GLOBAL ACADEMIC RESEARCH INSTITUTE

COLOMBO, SRI LANKA

GARI International Journal of Multidisciplinary Research

Author: P. Hamzayini, M.J.R.S. Fernando

Sri Lanka Institute of Advanced Technological Education

THE POTENTIAL FOR VIRTUAL TOURISM AS A WAY OF REVITALIZING SRI LANKAN TOURISM INDUSTRY IN THE FACE OF COVID-19

P. Hamzayini, M.J.R.S. Fernando

Sri Lanka Institute of Advanced Technological Education, Colombo, Sri Lanka

ABSTRACT

Coronavirus has created a doubtful situation on safe travel and it resulted in limiting the human movements which are in the core of tourism industry. It will take a while for the sector to return to the pre-COVID level. The pandemic of coronavirus has challenged the global operation of the tourism industry. Since tourism as a prominent sector of the Sri Lankan economy, this pandemic has severely affected Sri Lanka's economy as well. Given the economic setback, the industry operators are not able to merely wait till the threat of the pandemic is completely gone. Virtual reality-based technologies offer the sense of 'being there', thereby it seems to have the possibility of becoming the saviour of the industry during this period. This study was conducted to understand the potential for virtual tours as a way of strengthening devastated Sri Lanka's tourism industry by implementing virtual tours as an alternative mode in the face of the COVID-19 pandemic. Based on the aforementioned facts, this study engaged in a qualitative approach through archival method or document review. Therefore, thematic and content analysis were used. Data were collected from content available in social media networks and websites regarding Virtual Tourism and Sri Lanka tourism's virtual tours. Viewers' comments, Sri Lanka tourism operators' ideas were taken into consideration. Findings emphasize the importance of adopting virtual tours during a crisis that hinders global travel. It was revealed that virtual tours can be a promising alternative way to accelerate the return of the industry when faced with a pandemic, to keep the wanderlust on the edge, and to get a hold of the customers in the meantime. Furthermore, this study exposed a clear understanding of virtual tours, their implications, and the existing structure of Sri Lankan virtual reality ideologies.

Keywords: Virtual Reality, Tourism, Virtual Tourism, Coronavirus

INTRODUCTION

Tourism has always been one of the most significant industries which creates a high income and employment opportunities in Sri Lanka. It has also played a significant role in GDP of Sri Lanka before the global pandemic of Coronavirus. The outbreak of corona virus known as COVID-19, has confronted the entire global operations and enterprises. The impacts of COVID-19 have affected the entire socio-economic structure locally as well as internationally. Most significantly, the tourism industry in Sri Lanka has been widely impacted along with the continuous lockdowns globally. The occupancy level of hotels has been hugely decreased as well as the other sectors of tourism such as travel agencies, tour operators both domestic & international, transport suppliers and event organizers etc.

The tourism industry was the third largest industry which had a significant

contribution towards the GDP of Sri Lanka in 2019 (12.5%). During the period of global pandemic, most of the travel lovers including domestic and international travellers given with no choice but to cancel their organized trips due to travel fear, visa restrictions, closing downs of international airports. In the current situation, service providers of tourism have been hugely affected and even their income level went to the negative polar as a reason of less demand for tourism which ultimately leads to a downfall of national economy. As no one foresaw that the tourism industry would nearly come to a standstill as a result of COVID-19, there is an upsurge in other alternative virtual ways of tourism to face the current challenge.

During this period, large number of technical companies around the globe have started to work along with the tourism service providers and stakeholders to initiate the tourism approaches which can be applied in the current situation. In this corona virus outbreak, many travel lovers all over the world might take an initiative to replace the physical holidays in to virtual holidays to escape from the stress. Even though there are several types of virtual tourism available, these ranges of virtual tourism did not get the recognition until the global pandemic. It is noticeable that many people are turning to virtual travel experiences as a result of quarantine, social-distancing and the isolation.Therefore, this paper aims to examine the potential for Virtual Tourism Experiences to strengthen Sri Lanka tourism which is affected by COVID-19. The Coronavirus has brought an unpredictable change that creates new challenges for the tourism industry. There remains uncertainty not only about how transportation and accommodation services are able to implement strategies to facilitate social distancing measures, but also around how the regulations at international borders will operate. Above all, people will have immense fears and will be hesitant to take part in physical travel unless for unavoidable reasons even if the travel restrictions are lifted. This entire situation puts Sri Lanka tourism and Sri Lanka's economy in to a quite worrisome state. Most of the countries around the globe are now implementing Virtual Tours and getting positive feedback from viewers. Sri Lanka also took its initial step towards Virtual Tourism even though there are much more areas to be developed and concerned. This study thereby examines the availability, the extent to which Virtual Tours are offered, their effectiveness and possible strategies that can be implemented in terms of Virtual Tourism under the impact of COVID-19.This research mainly addresses the question whether there a potential for Virtual Tourism as a way of strengthening Sri Lanka's tourism industry in the face of COVID-19 pandemic?Given this main question, sub-questions include what are the efforts taken by Sri Lanka tourism towards Virtual Tours? what can be said about the effectiveness of those tours by considering viewers' comments? what are the possible strategies that can be implemented in terms of Virtual Tourism under the impact of COVID-19?

Primary Objective of this study was to understand the potential for Virtual Tourism as a way of strengthening Sri Lanka's tourism industry in the face of COVID-19 pandemic. Secondary Objectives were identified as to examine Sri Lanka tourism operators' efforts towards Virtual Tours, to understand the effectiveness of those tours by considering viewers' comments and to identify the possible strategies that can be implemented in terms of Virtual Tourism under the impact of COVID-19

LITERATURE REVIEW

COVID-19 and Travel Restrictions

According to UNWHO (2020), Coronavirus is a generic name for various flu like viruses including SARS. When the specific virus is detected, a name is given for example COVID-19. Coronavirus disease (COVID-19) is an infectious disease caused by a newly discovered coronavirus. Most people infected with the COVID-19 virus will experience mild to moderate respiratory illness and recover without requiring special treatment. Older people, and those with underlying medical problems like cardiovascular disease, diabetes, chronic respiratory disease, and cancer are more likely to develop serious illness. The impact of this deadly virus is severe than estimated by specialists and the most dangerous pandemic in the recent history which has already taken down 200 countries around the world with more than 1.9 million infections and over 120,000 deaths by 14th April, 2020 (Ranasinghe et al., 2020).

To prevent infection and to minimize transmission of COVID-19, WHO has given guidelines to maintain at least 1 metre distance between people, stay home if someone feels unwell, practice physical distancing by avoiding unnecessary travel and staying away from large groups of people (WHO, 2020).

Centre for Disease Control & Prevention (2020) states that, travel increases chance of getting and spreading COVID-19. Staying home is the best way for protecting one's self and others from COVID-19. They have highlighted that A person can get COVID-19 during their travels. Even though someone may feel well and not have any symptoms, that person can still spread COVID-19 to others. A person and their travel companions (including children) may spread COVID-19 to other people including their family, friends, and community for 14 days after they were exposed to the virus. CDC (2020) advises not to travel if one is sick or if a person has been around someone with COVID-19 in the past 14 days. It is also mentioned that the COVID-19 pandemic may be stressful for people. Traveling with family or friends can be a stress reliever, but it also increases chances of getting and spreading COVID-19. People do not want to miss out on a planned trip, but there are situations when cancelling or postponing travel makes sense for people and those they care about. Delaying the trip when someone could spread COVID-19 also protects other travellers, people who work in travel settings, and those at the destination.

Given the level of danger posed by COVD-19, the health organizations highly advice not to engage in travel in order the minimize the risk of being affected and spreading the disease.

Global Tourism Sector in the face of COVID-19

COVID-19 pandemic has had a significant impact on economy and social structure globally. The emergence of this pandemic has been identified in Hubei province, Wuhan City in China in 2019 and it has been spread all over the world and disrupted the livelihoods and overall structure globally. The major disruptions have occurred in the retail sector, food, consumer goods, healthcare delivery and a potential curtailing of travel and tourism as major drivers of most of the countries in the world is in inestimable and severe than expected (Ranasinghe et al., 2020). Further they have stated that the situation is at the moment where the whole world is fighting against the disease as well as people are scared to book anything until the suffering of this pandemic decreases and the virus is brought under control in the world. One of the major human activities is travelling. People travel and various reasons and Tourism is a significant human activity which helps them to recreate their bodies and mind. Tourism can be considered as a reason for most human movements in the modern

world. According to the World Tourism Organization (2020), the international tourism has indicated continuous growth for the tenth consecutive year reporting 1.5 billion international tourist arrivals in 2019 and estimated 1.8 billion of international tourist arrivals by 2030. Nevertheless, ruining this development, Coronavirus appeared and the decisions on limiting the movements of people and commodity mainly affected the industries like tourism, because, tourism include air transportation, sea transportation, food handling, accommodation sector, entertainment and recreation etc (Ranasinghe et al., 2020).

As it is mentioned in World Economic Forum, UN Secretary-General Antonio Guterres released a new report that draws on UNWTO data to quantify the devastating impact that the coronavirus pandemic has had on global tourism. It warns that up to 120 million tourism jobs are at risk, with the economic damage likely to exceed $1 trillion in 2020 alone. Depending on when travel restrictions will be fully lifted, the World Tourism Organization expects international tourism receipts (i.e. spending by international tourists) to drop between $910 billion and $1.2 trillion this year, which would set the global tourism industry back by 20 years (UNWTO, 2020). A global loss of 75 million jobs is predicted by World Travel and Tourism Council. The impact of corona virus has caused around 60% decline in international tourism in 2020 and it could rise up to 80% if the recovery is delayed until end of this year (OECD, 2020). Moreover, most of the countries are now focusing on the efforts to reopen the tourism economy effectively and get businesses up and running, more needs to be done in a synchronised way as tourism services are very interdependent (OECD, 2020). According to UNWTO, 2020, the widespread outbreak of COVID-19 has brought the world to a halt, and tourism

has been the worst affected of all major economic sectors. Therefore, UNWTO changed the prominence towards restarting tourism.

Sri Lanka's Tourism Sector & Economy during COVID-19

According to Sri Lanka Tourism Development Authority (2020), the total number of international tourist arrivals to Sri Lanka from January to March 2020 was 507,311. No tourist arrivals have been recorded since April to September due to the termination of all passenger flight & ship arrivals into Sri Lanka from 18th March 2020. Total arrivals recorded from January to September 2019 was 1,376,312. In comparison to January to September last year (2019) a decline of 63.1 % has been recorded for the same period in 2020.

Table 01 – International Tourist Arrivals from January to September 2019/2020

(Source: SLTDA)

Month	2019	2020	% Change 2019/2020
January	244,239	228,434	(6.5)
February	252,033	207,507	(17.7)
March	244,328	71,370	(70.8)
April	166,975	0	-
May	37,802	0	-
June	63,072	0	-
July	115,701	0	-
August	143,587	0	-
September	108,575	0	-
Total	1,376,312	507,311	(63.1)

Even though the international tourist arrivals were restricted since March 2020, once the lockdown was lifted in May, Domestic Tourists were quite useful to strengthen the Tourism Industry in Sri Lanka. It is in a situation like this that the second wave of Coronavirus hit around the globe in October 2020. The second wave seems to be more affecting than that of the first one. And in a situation where even the domestic tourists are not able to travel, Sri

Lanka tourism industry is in chaos once again.

As Sri Lanka is a country that heavily depends on the service sector, the tourism industry plays a major role for the country's development. In 2019, the contribution of travel and tourism to GDP as a share of GDP is 12.5% and the contribution of travel and tourism to GDP growth rate is of 11.4%. Therefore, it is clear that the tourism industry is helping the country's development massively. The travel and tourism industry in Sri Lanka is the third-largest export earner in the economy, after remittances and textiles and garments. Sri Lanka is a popular destination for international travellers as well as for expatriates returning home to visit friends and relatives. In 2013, Lonely Planet nominated Sri Lanka as the number one destination in the world to visit. In 2015, Forbes Magazine ranked the island among the 'Top Ten Coolest Countries' to visit (Jayaweera et al., 2020). And in the recent past, Sri Lanka has been recognized and recommended as one of the best islands to travel to.

According to the annual report of the Sri Lanka Tourism Development Authority (2018), the number of international tourists to Sri Lanka was 2,333,796 and the foreign exchange earnings were Rs.712,027.3 million (US $ 4380.6 million). The direct contribution of tourism to GDP is 4.9 percent. Total employment generated by the travel industry was 388,487. The direct employment created by travel and tourism was 169,003 while indirect employment generation was 219,484 in Sri Lanka. Even though the tourism industry contributes to the national economy largely in various ways, such as increase foreign exchange, GDP, employment opportunities and development of small and medium-scale industries, this sector is highly sensitive to external shocks (Jayaweera et al., 2020).

(Jayaweera et al (2020), also mentions that on the other hand, the demand for tourism is seasonal. During the year 2018, the high season was spread over a period of six months. A large number of tourists arrived in December, January, February, March, July, August and November. The highest number of arrivals were recorded in the month of December. The lowest number of arrivals were recorded in May. The COVID-19 pandemic has arisen in the peak season of tourist arrivals and therefore, there are more negative impacts. Thus, foreign exchange earnings from tourism is highly vulnerable to these internal and external shocks and seasonal variations. Further, these shocks and seasonal variations badly affect all the direct and indirect income earners and small and medium enterprises (SMEs), which depend on tourism. Moreover, the second wave also started in a time closer to the Peak season which normally lasts from November to April.

Above all facts provide evidence to the downfall of Sri Lanka Tourism and country's economy in the face of COVID-19.

Virtual Reality (VR)

The commonly accepted definition for VR is the use of computer-generated 3D environment, that the user can navigate and interact with, resulting in real-time simulation of one or more of the user's five senses (Burdea & Coiffet, 2003; Gutierrez, Vexo, & Thalmann, 2008; Guttentag, 2010). More specifically, the three key elements that characterise VR are: (1) Visualisation, where the user has the ability to look around, usually with the use of a head-mounted display; (2) Immersion, suspension of belief and physical representation of objects; (3) Interactivity, degree of control over the experience, usually achieved with sensors and an input device like joysticks or keyboards (Cruz- Neira, Sandin, DeFanti, Kenyon, & Hart, 1992; Williams & Hobson, 1995).

Cranford (1996) has described VR as 'bringing down the final set of walls, having the world brought into our homes, whilst at the same time, from our homes, entering the world'. He has stressed the importance of understanding the utilisation of VR, as the depth of sensory participation translated well into potential applications in industries such as design, architecture, education, entertainment, health and science.

Virtual Tourism

Virtual tourism can be identified as, the use of technology to artificially enhance or create a tourism experience (Tourism teacher, 2020). Hobson and Williams (1995) stated that travel itself is to a large extent a secondary reality, which the tourist escapes into temporarily. Tourists are happy to escape into known simulated experiences like Disneyland, totally absorbed into staged alternate realities (Cohen, 1979). It can be argued that the application of VR/AR into the tourism experiences merely pushes this alternate reality one step further (Williams & Hobson, 1995). Research has shown that VR's greatest strength is its ability to visualise spatial environments (Guttentag, 2010). This is especially crucial in tourism where products are intangible and are confidence goods which consumers are not able to test in advance. Putting on a VR headset and being able to compare different destinations could help consumers make informed decisions (Cheong, 1995). Wan, Tsaur, Chiu, and Chiou (2007) found that for theme parks, virtual experiences provided more effective advertising compared to brochures due to the richness and interactivity of the information.

This is supported by studies that show the ultimate goal for web-based destination marketing is to provide travel information to tourists via an unforgettable experience of the destination to persuade them to visit (Huang et al.,

2016). VR can cater specifically to the experience by allowing the user to experience selected visual, audio, and most importantly, spatial aspects of the destination without actually being there.

Facets of VR and AR have already been adopted by the tourism industry. Destination BC (http://bcexplorer.com/) in British Columbia, Canada and Tourism Australia (http://www.australia.com/) have fully interactive VR experiences available on their websites. Supported by the local office of information and tourism, Zarzuela, Pernas, Calzón, Ortega, and Rodríguez (2013) recreated the city of Valladolid in Spain, allowing the user to roam the city and learn facts about it in a virtual experience. Mesároš et al. (2016) did an overview of AR applications currently available in tourism, focusing on AR experiences delivered through smartphones. They also developed the NosfeRAtu app, an AR game located in Slovakia's historical Orava Castle. In the cultural heritage sector, AR has seen some conflicted opinions. On one hand, studies have shown that AR enables a more dynamic and innovative way to provide users with enhanced information in museums (Tom Dieck et al., 2016). Virtual reality allows the simulation of places, and over the past few years, industry usage has rapidly increased in destinations around the world. Virtual tours allow a unique and immersive way to explore destinations and hotels, while virtual walk-throughs of heritage attractions permit people to explore inaccessible sites as well as cultural preservation. This allows tourism marketers to communicate their intangible tourism experiences to potential travellers, which influences the customer's decision on whether to visit the destination or attraction in real life (PhocusWire, 2020).

Coronavirus and Virtual Tourism

Coronavirus itself is a phenomenon which hinders the movements of people. Movements of people are in the very core

of tourism. Therefore, there must be a way to make people travel and get that authentic experience without leaving their homes. In other words, virtual tours can be offered. African countries are offering tourists from all over the world the chance to travel the continent and even go on safari by virtual modes. Since the coronavirus pandemic's arrival, the tourism industry has collapsed across all the countries in Africa. National parks and hotels became empty and there is no trace of tourists, as they are all stuck at home. But several African tourism associations have come up with the idea of supplying avid travellers with digital impressions of the continent during the pandemic. Virtual tourism is on the rise.

(Kenya Tourism Board, 2020) states that Kenya has already lost more than $750 million (€656 million) in revenue from tourism since the first case of COVID-19 in the country. That is why, in June, the tourism authority there initiated a live-stream drive as part of its #TheMagicAwaits campaign. It is meant to give the world a taste of what awaits in Kenya when the country is open to visitors once more. People are online and looking for places they could travel to. That is a great opportunity for us to present ourselves live as a destination. Sixteen different destinations in Kenya are being live-streamed. India is another country which is taking advantages from Virtual Reality in the face of Coronavirus. Hindustan Times (2020), states that with the travel ban being imposed all around the world, due to the COVID-19 pandemic, many art and heritage sites in India have resorted to virtual tours. From using 360-degree panoramic views to holding online sessions, it helps viewers enjoy beautiful locations digitally and experience the joy of travelling from comfort of the house. Moreover, Hindustan Times (2020) also mentions that Tourism New Zealand has virtually launched its new campaign 'Messages from New Zealand' in India as

part of its efforts to promote the country as a preferred destination.

As it is mentioned above, there are several instances which depicts the usage of Virtual Reality during COVID-19.

Virtual Tours in Sri Lanka

Taking the example of other major destinations, Sri Lanka Tourism also broadcasted virtual tours which feature Sri Lanka Wildlife. Sri Lanka Tourism Promotion Bureau (SLTPB) collaborated with the private sector to live-stream the national parks of the island nation, showcasing exotic wildlife and natural habitat (Business Traveller, 2020). National parks including Yala, Minneriya, Kaudulla and Udawalawe were covered under this initiative. Travellers could enjoy stunning sights of leopards, bears, elephants, crocodiles, birds, wildlife scenery and the spectacular behaviour and movements of birds and mammals. The project expanded to eight wildlife streaming video sessions of one hour each. These live-streaming sessions were telecasted through social media platforms such as Youtube, Instagram, Twitter and Facebook and pre-promoted through social and digital platforms. Telecasting through broadcast media were also be carried out to read a wider audience base.

Given all these facts, it can be said that Coronavirus has a huge impact on the world economy and tourism sector. Since people are not able to go around the world given the pandemic situation, major tourism destinations are now moving towards Virtual Tours to get a hold of the prospective tourists. Sri Lanka has also launched a Virtual Tourism programme to promote its wildlife. No studies are being conducted to evaluate or identify the effectiveness of these virtual tours and its potentiality in Sri Lankan context. Therefore, this study provides light to the potentiality of Virtual Reality that can be implemented in several sectors of Tourism industry and its effectiveness.

METHODOLOGY

This study was carried out through qualitative approach to present the qualitative content in the form of objectives and information. As a research approach, methodological approach as content analysis of electronic textual data was used. Content analysis is an established research methodology widely used in social sciences to investigate communications (Holsti, 1969). As this study considered to be benefited from high volume of electronic data including communications in virtual communities, articles in general media databases and textual and pictorial materials from web sites (Nicholas et al. 2003; Wickham and Woods, 2005), authors have chosen the content analysis as suitable method in qualitative approach.

The documentary analysis of reliable books & documents, articles, web sites and newspapers etc was used in this study to enhance the results. The main goal of this study is to assess the potentials of virtual tourism during the period of global pandemic to give the hope to the tourism providers as well as the tourists. Therefore, the data were obtained from printed publications, broadcast programs, other recordings, the internet, or live situations and processed through thematic content analysis.

A thematic content analysis is a method of analysing the text of social investigation among the set of pragmatic method (Kumar et al., 2018). After summarizing the literature, it was organised and gathered thematically in to vital concepts. Considering tourists as the major stakeholder of the virtual tour experience, the tourists' comments were taken into consideration as well as tourism service providers' comments and their view points on virtual tourism also taken into consideration.

This enabled the study to fetch out themes related to virtual technologies in

Sri Lanka and its major contribution towards tourism withstand amongst the pandemic.

Results

The tourism industry of Sri Lanka has been progressively increased after the Easter attack in April 2019. According to SLTDA, 2019, 169,003 people were employed directly and 219,484 people employed indirectly in tourism industry in 2018. As a reason for substantial contribution to the economy, it is vital to get to know how the industry can be recovered since majority of the employees are unemployed and due to shut downs of tourism sub sectors such as, hotels, travel agencies, airlines etc. Moreover, the decline in tourism revenue for Sri Lanka could vary between USD 107 mn – USD 319 mn, according to ADB projections as of March 06, 2020 (Ranasinghe et al., 2020). The impacts of this outbreak were greater than anticipated effects. Further, this may influence future foreign investments also and there is no doubt remains that the pandemic has affected Sri Lankan tourism in a greater negative way in both current and future tourism activities.

Figure 01 - Source: Sri Lanka Tourism Development Authority
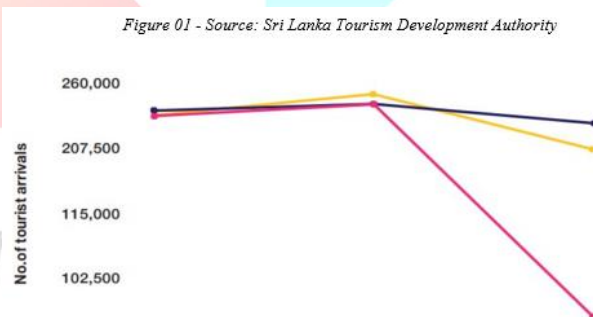
The country cannot be considered that it has the potential to move forward with all the tourism sub-sectors in the existing situation though the country needs the preventive measures and safety

regulations to ensure the safety of tourists as well for image creation. Although the situation makes more slopes at the tourism cycle of the country, the country still has the latent to reach its aims with the appropriate identification of its core bases that would guide the country to gain some weightage in the tourism markets back with also further development mechanisms (Ranasinghe et al., 2020). With the special attention United Nations World Tourism Organization has already initiated several practices like "travel tomorrow campaign" highlighting the tag line that if we can stay home today, we can travel tomorrow. Due to the global and local pressure on improved health standards, all the tourism and hospitality service providers will have to adapt with greater disease preventive and controlled methods for the health and safety in tourism operations (Samarathunga, 2020). With the adaptation of the new normal situation, many mechanisms were initiated by the tourism regulatory organizations in Sri Lanka.

Amongst those various mechanisms, Sri Lanka Tourism Development previously discussed on its post- COVID 19 approach under two phases. First phase was planned to be implemented during 2020 December Season while the second stage was planned to be implemented after December. The first stage was focused on immediate recovery of the industry, which involves changes to the visa process to include mandatory testing, adjustments to immigration process, airport entry, hotel transfer and certification of hotels to ensure health and safety of tourists, employees and the local community (onmanorama,2020).

Moreover, Recognising the safety protocols introduced by the Government of Sri Lanka along with standards mandated by Sri Lanka Tourism Development Authority to ensure the safety of domestic and international travellers, Sri Lanka was recognized with

the World Travel and Tourism Council's (WTTC) Safe Travels stamp in the month of August. However, it is in a positive atmosphere like this, the second wave of Coronavirus hit the globe in October recording a wide spread even in Sri Lanka which successfully battled with the first wave while threatening country's tourism again.

Availability of Virtual Tours in Sri Lanka

Even before the pandemic, social media platforms like YouTube contained some 3600 videos of attractions in Sri Lanka. These are majorly made by the visitors. Therefore, those cannot be considered as official ones. Somehow, these 3600 videos play a positive role in attracting tourists to Sri Lanka and it could be seen that most people have watched these tours during the pandemic. Additionally, Sri Lanka's leading hotel brands also feature a 3600 video of their property in their websites so that their potential clients can have an idea about what they are going to purchase rather than look at images. These 3600 videos create a sense of being there. For an instance, John Keells Properties has used virtual reality technology to provide virtual tours of show units for its two upcoming residential developments, Cinnamon Life and TRI-ZEN (Adaderana Biz English,2020).

Adhering to the government's stay-at-home directive in order to stop the spread of COVID-19, John Keells is using Matterport technology to responsibly and safely provide a complete virtual walk-through of specifically the Cinnamon Life two bedroomed and the TRI-ZEN dual-key apartments. Thereby Potential buyers can make informed decisions about their future residence at their leisure, and from the comfort and safety of their own homes. According to John Keells group, VR helps them to navigate this new normal situation, while simultaneously

maintaining public health as the priority during this pandemic.

Coronavirus created an environment which does not support physical travel but virtual travel. Understanding the other destinations' efforts towards technological innovations, Sri Lanka has also taken a decision to introduce its first official virtual tour based on wildlife attractions. In order to penetrate the message to the target audience, Sri Lanka Tourism has carried out a campaign prior to the event. Several viral videos were released to inform potential clients on digital and social media platforms (SLTDA, 2020). According to SLTPB (2020), The pre-marketing campaign has gained lot of attention. Within the first week of promotions, the campaign has got approximately 3.5million post reach on FB, 750,000 video views on FB and YouTube making Sri Lanka visible both locally and internationally. These tours were promoted to a selected network globally through print, digital and social media prior to, during and post event highlighting the beauty and significance of Sri Lankan wildlife. The safaris were streamed on dedicated streaming website and Apple TV, Roku, Periscope also on Facebook and YouTube channels.

Figure 02 – A promotional poster on Sri Lanka's Couch Safari

The virtual tour has been streamed on the following dates:

November 4 & 5: Minneriya National Park (4:30-7:30pm PST)

November 8: Kaudulla National Park (4:30-7:30pm PST)

November 9: Uduwalawe National Park (9:30am-12:30pm PST)

November 10: Uduwalawe National Park (5:30-8:30pm PST)

November 11: Yala National Park (9:30am-12:30pm PST)

November 12: Yala National Park (9:30am-12:30pm PST)

November 13: Yala National Park (6:00-9:00pm PST)

Aforementioned Virtual Tours were implemented covering major national parks in Sri Lanka featuring its wildlife. For now, Sri Lanka tourism offers only these wild life tours. Considering the fact that Sri Lanka is abundant with different tourist attractions, those ones can also be streamed as virtual Tours. During these couch safaris, Sri Lanka tourism provides an excellent narration with the support of experts in wild life studies. The video footages were in an admirable condition even though there were some minor technical errors. In between commentaries, Video clips which showcase some prominent hotels were also streamed. However, The Virtual Reality component was not actually used in Sri Lanka's current couch safaris which was lacking point.

Viewers' Feedback on Couch Safari offered by Sri Lanka Tourism

When considering the comments posted in social media by the viewers who took part in Couch Safaris, there were certain points that could be highlighted. Most of the people have commented that they cannot wait to come to Sri Lanka while

some mentioning they that miss Sri Lanka. These people must be the ones who have visited Sri Lanka before. They might have got that nostalgic feeling while participating for the couch safari as they have mentioned about their dear memories about Sri Lanka. Sri Lanka is normally a destination which gets the arrival of repeat tourists in large scale. Some people who have visited Sri Lanka before, have mentioned that they will come back to see the places which they could not able to visit during their previous visit. Some have mentioned that they would like to enjoy virtual tours of other attractions in Sri Lanka too. It could be seen that some have appreciated the tour since they are stuck at homes and cannot get these places. The tours were appreciated by them saying that those are wonderful experiences from comfort of home. It could be seen that many are eagerly waiting to visit Sri Lanka once the pandemic is over and when borders will be open. Some have mentioned that they have felt like they were in Sri Lanka while participating for the virtual tour. It could be also seen that vloggers too were interested in coming to Sri Lanka when the pandemic is gone. One representative from Egyptian embassy in Sri Lanka has mentioned that Egyptians are looking forward to visit Sri Lanka and are asking about camping near wild life parks. When it comes to negative points, few people have mentioned about errors in streaming like breakups and mismatch of voices and footages.

Availability of ICT infrastructure to support Virtual Tourism in Sri Lanka

It is vital to examine the strength of ICT in Sri Lanka when assessing the potentiality of virtual tourism. According to Sri Lanka Export Development Board, Sri Lanka's innovations in ICT sector and Sri Lankan ICT products are the innovations that power up the international stock markets, telecommunication and transportation systems in Europe and the UK. It also highlights that ICT services are the 4th largest export earner of the country. The Sri Lankan ICT sector provides its products to many sectors including Communication, Apparel and Textiles, Banking Financial Services & Insurance, Healthcare, Manufacturing, Media, Retailing, Transportation and Travel and Leisure etc. SLEDB also mentions that Information and Communication Technology (ICT) makes the world shrink. As major players are facing difficulties in coping with the global demand, Sri Lanka is emerging as a world's ICT destination of choice. Sri Lanka is taking efforts in transforming itself into the most preferred ICT hub in Asia with the availability talented professionals. The export revenue of this sector grew from US$ 166 million in 2006 to reach US$ 968 million in 2017 with a workforce of over 85,000. With over 90% value addition and high paying jobs, has made a significant impact on the growth of the Sri Lankan Economy (EDB).

According to EDB, Sri Lankan ICT companies export software products to regions such as North America, EU, Australia, East Asia, Middle East, Africa and Nordic region. Their core competencies include automated application testing, infrastructure outsourcing, high-end R & D, Enterprise Resource Planning (ERP), Cloud Technology, Mobile Applications and other Business Solutions. Sri Lanka also acts as an offshore development centre for several companies from, Ireland, UK, USA Australia and Sweden etc. Moreover, there are companies who provide services by creating 3600 virtual tours to disseminate information and promote the products of their client companies. For an instance, 'Aerial View' is a web-based company which creates motion picture videos, 360 videos, VR productions, aerial cinematography, Corporate videos. They also provide

virtual tours using the Google Business View platform for hotels and resorts. Some of their clients are well-knows tourism and hospitality brands including Sri Lanka Tourism itself, Jetwing Hotels, Aitken Spence Hotels & Resorts, Anantara, Avani Hotels & Resorts, Cape Weligama and Ceylon Tea Trails etc.

By considering these factors, it is clear that Sri Lanka has the resources in ICT and those resources should be utilized properly with a comprehensive plan to promote Sri Lanka through virtual tourism.

Packaging the Virtual Tour

According to Jayendran and Rejikumar (2018), there are four main attributes that can create a positive destination image. Those attributes are accommodation, amenities, accessibility and attractions. These convey a positive image about the destination. To address the limitations caused by COVID-19, an actual tour on the virtual application should be given more attention for accommodation, amenities and accessibility, as most of the tourists will not be able to physically visit the destinations of their choice. When it comes to use of virtual technology, any tourist destination, be it New York, Cape Town or Harare can generate more income by promoting virtual tours. However, success depends much on marketing and packaging (Jenny 2017). When it comes to Sri Lanka couch safaris, it could be seen that abovementioned packaging also should be concerned. These tours streams videos about some hotels, yet tours can be arranged as a package. It can be seen that when streaming the couch safaris, only the tourist attractions are used which does not do justice to the concept of tour packaging.

Virtual Tours as a marketing tool

According to Sri Lanka Tourism Promotion Bureau, this virtual tour was designed with the objective of using the 'Couch Safari' as an innovative marketing strategy to be on top of the mind awareness among the potential visitors once the conditions are healthy for them to visit the country. Griffin et al (2020) 's finding about Virtual Tours as a marketing tool, supports this objective of SLTPB. Griffin et al. (2017) state that virtual tours helps people generate more positive emotions towards the destination. Virtual tours are a more engaging form of advertisement that helps people feel like they are in the destination participating in the activities. These seems to create a positive impact on affective and conative elements of destination image in comparison with other forms of visual promotions. Therefore, when combining these factors, it can be said that Sri Lanka's Virtual Tours have the possibility of acting as strong marketing tool as it can create a positive image on the mind of potential visitors. This fact is also supported by Chirisa et al (2020)'s findings which says that Virtual Tours can play two major roles. Those are as a powerful destination marketing tool to encourage people to travel again, and a temporary escape for those who are not yet willing and are not safe to travel.

Furthermore, it can be said that when potential tourists have a strong positive image about Sri Lanka created by Virtual Tours, it will lead them to purchase a tour when the threat of pandemic is complete gone. This was revealed by the comments of international viewers who took part in couch safari. Most of them have stated that they are eagerly waiting for the condition to come in to normal status so that they can visit these wildlife parks. These findings indicate a possibility of Virtual Tourism contributing to the acceleration of the comeback of Sri Lanka tourism.

Virtual Tours as a mode of ensuring safety

The most prominent consideration of people during the pandemic is the threat towards safety which became the key concern for the travel restrictions. In a

situation where, human mobility can be a major cause to spread the virus, potential tourists are left with no choice but to cancel their bookings and stay at home. However, humans are fond of travelling and visiting exotic places by their very nature. A way to enjoy those exotic places while being safe at their own homes is the solution in this kind of a situation. According to SLTPB (2020), Streaming of personalized wild safari drives from four prominent National Parks of the island let the viewers to experience wildlife from the comfort of home while being safe from the pandemic.

Chirisa et al (2020) state that Virtual Tours would reduce fear in tourists, for example, fear of being affected by diseases in some of the destinations that tend to be disease prone, particularly tropical destinations. This indicates that even after COVID-19 is complete gone, during another phenomenon which would threaten the safety and thereby hinder physical movements, Virtual Tours can be used to ensure the safety an at the same time deliver the clients a worthwhile experience.

Virtual tours as a source of income

Sri Lanka tourism is not yet using virtual tours as source of method. In Sri Lankan context, these virtual tours are offered as a marketing tool. However, as per the researchers at the Medical College of Georgia at Augusta University. a new way of virtual travel, using advanced mathematical techniques combined with Livestream video with existing photos and videos of travel hotspots, could help rejuvenate an industry that has been distressed by the covid-19 pandemic (ScienceDaily, n.d.). While considering the benefits of virtual tourism there is a general statement about virtual tourism that this tourism does not provide economic advantages like the physical tourism does (Tourism Teacher, 2020). Even though, to some extent we would

gain some benefits from economic side in both tourists and service providers' perspectives. Perhaps, tourism is considered as one of the potential foreign exchange earning sectors in developing countries like Sri Lanka. It is known that several destinations are unapproachable to tourists due to many reasons even most of the destinations in this pandemic. The quality of the product can be determined by the degree of experience with information. Significantly, the travel experience carried in terms of audio and visual forms play an important role in the tourists' purchase decision. Therefore, improved virtual reality experiences positively influence the purchase behaviour of consumers which can increase the revenue in tourism industry in the pre-purchase stage (Sambhanthan and Good, 2013) that can be applied to Sri Lankan tourism industry. Tourists might pay for the virtual experiences like they pay for other tourism services during the physical travel like they pay airlines, hotels and tourist spots. The payments might go to each service provider involved in creating the virtual experiences or to the company who creates the virtual experiences. On the other hand, in the tourists' perspectives, the virtual tour can be seen as cost effective. As the pandemic impacts most of the travellers couldn't involve in the activity of travel while considering the recession of economy all over the world. Through the digital interviews with several travellers, it has been identified that the virtual tours as cheaper and healthier and safety since it can be done from the ease of home as well as it eliminates the travel time to the destinations.

Moreover, as a developing country, it can be suggested on packaging virtual tours same as conducted in Zimbabwe, there is a package for virtual tourism for Expo 2020 Zimbabwe Pavilion in Dubai (Chirisa, 2020). As explained, the host packages a walkthrough virtual video

available online. The simulation video can be retrieved through different codes that can be paid for online. The tourists then adopt virtual reality earphones with goggles and other necessary equipment that make them feel like they are walking through Amazon forest in the comfort of their home (Voronkova, 2018). Therefore, it can be recommended to use the computerization facilities to implement the virtual tourism properly in Sri Lanka which can create some sort of economic benefits in this pandemic. Sri Lanka Tourism needs to consider these facts as they did not use virtual reality in Couch Safaris.

Virtual Tours as a source of employment generation

This study in its literature review, clearly mentioned that Coronavirus has caused majority of the people in the tourism industry lose their jobs. Under the conditions of lockdowns, quarantines and the social distancing, many tourism businesses and business across Sri Lanka have strengthened their determinations to place themselves on the shades of tourists. As an entry point of the travel, many organizations have started to think about the diversification of their businesses by showing the delights of the best scenery, tourism activities like safaris and foremost attractions of Sri Lanka, which may encourage tourists to their cities or any other regions. Restricted to the peoples' home, new technologies like virtual tourism or virtual reality create an alternative trip substituting real tours and it allows to plan for the next vacation.

Therefore, considering the potential this study found that the virtual or virtual reality- based tourism can create a revenue stream and an employment stream for the service providers like tour guides, in coordination with tourism authorities like SLTADA, SLTPB, SLCB, destination managers or tour operators. Furthermore, virtual tourism can create several employment opportunities like interpreters, drone pilots, videographers, photographers, virtual tour guides and those building the new equipment needed for virtual tourism (ScienceDaily, n.d.) where most of the tourism employees were lost their employment in this pandemic.

The technologies based on virtual reality, for example 360-degree videos of destinations can be viewed as immersive experience of places and it cannot be ignored regarding the interpersonal element in virtual tourism and most of the tourists have mentioned that they grew confidence to travel by discovering and letting them know or interrelate the expected settings. In that case countries like Sri Lanka can take this comment into the consideration and make the role of tour guides as crucial in content providing. Along with their knowledge of historical places, customs, traditions, culture and stories of Sri Lanka, it can be communicated to the tourists to motivate them while it provides the opportunity to get an employment in this pandemic.

Virtual Tours once the pandemic is gone

It is clear that Virtual tours are capable of strengthening the tourism industry during situation which restricts travel. However, Digital experiences are not intended to, replace the experience of real-world travel. Real-world travel should be given the priority after the threat is completely gone. Nevertheless, when the threat is completely gone, VR experiences might help the industry operators still as a marketing tool and earn an income from the people who do not have the physical ability of travelling and who are not that much into physical travel.

CONCLUSIONS

By considering the results of this study, in can be concluded that Virtual Tourism

can be a real saviour for the tourism industry of the country in the face of pandemic if this technology is used wisely. It can be mostly used as a promotional tool through which the wanderlust can be kept on edge and to get a hold of the potential customers. Virtual Tours are highly likely to accelerate the return of physical travel by stimulating viewers' interest in travel. Moreover, this technology keeps people safe and content in a stressful environment in which they cannot leave their homes. These were revealed from the contents available and comments of people who took part on Sri Lanka's couch safari. Sri Lanka virtual tours which are currently offered, do not use Virtual Reality experience that much. However, private companies like hotels try to promote their properties by featuring small virtual reality-based tours. This approach can be implemented by SLTPB in their virtual tours when featuring Sri Lanka as a destination. Sri Lanka has the strength in terms of ICT to implement more innovative Virtual Reality based tours. These tours can be used as income generators and employment generators in a situation where most of the jobs are lost due to Coronavirus. Moreover, the contents and extents of the virtual tours should be decided upon the fact whether they are being featured as a mere marketing tool or a product to sell. Virtual Tours by any means should not replace physical travel yet Virtual Tours can be used as an alternative and a marketing tool even once the threat of Coronavirus is gone.

RECOMMENDATIONS

Virtual tours & Copyright implementation

Through the intensive analysis of contents available, it can be concluded that the virtual tourism in Sri Lanka considered to be in the infant stage and the demand and convivial of virtual tours are immensely high. In this stage the artists discovering that generating work in 3D space may allow them do the things that were not easier previously. There can be number of intellectual property rights might play a vital role in nurturing virtual tourism in Sri Lanka. Moreover, these exclusive rights should be included in copyrights, trademarks, cinematographic, artistic works, audio visual, recordings, broadcasting, storybook, recording and musical or any related works in the scientific, artistic, or whatever the method of countenance (Tilleke & Gibbins - Alec Wheatley, ad). The current Intellectual Property Act, No. 36 of 2003 (IP Act) swapped the Code of Intellectual Property Act in 2003. The Act was introduced to confirm compliance of the Sri Lankan IP regime; specifically, copyright and related rights, inventions, industrial designs, trademarks, geographical indications, undisclosed information including trade secrets, protection against unfair competition and layout designs of integrated circuits, etc. (Punchihewa. 2017).

When considering Sri Lanka, when the act is not limited to the technologies at the time of enrolling then the implementation of virtual tourism may face a huge challenge in protecting copyrights. As virtual reality grows rapidly and represents software works, the platform of virtual reality also should be protected against invading in terms of their services. As currently the intellectual property act is available in Sri Lanka, the VR platforms and the tours also should fall under this act that could grant immunity against infringing content positioned on their services by any other parties or service providers. Using more of Virtual Reality & Packaging virtual tour in order to incorporate virtual tour as substitute travel

It is highly recommended for Sri Lanka tourism to use more of Virtual Reality technology and simulations which expanding the virtual tours into other

attractions as well. Sri Lanka's authentic culture can be a good attraction to feature in these virtual tours. Addition of many options that may not be offered to a physical visitor, such as games that can be sold through payment of a subscription fee regional virtual tours of a wide range of attractions combined with cultural features will be tactical ways to make the customer spend on virtual tours and thereby earn an income. Making the tour packing attractive is also highly recommended while including the sights of attractions, accommodations, amenities and accessibility. This package should be created in a very innovative way to make it a unique experience for the customer if they are to be sold.

Coordinate with relevant authorities and the tourism stakeholders with regards to policy creations, implementations and marketing strategies.

This study exposes the possibilities as well as the tourists' stand regarding virtual tourism. When considering the need of virtual tourism in the crisis time, it can be stated that there is a need to integrate the relevant authorities like SLTDA and they should involve in policy creation, copyrights and law, use of internet and the application of marketing strategies since virtual tourism offer the economic sources and contribute to the country's economy in several ways during the period of pandemic.

Assimilate the business system in to the form of virtual organization

There can be a huge potential for applying the human resources and the information communication technologies in the application of virtual tourism in Sri Lanka. As per the perception survey done with the tourism service providers and the existing virtual tour operators, it can be observed that these organizations consist with the confidence and the high level of information propagation. Therefore, for further operations as well as to take forward the forms of virtual tours, it is recommended to practice the adaptation of virtual organizing of tourism businesses.

FUTURE RESEARCH

With the development of digital economy, VR technology is evolving rapidly though there are limited literature available regarding the virtual tourism and its implementation especially in Sri Lanka. VR tourism related researches should be authenticated through continuous examination. It can be suggested for the further studies in the areas of VR tourism planning tools particularly for the developing countries or VR tours based on anthropological approach and traditional exhibits and it is highly recommended to study the attitudes and the perceptions of tourists regarding the virtual tours since it can be greater motivation to all related tourism service providers.

REFERENCES

Adaderana Biz English | Sri Lanka Business News. (2020). John Keells Properties stays ahead of the curve with 3D virtual tours of Cinnamon Life and TRI-ZEN apartments. [online] Available at: http://bizenglish.adaderana.lk/john-keells-properties-stays-ahead-of-the-curve-with-3d-virtual-tours-of-cinnamon-life-and-tri-zen-apartments/ [Accessed 6 Nov. 2020].

Burdea, G. C., & Coiffet, P. (2003). Virtual reality technology (Vol. 1): Hoboken, NJ: John Wiley & Sons.

CDC (2020). Novel Coronavirus 2019, Wuhan, China. [online] cdc.gov. Available at: https://www.cdc.gov/coronavirus/2019-ncov/index.html

CeylonToday. (n.d.). Post-COVID-19 Sri Lanka Tourism should involve innovation, integration. [online] Available at: https://ceylontoday.lk/news/post-covid-19-sri-lanka-tourism-should-

involve-innovation-integration [Accessed 1 Nov. 2020].

Cheong, R. (1995). *The virtual threat to travel and tourism. Tourism Management, 16(6), 417-422. doi: 10.1016/0261-5177(95)00049-T.*

Chirisa, I. (2020). *Scope for Virtual Tourism in the Times of COVID-19 in Select African Destinations. JOURNAL OF SOCIAL SCIENCES, 64(1–3).*

Cruz-Neira, C., Sandin, D. J., DeFanti, T. A., Kenyon, R. V., & Hart, J. C. (1992). *The CAVE: audio visual experience automatic virtual environment. Communications of the ACM, 35(6), 64-73. doi: 10.1145/129888.129892.*

Gutierrez, M., Vexo, F., & Thalmann, D. (2008). *Stepping into virtual reality: London: Springer Science & Business Media.*

Guttentag, D. A. (2010). *Virtual reality: Applications and implications for tourism. Tourism Management, 31(5), 637-651. doi: 10.1016/j.tourman.2009.07.003.*

Hindustan Times. 2020. *Tourism New Zealand Launches New Virtual Campaign In India, Shares Video Messages Of Hope And Care Amid Covid-19. [online] Available at: <https://www.hindustantimes.com/travel/tourism-new-zealand-launches-new-virtual-campaign-in-india-shares-video-messages-of-hope-and-care-amid-covid-19-story-t1sZUXexfr1LgpXYj4W8aN.html>[Accessed 1 November 2020].*

Hobson, J. S. P., & Williams, A. P. (1995). *Virtual reality: A new horizon for the tourism industry. Journal of Vacation Marketing, 1(2), 124-135. doi: 10.1177/135676679500100202.*

Holsti, O.R. (1969). *Content analysis for the social sciences and humanities. Reading, Mass.: Addison-Wesley, ©, Pr.*

Huang, Y.-C., Backman, K. F., Backman, S. J., & Chang, L. L. (2016). *Exploring the Implications of Virtual Reality Technology in Tourism Marketing: An Integrated Research Framework. International Journal of Tourism Research, 18(2), 116-128. doi: 10.1002/jtr.2038.*

Kumar, H., Singh, M.K., Gupta, M.P. and Madaan, J. (2018). *Moving towards smart cities: Solutions that lead to the Smart City Transformation Framework. Technological Forecasting and Social Change, p.119281.*

Magical Kenya. (n.d.). *MagicalKenya The Official Kenya Destination Website. [online] Available at: https://magicalkenya.com/.*

Mesaŕ os,̆ P., Mandică ḱ , T. s., Mesaŕ osŏ va,́ A., Hernandez, M. F., Krsă ḱ , B., Sidor, C., . . . Delina, R. (2016). *Use of Augmented Reality and Gamification techniques in tourism. e-Review of Tourism Research, 13(1/2), 366-381. Retrieved from https://www.researchgate.net/profile/Peter_Blistan2/publication/305154812_Use_of_Augmented_Reality_and_Gamification_techniques_in_tourism/links/57d3f0c808ae0c0081e6e1*

Nicholas C. Romano Jr, Christina Donovan, Hsinchun Chen & Jay F. Nunamaker Jr (2003) *A Methodology for Analyzing Web-Based Qualitative Data, Journal of Management Information Systems, 19:4, 213-246*

OECD. (2020). *Tackling the coronavirus (COVID-19) crisis together: OECD policy contributions for co ordinated action. [online] Available at: https://www.oecd.org/coronavirus/en/*

OnManorama. (n.d.). *Sri Lanka tourism readies for post COVID-19 revival. [online] Available at: https://www.onmanorama.com/travel/travel-news/2020/04/21/sri-lanka-tourism-readies-post-covid-19-revival.html.*

Punchihewa, N.S. (2017). *Intellectual Property in Tourism and Culture in Sri Lanka. In: [online] Annual Research Symposium. Colombo, p.102. Available at: https://www.wipo.int/export/sites/www/ip-development/en/agenda/pdf/study_ip_in_tourism_and_culture_sri_lanka.pdf [Accessed 4 Nov. 2020].*

Ranasinghe, R., Damunupola, A., Wijesundara, S., Karunarathna, C.,

Nawarathna, D., Gamage, S., Ranaweera, A. and Idroos, A.A. (2020). Tourism after Corona: Impacts of Covid 19 Pandemic and Way Forward for Tourism, Hotel and Mice Industry in Sri Lanka. SSRN Electronic Journal.

Samarathunga, W. (2020). Post-COVID19 Challenges and Way Forward for Sri Lanka Tourism. SSRN Electronic Journal.

Sambhanthan, A. and Good, A. (2013). A second life based virtual community model for enhancing tourism destination accessibility in developing countries. International Journal of Collaborative Enterprise, 3(4), p.269.

ScienceDaily. (n.d.). Virtual tourism could offer new opportunities for travel industry, travelers. [online] Available at: https://www.sciencedaily.com/releases/2020/09/200909085935.htm.

sltda.gov.lk. (n.d.). SLTDA | Sri Lanka Tourism Development Authority. [online] Available at: https://sltda.gov.lk/statistics.

srilanka.travel. (n.d.). GO ON A COUCH SAFARI | Sri Lanka Wildlife Streaming | So Sri Lanka. [online] Available at: https://srilanka.travel/wildlifestream/ [Accessed 1 Nov. 2020].

Tilleke & Gibbins - Alec Wheatley (n.d.). Copyright Protection in Virtual Reality | Lexology. [online] www.lexology.com Available at: https://www.lexology.com/library/detail.aspx?g=f2787558-af92-412b-a67d-3275fbb07657 [Accessed 4 Nov. 2020].

Tom Dieck, M. C., Jung, T., & Han, D.-I. (2016). Mapping requirements for the wearable smart glasses augmented reality museum application. Journal of Hospitality and Tourism Technology, 7(3), 230-253. doi: 10.1108/jhtt-09-2015-0036.

Tourism Teacher. (2020). Virtual tourism explained: What, why and where. [online] Available at: https://tourismteacher.com/virtual-tourism/#0-what-is-virtual-tourism.

Unwto.org. (2020). Tourism and covid-19 | UNWTO. [online] Available at: https://www.unwto.org/tourism-covid-19.

Voronkova, L.P. (2018). Virtual Tourism: on the Way To the Digital Economy. IOP Conference Series: Materials Science and Engineering, 463, p.042096.

Wickham, M., and M. Woods (2005). "Reflecting on the Strategic Use of CAQDAS to Manage and Report on the Qualitative Research Process." The Qualitative Report, 10 (4): 687-702.

World Economic Forum. (n.d.). COVID-19 could set the global tourism industry back 20 years. [online] Available at: https://www.weforum.org/agenda/2020/09/pandemic-covid19-tourism-sector-tourism/.

www.magzter.com. (n.d.). Impact Of Internal And External Shocks On Sri Lanka's Foreign Exchange Earnings. [online] Available at: https://www.magzter.com/article/Newspaper/Daily-Mirror-Sri-Lanka/Impact-Of-Internal-And-External-Shocks-On-Sri-Lankas-Foreign-Exchange-Earnings [Accessed 1 Nov. 2020].

www.phocuswire.com. (n.d.). Can virtual reality help tourism destinations recover from COVID-19? | PhocusWire. [online] Available at: https://www.phocuswire.com/can-virtual-reality-help-tourism-destinations-recover-covid-19.

www.srilankabusiness.com. (n.d.). ICT Industry Information - Service Providers in Sri Lanka - EDB. [online] Available at: https://www.srilankabusiness.com/ict-services/about/ [Accessed 6 Nov. 2020].

www.who.int. (n.d.). Travel advice. [online] Available at: https://www.who.int/emergencies/diseases/novel-coronavirus-2019/travel-advice.

Yung, R. and Khoo-Lattimore, C. (2017). New realities: a systematic literature review on virtual reality and augmented reality in tourism research. Current Issues in Tourism, pp.1–26