The International Hospitality and Tourism Student Journal

To Explore the Smart Tourism Experience in the Eyes of Tourists and to Analyse the Impacts it has on Tourist's Behaviours towards a Country: The Case of Malaysia.

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Abstract

As technologies in this day and age are becoming more sophisticated and advanced, the use of them in everyday life is undeniable. Likewise, technology, the tourism industry is also growing at a very fast pace as the need for people to travel around the world is at an increase of 182% (Ritcher, 2022). By integrating technology into the world of tourism, it creates a whole new topic of smart tourism. As it is a relatively new topic not much research and report has been done, therefore the author hopes to shine a light on this topic which has little report done over the years and to develop this topic further. However, in this paper, the author focuses more towards the developing country of Malaysia located in the region of South East Asia. This paper will gather the challenges Malaysia encounters when developing smart tourism, moreover the paper will also look at the tourist's expectations and the behavioural changes towards smart tourism. The approach taken in this case would be a qualitative approach whereby an in-depth review will be conducted to gain the results. Besides, the author would like for the Malaysian government to use the results gained from the in-depth interviews to have a deeper understanding of the tourist's expectations when visiting Malaysia. To conclude, the results gained from this research has shown that the possibility of the implementation of smart tourism into Malaysia is still uncertain and has shown that tourists are more likely to favour the traditional market as there has not been much background research done on smart tourism in general.

Chapter 1: Introduction

1.1 Background information

The tourism industry can be described as one big ecosystem where there are multiple stakeholders within, for example visitors, governments and tourism businesses with supporting industries such as fibrotic and transportation subsidising into the ecosystem as well (Lee and Cheong, 2016). Tourism plays an integral part in the success of many economies around the world, it boosts revenue of the economy, provides thousands of jobs and helps with the infrastructure of a country (Yehia, 2019). Gretel et al., (2015) pointed out that smart tourism is seen as a new concept into the tourism

subcategory which is built upon data analysis and collection together with up-to-date technologies to create a travel experience efficient, sustainable and valuable. The concept of smart tourism destination is brought up in a way where it has a correlation to smart city, as it can be considered as a concept coming to light and the process of conceiving and defining it being under way (Chappia and Baggio, 2015). Looking at the outlook of tourism, it can be seen that smart technologies are changing up the way of business processes and the experience the consumer receives (Lee, Florian and Chung, 2021). Smart tourism allows for businesses to innovate and facilitate the tourist flow and gives the opportunity to create new tourist experiences as well as services (Lee, Florian and Chung, 2021). According to MIDA (2022) tourism is the third

largest contributor to Malaysia's GDP having a share of 15.9 percent in the year 2019. Moreover, the tourism organisation of Malaysia has launched its smart tourism 4.0 initiative in 2018 where it aims to make use and take advantage of technology in the digital era, in hopes of innovation in the industry and creating new job opportunities. Tourist behaviour should also be looked at as it can be said to be one of the big factors on the decision making of a consumer in terms of travelling to a destination as well as most times there is the reasoning behind the justification therefore this will benefit Malaysia on its weaknesses hence it can improve on it and are prepared for it. In short, this paper will interpret tourist behaviour in terms of the behavioural change when the environment around them changes and it will look at whether they adapt or not into the changes.

1.2 Rationale

As smart technologies are gaining popularity in this day of age, it has developed smart tourism as a new trend in the tourism discipline. With it being a new trend, the researches conducted have been in the preliminary stage, the researches held are subcategorised from information technology to sustainability (Lee, Florian and Chung, 2021). As proven by Choi and Ali (2018), the number of articles on smart tourism in the context of tourist experience is one of the lowest at 6 articles compared to the highest context which was smart destination at 17. Additionally, there isn't much research on smart tourism after the launch of Malaysia's smart tourism 4.0 initiative. According to Johnson and Samakovlis (2019, p.601), "authors generate studies with theoretical and practical implications by positioning discussions within those happening in the domain, which can lead to the maturity of the field." As pointed out by Getler et al (2022), there is a need to explore the procedures behind the concept of smart tourism destinations from the perspective of stakeholders of a certain tourism destination. To quote from Serra and Neuhofer (2018, p.131), "there is a need to better delineate the real scope of the STE and to delve into aspects on how a smart tourism experience is co-created and what kind of environment is needed for such an experience to emerge." To extend on the quote above this paper will be focusing on the destination Malaysia and to help the DMO on areas that are needed for further development. Furthermore, this paper will help discover new perspectives, tourist demands, identify trends and patterns to overall help the DMO of Malaysia. Moreover, the data gained from this research will be public therefore companies that are in the same sector can access the data allowing them to work and improve on its weaknesses therefore

helping the economy of Malaysia at the same time as they will be prepared.

1.3 Aims and Objectives

The aim of this research paper is to explore the smart tourism experience in the eyes of tourists and to analyse the impacts it has on tourists' behaviours towards a country: the case of Malaysia. To obtain the aim, the following objectives will be answered:

- To identify the causes and challenges affecting smart tourism in Malaysia
- To analyse tourists' expectations on smart tourism experiences
- To determine tourists' behaviour towards smart tourism and develop the data gained

Chapter 2: Literature review

2.1 Introduction

For this section, we will be focusing on the effects and impacts of smart tourism, which will consist of the concept of smart tourism along with the factors that make it successful and tourists' behaviour towards smart tourism. As stated by Lee et al. (2021, p.20) mentions "smart tourism thus is characterised as a holistic approach that provides touristic products and services enabled by ICT devices and new ways of processing methods." Hence, we will explore smart tourism as a whole and its impacts by using theories and concepts to reach the main aim of this research paper.

2.2 Theoretical Background

2.2.1 The concept of smart tourism

Smart tourism does not have a set definition of what it is, there are many definitions that make it up. One way of defining smart tourism is the logical progression from traditional tourism to e-tourism (Gretzel et al., 2015). Another definition of smart tourism is taking the idea of smartness and splitting it into two different aspects, firstly in regards to the development of information and communication technologies along with the integration of smart technologies, secondly in terms of sustainability to explore how the resources are used (Mehraliyev et al., 2018). Furthermore, The United Nations Tourism Organisation highlighted the integration of smart tourism within the tourism sector is to promote and provide green sustainable clean excellent quality services ethically. Summarily the overall picture on smart tourism is based on three main foundations which are smart destination, smart

experience and smart business ecosystem, to be able to understand the concept we will have to explore each factor.

Smart destination as defined by The United Nations Tourism Organisation is whereby technology, innovation, accessibility and inclusivity are strategically placed along the tourism cycle; before, during and after a trip. In addition, it also states the importance of how it shapes the tourism industry, adding that the continuous data collected play a big role in the decision making, prioritisation and anticipation. Consequently, this allows for governments to be more involved in the sector as they can be part of foundations/trust by maximising the and eliminating the mobility. A good example of this is destination seasonality, in this context it can help governments tourism forecasting by predicting the tourist flows therefore allowing for better management of the flow. Referring to Gretzel et al (2015, p.3) she states that it is a tourism system making use of smart technologies by creating, managing and delivering tourist services/experiences. But in order to execute a good tourist experience data collection must happen to understand the behaviour of tourists on how they react through the three stages which are before, during and after visiting a tourist destination.

Smart experiences are products of tourism and hospitality that can be categorised as something intangible, consumers in this day of age have learned to adapt and have stopped seeking passively for the consumption of services provided by the sector (Neuhofer et al., 2015). Therefore, it is important for marketers and managers to gather data plus analyse for the anomalies and address the issue which will change the way standard services into personalised experience. Moreover, smart experience can allude towards the technological mediated tourism experience and how it is created into the uniqueness of it and how personalised it can be for a consumer, the experience has advanced from e-tourism where data is managed transitioning to smart tourism where the goal is to maximise interest for consumers (Chung et al., 2013).

Smart business as pointed out by Lee et al,. 2020 is a term which indicates the business ecosystem of dynamically interconnected stakeholders and the exchange with co-creation of touristic resources. Although we know that it is a subcategory of smart tourism, smart business can be reflected more in terms of tourism business as the main goal of the business still stays the same of providing a good experience for tourist but with a touch of smartness compared to the traditional market where it is based on providing

a good service. Furthermore, in this aspect smart business also looks at the different concepts that companies can use to save money and boost its sales, in most cases by just being sustainable or integrating a way to reduce carbon emissions at tourist destinations often helps for smaller businesses in the smart tourism sector. Moreover, most times it can be considered as a win-win situation for both the company and the tourists as they get the business they want while the tourists get the new experience. Another challenge that businesses face when providing a smart experience is the revisit rate of the tourists, as it is still a relatively new concept in the market there hasn't been much about it but we can still look at the factors that determines why or why not someone would be more or less likely to revisit a smart tourism after experiencing one maybe for the first time or some even having a few different experiences beforehand.

2.2.2 Tourist Behaviours'

Tourist behaviours' is a broad topic when it comes to the different perspectives you can look at it from, but in this case, we will look more towards from the perspective of the tourists' on how they perceive smart tourism as a whole and how they react towards something which is relatively new to the market as well as covering what are the expectations that they look for before and the thoughts after they visit a smart tourist destination. Moreover, it will also highlight the ways on how the smart system will have an impact on tourists' behaviour.

Stimulus Organism Response is a framework that was developed by (Mehrabian and Russell, 1974). The aim of the framework is to determine whether environmental factors would affect an individual emotional response leading them to having a reaction. The framework is built upon 3 variables with the first being stimuli (S) this represents the sensory variables and the information load which defines the spatial and temporal relationship among the stimuli section. The second being organism conditions (O) this represents the emotional response to the environment stimuli (S), the conditions can be categorised into three types of states: degrees of enjoyment (pleasure-displeasure), levels of mental alertness (arousal-nonarousal) and feelings of control over activities (dominance-submissiveness). The third being responses (R) this represents the perspective or preventive behaviours (Song et al., 2021). The stimulus organism response also refers to how an individual responds to the environment change in two ways: the first way states that the behaviour is taken in a positive outlook, like having the desire to explore, stay, work or affiliate, whilst on the other hand the behaviour is taken in a negative

outlook like the desire not to positively act (Mehrabian and Russell 1974; Kim et al., 2018). As stated by Wohlwill 1976 The SOR theory focuses on the emotion-eliciting of surroundings which are acknowledged as aesthetic incitements. To add on in terms of tourism context, the SOR model is very effective in the explanation of relationship amongst the 3 variables (Jani and Han, 2015), Moreover the SOR model have been used to predict visual and vocal impacts on tourist motivation as incitements and the relationship between intent to travel and actual visits as responses (Rajaguru, 2014; Kim et al., 2018).
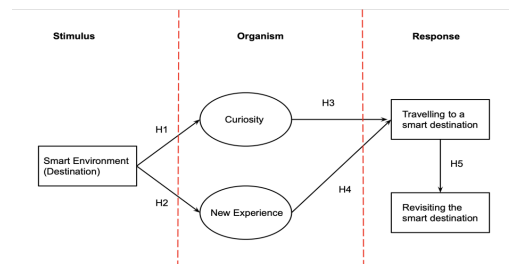

Figure 1: Smart Tourism

H1. The change in a destination environment have caused for consumers to be curious about it
H2. The change in a destination environment have caused for consumers to think about it as a new experience
H3. Curiosity has a strong influence on the decision-making process of a consumer travelling to a smart destination
H4. The thought of having a new experience has a positive impact on the decision-making process of a consumer travelling to a smart destination
H5. Travelling to a smart destination have influenced consumers to revisit the smart destination

2.3 Review of existing empirical research

2.3.1 Challenges in the implementation of smart tourism

Smart tourism was formed by tourism scholars and has been developed further expanding on the idea where the smart tourism ecosystem is linked with the conceptualisations of smart cities, smart tourism and smart technologies (Gretzel et al., 2015). Besides, the common ground for the definition and theory of smart tourism has yet to be achieved (Li et al., 2017). Moreover, there hasn't been a dependable and consistent understanding of the factors that make up the majority of the smart tourism industry for example smart hotels (Leung, 2019). Furthermore, development of upcoming technologies like artificial intelligence, machine learning and robotics have been a problem to the tourism industry as businesses within the industry will have to adapt whilst creating business opportunities for example paperless boarding passes, keyless room entries and short-term rentals (Lee et al., 2021). In this case the study looked at the current status of smart tourism research to point out where it stands in order to clarify the research patterns and give recommendations for future studies. The results of this study shows that this is still a growing topic as there were only 42 articles published in 2017, although it shows that there is an emphasis on newer terms such as "application", "sustainable" and "urban". For the reason that the fast development of smart technologies in the 21st century in areas such as smart technologies and applications where there is the need to have a constant monitoring of the data gathered in order to have the solid foundation of smart tourism. Other factors such as social concerns have also been a big part of the implementation as it is a challenge to create a resident friendly environment for smart tourism. This is demonstrated as popular tourism cities which are now facing the growth of the tourism sector have the challenge to keep up the existing carrying capacity whilst balancing the residents' routine-life-disturbance (Lee et al., 2021). As revealed by Gretzel et al. (2015) Although there are visible and new approaches to data collection, the management and sharing of the data are not managed and shared around well enough therefore it does not allow for the full image of what smart tourism is and what it encompasses.

The personalisation of content for a user is another implication that comes into mind. As pointed out by Buhalis and Amaranggna (2015), when aiming to create a "smart tourist" destination a number of challenges will be present and one of them is the personalisation of content will be presented for a user. This is fairly important due to the fact that if the content is given in the wrong context to different types of generations it will determine the tourist experience thus linking it to the revisit and data collection of smart tourism. Moreover (Baggio et al., 2020 p.560-561) mentions that "what appears to be quite evident is that it is very difficult to find or imagine a tourist destination that can be totally smart. Further, the most part of existing studies seems to suggest, at least implicitly, that wide and pervasive use of technology alone might make it possible to consider the destination as being "smart." Here we can see that there are many smart factors to be taken into account for a tourist destination to be totally smart as technology is an ongoing industry that has new developments everyday which therefore can be tricky to weigh the factors or to compare one destination to another as there has not been an established list whereby business owners or tourism boards can be sure of it.

Information of communication technology has developed over the years making it one of the crucial components of the tourism industry (Bethapudi, 2013; Law et al., 2011). The development of Information of communication technology as a whole and cloud computing technologies have allowed for motivations from tourist destinations governments to practitioners to get a hold of smart technologies to help with the decision-making process in business planning thus improving the quality of tourist experience (Ye et al., 2020). To quote from Lee et al., 2020 "smart tourism represents the convergence of ICT and tourism and denotes the transformation of tourism through technology." The role of IoT allows for the creation of a smart technological environment therefore gives it the ability to link the physical and digital infrastructures, the data gained is used to establish tourists' context in a pervasive but not intrusive way to attend consumer needs (Kontogianni and Alepis, 2020). The purpose of its role lies in the marketing and management of tourist destinations, with it being on the rise of importance (Mandić and Praničević, 2019). This has allowed for businesses in tourism to reshape its methods thus leading to the way consumers interact with tourism industry stakeholders. The development of ICTs has remodelled the traditional framework for tourism developing allowing for the introduction of the concept of "smartness" into tourist destinations (Jovicic, 2019). The utilisation of smart devices in the context of the tourism industry is starting to advance and expand therefore allowing for the maximisation of the resources gained therefore generating a big sum of social and economic benefits, by adopting these smart devices it creates a thought of convenience and efficiency in terms of services for the consumer (Pai et al., 2020). Moving on the developments of smart cities, smart approaches have influenced smart destinations leading to the shaping of smart tourism (Buhalis and Amarangga, 2013). As pointed out by Gretzel et al,. 2015 Smart tourism is a new generation in development of IT within the sector of tourism. Mobile networks and smartphones, the internet of things and near field communication are just a few examples of technologies that have initiated and created extensive tourism-related applications causing a change in the whole industry (Pai et al., 2020). Furthermore, another good example would be the application of information of technology (IoT), the chip embedded in tickets lets tourism service providers to view the consumption behaviour of a consumer and it can also track and show the location of a consumer, as this will help with the monitoring of the spatial and time movements of consumers and helps with the movement of flow for the consumers (Novianti et al., 2022).

The use of big data technologies has allowed for tourism boards to manage their tourism, the groups within the tourism sector can then use this data for various purposes. It will help them when designing packages for tourists or creating marketing campaign strategies that will be targeting a selective market segment demographically and geographically in exchange for tourists coming into the country. To get into more depth this would mean that the data can be used to identify the aspects of potential customers in each stage of the trip planning process, furthermore with this data they will be able to also forecast the preferences and behaviours of potential customers.

2.4 Background to primary research context

The primary research of this paper in this case is Malaysia with more focus towards the DMO on how they can implement new and upcoming technologies into the already existing smart tourism 4.0 program they have launched in 2018 and look at the improvements that can be made to further increase the number of tourists visiting the country. Moreover, to take a tourist perspective in terms of the smart experience and how behaviour and its effects will affect Malaysia. However, in this case of Malaysia there is insufficient research on the application of smart tourism as it is still at its infancy stage and destinations are still adapting and finding the flow to keep up with the market trend. Common foundations are still not met for example there is no specific framework to base it off as well as global crises such as covid-19 that has caused a decline in tourists' arrivals and the poor digitalisation has caused for the tourist experience and tourist development to also degrade in Malaysia (Amir et al., 2020). Although the Malaysian government has published a framework for its smart cities (MSCF), the framework is a national-level framework to guide and reference for state governments, federal ministries and departments, industry players, academicians and other stakeholders in making sure they are in line with the current developments. From this framework we can still look into the 7 factors that have been established by the government and correlate it to smart tourism. The 7 factors are: smart economy, smart living, smart environment, smart people, smart government, smart mobility and smart digital infrastructure. By looking at the 7 factors it can be said that 3 out of the 7 factors can be extracted and correlated to the smart experience whilst the remaining would be the external factors. Moving on the 3 factors are: smart environment, smart mobility and smart digital infrastructure. Starting

with smart digital infrastructure, as pointed out by academia writers' digital infrastructure is one of the core components that make up smart tourism as it connects the physical and digital getting the best of both worlds to collect data. This will be one of the main factors that will be looked at when doing primary research on, the research will look from the perspective of the consumers and businesses to allow for comparison as well as allow for businesses to see where they can improve and enhance on in terms of the smart experience. Moving on with smart mobility, smart mobility refers to the different types of transport that a consumer can use. Smart mobility can range from public transport to autonomous transport systems, with the addition of being eco-friendly it has changed the way consumers think and decide on travelling as well as that smart mobility is the way consumers would be travelling as a mode of transport. Therefore, it is important to understand the thoughts of the consumer to be able to save cost and most importantly provide a good smart experience. Lastly, the smart environment is another important aspect that is looked at when looking at smart tourism, it can be linked towards the build-up of a smart destination as it is one of the most common aspects. Most smart destinations are built upon a smart environment in terms of the use of smart devices in an area, for example the use of e-tickets to enter a theme park, this links the use of computers which are checking the validity of the ticket with other smart devices, in this case the smartphone.

Chapter 3: Methodology

3.1 Aims & Objectives

The aim of this research paper is to explore the smart tourism experience in the eyes of tourists and to analyse the impacts it has on tourists' behaviours towards a country: the case of Malaysia. To obtain the aim, the following objectives will be answered:

- To identify the causes and challenges affecting smart tourism in Malaysia
- To analyse tourists' expectations on smart tourism experiences
- To determine tourists' behaviour towards smart tourism and develop the data gained

3.2 Research Approach

Hussain (2013) describes interpretive as humanistic, constructivist, naturalistic, anti-positivist and alternative paradigm of research. From the information and issues identified throughout this study, the paper favours the interpretive approach. The interpretive research seeks to understand 3 factors which have correlation to the aims and objectives of the paper, the 3 factors are values, beliefs and the meanings of social phenomena (Smith and Heshsius, 1986). Moreover, interpretive is said to be not based on a known theory but rather to "generate or inductively develop a theory or pattern of meaning" (Creswell, 2003). Furthermore, as the interpretive builds upon the integrity of the descriptions of the phenomena under this study, this allows the reader to absorb and receive the meaning of the phenomena through recognition and empathy (Hussain, 2013).

Moving on this research will take an inductive approach, the inductive approach is based on participants' views to construct a wider theme and to generate a theory connecting the similar themes (Soiferman, 2010). The inductive approach begins with a particular observation and specific measures in which will allow for the researcher to identify and determine the themes and patterns in the data, this gives the researcher an idea on where the research would be heading a good example would be an early hypothesis for the researcher to explore (Creswell, 2005). It is also believed that there are multiple constructed realities that create different views and different approaches for different individuals therefore interpretations will depend on the researcher lens (Onwuegbuzie and Leech, 2005). In addition, the relationship between the participants and the researcher will be an important part as it will determine the outcome of the results, as stated by Onwuegbuzie and Leech, 2005, p.271 "the research is influenced to a great extent by the values of the researcher." Moreover, it can be said that the study is conducted in a natural setting therefore it is up to the researcher to go out and gather data from participants to find out the common theme.

Lastly in terms of how the case study would be designed it would look at a narrative approach. Narrative approach allows for the researcher to inquire in a way which provides a more in depth understanding of the individual's life, more specifically it is more personalised therefore the data collected would be more authentic and accurate.

3.3 Sampling

In order for the study to be carried out, first the data must be collected before anything. In this case the type of sampling approach taken will be non-probability sampling, this is due to the fact that the sample size will be small in order to examine the real-life phenomenon (Yin, 2003). To narrow it down even further the study will be

focused on quota sampling, quota sampling allows for the researcher to not waste much time as the participants chosen in this case will be based on predetermined characteristics therefore the total sample size will have an equal amount of distribution in terms of the characteristics (Davis, 2005). Although this method will have a selection bias and no assurance in this case the whole purpose of this study is to identify and close the gaps on the smart tourist experience that could be improved which will therefore selecting randomly would not help with the sample and data collection. To extend into further details the sample size in this case would be a size of 15 to 20 participants as there are intentions to have follow up interviews, as for the selection criteria of participants the main factors that will be considered are the age, travel experience and where they come from. In terms of the age group, the study aims at the Millennial generation with a small part of the sample being in Gen Z, as for the travel experience the study will be selecting participants that already have previous experience in smart tourism from around the world and that they have an idea on what the topic is about. As for the geographical standpoint from where they are from, the study aims to target a mix of local and international population to therefore allow for some variants in the data and give it something to have a comparison with.

3.4 Data collection

The data collection in this study will be focused on in-depth interviews, likewise it has been mentioned that individual in-depth interviews are the preferred method to qualitative methods when searching for knowledge that has not been gathered or missed out when doing group discussions (Fischer, 2009). In addition, compared to other interview methods, in-depth interview provides more of an informative and detailed data hence in some cases it also brings in new insights. Additionally, by doing in-depth interviews it allows for the minimization of errors in terms of misinterpretation and misrepresentation (Hofisi et al., 2014). Therefore, the aim of the interview is to ensure that both parties involved know the purpose of the interview and know where the data is being used and stored, however in this case as participants are pre-selected the interviews will be planned in advance with an option to do it in English, Malay, Chinese or Hindi. As for the fact of privacy, if participants decide to use pseudonyms it will not be a problem as the participants that decide to take part in the interview will be kept in private. Moreover, when the interview is approved, participants will receive a consent form where it will state the purpose of the research, potential risks and benefits from the research as well as the

rights to withdraw or the termination of participation.

3.5 Data Analysis

The approach of data analysis towards this research used will be thematic analysis. This data analysis method is commonly used to identify the patterns and meanings behind the theme of data collected. Moreover, this method can be used to create a theory from the data collected which therefore means this approach is an inductive research method. (Braun and Clarke, 2012). Therefore, the data collected in this case will be examined on how it fits into the themes of this research. This method of data analysis has been used for this research considering the aims of this research is to identify the challenges and causes affecting smart tourism in Malaysia in the eyes of tourists. This method is useful for this research as it is flexible therefore allowing for more pivotal decision making. Additionally, the data collected for this research is in both audio and visual therefore when analysing the data, it will allow for comparable viewpoints and themes that will help build and expand on a theory therefore allowing for a conclusion to be captivated.

3.6 Trustworthiness

Trustworthiness in qualitative research is comprised of many different approaches and methods, this research will use audit trail, member checking and triangulation. According to Koch (2006) and Creswell and Millar (2000), audit trail is the documenting of the development of a completed analysis; moreover, it also documents all the decision making and activities throughout the research process. By doing so this allows for another researcher to follow and understand the decision trail used by the author in this study. Triangulation as referred to by Oppermann (2000) is the use of the same approach for various sets of data, which allows for the verification or falsification of generalisation trends in a singular data set. This is important as it will allow for a more accurate analysis of data as well as it will allow for the reader to understand the depth of the research. Member checking in this context is effective as it gives the credibility of the members that have been interviewed, moreover by doing member checking it adds another layer to the validity of the researcher's point of view (Simon, 2011).

3.7 Transferability

Transferability is attributed to the capability of a study's methodology to be reproduced in a new context or at a later date (Trochim and Donnelly, 2006). It can also be the contribution to additional research where the target and goals are related to

each other (Marshall and Rossman, 2014). In this context this research is planned for a recurring process of understanding the participants. Therefore, this will allow for the possibility of this research theoretical framework, goals and study techniques to be replicated in numerous contexts. In terms of the numerous contexts that can be replicated into, the reader must be careful that this cannot be replicated in terms of the culture as it may differ from country to country. Moreover, in the context of the smart experiences that are collected and experienced in this research will not be transferable as different countries might have different techniques to satisfy the needs and expectations of its target market.

3.8 Ethical Issue

Ethics are the moral principles that govern the conduct of an individual, group or an organisation (Quinlan, 2011). Ethical considerations that are needed to be anticipated are quite substantial as they are now reflected throughout the research process (Creswell, 2014). In this case of qualitative research, it will be harder to implement questions that will be ethical with consideration of how much data can be gained from the participants. Moreover, to ensure that there is no falsification of data and reduce the risk of misrepresentation the research will not be implementing targeted surveys, by doing so it will enable for unintentional bias. Another factor that will be considered will be the experience that will take place during the interviews, this is because there will be a follow-up interview with previous participants to see if any thoughts or opinions have changed. To conclude due to the fact that the perception and analysis of data have a discursiveness and multiple facets (Sanjari, 2014) in order to avoid this, all interview sessions will be recorded as part of the data collection and the recorded sessions will be privatised for this case study investigation. Although participants will get the choice to choose whether or not the session will be recorded, one factor that can't be avoided are the biases as they can take place throughout the testing process which can therefore affect and impact the results of the data collection process. Besides, participants will be given a consent form that will list out the main points which are the purpose of the study, how the data will be stored/ anonymity, the risks and benefits of taking part and most importantly the rights to withdraw or terminate from the study at any time.

3.9 Limitations

In terms of the limitations of this study, it can be seen from different perspectives. The first limitation that is a big obstacle is during the data collection process, in this case the factors that may or may not affect the data collection would be if interviewees disagreeing with statements made by the researcher or in another case if the interviewer is using a person that already knows the questions in advance therefore preparing for it before the interview causing a bias in the result. The second limitation is the culture differences, as Malaysia is a country that consists of 3 different cultures it will be hard to find the right people for the interviews and to find the right amount of people from each race to avoid any bias towards the collection of data. Moreover, this would lead to the trustworthiness of the paper as the researcher may favour a participant result over others and may choose to not include the bad results into the data analysis to therefore improve the result of the research. In short the limitations of this paper are "biases" that may or may not occur throughout the research.

Chapter 4: Discussion

4.1 Introduction

Tourism is one of the fastest developing and growing industries in the world, the developments are plentiful but one is gaining a lot of attention. The development of smart objects and technologies have changed the tourist experience and perspective of tourism, this sector is always changing and evolving due to the competitive market in technology. Hence, the discussion of smart tourism from the perspective of tourists and tourists' behaviours will be discussed in the following chapter. This chapter content will be based on the literature review findings done and will use other research data that has been collected.

4.2 To identify the causes and challenges affecting smart tourism in Malaysia.

Tourism in Malaysia has been developing over the years, with one of the focus on its "smart tourism 4.0" initiative which was launched in 2018 (Mida, 2021). The smart tourism 4.0 aims to establish ease for travellers visiting the country by integrating information and communication technologies, items such as social media, travel guides and apps are the core and essential elements that will determine the tourist's experiences (Amirah, 2022). Moreover, smart tourism 4.0 also aims to promote sustainability through ecotourism, promote better use of its resources as well as boost Malaysia's competitiveness with its neighbouring countries. (Mida, 2021).

Moving on the common ground for smart tourism has yet to be achieved (Li et al., 2017). In addition to this there hasn't been a dependable and consistent understanding of the factors that make up the majority of the smart tourism

industry (Leung, 2019). With this being said it shows the gap in the reliability of data from other countries therefore in order for Malaysia to move forward with its "smart tourism 4.0" initiative it will need to experiment out different methods to find the optimal and consistent method to satisfy the tourist experience, although Malaysia may use other countries data to save time there is a risk of culture differences, different attractions and different perspective therefore it would be much safer for Malaysia to carry out its experiments on its own. In addition to this the development of upcoming technologies like artificial intelligence, machine learning and robotics have been a problem to the tourism industry as businesses will have to adapt to the changes (Lee et al., 2021), in terms of how this will affect Malaysia in the long run there will be an increase in the unemployment rate in the tourism and hospitality sector which will therefore decrease the country's GDP. As the tourism sector contributes 6.7% to its GDP in 2019 it is said to be one of the biggest contributing factors, as well as the fact that it is also one of the largest sectors in terms of employment by supporting close to a quarter of the workforce in Malaysia (Hirschmann, 2022).

Another challenge for the Malaysia government will be the implementation of personalisation of content for a user as pointed out by Buhalis and Amaranggna, 2015. This can be considered as one of the main factors if Malaysia wants to be a successful smart tourism destination as the content given out will be the determining pillars which may affect the "smart experience", moreover the different type of content that is needed in the right context for the different types of generations.

4.3 To analyse tourists' expectations on smart tourism experiences.

Tourists' expectations are expectations that can be set before a tourism experience or it can also be set after a tourist experience. Tourists' expectations also depend on the tourist behaviour factor on its perception towards the experience. Therefore, to be able to analyse tourist's expectations, Malaysia will have to look at many different factors to consider and find a middle ground for where it would focus.

The first challenge for Malaysia in this case is how it will implement and integrate smart business into the ecosystem. As pointed out by Lee et al., 2020 smart business indicates the business ecosystem of dynamically interconnected stakeholders and the exchange with co-creation of touristic resources. Moreover, the main goal of a smart business in the tourism business does not change as it still aims to provide a good experience for tourists but with a touch of

smartness, whilst on the other hand in the traditional market where it is based on providing a good service. Therefore, in order for Malaysia to meet tourist's expectations "smart business" can be seen as one of the main pillars that will define it. But as smart business is a relatively new concept and offer different experiences for tourist's, there is a high likelihood that the expectations of tourist's may be met, however the difference here is that since it is a new concept they may still prefer the traditional experience over the smart experience. Thus, it might affect the revisit rate of the destination which will determine how much of tourist's receipts Malaysia generates yearly, as Malaysia is known to be a relatively cheap country with affordable prices compared to its competitors. However, in order to provide the smart experience, in most cases smart businesses will have to increase their operating costs that will also affect the prices. This is a huge challenge for Malaysia as it will have to determine whether it wishes to stay with the traditional market or keep up with the modern world of technology.

Another factor that will be a challenge for Malaysia is how it will execute and achieve smart experiences to an extent that will satisfy tourist expectations. As smart experiences are products of tourism and hospitality that can be categorised as something intangible, consequently have made consumers in this day of age to have learned to adapt and have stopped seeking passively for the consumption of services provided by this sector (Neuhofer et al., 2015). For this reason, Malaysia will have to carefully gather data on tourist expectations plus analysing for the anomalies that would help in changing the way standard services are and transition into more of a personalised experience. Considering that the experience has advanced from e-tourism where data is managed shifting to smart tourism where the goal is to maximise the interest for consumers (Chung et al., 2013). Moreover, smart experience carries a lot of different factors with expectations as one of the main ones, the other factors that will be considered for tourists when determining are the beliefs and subjective norms which links to the selection and visitation of a smart destination. Hence in order for Malaysia to stand out and progress with its "smart tourism 4.0" initiative it will have to value the importance of the smart experience to stay up to date with the market and its competitors.

4.4 To determine tourists' behaviour towards smart tourism and develop the data gained.

Tourist behaviours can be determined and explored in many ways, the catch is the perspective it is looked at, however in this context it will be looked at in the perspective of the tourist

eyes. Therefore, to be able to establish the behaviour it must be looked at from the beginning of the travelling stage into a smart tourist destination, looking at the expectations set by the traveller. To understand this the stimulus has to be captured, the stimulus represents the sensory variables and the information load (Song et al., 2021). By establishing the expectations of the traveller, it allows for the smart destination to adapt and accommodate the needs of the traveller. However, this may be challenging as Malaysia is a multicultural country, which means in order for Malaysia to thrive over its competitors' the first challenge for them is the introduction of "smartness" to various local cultures and to integrate it into the tourism guidelines for hotels, restaurants, tour operators and many more. This may be a tricky situation as the population in rural areas are just starting to adapt to technology, however in the more developed areas of the country the adaptation of technology has been moving at a healthy pace for a developing country.

The second stage of the development can be debated as the key to the whole process as it establishes the relationship between the experience and the environment built for a smart destination. The conditions can be categorised into three types of state: degrees of enjoyment (pleasure-displeasure), levels of mental alertness (arousal-nonarousal) and lastly the feelings of control over activities (dominance-submissiveness) (Song et al., 2021). In order for success in the implementation of "smartness" into a smart destination there needs to be one state to be present. However, the challenges in implementing the three types of state are complex as different travellers have different wants and needs along with the time needed to adapt into a new environment may differ, hence in order to succeed Malaysia can look at the broader outlook and develop all three areas to satisfy all travellers or Malaysia could focus on each state in which will be time consuming plus it is not cost effective. Although Malaysia looks to cover all three areas it will satisfy the majority of travellers wants and needs although the standard and quality of it will not be as excellent to its competitors. Nevertheless, both options are feasible for Malaysia as it will both require the process of time and money consumption to develop a satisfactory level, with the only factor of the different standards and quality that may be achieved. Despite the fact that the SOR model has been used to predict visual and vocal impacts on tourist motivation as incitements and the relationship between intent to travel and actual visits as responses (Rajagurur, 2014; Kim et al., 2018).

Lastly, the final stage of development would be the most crucial segment as it is the responses. The responses in this case represents the perspective or preventive behaviours (Song et al., 2021), in which will assist Malaysia in respect of the insights that can be gained to help them further develop into their "smart tourism 4.0" initiative. Additionally, it will allow for Malaysia to evaluate and analyse the results gained for them to be going into the right direction.

4.5 Conclusion

To sum up, this chapter looked at the paper's objectives and contrasted it with the potential findings along with the outcome of this research paper. By using the potential findings in this case, the researcher was able to carefully identify the potential challenges that Malaysia may or may not face when implementing and integrating the different findings and concepts into the system it already has. Although smart tourism is still not well defined, Malaysia can take this opportunity to experiment with different ideas to solidify the common ground for smart tourism as it is still a developing country. Moreover, as these concepts have not been applied in a real-life situation, it is also a risk for Malaysia to invest into a concept that has precarious results as it will be a big investment for the country itself. Nevertheless, as Malaysia pursues its "smart tourism 4.0" initiative which has major plans in place already, these concepts may help them in the coming future with the need of several changes and adjustments alongside its "smart tourism 4.0" initiative plan.

Chapter 5: Conclusion & Recommendations

5.1 Conclusion

To round off, this paper has looked and examined the many different factors that Malaysia can implement and use to progress through for its "smart tourism 4.0" initiative as it is still in the development stage of its plan to end by 2030. Moreover, the factors can be used to enhance its competitiveness as a tourist destination due to the growing popularity of the South East Asia region. As mentioned by Li et al., 2017 the common ground for the understanding of smart tourism is yet to be discovered, therefore implementation of such will be foreign to the older generations of traveller. The adaptation for local vendors and businesses will also be a challenge (Lee et al., 2021), as the perception of technology and investment into the future is still a big uncertainty for most vendors. This can be due to the complementary nature of the older ageing generation and also due to the fact that according to Leung, 2019 there hasn't been a dependable and consistent understanding of the factors that make up the majority of smart tourism. To add

on as Malaysia is still a developing country amongst the rest of the countries that make up the South East Asia region the stakes are high for the different companies local and international to take a chance in Malaysia, a developing country for smart tourism.

In such cases, it is common to find developed countries such as Japan, China or Korea to assert its cultural influence into Malaysia by constructing and developing smart cities within a city in Malaysia. By doing so it will allow them to use Malaysia as an experiment ground before implementing it into their own country, likewise if the project is successful in most cases the system can be taken by Malaysian authorities and implement the features into its own cities. Although this might be said to be an advantage for Malaysia, it could also be a disadvantage if you look at it from a perspective of developed countries asserting its dominance in developing countries by providing and equipping them with smart technologies. As most companies are government or state owned, especially in technology nowadays as it is such a booming economy it can be said that by providing and equipping developing countries with such high-tech technology for its smart tourism, it is as if the country is monitoring the actions of the developing country, to be able to understand it's weak points as well as promoting its company brand for both local and international tourists.

On a final note, the challenges that lies ahead for Malaysia is its decision on where it would like to head with its "smart tourism 4.0" initiative as it is quite vague and not clear at the moment, as well as how much they are willing to spend towards it's "smart tourism 4.0" initiative as the investment and decision into this is not cheap further the consequence of the decision and investment will also ponder into the eyes of countries worldwide and nationwide.

5.2 Recommendations

For further research into this, the recommendations for smart tourism development can be applied to other countries although the findings are limited to Malaysia, it must be mentioned that the clash in culture and the classification of the country may differ from Malaysia. As smart tourism is yet to reach the middle ground of understanding common findings such as the smart environment can be used to illustrate in different environments to justify the common theme and assess the anomaly. In general, the findings found in this paper may shine a light on some factors that may be transferred over and support for improved evaluating smart tourism initiatives taken by another country such as its tourism innovations,

strategies and goals. In terms of smart tourism in a developing country like Malaysia, the author has established that for it to be successful in its initiative it will have to invest a lot of money over a long period of time. To add on, researchers looking into this field should use the data gathered from this carefully and also explore further into the different perceptions of different cultures when using the data gained from this paper.

Likewise, the author of this paper has taken an approach relating towards the perspective of the eyes of tourist's however it would be more alluring to explore the other stakeholder's perspective when talking about smart tourism as it will enable the public to understand the various factors that contributed to the decision, additionally this will allow for researchers to deduce the reasoning why it might have worked out or not worked out.

Decisively, the most important factor that is imperative to be taken into consideration when further carrying out this research is the method that will be used. In this case the method used in this research has its pro's, it must be mentioned that the cons such as biases will affect the trustworthiness of a research, therefore the last recommendation would be to thoroughly go through the different methods in order to eliminate the bias factor that will affect the researcher's research. Other recommendations would also be to strengthen the type of skills needed for this author's research method of choice to avoid biases.

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