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Editors:

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Preface

The ENTER Ph.D. Workshop is the pre-conference event for the annual ENTER International eTourism Conference organised by the International Federation for Information Technology and Travel & Tourism (IFITT). Each year the ENTER Ph.D. Workshop provides the unique opportunity for doctoral students to interactively present and discuss their research with peers and leading scholars in the field. Doctoral students at all stages (i.e., beginning as well as nearly completed) are encouraged to participate. Importantly, this full-day workshop gives participants the opportunity to improve their research ideas and the structure of their work in a critical but supportive environment by receiving feedback from mentors, experts, and senior researchers within the global IT and Tourism research community. The Workshop also represents a fascinating glimpse into the future agenda of eTourism research.

Therefore, on behalf of IFITT we are proud to present these Proceedings of the ENTER21 Ph.D. Workshop as we believe these papers represent the next generation of eTourism research. Not only do these proposals capture a wide range of research areas (smart tourism, technology development, social media analysis, and current issues in eTourism), but they also discuss issues and applications of new, cutting-edge technologies impacting travel and tourism globally. We hope that these research topics will continue to be developed and that these young scholars will continue to push the study of eTourism forward.

The Proceedings and the Workshop itself would not have been possible without the support of a great community. First, we extend our deepest gratitude to members of the Scientific Committee who have contributed their valuable time and expertise in the review process. Secondly, we sincerely thank the senior experts who have volunteered to mentor students and to contribute to the Workshop program. Thirdly, we are extremely grateful to Claudia Brözel, the ENTER21 overall chair, and her team, as well as all members of the IFITT board for providing invaluable support, especially this year that the conference has been held online.

Most importantly, we heartily congratulate all the students that submitted their research proposals to the ENTER21 Ph.D. Workshop, you are the future leaders of the IT and Tourism research community and we wish you continued success as you work hard to complete your doctoral studies and begin the next exciting chapter of your career. Good luck!

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Scientific Committee

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Current Issues in eTourism

Smart Tourism

A Smart Mechanism: How can AI system construct tourist's smart tourism service experience in the theme park

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Abstract

Smart tourism and theme parks, as tourism products produced by the scientific and technological revolution and information technology innovation, have become important carriers of the tourism experience of contemporary tourists. This paper integrates the perspectives of the supply side and the demand side of smart tourism services from the perspective of theme parks and hopes to use the design of mixed methods to explore: How AI system construct and arousal tourists' smart service experience. It is hoped that this study can further quantify the quality evaluation of tourists' experience of smart tourism service, and contribute new theories and management enlightenment to smart tourism service.

1 Problem definition

The conceptual framework of smart tourism has been studied by many scholars (Li, 2016). Smart tourism destinations can not only realize electronic services, but also try to provide tourists with barrier-free tourism and higher-quality tourism information infrastructure services (Gretzel et al, 2015). The products of smart tourism experience may be in small and medium-sized venues such as leisure park (Düpmeier, 2006), theme park (Wei, 2019) and museum(Han et al., 2018).The birth of theme park combined with high technologies applied (Braun, 1999), and it is also the most high-tech travel products, for example VR (Wei, 2019), RFID (Tsai, 2017).The use of AI technology in theme parks has become a fact, however, the research on smart tourism service experience in the theme park context is insufficient. An in-depth study of the smart tourism service experience provided by the AI system in the theme park will enrich the theoretical reflection of the academic community on the smart tourism and increase the understanding of the industry. Base on the both side of supply (theme park managers) and demand (tourists) perspective to exploring how smart tourism service quality is perceived by tourists. Therefore, this study aim to achieve these goals in this study: a) what are the dimensions of smart tourism services supported by theme parks? b) What is the utilize status of AI (Artificial Intelligence) system in theme parks? What is the smart tourism service support framework in the theme park? c) Exploring how smart tourism service experience quality is perceived by tourists?

2 Literature review

2.1. Arousal Theory and AI system smart service

Arousal theory is a classical theory developed by a British behavioral psychologist, Berlyes (1960). Berlyes and his follower also called arousal theory as activating theory which about explain the relationship between environmental stimuli and

individual emotional changes in environmental psychology context. There are two types of arousal, one is gradualness arousal, and another is hyperactivity arousal. The first one which means the intensity of aesthetic emotion gradually arousal with the process of people's perception and acceptance. The later one is a state in which the mood rises rapidly to its peak in response to a sudden shock, and when the arousal goes away, the pleasure drops, reducing its intensity. Berlyne point out that people will gain pleasure emotion caused by two above arousal level in aesthetic activities, like tourism experience.

New AI system applied in theme park which represents new stimuli tourists' experience to support smart tourism service. Artificial intelligent (AI) technology and support system has been popular in last few years (Duan et al, 2019), it has become an important part of the modern industrial and commercial service scene (Waysdorf et al, 2018).Tourism, as the fastest growing industry in the world, is also the industry with the most application scenarios of AI equipment (Milman, 2008). Hilton Worldwide, for example, has introduced an intelligent robot "Connie", to personalize the experience, provide excitement and address the basic needs of visitors (Tavakoli et al, 2018). In 2016, the Hong Kong Disneyland theme park launched an artificial intelligence trash can to interact with visitors and refresh their experience. From this, it can be seen that the AI smart service framework including hard devices and soft system supports a new smart service encounter. The rise of AI system and smart applications in tourism service, the AI smart service framework combined with customers and managers, allowing tourists to take on more active interaction role (Larivière et al., 2017). Thus,

Hypothesis 1: AI system service positive influence tourists' experience arousal level.

2.2. Smart tourism service encounter and experience

These still do not represent the characteristics of the smart travel service experience provided by theme parks. Due to the numerous factors affecting tourists' experience of smart tourism, there is still no consensus on measuring the quality of tourists' experience of smart tourism (Chun, 2012). Recent literature has shifted from a binary and one-way perspective to a broader multi-party perspective, emphasizing the collaborative nature of the service experience (Carù & Cova, 2015). Therefore, based on the research of traditional service experience and the current understanding of smart tourism service experience.

Hypothesis 2: Smart tourism service encounter will positive influence tourists' interactive experiences.

Hypothesis 3: Tourists' interactive experiences mediate AI system service and Tourists' arousal level.

Hypothesis 4: Smart tourism service encounter will positive influence emotional experiences.

Hypothesis 5: Smart tourism service encounter will positive influence tourists' perceived smart tourism service experience.

2.3. The quality of tourist perceived smart tourism service experience

Tourism experience is a special process in which people feel or do not feel pleasure through relaxation, change and real psychological perception in the process of appreciation, communication and imitation (Rojas, 2008). To measuring tourists' experience, tourists' perception, emotions, cognitions and relationships are useful tools to address measure issue. Service quality refers to the user's assessment of whether the delivered Service meets the user's expectations. As an important index to measure the quality of user experience, satisfaction is the key to reflect whether the experience of tourists meets the expectations. Meanwhile, coolness, affordance also present the smart tourism experience (Dong-Hee Shin, 2017) .

Hypothesis 6: Tourists' arousal level will positive influence tourists' perceived smart tourism service experience.

Hypothesis 7: Tourists' emotional experiences mediate tourists' arousal level and tourists' perceived smart tourism service experience.

3 Conceptual Model

Smart service is not just a simple use of an idea or more advanced technology. Rather, they enrich and personalize the customer experience through the collection, integration, analysis, and coordinated use of general and specific customer information through connectivity and synchronization technologies (Gretzel et al., 2015). Kabadayi (2019) believes smart service is a personalized, proactive service implemented through integrated technology and intelligent usage data that can predict and meet customer needs at a specific time and/or place based on customer feedback and changes in the environment.

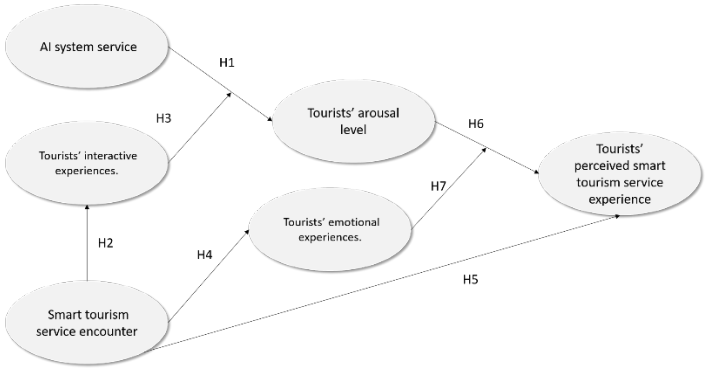

Fig1. Conceptual Model

4 Proposed methodology

An in-depth assessment of AI smart service framework and smart tourism service experience from supply (theme park managers) side and demand (tourists) side that mixed methods are used to exploring those insignificant issues. This study utilizes a combination of qualitative and quantitative method.

As the AI smart service framework is combination of hard devices and soft system. Thus utilize status of AI hard devices and soft system in the typical theme park, meanwhile smart tourism service encounter perceived by managers and tourists from different perspectives, focus-group interview method will be applied to exploring the dimension of smart tourism service encounter in this stage. Qualitative data are helpful to understand the overall picture of the smart service backstage. The NVivo software is used to analyze the qualitative data to supplement the deficiency in the current literature review. For the quantitative data, a structured survey questionnaire was constructed, and the mean opinion score an ordinal scales assessing quality on five point scale from one-five.

5 Anticipated results

This study will explore the AI smart service system of smart tourism service experience in the context of theme parks and understand the connotation of smart tourism service interface. Through qualitative analysis, this paper grasps the current situation of theme parks using AI technology and analyzes the whole process of smart tourism service experience. Increase the understanding of the experience dimensions and measurable variables of smart tourism services through a mixed-method. Finally, it is hoped that this study can further quantify the quality evaluation of tourists' experience of smart tourism service, and contribute new theories and management enlightenment to smart tourism service.

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Adaptive Capacity of Smart Cities Towards Novel Pandemics: Evidence from Developing Countries

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Abstract

The study intends assessing the extent of smartness of Ghanaian cities relative to housing infrastructure in adapting novel pandemics to include the existing COVID-19.Using cross-sectional survey design and employing both purposive and systematic sampling techniques, the study will select 540 respondents from Metropolitan, Municipal and District offices in Kumasi. In line with that, structured questionnaires would be administered to gather data from the respondents while adopting interview guide to solicit information from seven (7) city management experts and 4 institutional heads. Adapting and reviewing the smart city model, the study will expand literature on the drivers of smart city and how people adapt to the current infrastructure in emerging cities. The study will add to the academic knowledge the level of housing accessibility in Ghana as far as SDG 11 is concerned and how such espouse health infrastructure development in adapting novel pandemics like COVID-19.

1 Problem Definition

The concept of smart cities has gain academic and policy concern amidst the last decade. The smartness of a city is dependent on the state of infrastructure and how they relate to the population growth. A city should have the capacity to evaluates and assimilates circumstances of all of its acute infrastructures, including rails, subways, airports, seaports, roads, communications, tunnels, water, power, bridges, even major buildings, can better optimize its resources, plan its preventive maintenance activities, and monitor security aspects whereas maximizing facilities to its citizens (Hall et al, 2000).In line with infrastructure, Harrison et al. (2010) opined that a city linking the physical infrastructure, the business infrastructure, the social infrastructure and the IT infrastructure to influence the co-operative acumen of the town. Smartness enables decisive products, schedules, services and procedures in concurrent, by pleasing diverse participants simultaneously to enhance the collective performance and keenness and generate solutions and value for all (Aruditya et al, 2018). The purpose of this study is to examine the smartness of Ghanaian cities destination relative to COVID-19 coping mechanism (adaptation). The study sees the future tourism destination in developing countries as dangerous as far as covid-19 has come to stay (WHO, 2020) and taken into cognisance the nature of housing space relative to room occupancy per household and per person in emerging cities. The situation is worse in Africa and Ghana where most cities including Kumasi have high housing deficit where a room accommodates more than three (3) persons (Boamah, 2010); a situation that violates the standards of room occupancy ratio of (1:2) according to the UN-HABITAT (2016). This is critical to the industry that involves traveling of masses to see mostly where physical distancing is required at the places of tourist destinations.

The study recognizes smart cities as centers for tourism that brings people all and sundry for rich cultures and socialization. As a result, various literature reiterated that the concept of smart city does not stand on its own and is narrowly connected with smart tourism (Aruditya et al, 2018). Statistically,smart cities act as a hierarchy for the formation of smart tourism destinations. Thus, smart tourism destinations are smart cities which utilize the information technology and novelties to empower choice and involvements for the tourist. Research by the UN and International Federation of Red Cross and Red Crescent Societies show that a high proportion of the world's population most affected by extreme weather events is concentrated in urban centres and many of these "lack both local governments with the capacity to reduce disaster risk, and much of the necessary infrastructure (Kindra, 2017). According to (Chatterjee et al, 2015) all the cities of developed and developing countries feel the need to provide public services in a most effective and efficient way. This is because for relishing all the benefits of "Smart Cities" up-to-date technologies together with appropriate services and suitable active market environment are essential to be set in. Also, the sanitation of cities are to be guaranteed to realise renewed mind and to eradicate health risk towards gaining foreign exchange through tourism. Health is wealth and such is achieved through integrated facility and infrastructural development that forms part of intelligent buildings that incorporates smart cities.

The COVID-19 came as an unpredictable future and a cost that has not been budgeted for to the shock of intellectuals and health experts. The pandemic since its inception has trigged many concerns on how to get vaccination and treatment but Ghana as a developing country seems to rely solely on exotic methods, tactics and prescriptions. Though most developing countries are striving in mitigating the spread through the lockdown and physical distance measures yet the situation in Ghana is worse as a two (2) week lockdown increased the number of sick persons, homelessness, and streetism in Kumasi with majority of them going to bed with empty stomach. This is an indication of indecent housing, unhealthy living and food insecurity. The situation makes the smartness of the city questionable since smart cities seem to mitigate the aforesaid repercussions if not totally alleviated. According to the Center for Diseases Control and Worldometer (2020) the COVID-19 has claimed 403,083 lives with over 7million infection including 44 deaths and 9462 cases in Ghana. However, WHO (2020) in its report on the status of the coivid-19 emphasized that the pandemic has come to stay and we must be ready to adapt and live with it like any other virus. The Kumasi Metropolitan has a population of 3,338,946 with 1,468,609 living in the cities (GSS, 2020) with a housing deficit of 164,219 (Boamah, 2011).

This study finds such situation as problematic in adopting pandemics to include COVID-19 since overcrowding and physical contact have been the vine through which the virus is spread. This study aimed at assessing the readiness of global cities in adopting pandemic relative to the smartness of their cities with the focus on Kumasi city of Ghana. It tries to examine issues related to smart city efficiency (such as housing) which is considered paramount as far as tourism destination is dependent on housing. The rationale is that the study considers efficient and smart housing as one of the smartest means of controlling contagious and infectious ailments to include the novel corona pandemics. The question is: are our cities smart to be tourist

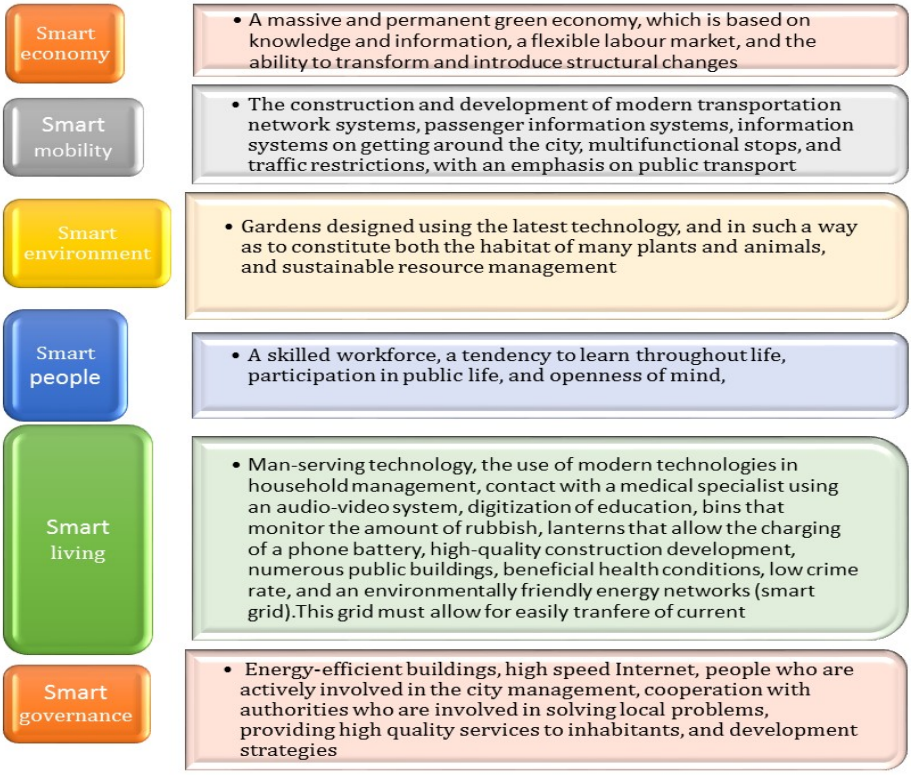
destinations considering the covid-19 protocols and the current housing situation at hand?

2 Literature Review

The constructive work by Friedmann (1986), Brown et al. (2010), Parnreiter (2010) and Parnreiter (2012) on the development of world city with the idea of bridging global system and specific hierarchical functional structure has influenced several scholars on urban development (Beaverstock et al, 1999; Knox et al, 2005; Kourtit et al, 2011; Cann, 2008; Sassen, 2006; Beaverstock, 2017). The fundamental role for such change of developed cities to standard "Smart Cities" includes metropolistic antagonism and product variety (Abdel-Rahaman et al, 1990; Becker et al, 2003; Duranton et al, 2000; Glaeser et al, 1992; Quigley 1998). The populations of modern cities are familiarised with the matters of digital records in order to keep stable record and checking of privacy (Gutwirth,2002) so that welfares of all modern world may be appreciated by the citizens swiftly.

The "Smart Cities" must have developments in many areas like surveillance, water resource system, energy management, telecommunication, health, transport, sewerage system, housing management and land scape development. Smart cities in accordance with (Chen, 2010) will take advantage of communications and sensor proficiencies embroidered into the cities' infrastructures to optimize transportation, electrical, and other logistical operations subsidizing daily life, thus enlightening the eminence of life for everybody. The practise of Smart Computing Technologies (SCT) to make the critical infrastructure mechanisms and services of city-which include city healthcare, public safety, administration, education, real estate, transportation, and utilities- more intelligent, interconnected, and efficient is useful in planning smart cities (Washburn,2009). Moreover, smart cities necessitates the application of sustainable solutions to overcome problematic complications and comprises the use of classy and luxurious technology developed by the private sector (Jasrotia, 2018). One might not be far from write to say destinations everywhere in the ecosphere are engines to smart tourism ingenuities to escalating their keenness and to sustain their ultimate goals (Gretzel and Scarpino-Johns, 2018). Though, whether smart tourism advancement can also aid them shape resilience is an interrogation that presently lacks a riposte and the situation in Ghana is unexceptional. Though tourism is seen as the third highest foreign exchange earner to the economy of Ghana, aside the fact that most people in destination towns are frustrated, the local communities are not aware of their cultural heritage zones and are not ready to sustain them (Marfo, 2014). The state of these technological applications in the administration and planning of Kumasi city of Ghana towards smart tourism housing-destination is the rationale behind this study.

3 Conceptual Development



Source: *Researchers construct, adopted from Giffinger et al (2007)*

The rationale behind this is study calls for the adaption of the Smart City Model (SCM). According to (Giffinger et al., 2007), smart city model was propounded by Austrian scientists from Vienna University of Technology and is implicit that an intelligent city is based on six axes. Figure 1 and 2 give details of the smart city theory and model respectively. The model establishes that a city is seen as a resource of interplanetary, infrastructure, buildings, and people, representing both the labour force and purchasing power (Kamil et al, 2015). In managing a modern city, a crucial role is played by information, since in most cases the spatial development of cities is incomplete, and the lack of likelihood of regional expansion generates the need for rational use of space in modern cities. The ideas of smart cities originated from the ancient urban scholars. The rationale behind smart city is to know the extent to which information communication technology could be utilized in planning and managing cities towards sustainability. The utmost and perfect usage of information tolerates an even operational of the process of planning and management without compromising efficient policymaking.

Adopting the six axial smart city theory, the smart city model included smart energy and indicates that to have a smart city there must be first and foremost smart people living in smart environment with smart energy that enhances mobility and this may lead to smart economy with good governance which in a long run brings about better standard of living. The management of the tourist industry and housing cannot be sustained without smart IT and governance having in mind sustaining the fight against novel pandemics to include covid-19.Smart governance in the parlance of this study is about the efficacy of persistent energy flow that intends powering IT infrastructure including health, industrial machines, transport machineries and household appliances that bring human comfort. Fighting novel pandemics necessitate smart policies(policies that meet the changing needs of people across the globe) including smart water and sanitation strategies are built around housing to have decent homes/accommodation that are fundamental to tourism destinations. When these things are policied well fighting any pandemic would be much easier and facilitating. This study belies that better standard of living means good infrastructure to include decent accommodation (housing). This study intends assessing the smartness of Ghana cities to coping with the COVID-19 pandemic with emphasis on Kumasi city. With emphasis giving to "Smart living", the study will look at the efficiency of these facilities in the Kumasi city; energy management, telecommunication, water resource system, land scape development, sanitation, health, transport, sewerage system, environmental protection, real estate and housing management. In relation to the model and framework, this study wish to know the extent of the smartness of Kumasi city in managing novel pandemics to include covid-19 as far as the country remains a destination for tourists taken the aforementioned areas into consideration. All these could not be realize if the governance machinery of the city is not smart because smart governance ensures the provision of resources needed to make the management of the city effective and involving.

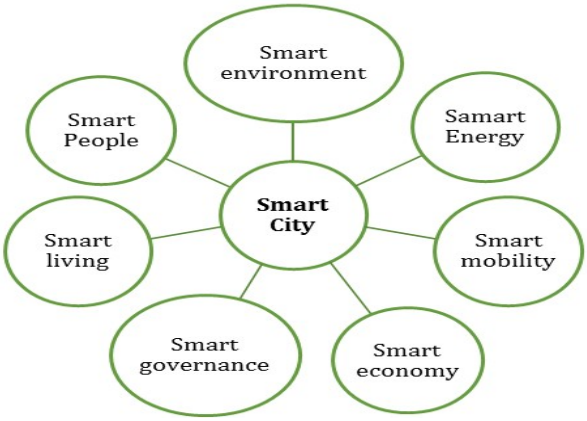


Fig. 2 The Smart City Model
Source: *Researchers construct, 2020*

4 Proposed Methodology

The study will be conducted in Kumasi, the second largest city in Ghana where many tourist end up having their destination(housing) due the presence of the Manhyia Palace that attracts many people from across the world to have a scene of the cultural temperament of the place. The nature of the study calls for a cross-sectional survey design. This is because data would be collected from many different departments (MMDA-Metropolitan, Municipal, and District and Area Council) depending on the category within which a particular community falls at a single point in time by observing the variables without influencing them (Lauren, 2020). The design is suitable because the study wish to know how smart Kumasi city is from others so as to estimate its readiness in adopting novel pandemics including COVID-19 that has come to a stay as revealed by WHO. Using both probability and non-probability sampling techniques, the study will employ systematic and purposive sampling to select 540 respondents from Metropolitan, Municipal and District Assemblies in Kumasi. As a results, structured questionnaires would be administered to gather data from the respondents(city officials) while adopting interview guide to solicit information from seven (7) city management experts and 4 institutional heads from across the city to include health officials. The rationale is that smart city is about the application of IT in the development of cities where infrastructure is developed in a way that supports and facilitate sustainability across all sectors to include livelihood and such is the work of city management officials which according to the smart city theory referred to as smart governance.

5 Expected Results

The study is expected to sensitise the academic community the extent of smartness of emerging cities, particularly Kumasi; one of the fasters developing cities in Ghana where most tourist are destined (housed). The study will add to the academic knowledge the level of housing accessibility in Ghana as far as SDG 11 is concerned and how such espouse health infrastructure development in adopting pandemics and novel ailments including COVID-19. The study will expand literature on the drivers of smart city and how people adapt to the current infrastructure in emerging cities. This will drive policy agendas towards the need for sustainable cities. The analysis of "Smart living" within the smart city model will unveil the social and economic standards of the Ghanaian people relative to real estate, decent housing, accessibility to health, energy, security and sanitation.

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Cultural sustainability: conceptual model and indicators for smart destinations

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Abstract

The research aims to propose a conceptual model of cultural sustainability for tourism and indicators on the topic to assist in the development of smart tourist destinations from the perspective of visitors in visiting spaces. The grounded theory methodology was chosen to elaborate the conceptual model and conduct a bibliographic review. Then, a quantitative survey with 60 world heritage managers was applied to evaluate the managers' perspective on the theme. Also, 2750 comments from visitors in cultural heritage sites registered on Trip Advisor were analysed qualitatively. After the construction of the conceptual model, a map of cultural sustainability indicators for smart tourist destinations is to be proposed. Finally, it is expected to use the Action Design Research (ADR) methodology to create a solution and test it to define a final system of indicators in an applicable manner.

1 Problem Definition

The increasingly constant use of information and communication technologies (ICTs) in society has made information management a key component in creating solutions to problems faced by cities in different areas, giving rise to the concept of smart cities (Martin et al., 2018). In the tourism sector, the term was specifically adapted for smart tourist destinations, that is, cities driven by the development of tourism based on technological innovation, with a focus on the visitor's experience instead of the citizen (Muñoz & Sánchez, 2015).

The fast technological development, despite being fundamental in solving the problems of cities and tourist destinations, created concerns among public managers and society questioning its real capacity to guarantee sustainable development (Haarstad, 2017; Höjer & Wangel, 2015). The concept of sustainability is described in much of the literature by the harmonious development of the social, environmental and natural dimensions of a society. However, it is often forgotten that culture has an extremely relevant role that is hardly ever considered in the concepts of sustainability (Chew, 2009; Hawkes, 2001; Suntikul, 2018).

As far as culture is concerned, impacts on society can be difficult to measure, since most cultural assets have intangible elements (Hawkes, 2001; Jamal et al., 2010; Maggiore & Vellecco, 2012). Tourists generally do not directly perceive some

sustainability actions practised by the territory, creating challenges for destinations in developing strategies on how to communicate these actions to tourists efficiently. This causes a lack of studies on sustainability indicators seen from the perspective of tourists (Aydin & Alvarez, 2016).

Especially in projects involving smart tourist destinations, this lack of measurement creates a gap on the real impacts of these initiatives. It also makes it difficult to compare results between different destinations and, consequently, to exchange experiences and improve projects. The idea of a smart city is often criticised by scientists and researchers who question whether digitalisation of society may be related to the concepts of sustainability (Martin et al., 2018). Most studies on the subject criticise some projects in practice that focus on themes such as information and communication technology, data use and urban entrepreneurship, but leaves aside topics related to sustainability (Haarstad, 2017; Höjer & Wangel, 2015).

In addition, the world today lives with great uncertainties related to the impacts of the public health emergency declared as a pandemic by the World Health Organization (WHO) on March 11, 2020, causing an unprecedented crisis in tourism (Gretzel et al., 2020). This crisis will stimulate initiatives for monitoring impacts and smart solutions that enable managers to better deal with uncertainties and model scenarios. ICTs will be fundamental in creating new partnerships between companies and facilitating the planning of new tourist behaviours (Gretzel et al., 2020). Before the COVID-19 crisis, many destinations already faced major problems with the unsustainable development of tourism, receiving tourists above the destination's capacity. However, with the crisis, they now suffer from the lack of them (Romagosa, 2020). Among the factors considered as fundamental for the resumption of the sector, there are new business models, innovation, digitalization and sustainability (UNWTO, 2020).

This whole picture allows us to say that initiatives for monitoring sustainability based on the logic of using ICTs within the concept of smart tourist destinations could assist managers in developing more effective policies with a better return for society. The changes and impacts generated by the COVID-19 crisis will affect the way of relating to tourism actors. Culture, as the least valued link in sustainability, may suffer the greatest negative impacts and the better understanding of its concept for tourism and means of measurement will facilitate new practises for the sector.

2 Literature Review

The concept of sustainability was introduced in 1987 by the World Commission on Environment and Development (WCED), with a focus on meeting the needs of the present without compromising the needs of future generations, guaranteeing equity of resources globally on an equal basis (Hawkes, 2001; Soini & Birkeland, 2014). In general, there is a consensus in the literature that sustainability is composed of three basic dimensions: economic, social and environmental (Hawkes, 2001; Maggiore & Vellecco, 2012; Soini & Birkeland, 2014; Suntikul, 2018; Weng et al., 2019). This division ended up broadening debate about the real role of culture within sustainability and which until today; remain undervalued (Chew, 2009; Hawkes,

2001; Suntikul, 2018). In general, cultural sustainability can be seen as the concept that resolves the conflict between the cultural visions of the past inherited by the current generation and the need to face new challenges, creating the continuity of cultural values that link the generations of the past, present and future (Al-Hagla, 2005).

Some authors argue that culture should be seen as a specific dimension of sustainability (Maggiore & Vellecco, 2012; Throsby, 2016) and others claim that culture is the main pillar of the foundation of sustainability, enabling the development of other dimensions (Hawkes, 2001; Soini & Birkeland, 2014).From these different positions, Soini and Birkeland (2014) carried out a study based on the analysis of the speeches of authors on cultural sustainability to define which would be the concepts of the term most used in the literature. The authors found seven different speeches, and cultural sustainability in tourism would be more linked to an economic development discourse.

The concept of sustainability can also be observed directly in discussions about smart cities. The vision of a smart city is often criticized by scientists and researchers who question whether digitization of society may be related to the concepts of sustainability (Martin et al., 2018). Most studies on the subject criticize the focus given by projects in practice on information and communication technologies themes, data use and urban entrepreneurship, leaving aside topics related to sustainability (Haarstad, 2017; Höjer & Wangel, 2015). Combining the concept of sustainability with intelligence is a response to the criticism that smart cities contradict sustainability (Huovila et al., 2019). While there are several definitions of terms considering smart and sustainable aspects of cities, the combination of both is still poorly explored (Höjer & Wangel, 2015).

Tourism is one of the areas in which information technologies are increasingly used intensively and it is not surprising that the concept of smart cities was adapted to the reality of the sector, generating the definition of *smart tourism* or *smart destination* (Koo et al., 2016). Smart destination is the place that uses technological tools to improve experiences for the tourist and generate benefits for organizations and the destination (Boes et al., 2015).

Combining the concept of sustainability with intelligence is a response to the criticism that smart cities contradict sustainability (Huovila et al., 2019). While there are several definitions of terms considering the smart and sustainable aspects of cities, the combination of both is still poorly explored (Höjer & Wangel, 2015). Thus, the challenge is knowing how to combine both concepts for the better development of cities.

3 Conceptual Development

From the literature review, the research problem is shown as followed: how can cultural sustainability improve the management of tourist destinations from the context of major technological changes? To this end, this research aims to create a model of cultural sustainability indicators for smart destinations, which can be

evaluated by visitors to assist heritage management, based on the development of a conceptual model on the theme. Indirectly, it is expected that the study can meet the following specific objectives:

- Identify the perception of humanity's cultural heritage managers on the topic of cultural sustainability;
- Identify the main elements of cultural sustainability in the comments of visitors in places considered as world heritage sites;
- Establish a conceptual model on cultural sustainability for tourism;
- Analyse existing indicators on smart tourist destinations based on the proposed conceptual model.

It is believed that combining the theoretical model with a proposal for indicators for smart destinations will favour the creation of monitoring tools that are closer to the expectations of managers and tourists and that benefit the local community. Finally, the possibility of having a model that can compare indicators in different types of tourist attractions can be a great guiding element for the resumption of tourist activity in a sustainable way after COVID-19.

4 Proposed Methodology

The proposed methodology for the thesis can be summarised in figure 1.

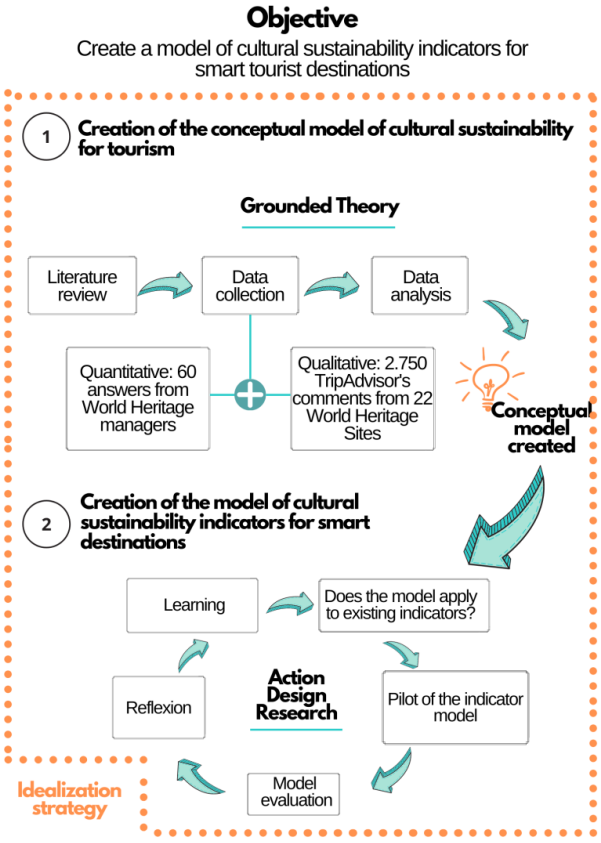

Fig. 1 Research framework

5 Anticipated Results

In the quantitative research applied with 60 world heritage managers, it was observed that the concept of cultural sustainability is not linked to the discourse of economic viability as pointed out by Soini and Birkeland (2014). The results show that managers believe that the concept of sustainability is much more linked to discourses aimed at the preservation of tangible and intangible assets, the participation of society in the management and democratization of access, the guarantee of the valorisation of culture and its preservation for future generations and its role as a factor of social development. The proximity of culture with the natural environment was also not highlighted, as well as the defence of a drastic change in the cultural values of society so that sustainability occurs. In general, managers believe that understanding the concept of cultural sustainability is fundamental to their activities and the creation of relevant projects. However, there is a great lack of knowledge on how to measure the cultural sustainability of its attractions, reinforcing that the creation of indicators would be important.

The analysis of 2,750 reviews on Trip Advisor confirmed that visitors to the spaces chosen for the study can spontaneously identify various elements related to cultural sustainability during their visits. Thus, it would be possible to build cultural sustainability indicators evaluated by this audience online (Aydin & Alvarez, 2016). The classification of the terms of the comments in categories clearly showed the main points addressed by the visitors who give an insight into the elements that most affect the tourist experience in heritage spaces.

Considering this information, an analysis of the results should be made based on the literature review presented, trying to identify which categories are more aligned with the characteristics of cultural sustainability presented and which appear in an unprecedented way, facilitating the understanding of the theme from the perspective of the visitors. If necessary, the categories can be included in dimensions, facilitating the understanding of the elements and also of the theoretical model. After the construction of the theoretical model, it is expected to start the second stage of the thesis focused on the creation of cultural sustainability indicators for smart destinations.

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Influence of Smart Tourism on Tourist Motivation – Case study Internet InformationTown Wuzhen in China

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Abstract

Smart tourism has become an irresistible trend of the global tourism industry. This research aims to analyze the interaction between smart tourism and tourists' acceptance and cognition of technology and Tourist Motivation. According to the 45th CNNIC (China Internet Network Information Center) report of China Internet Network Center, By March 2020, China had 904 million Internet users. Chinese tourists can make cashless payments, and pay by scanning a QR code is gaining popularity. This paper describes the relationship between smart tourism and tourist motivation in a framework. It proposes an intermediate variable, Technology Acceptance Model (TAM). It is based on the principles of Fishbein and Ajzen, takes into account the parametric attributes of behavior relevant components of attitudes, and specifies how external elements are casually linked to attributes like beliefs, attitudes, and behavior. The thesis provides an enhanced version of the Technology Acceptance Model (TAM). The Creation of the conceptual user-centric framework would lead to the development of an improved user-centric model for technology in general and TAM in particular. An NPA algorithm focus on confirmatory data analysis of the dataset is developed to generate network models among the variables in e-learning solutions. User-centric attributes, like Perceived Usefulness, Perceived Ease of Use, Perceived Trust, Perceived Security, Perceived Privacy, Information Quality, Behavioral Intention to Use the System, and Actual System Use, are measured andanalyzed to create the enhanced model. The key terms that continue to be discussed to the Technology Acceptance Model, including at least some of its adaptations and extensions, include Perceived Ease of Use (PEOU), Perceived Usefulness (PU), Behavioral Intention to Use, (BI), and actual Behavior (B). Discussions of TAM by researchers focus on the relationships of these four variables. The paper will verify the influence of these key factors on Tourist Motivation by setting a positive effect on the research hypothesis. It uses case analysis, The World Internet Research Conference in Wuzhen, China as a case, and uses a quantitative research method by designing questionnaires. The theoretical and practical significance is to use the Technology Acceptance Model (TAM) to combine smart tourism with tourist motivation. It analyzes its influencing factors and provides a valuable sample and reference for the innovation of heritage tourism and smart tourism, which has particular practical significance.

1 Problem Definition

Smart tourism has become an irresistible trend of the global tourism industry. The development of social media, information, Communication technology greatly influences tourist motivation. This research aims to analyze the interaction between smart tourism and tourists' acceptance and cognition of technology and Tourist Motivation.

Research aim/Research question

- To expound the connotation of smart tourism and its application in tourism.
- To analyze the relationship between new intelligent tourism technology and tourists' cognition.
- To compare the impact of smart tourism development on tourist consumption behavior in Wuzhen in the past six years since the first Internet Conference in 2014.
- To analysis data find out the influencing factors of smart tourism on tourist motivation.

2 Literature Review

2.1 Smart tourism

Smart tourism has become an irresistible trend of the global tourism industry. The definition provided by this study emphasizes smart tourism as an individual tourist support system within the context of information services and an all-encompassing technology. Thus, at present, we need to clarify the concept of smart tourism, as well as to recognize the critical elements involved in smart tourism development. A need also exists to unveil the core of smart tourism through research, develop a better direction for business practice, and promote smart tourism (Zhang, 2012).

2.2 smart tourism destinations

smart tourism destinations are innovative tourism destinations built upon a modern technology infrastructure that promotes sustainable and accessible development of tourist areas that are designed to lead to improved tourism experiences and an enhanced quality of life for residents (Gretzel, Sigala, Xiang, & Koo, 2015).

2.3 ICT

Information and communication technologies (ICT) have overhauled the tourism industry, which impacts the way tourism organizations do businesses and interact with their stakeholders (Buhalis & Law, 2008). Technological advances yield major changes in tourism by enabling tourism actors to create markets, management practices, and new competitive strategies. Information technology supports tourists through various activities including searching for initial information, comparing information, decision-making, travel planning and sharing experiences (Neuhofer, Buhalis & Ladkin, 2012).

2.4 E-tourism

E-tourism is just one of the outcomes of the tourism industry's incorporation of technology. Thanks to the widespread use of information and communication technology, e-tourism has created changes in the use of services by creating innovations in the provision of tourism services (Buhalis & Amaranggana, 2013). Information technology has transformed the tourism experience in recent years (Xiang & Fesenmaier, 2017). Because of open data and shared social knowledge that serves as the basis for the tourism experience and the new mechanisms of innovation (Xiang, 2018).

2.5 Technology Acceptance Model

Technology Acceptance Model (TAM). It is based on the principles of Fishbein and Ajzen, takes into account the parametric attributes of behavior relevant components of attitudes, and specifies how external elements are casually linked to attributes like beliefs, attitudes, and behavior (Liu, Chen, Sun, Wible & Kuo, 2010). This model was developed on the doctoral thesis of Fred Davis in 1985 (Montrieux et al., 2014), where the first model of the Technology Acceptance Model was proposed. He proposed that system use is "a response that is explained by user motivation, which in turn is directly influenced by an external stimulus comprising of the system features and capabilities." The key terms that continue to be discussed to the Technology Acceptance Model, including at least some of its adaptations and extensions, include Perceived Ease of Use (PEOU), Perceived Usefulness (PU), Behavioral Intention to Use, (BI), and actual Behavior (B). Discussions of TAM by researchers focus on the relationships of these four variables.

2.6 Tourist motivation

According to Mathieson and Wall (1982) tourist motivation (driving) can be categorized into: Physical Motivation, Cultural Motivation, Personal Motivation, Prestige Motivation and status. Tourist motivation can be regarded as the essence of travel behaviour since it significantly drives behavioural intentions (Park, 2019: Prebensen, 2012).

2.7 Tourist satisfaction

Tourist satisfaction levels are closely associated with behavioural intention (Bigné, Sánchez, & Sánchez, 2001). Tourists who experience greater pleasure enjoy more satisfaction and display more favourable behavioural intentions to revisit the place of their enjoyment (Bigné & Andreu, 2004).

3 The research theory

The Theory of Reasoned Action (TRA) supports our perspective in that users' attitude toward a target behavior consists of various beliefs. Perhaps, for a technology like mobile Internet, representing expectation with only one belief (perceived usefulness) is inadequate. As theorized in Bhattacherjee's (Hong, 2006).study, users' confirmation level through the post-adoption usage experience had positive impact on users' post-adoption expectations.

4 Proposed Methodology

Case study

Wuzhen, the permanent Chinese site for World Internet Conference (WIC). “Top Town” in the Internet world－Internet Information Town Wuzhen in China as a Case Study.

Semantic Analysis

Based on domestic tourism websites' data, taking the tourist destination image of Wuzhen as the research object, and using ROST Content Mining software. This paper extracts high-frequency words and conducts a semantic analysis of them to explore the changes in tourist destination image perception of Wuzhen before and after the World Internet Conference (Wuzhen Summit). This paper analyzes the influence of tourists' acceptance and cognition of smart tourism on tourists' motivation.

Data Collection and data analysis.

5 Expected results

The results may include: Firstly, according to the data analysis in the previous study, the relationship between the new Technology of smart tourism and tourists' cognition is a positive one. Second, based on semantic analysis to compare the impact of smart tourism development on tourist motivation in Wuzhen since the first Internet Conference in 2014. Third, data analysis, smart tourism's positive influence factors on tourist motivation are found.

The relevance of research for local tourism development

The theoretical and practical significance is to use the Technology Acceptance Model (TAM) to combine smart tourism with tourist motivation. It analyzes its influencing factors and provides a valuable sample and reference for the innovation of heritage tourism and smart tourism, which has particular practical significance.

At the same time, the smart tourism development and the characteristics of local tourism to a better combination of smart tourist destination to more convenient to enjoy the tourist destination human resources or natural scenery, it is just a tool to implement efficient travel, although also part of the tourism experience content. It is a subject of sustainable development. This thesis explores the impact of smart tourism on tourist motivation. The relationship between intelligent management and tourists' decision-making motivation in tourism field. This research can support the development of implementation policies regarding sustainable and smart tourism destinations. The theoretical and practical significance is to use the Technology Acceptance Model (TAM) to combine smart tourism with tourist motivation. It analyzes its influencing factors and provides a valuable sample and reference for the innovation of heritage tourism and smart tourism, which has particular practical significance. At the same time, the smart tourism development and the characteristics of local tourism to a better combination of smart tourist destination to more convenient to enjoy the tourist destination human resources or natural scenery, it is just a tool to implement efficient travel, although also part of the tourism experience content. It is a subject of sustainable development.

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Tech Development

Internet of Things and memorable experiences in the hotel industry

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Abstract

Internet of Things (IoT) technologies are usually seen as an enhancer of tourist experience, however their introduction in hotel services may poses new issues related to service depersonalization and technostress. In order to avoid these possible downfalls while maximising guest experience, the present research tries to integrate IoT with previous knowledge on memorable tourist experience in the hotel industry. The adoption of a mixed research method is proposed: in the first time a theoretical model is developed based on previous studies and in depth interviews with hotel managers, while in a second time the model is tested by mean of a survey administered to both hotel managers and guests..

Keywords: IoT; memorable experiences; hotels

The Effect of Virtual Reality (VR) and Toward Destination Authenticity and Promotion

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Abstract

Virtual Reality (VR) media has been highly spotlighted in the tourism industry, but research in the tourism context is insufficient. To address this gap in the literature, this study investigated the formation of destination authenticity and its promotion effectiveness in relation to the VR media contents. Furthermore, by applying the con-strual level theory (CLT), this study aimed to articulate VR attributes, which can inspire tourist's behavioral changes. This study also considers the role of the perceived psychological distance of tourists. The results of this study provide important theoretical and practical implications.

Keywords: Virtual Reality (VR); Smart tourism; Online media; Contents design; Destination authenticity; Construal level theory; Psychological distance

The Effects of Robot Service on Hotel Customer's service experience assessment

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Abstract

This study develops a framework to identify the effects of robot service on hotel customer 's service experience based on the cognitive appraise theory (CAT), CAT is a multi-step process evaluation theory, which examine the dimensions of impact of robot service on experiential quality and the overall customer satisfaction, and to assess the mediation role of experience quality, overall perceived value and overall satisfaction between robot service assessment and hotel re-purchase intention.

Keywords: Robot Service; Hospitality; Customer Experience; Satisfaction

Social Media

No News is Bad News: Influence of Online Media News Exposure on Restaurants Survival

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Abstract

Restaurants industry suffers from a high mortality rate. Online media news as one of the information and communication technologies, exerting an invisible influence on tourism firm's survival. The aim of the paper is to provide a first insight into how online media news exposure, measured by online media news volume and online media news sentiment influences the survival of restaurants. It also examines how this relationship is affected by diversification when the era of registration, legal form and registered capital of restaurants is controlled. Survival analysis method is applied in this study. The expected results are: 1) the increase of online media news volume improves restaurants survival;2)online media news with positive sentiment can best promote the restaurants survival; 3) geographic diversification strategy can moderate the relationship between online media news exposure and restaurants survival.

Keywords: Online media news; Firm survival analysis; Geographic diversification

World Heritage Site Image Construction: Travel Reviews and Big Data

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Abstract

The World Heritage site in a destination is particularly important due to its uniqueness and influence on differentiation among similar destinations in the target consumers' minds. The image of a World Heritage site is an essential factor forming the image of a destination, but the extent to which World Heritage image affects destination image is little studied. This research aims to address this theoretical gap by applying a lexical and semantic text mining approach to exploring online reviews on World Heritage sites and attempts to create a tentative model. The purpose of this study is to investigate the impact of World Heritage on destination image for effective tourism marketing. The study will specifically examine the effects of World Heritage on the after-visitation phase of the destination image, and the study will also assess how the tourist satisfaction and tourist's future intentions will impact destination marketing. Managerial practices for creating, enhancing and implementing the correct marketing programs are provided.

1 Problem statement

There is generally a broad consensus that Destination Image (DI) influences tourists' satisfaction and revisit intention (Phillips and Jang, 2010, Mehmood, Liang & Gu, 2018). In today's cyber age, UGC from social media serves as electronic word-of-mouth (e-WOM) and is crucial for potential travellers to "get a feel" for what a destination will be like before their travel (Phillips et al., 2013, Rizky et al., 2017).

It is one of the organic sources of DI and holds excellent credibility. Reviews from big online recommendation websites (e.g., Trip Advisor, Facebook, Twitter, and Booking, etc.) are valuable for both researchers and marketers by providing original, authentic material for scientific research, and compliments and complaints about management improvement (Sánchez-Franco et al., 2016). Although review contents frequently contain valuable information, it's still difficult to extract and manipulate data for scientific research and does not necessarily lead to optimal decisions for potential tourists. World Heritage is of outstanding universal value. The image of a World Heritage site is an essential factor forming the image of a destination, but the extent to which World Heritage image affects destination image is little studied.

This research aims to address the theoretical gap, by establishing the new model, and exploring the extent to which World Heritage affects destination image and the potential for effective tourism marketing.

The research objectives are:

1. To categorize World Heritage factors by applying an exploratory lexical and semantic text analysis of big data of online reviews.

2. To identify the cognitive, affective and overall images' dimensions of DI and present a conceptual model of World Heritage image.

3. To assess how tourist satisfaction and tourist's future intentions of World Heritage will impact destination marketing.

2 Literature Review

Fridgen (1987) stated DI as a mental representation of an object, person, place, or event is not physically before the observer. More recently, Tasci et al. (2007) suggest that "DI is an interactive system of thoughts, opinions, feelings, visualizations, and intentions toward a destination," which not only recognizes the multiplicity of elements (cognitive, affective, and conative) forming the construct but also believes that these factors influence each other. Based on the previous studies of DI definitions and to serve the research of this paper, the author of this paper proposes:

Destination Image is a mental and emotional communication of continuous perception of a tourist destination (based on pre-visit, on-site visit, and after-visit experience). Within the tourist's Spatio-temporal transformation, the relationships of multi-layered representations (cognitive, affective and unique images) actively or passively influence tourists' formation of DI.

Gunn (1972), who has one of the earliest works studying the formation of DI, proposes a two-stage model consisting of organic images and induced images. Fakeye and Crompton (1991) believe that individuals obtain the organic image from a variety of unbiased sources of information of tourism information source, and have a desire (motivation) to travel to obtain induced image through the active information search process. Then, after experiencing the chosen destination, visitors get a more omplicated perception of the place. Baloglu and McCleary (1999) establish a comprehensible model of image formation and clearly illustrate the differentiation and interrelationships between the personal factors and the stimulus factors. Personal factors are represented by the individual's social (age, education, marital status, and others) and psychological (values, motivations, and personality) characteristics. Another factor refers to stimulus factors: previous experience and some information sources we can get. Mariné-Roig (2017) highlights the importance of user-generated content, such as travel reviews disseminated through eWOM communication. An essential finding of this study is that Word Of Mouth is the most potent source of the pre-visit image.

Unlike Baloglu and McCleary's (1999) model, Beerli and Martin (2004) develop and explain different factors forming the post-visit image of a destination. In their study, the researchers mention two main factors that can influence DI formation after a visit, which are information sources and personal factors which will lead to cognitive, affective, and at the end, to the overall image of a destination.

The uniqueness of World Heritage in a destination needs to be regarded as an essential part to influence the image of a destination marketing (Qu, Kim &Im, 2011). The unique image of World Heritage sites is superlative (superlative image), which has a tremendous influence on a tourist's DI. Identifying and creating a differentiated World Heritage Image (WHI) has become an essence of destination positioning

within a globally competitive marketplace. Specifically, the current study examines the post-visit cognitive, affective, and unique image components of WHI from online reviews. The study tries to fill the gap in the literature in two ways. First, the study aims to create a tentative WHI model to facilitate future DI study. Second, the research provides a practical insight into the marketing of World Heritages.

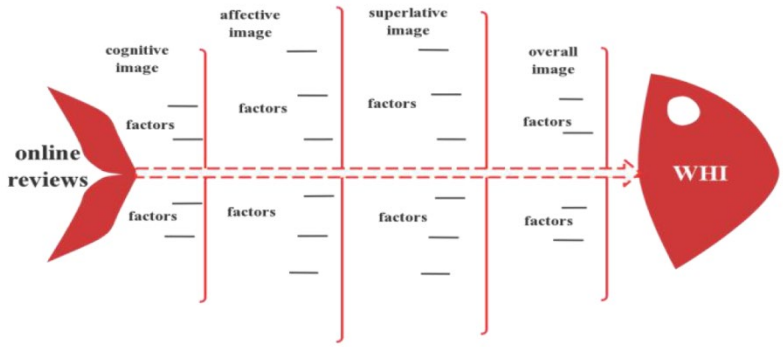

Fig. 1 The conceptual model from the author (2020)

3 Proposed methodology

This research has used the combination of quantitative and qualitative data methodsand adopted an approach of literature review, and case study to meet the objectives. Alexical and semantic analysis based on frequency analysis will be first carried out to identify the common and specific descriptions of online reviews of several World Heritage sites in Beijing, China. By combining the visualizations of MST (Minimum Spanning Tree), this paper attempts to set up a WHI model to depict tourists' perceived image of World Heritage sites and provide insights for image construction. Travel reviews from TripAdvisor.com have credibility due to the site's algorithm (Aciar, 2010; Filieri et al., 2015).

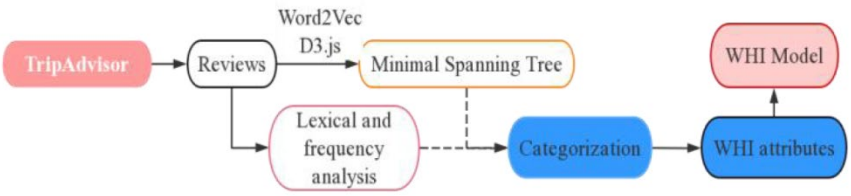

Fig.2 Data process flow

D3.js, a JavaScript library for manipulating documents based on data, is then used to visualize MSTs. An MST links all nodes (points or vertices) of a network with the minimum length of all arcs (EDUCBA, 2020). The focus on "forests/clusters"(formed by MST) allows the researcher to discern patterns and attributes that suggest relationships and differentiation.

4 Expected Results

The results may include: first, incorporating the existing concepts of destination image with the World Heritage sites to generate a WHI model which is distinctive and specific due to its attributes. Second, the study brings new focus on World Heritage sites promotion of a destination, and scholars have less recognized; third, based on findings, managerial practices for creating, enhancing and implementing the correct marketing programs for WHI are provided.

5 The relevance of research for local tourism development

The WHI model and findings from this study give insights to the stakeholders implicated at the local level, which can inform the current state of the attraction. This kind of knowledge about World Heritage sites has particular importance for local administrative authorities, as it provides information on tourists' core concerns, which accordingly be applied to positioning strategy and attraction marketing. Another benefit could be to implement measures to improve scenic management services.

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Personalized travel recommendation for group of users: A hybrid method with sentiment analysis and group consensus

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Abstract

This proposal proposes a new hybrid method for producing personalized travel recommendations that better meet the needs for group of users and also improves their online booking experience. The method integrates fine-grained sentiment analysis in text mining with group consensus in group decision-making considering different subjective assessments (online reviews and user preferences). Four modules are designed to make personalized travel recommendations for group of users: fine-grained sentiment analysis, user preferences and trust evaluation investigation, group consensus adjustment, personalized travel recommendation. Then a case example is presented to demonstrate the recommendation procedure and sensitivity analysis of attribute weights is used to verify the effectiveness of this hybrid method. With the proposed method, a better online booking experience can be achieved for group of users, as they are presented with a more appropriate set of recommended options and so are able to make better travel decisions.

Keywords: Personalized travel recommendation; Sentiment analysis; Group of users; Group consensus

Analysis of users' online reviews from HomeExchange.com in the city of Madrid

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Abstract

This study investigates the most important attributes that influence users' experiences of the non-monetary peer to peer (P2P) accommodation platform HomeExchange.com in the city of Madrid. Data is extracted from online reviews and treated through data mining techniques. Results show that accommodation experience for guests of this platform is influenced by attributes such as "accommodation location", "host service" and "accommodation characteristics", while hosts' accommodation experience is mostly influenced by attributes like "communication with guest" and "cleanness". Based on its nature of exchanging houses, users tend to create a relationship and a good communication before, during and after the stay. Besides, an accommodation fully equipped for them to feel at home improves the guest experience. This study attempts to generate a new understanding of users' (hosts and guests) preferences using non-monetary P2P accommodation platforms and their competitive advantage.

1 Introduction and problem definition

The internet and social media have given users the "power" to express how they feel about a product or a service, and this possibility has enabled the creation of virtual peer communities in which users exchange their opinions, feelings and experiences (Xiang & Gretzel, 2010). Thanks to all the information generated in those communities, companies and organisations also have the power to predict consumers' buying intention, which allows them to design strategies to influence users' decision-making, improve their experiences before, during and after the purchase, and stimulate loyalty. Due to its significant importance, user-generated content (UGC) has been considered by several scholars in their studies related to the consumer experience and buying decision-making (Lu & Stepchenkova, 2015; Marine-Roig& Huertas, 2020).

Regarding the tourism sector, the practice of identifying what attributes influence accommodation selection and satisfaction is considered highly relevant because it is a practical way to attract more guests to the accommodation as well as improve customers' experiences (Tussyadiah & Zach, 2015). UGC has been helpful in understanding tourists' motivations, providing managers with actionable insights into the aspects of guest experiences and satisfaction (Tussyadiah & Zach, 2015). Also, UGC and online reviews have become an important marketing tool for DMOs and tourism operators (Edwards et al., 2017) because consumers perceive them as more authentic and reliable, and for this reason, they can use them to design business strategies (Költringer & Dickinger, 2015).

It is generally recognised that P2P accommodation platforms are here to stay, and they have become significant competition to the traditional hotel sector (Dolnicar,

2019). Currently, users have a wide range of options in the P2P accommodation platforms market, whether niche platforms addressed to a specific target (Medina-Hernandez et al., 2020), profit-oriented platforms like Airbnb where hosts get a payment for renting their private or entire places, or non-profit platforms such as Couchsurfing or HomeExchange.com, where users do not exchange money. Academic literature has emphasized the study of Airbnb, one of the most successful models of P2P accommodation. Regarding this platform, some scholars have made a critical analysis about what a sharing economy accommodation platform users' motivations are, such a sustainability motivations (Martin, 2016), sense of community (Guttentag, 2015), authentic tourist experiences (Tussyadiah & Pesonen, 2016), or amenities and location (Guttentag, 2015), and the growing contradictions of "the platform capitalism practices operating in the sharing economy which, ultimately, render the initial sharing economy aspirations difficult to achieve" (Murillo et al., 2017, p. 66). Thus, this study aims to clarify whether users' motivations for using a "pseudo sharing" for-profit platform are different form the non-profit P2P accommodation platform users' motivations. To address this gap, the present study attempts to explore attributes that influence users' (hosts and guests) experiences of the non-monetary P2P accommodation platform HomeExchange.com by analysing their online reviews in the city of Madrid (capital of Spain, one of the most visited countries worldwide). Findings will be useful for destination marketing organisations and other tourism firms by underlining travellers' preferences and needs.

2 Literature review

Despite the vast quantity of literature concerning P2P accommodation users' motivations, most of it is focused on Airbnb, and limited literature refers to other forms of P2P accommodation platforms (Medina-Hernandez et al., 2020). Some authors, such as Guo et al. (2019), studied the attributes that influence Chinese guests' experiences and satisfaction with the P2P accommodations sharing economy platform in China (Xiaozhu). They found that Chinese guests who stayed in entire houses/apartments and private rooms frequently mentioned "host service", "cleanliness", "location and transportation" and "living environment". Recent studies on Couchsurfing underlined Couchsurfing users' motivations as another accommodation alternative. Schuckert et al. (2018) conducted a study with 14 narrative interviews of Couchsurfers in Austria. Their results revealed that Couchsurfers generally travel as backpackers do and, as such, seek out diverse social interactions with locals that afford them various degrees of familiarity with destinations. They also found that the action of Couchsurfing constitutes a cultural exchange and accommodation experience beyond the mere consumption. However, the study of the phenomenon of HomeExchange, understood as a form of accommodation where users exchange houses, is limited in the literature.

Casado-Diaz et al. (2020) exposed three research dimensions of the home exchange phenomenon: economic, social-psychological and spatial. As a research gap related to the social-psychological dimension, they point out that the home exchange decision-making processes (pre-exchange, during-exchange and post-exchange stages) "have received limited scholarly attention", as have the factors that influence the home exchange behaviour. According to (Murillo et al., 2017b), there is an academic

discussion on what sharing economy as a concept should be and the capitalist practices some sharing economy platforms are adopting. This debate motivates this study, trying to understand the preferences and attributes that motivate users (guests and hosts) to choose other forms of sharing accommodation beyond Airbnb that, in theory, claim to be more consequent with the online sharing economy discourse (Martin, 2016). Results will help to understand how these types of sharing platforms are performing in the accommodation market and how they are impacting not only the tourism sector, but also the environment, the locals' life, the housing market and the destination image.

3 Conceptual development

Literature related to non-monetary sharing accommodation platforms is limited compared to literature about platforms involving monetary compensation between users. In a general search of articles in the Web of Science between 2018 and 2019, more than 500 articles were found regarding Airbnb. However, just 220 articles were found regarding non-monetary P2P accommodation platforms, of which most were about Couchsurfing. Figure 1 shows the conceptual framework this research attempts to create and its expected contribution for researchers and practitioners.

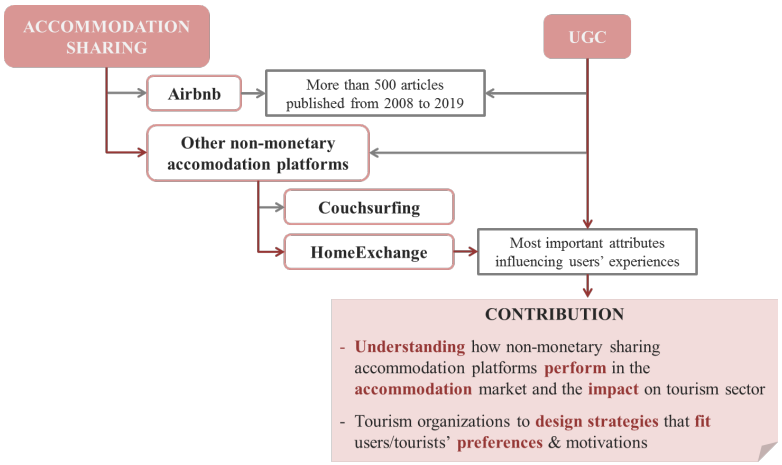

Fig. 1 Conceptual framework

4 Proposed methodology

For this study, reviews posted by users (hosts and guests) of the non-monetary accommodation platform HomeExchange.com in the city of Madrid were used. In HomeExchange.com, hosts and guests both provide reviews regarding their accommodation experience. They highlight what was the best of their experience form their perspective. Online reviews were downloaded directly from the HomeExchange platform using the web scraper software WebHarby version 6.0.1.173. A total of 3,409 online reviews were downloaded (all from the city of Madrid). Subsequently, only English-language reviews were selected, resulting in a total of 193 reviews from hosts and 143 reviews from guests. Regarding the chosen

destination, Madrid was selected as one of the cities in Spain with a larger supply of accommodations in HomeExchange.com and due to its importance as a tourist destination in Europe and worldwide (Madrid Destino, 2019). Reviews from hosts and guests were treated separately in order to know the differences between both users' experiences. Regarding the exchanging nature of this platform, it is important to consider both perspectives (hosts and guests), since it is probable that at some point the two profiles will change rolls, and also because the study aims to analyse motivations behind both profiles. Data mining techniques were used to analyse the textual content of the reviews. A multidimensional scaling analysis of clustered words was also carried out in order to obtain the combinations or groups of words that have similar patterns of appearance. Analyses were carried out with KH Coder 3 software.

5 Anticipated results

Table 1 shows the top 15 keywords from reviews of hosts and guests of HomeExchange.com, the total number of words in use and the frequency (percentage) with which each word appears in the reviews were analysed.

Keywords in guests' reviews are related to topics such as the destination, "Madrid", the location, and some outstanding amenities (e.g., proximity to Underground station "Metro"). Alternatively, hosts' most frequent keywords are related to the relationship with their guest: "guest", "great family", "communication" or related to how they found their houses after the guest departure: "clean", "perfect". From the two lists, it can be deduced that for guests, a good experience is mostly related to the amenities of the accommodation, and for the host, it is instead related to a good communication with their guest.

Table 1. Top 15mostfrequentwords

Guest				**Host**			
Words in use: 3231				*Wordsin use: 3959*			
#	**Keyword**	**Frequency**	**%**	**#**	**Keyword**	**Frequency**	**%**
1	Madrid	105	3,25	1	guest	99	2,50
2	apartment	78	2,41	2	house	71	1,79
3	great	63	1,95	3	home	65	1,64
4	home	57	1,76	4	leave	64	1,62
5	place	47	1,45	5	exchange	57	1,44
6	nice	43	1,33	6	family	55	1,39
7	stay	43	1,33	7	great	54	1,36
8	city	38	1,18	8	recommend	44	1,11
9	easy	38	1,18	9	clean	41	1,04
10	house	37	1,15	10	nice	40	1,01
11	time	37	1,15	11	pleasure	36	0,91

12	exchange	36	1,11	12	Madrid	34	0,86
13	clean	35	1,08	13	communication	33	0,83
14	perfect	34	1,05	14	apartment	31	0,78
15	location	33	1,02	15	good	30	0,76

Preliminary results of the multidimensional scaling show the keywords that influenced users' accommodation experiences with HomeExchange. Based on the cluster analysis, keywords were defined and categorised as the main attributes that influenced users' (hosts and guests) experience.

From the guest perspective, three attributes stand out: 1. *Accommodation location,* 2. *Host service* and 3. *Accommodation characteristics*. The first attribute includes words indicating that a good location of the accommodation and an accommodation well-connected and near points of interest influence a better guest experience. The second attribute indicates that guests value the relationship that could be created with their host, and that humanises the accommodation experience and helps them have a warmer stay. Finally, the third attribute is related to the fact that most HomeExchange.com guests are families, and they need a spacious and fully equipped accommodation to be comfortable but also to make them feel at home.

From the host perspective, two attributes stand out: 1. *Communication with guest* and 2. *Cleanliness*. The first attribute includes words indicating that as they exchange homes, communication is always present between host and guest before, during, and after the stay, which differs from other P2P accommodation platforms that involve monetary exchange. The second attribute is related to the nature of the non-monetary accommodation platform, in that hosts value guests who treat their properties as their own. As they are not going to receive any monetary compensation, hosts expect to find their houses the same as they left them before the exchange, and when this happens, it improves the exchange experience.

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Current Issues in eTourism

Reduce stress and contribute to the wellbeing: Measuring Tourists' Emotional Experiences toward Virtual Reality

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Abstract

Fully immersive virtual reality (VR) technology offers a novel and interactive avenue for tourists. It also presents challenges to better understand the effectiveness of VR experience in inducing specific emotional experiences toward tourism destinations and contributing to the wellbeing of the tourist. Research methods based on the combination of qualitative and quantitative, this research is aimed at empirically investigates the dimensions of tourists' emotional experiences toward the VR environment. This study also attempts to investigate the antecedents of tourists' emotional responses toward VR experience. The relationship between how VR through eliciting emotions reduces stress and anxiety of travel and whether these contribute to the well-being of the tourist will be analyzed. Findings will offer important implications for destination marketers concerning branding and emotional experience management.

1 Problem definition

VR technology offers a novel and interactive avenue for dissemination of information that has previously been impossible (Yung & Khoo-Lattimore, 2019). Recently, several scholars explored the benefits of VR within the tourism context. Tourism is an emotional experience process essentially, tourists' emotional experiences are critical to both tourists and destinations. Using the virtual environment as mood induction procedures (MIPs) has been proved to be an effective way to elicited emotions and different virtual scenarios elicit specific emotions, for instance, joy, sadness, boredom, anger, and anxiety (Felnhofer, Kothgassner, Schmidt, et al.2015). However, research about tourists' emotional experiences in virtual reality environment context to date is scarce.

In the past, we studied the emotions of tourists, and most of them relied on retrospective emotions or scene imaginations and assumptions for experiments. However, as a very new and useful travel experience product and marketing tool, VR has an important impact on tourists' perception, emotional response, and behavior. How VR participates emotionally, for example, background narration of VR scenes may enhance the emotional experience (Diemer, et al. 2015).

The purpose of this study is twofold. First, to examine the dimensions of tourists' emotional experiences toward the VR environment through the analysis of UGC comments. Second, a survey of international visitors and model testing to explore the determinants of tourists' emotional experiences. Cognitive appraisal theory is adopted to predict what emotions should be elicited in a given context as well as how evoked emotions affect behavior. And in-depth interviews with visitors to better understand the nexus of emotions and well-being in the VR context. This study may offer some marketing implications for tourist destinations.

2 Literature review

2.1 Tourism and Virtual Reality

Several scholars explored the benefits of VR within the tourism context. From the tourists' point of view, the main benefits of VR include enhancement of tourism experiences (Bonetti, Warnaby& Quinn, 2018; facilitation of immersive, engaging, social, and entertaining experiences (e.g. Castro, Quisimalin, Cordova, et al., 2017; Guttentag, 2010), as well as the potential to provide accessible tourism for all (Guttentag, 2010). From the perspective of businesses and destinations adopting VR, factors such as marketing and promotions, sales and distribution (Huang, Backman, Backman, & Chang, 2016), additional revenue generation, as well as sustainability and the preservation of heritage (Guttentag, 2010) were identified as the benefits of VR.

2.2 Emotions and Virtual Reality

The current research on emotions of VR mainly uses VE as mood induction procedures (MIPs; Martin, 1990) to measure the presence and emotional reactions. Many studies focus on eliciting a specific emotional reaction (Felnhofer, et al, 2015), such as the five emotions of virtual parks, sympathy, and prosocial behavior. To date, only a small number of studies (Baños et al., 2004, 2008, 2012; Riva et al., 2007; Serrano et al., 2013; Toet et al., 2009) has examined VEs with regards to their ability to induce specific states, most notably relaxation, joy, sadness, and anxiety. Several studies found that the increased engagement and involvement participants felt when interacting with VR led to increased positive feelings toward the destination (Huang et al., 2012; Huang et al., 2016). Research including a broader range of affective states is still missing.

2.3 Tourism experience, Emotion, and Wellbeing

In recent years, research on the quality of tourism experience and the wellbeing of tourists has flourished. The research between emotion and wellbeing also needs further attention. How to increase positive emotion and reduce negative emotions such as anxiety and stress is very important to the wellbeing experience of tourists. Knobloch, Robertson, & Aitken (2017) explored the nature of individual experiences, personal outcomes, emotions, and meanings by investigating tourists' experiences of the same activity in three different consumption contexts. The relationship between emotions, experiences, wellbeing, and quality of life has been emphasized (Knobloch, et al. 2017). Uysal, Sirgy, Woo, & Kim (2016) pointed that tourism experiences and activities have a significant effect on both tourists' overall life satisfaction and wellbeing of residents, and these findings were based on the two major constituencies: residents of host communities and tourists.

2.4 Cognitive Appraisal Theory

Cognitive appraisal theories define emotions as mental states that result from processing or appraising, personally relevant information (Roseman, Spindel& Jose, 1990). This theory aims to predict what emotions should be elicited in a given context as well as how evoked emotions behavior (Watson & Spence, 2007). In the psychology literature, cognitive appraisals have emerged as a dominant theory to

understand and explain emotional experiences (Ellsworth and Scherer, 2003). Several conceptual papers have emphasized the merits of cognitive appraisal theories in identifying the antecedents of consumption emotions and their effects on post-consumption evaluations (Bagozzi, Gopinath, and Nyer 1999; Watson and Spence 2007).

3 Conceptual development

The existing researches on VR and tourism mostly regard VR as an intermediary tool of tourism development. Researchers are more prominent in its practical application value, such as testing its marketing potential, technology acceptance and ease of use, tourists' behavioral intentions, and education applications. We can regard VR as a virtual environment that is different from the real environment. When tourists are immersed in this virtual environment, what the dimensions of tourists' emotional experiences toward the VR environment? Is the presence of this space real for tourists? What are the appraisal determinants of tourists' emotional experience in the virtual environment? How VR through eliciting emotions reduces stress and anxiety of travel and whether these contribute to the well-being of the tourist? See the conceptual framework of this study in figure1.

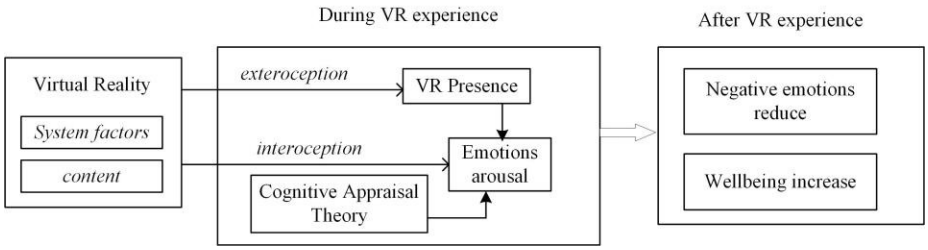

Fig.1Theconceptualframeworkofthisstudy

4 Proposed methodology

In this study, the authors propose to use a mix of quantitative and qualitative methods to gather data. The emotional experiences of virtual reality are supposed to collect by analyzing UGC comments. The authors also intend to collect data through a survey of international visitors and then do the model testing. Additionally, in-depth interviews with visitors is expected to better understand the nexus of emotions and well-being in the VR context.

4.1 Measurement items

VR presence. The English version of the iGroup Presence Questionaire (IPQ, Schubert, Friedmann & Regenbrecht, 2001) will be used to evaluate the level of experience presence in the VE. The 14 items (7-point Likert-scale "strongly agree" – "strongly disagree") comprise three domains of presence:(1) Spatial Presence evaluates the sense of physically being in a place, (2) Involvement reflects the attention devoted to an environment, and (3) Realism assesses the participant's

evaluation of the environment's realism. The IPQ has been used extensively in presence research due to its good psychometric qualities (Rosakranse and Oh, 2014).

Emotions. Differential Emotion Scale (DES, Izard, 1977) will be used as many studies have established the validity and applicability of the differential emotion scale across various consumption settings. DES contains 10 subscales that represent the fundamental emotions of interest, joy, anger, disgust, contempt, sadness, fear, shame, guilt, and surprise.

Appraisal Dimensions. We will use the dimensions contains pleasantness, goal congruence, certainty, novelty, inter self-compatibility, and external self-compatibility.

Wellbeing.

4.2 Data Collection.

The online comments data will be obtained by the Web Crawler method from the website. The questionnaires and in-depth interviews will be collected online and offline,

4.3 Data analysis.

The data will be analyzed by grounded theory, statistical packages (ANOVA and Canonical Correlation Analysis) to obtain the outcomes.

5 Anticipated results

A key theoretical contribution of this study is the development of a scale to measure tourists' emotional responses toward VR environments. Tourists' emotional experiences play an important role in reducing stress and anxiety and contribute to wellbeing of the tourist. The expected outcome will offer important implications for theorizing emotion and wellbeing in the context of tourist experiences.

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Tourism firm's asset restructuring: what did manager say and what investor heard?

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Abstract

During the period of asset restructuring, information transmit from tourism firm's manager to outside investor, communication gap may exist in this process. This study identified the communication gap between tourism firms' manager and outside investor by text mining on asset restructuring announcement and online financial platform review. The effect of communication gap on tourism firms' asset restructuring performance is further tested with panel regression. The results of this study can enhance mutual understanding between manager and investor, help tourism firm's manager efficiently control asset restructuring process and financially benefit investors.

Keywords: communication gap; tourism firm; asset restructuring performance

Prediction of the spatial pattern of hotels in Beijing: Based on the Geodetector analysis

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Abstract

The location choice is significant for the success of the hotel investment and management, providing an efficient model for the selection of an optimal location is necessary for the construction of a tourist hotel. The primary objective of this paper is to give a feasible prediction index system of spatial pattern of Beijing hotel industry through spatial autocorrelation analysis and Geodetector analysis. This study aims to explore three issues. (1) analyze the spatial pattern characteristics of different types of hotels in different stage. (2) identify the spatial evolution characteristics of different levels of hotels. (3) construct the index system to predict the spatial pattern of hotel industry and provide its result.

Keywords: Spatial Pattern; Hotel location; Geodetector Analysis; Beijing

Value co-creation of ecotourism products – A theoretical framework for selected nature reserves in Eswatini

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Abstract

The value of co-creation to a consumer is a process that contributes to the sustainable growth of organizations. This study aims to develop a theoretical framework in order for nature reserves to implement co-creation activities in a sustainable and permanent nature. A clear approach is one that implies the need to think co-creation as a continuous strategic approach rather than a one-time approach of outsourcing of innovation tasks. A holistic method is important in collaborative invention as not only does it require methods and skills but also adapting to the innovation processes.

Keywords: Value co-creation; Ecotourism products; Sustainability