impossible for tourists to conduct planned excursions, many tourist sites or companies have built virtual tours or interactive tours to simulate tourist destinations through images, videos, other multimedia elements such as sound effects, music or narrations, intros, texts. New technologies are applied as a core part of virtual tour products such as 360 photos, 360 videos, panorama photos, fly-cam photos (photos that are taken from above). These virtual reality tours helped tourists partly satisfy their "thirst" to travel, at the same time, they could better understand the place they are about to visit and stimulate inspiration for travel, discovery and experience through a different space.

In an effort to enhance digitalization in tourism and implement a variety of smart tourism solutions, the Ho Chi Minh City Department of Tourism has launched a new version of the website to promote tourism - Visithcmc.vn, allowing users to interact virtually and discover information about the network of famous tourist attractions in Ho Chi Minh City, including cultural heritage works such as Duc Ba Cathedral, Opera House etc. in Ho Chi Minh City, at the same time launching 2 information and support stations for tourists and some utility software such as "Vibrant Ho Chi Minh City", "HCM Travel Guide"... (My Phuong, 2022). However, the implementation of tourism technology products still has many limitations and difficulties. Most of the components of the City's tourism ecosystem are not yet fully functional, and potential venues such as public art spaces are being wasted not being unified and synchronized with other areas. The destination of the heritage project "has not taken advantage of this strength to own the home ground". Also, the transmission of heritage destination information, has lack of interaction between tourists, causing boredom and lack of technology applying to create new experiences. In fact, not all corporate organizations readily accept digitalization, because digitalization workforce needs to be trained, with learning opportunities that can hone the knowledge and skills needed to maximize the impact of digitalization.

In addition to Ho Chi Minh City, Da Nang and Quang Binh are the two destinations of Vietnam that have effectively implemented the "virtual tourism" campaign. Da Nang Department of Tourism has just launched VR360 application with the message "One touch to Da Nang" at vr360.danangfantasticity.com with many preeminent features. This is a virtual reality technology that helps guide visitors to experience the Da Nang discovery tour with automatic narration, eye-catching images, vivid sounds, and get help from the virtual assistant of the Visitor Support Center. In particular, Da Nang Department of Tourism has just signed a cooperation agreement to support digitalization with Viettel Group, in which, Viettel will support Da Nang tourism to develop a digital ecosystem with a smart travel card solution, tourism trading platform and virtual travel exhibition (Tran Nguyen, 2021). In Quang Binh, since 2015, Son Dong has implemented a project to bring images to the world through National Geographic's 360-degree photos. Until the COVID-19 pandemic affected the whole world, when people could not travel,

Son Dong 360 degrees has become the most attractive virtual reality tour system. In 2020, The Guardian newspaper (UK) put the majestic landscape of Son Dong in the top 10 virtual reality tours worth visiting in the world. At the end of 2020, for the first time in the Northwest, a virtual tour was conducted in Moc Chau (Son La). The sets of 360 photos and videos (VR 360) about Moc Chau tourist attractions, service facilities at Moc Chau National Tourist Area have given visitors a panoramic view, which is not limited in space. Viewers will easily move around, even hear the sound of waterfalls, streams, birds chirping and the voice of the tour guide. Most recently, after a period of testing, at the end of August 2021, the Vietnam Fine Arts Museum officially launched online 3D tour technology (in Vietnamese and English), integrated on the website of museum (Thanh Giang, 2021).

Thus, although it is incomplete and faces many technical, management, ecological and human challenges, digitalization in public art and cultural heritage as well as other tourism products in Ho Chi Minh City has made remarkable progress in the project of digitizing tourism data with images. Previously, promoting digitalization in the tourism industry to develop smart tourism was the new trend of the world in the industrial revolution 4.0, but with safe and sustainable adaptation to COVID-19, digitalization became an urgent requirement to restart the tourism industry and build a smart tourism ecosystem. For that reason, Ho Chi Minh City is making efforts to increase transformation, specifically in smart tourism solutions, contributing to bringing new vitality to tourist destinations as well as inspiring tourists to travel, stimulating sustainable tourism development, especially in the context of the epidemic.

CONCLUSION

With abundant tourism resources, if Ho Chi Minh City wants to establish a sustainable smart tourism ecosystem, the city must know how to apply technology and exploit specific tourism resources to the fullest extent. Cultural heritage resources along with the main works of public art have been and are the basis for Ho Chi Minh City to become one of the leading cities in Vietnam's tourism and constitute as the "soul" of the city itself. Public art space resources are being wasted, not being unified and synchronized with heritage sites, leading to underutilization of the strengths of the home field.

Building a smart tourism ecosystem by digitalizing public art and cultural heritage in Ho Chi Minh City is an urgent and important policy aimed at sustainable tourism development and economic recovery after the COVID-19 pandemic. However, the current state of the city's public art is still limited, not commensurate with a leading economic city in Vietnam, and at the same time has not brought into full play the valuable potential of architectural heritage works of the city. Therefore, in the period of integration and development, in the face of the challenges of the "revolutionary era 4.0" and the "COVID-19" pandemic, Ho Chi Minh City is required to create, invent and apply technological achievements to promote the development of smart tourism, and promote the city's cultural quintessence to tourists from all over the world with advanced technologies. Therefore, digitalization in public art and cultural heritage must be considered as an urgent situation for the creation of a smart tourism ecosystem in Ho Chi Minh City. Digitalization in the tourism industry, should not be outdated, and must have the potential to

promote hidden values from public art while combining conservation, preservation and development of the cultural heritage of Ho Chi Minh City, from where, Ho Chi Minh City can promote a smart tourism ecosystem for sustainable development.

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