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THE INFLUENCE OF SMART TOURISM APPLICATIONS ON PERCEIVED DESTINATIONS IMAGE IN KELANTAN

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ABSTRACT

The purpose of this research is to investigate the impact of smart tourism applications on perceived destination image in Kelantan. The purpose of this research was to investigate the relationship between smart information systems, smart sightseeing, smart ecommerce, and smart forecasting and perceived destination image. A questionnaire was used as the quantitative method. A total of 384 Gen Z tourists were chosen as respondents. The study's findings indicate a significant relationship between smart information systems, smart sightseeing, e-commerce, and smart forecasting, as well as the influence of smart tourism applications. Smart information systems and e-commerce systems are positively affected in information search, while smart sightseeing and smart forecasting are positively affected in e-recommendations.

Keywords: Smart Tourism Application, Gen Z, and Destination Image.

INTRODUCTION

Tourism was defined as leisure, relaxation, entertainment, recreation, and hospitality (Morley,1990). According to Wild (2014), tourism is defined as a business enterprise that operates holidays and visits to famous and interesting destinations.

According to (Li, Hu, Huang, & Duan, 2017), Both the terms "smart tourism" and "smart destination" refer to a comprehensive tour information service provided to visitors while they are visiting a particular location using cutting-edge information and communication technologies (ICT). Many vacation spots have recently made an effort to accept this "smart" notion since it provides intelligent travel destinations with an advantage over competition over other tourist destinations based on the originality and distinctiveness of their product and service offerings.

According to the concept of intelligent tourism, this research was defined smart tourism application as a use of using technology in travel connected activities to improve visitors' tourism experiences in a certain places. Tourism or travel technology can improve travellers' experiences while also promoting tourism activities and interactions among tourism. Smart tourism has three major advantages which are economic, environmental, and socio-cultural. The economic advantages of smart tourism result from an injection of revenue into a destination's infrastructure. Smart tourist destinations typically include self-sufficiency systems, while the socio-cultural aspect refers to the indirect hedonic value created by smart or intelligent tourism initiatives.

There are four objectives in this research:

1. To study a smart information system application can improve how tourist perceive a destination image.
2. To identify the efficient e-commerce system apps can improve how tourists' perceived

A destination image.

3. To study the useful smart sightseeing applications can improve how tourists' perceived

A destination image

4. To study the efficient smart forecasting application can improve how tourists' perceived a destination image.

SIGNIFICANCE OF THE STUDY

i. To the Academic Field

It refers to the contribution and impact of research on a research field. The benefits of this study for future researchers, they can generate and develop more ideas and knowledge based on the issue. As information technology advances, the travel experience of future researchers improves, and their awarenes or perception of their place image improves, which encourages their purpose to suggest that place or destination.

ii. Practical

This research was carried out in order to learn more about Kelantan as a tourist destination in Malaysia. This discovery will provide a better understanding of Kelantan's history, famous places in Kelantan, and the culture of the Kelantan community. This research will also provide information to tourism agencies and the Kelantan government about the influence of smart tourism applications on the perception of Kelantan's destination image, as well as the extent to which they are influenced by smart tourism applications in Kelantan.

LITERATURE REVIEW

Smart information system

The words of "Smart Information Systems" refers to the interaction of cutting-edge technological tools and frameworks that combine Artificial Intelligence with Big Data to analyses, characterize, and predict information and the word of ‘Smart Information Systems’ also referring to the distribution of free Wireless Networking, barcode scanners and smartphone applications based on. In this case, the use of smart devices in the tourism sector is expanding, which maximizes the value of the industry's resources and generates significant social and economic benefits. Wearable and portable devices, such as smartphones, smart glasses, and smart watches, are examples of smart devices. Furthermore, the entire tourism industry makes use of smart devices, such as self-service kiosks for hotel check-in, flight check-in kiosks at airports, self-service ticket machines, and tour guide systems at tourist attractions. Tourists can receive services that are both convenient and effective by using these smart devices.

Smart sightseeing

Using e-tour maps, e-guides, and recommendation services to promote a positive image of the destination is an example of smart sightseeing. So, considering tourists, intelligent sightseeing is important since it may help tourists in making their journey easier whether looking for a tourist attraction or shopping mall. One of the facilities that helps travellers is the availability of e-tourism maps, e-guides, and e-directions.

E-commerce system

An e-commerce system is a piece of software that makes it possible to conduct business by buying and selling things online. In conclusion, customers need the ability to search for a particular product on an e- commerce platform, manage their shopping cart, and make payments. In the international travel and tourism sector, e-commerce systems are creating new business opportunities when the world opens with internet technology or online systems for the tourism industry. It helps in taking advantage of the potential market that e-commerce has created, travel-related organizations and internet businesses are collaborating.

Smart forecasting

Intelligent forecasting platform (IFP) is a cutting-edge big data AI-based analytics platform designed to process unbounded time series data volumes with cutting-edge algorithmic capacity. It enables organizations to make data-driven strategic and operational decisions by automating prediction model lifecycle processes, while also streamlining planning and reducing uncertainty. Forecasting is critical because tourist flow and queueing time affect many tourists. Accurate time forecasting and arrangement encourages travellers to participation and visiting attractions in travel activities.

Perceived destination image

Destination image consists of cognitive (belief and understanding about the location), efficiency (emotions toward a place), and cognitive constructs (visitors act according to cognitive and emotional elements). However, some places are unable to use smart destination positioning for smart tourism due to limitations in information digital, staff, time and money. It is difficult to replicate the concept of location as a wise choice in the latter scenario. As a result, both directly and indirectly, destination values may attract the process of co-creation with customers.

Relationship between independent variable and dependent variable.

Relationship smart information systems and perceived destination image.

The efficiency of Qr codes and Wi-Fi for smart information systems increases the perceived favourability of an intelligent place or destination. For tourists who are traveling and looking for information, having access to the internet is essential. In many public spaces including buses, lobbies of hotels, and neighbourhood stalls, visitors can use their smartphones to connect to free Wi-Fi. To make it simple for tourists to visit their website and get information, many tourism businesses offer a Qr code.

Relationship smart sightseeing and perceived destination image.

Tourists must be given accurate smart sightseeing information. Tourists may prepare for their trip experience by having complete and accurate information about e maps, and recommended e tours. It is advised to provide clear information that is simple to comprehend and use. Offering tourists choices might provide them time flexibility, such as e-travel guides that compare the time and expense of traveling to various locations. Destination information may improve resource efficiency, lessen traffic congestion and wait times for tourists, and encourage interaction between tourists and local communities. The degree of intelligence of the online information and the data sources used by travel agencies and destination management institutions s offer can have an impact on how much time tourists spend searching for information. According to li et al. In 2009, when it relates to smart sightseeing, visitors with low information search frequency have a more advantageous impact on the perceived destination image than visitors with high information search frequency

Relationship e-commerce systems and perceived destination image.

E-commerce systems could significantly improve people's perception of destination image. In giving visitors a smooth online experience, high-quality, secure e- commerce platforms can boost their confidence when making reservations and purchases online. Direct and open communication between tourism providers and customers can increase trust in online business transactions throughout the e-commerce experience. Furthermore, tourist data on online shopping can be useful for future data analysis, marketing, and strategic planning.

Relationship smart forecasting and perceived destination image.

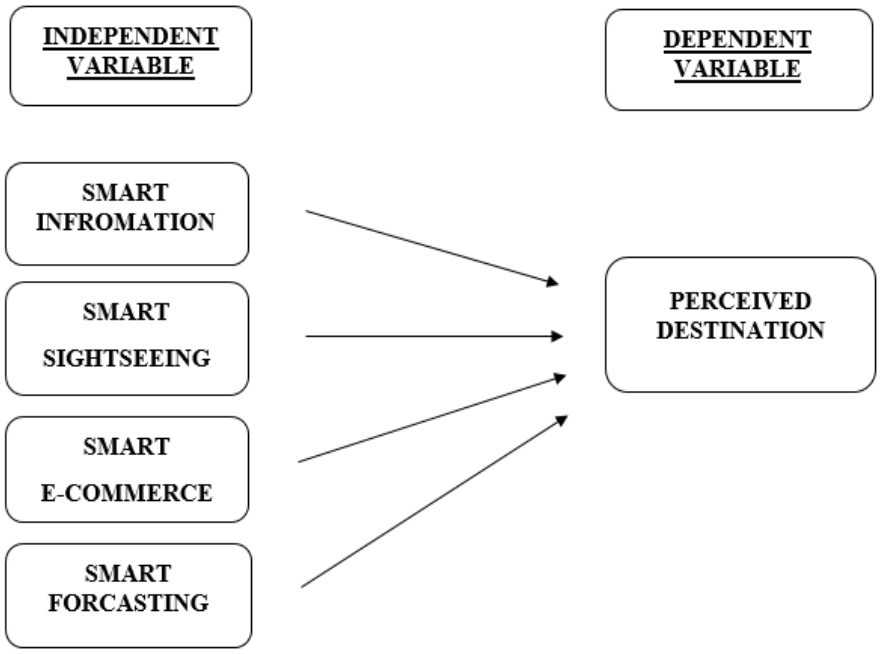
In forecasting applications, anomaly detection methods are divided into two categories: model-based approaches and feature-based approaches. Forecasting applications and information are very useful to tourists. With smart forecasting, tourists can prepare for their trip experience by having complete and accurate information on tourist flow and queuing times. Offering options to tourists can help them save time and money when travelling from one location to another. Big data projects can aid in the provision of real-time visitor flow statistics and queueing time projections, as well as population and traffic management, crisis management, and policy formulation. Destination information can improve resource efficiency, reduce tourist traffic and wait times, and facilitate dialogue between locals and tourists.

RESEARCH HYPOTHESIS

The research hypothesis was developed based on elements such as smart information systems, e-commerce systems, smart sightseeing and smart forecasting that affected the perceived destination. The following hypotheses (h1–4) are put out to fill the knowledge gap in the area of tourism activities and the design of the visitor experience:

1. H1. Effective use of smart information systems can influence how visitors view a place.
2. H2. An efficient smart sightseeing app can improve how travelers see a destination.
3. H3. A successful application for an e-commerce system can improve the perception of the destination among tourists.
4. H4. A successful smart forecasting application can improve how visitors perceive a destination.

RESEARCH FRAMEWORK



METHODOLOGY

Research design

A research design is essentially a plan for research that outlines the steps researchers should take to accomplish their goals or test their hypotheses proposed for their research. The value of research design lies in ensuring that the evidence generated from the data responds firmly and convincingly in response to the questioning. It can generally be separated into analysis of qualitative and quantitative frameworks.

Data collection

The process of gathering data from diverse sources in order to identify answers to the research problems is known as the data collecting data. Additionally, the data collected will be used to test the hypothesis and assess the results. Primary data and secondary data are the two types of data that are commonly gathered to finish a research study. The researcher used Google Forms to distribute a questionnaire to gather data for this research study. This method will be used because questionnaires are typically less expensive because they are standardised, and they are also relatively error-free. It is also an efficient method of gathering data from a large number of respondents.

Sampling

A sample represents a portion of the total population that perfectly represents it. The total number of samples chosen for the study is the sample size. The sample size is helpful in understanding a group

of participants chosen from the overall population who are thought to be a good representation of the study's target population. The target population will be used to select the sample for this study and help researchers to study it very well. Based on widespread agreement and new Gen Z analysis in the Pew Research Centre, the sample size is 384 Gen Z people born between 1997 and 2012.

Data analysis

Research data analysis is a strategy study utilized to compress and adapt information into a story. It helps to make obvious that the data analysis method helps to break down a great quantity of information into smaller bits. Additionally, the objective of data analysis is to have a greater understanding of the information before making conclusions. The information gathered from respondents in this study was evaluated using the social sciences statistical package (SSSP). Statistical analysis software for batch and non-batch logic is known as spss statistics. To collect data, researchers also use frequency, descriptive statistics, reliability tests, pilot tests, and correlation tests.

FINDINGS

Smart Information System (SIS)

Variable	Items	Mean	Std. Deviation	Ranks
SIS1	Through a wireless radio connection, Free Wi-Fi enables users to connect portable devices like personal digital assistants and mobile phones to the Internet. Currently, it is widely used in hotels, airports, and cafés.	4.54	.669	2
SIS2	Mobile devices can use quick response codes to acquire details about nearby attractions.	4.47	.681	1

The table above displays the highest mean score for the question about "Free Wi-Fi allows users to connect portable devices such as personal digital assistants and mobile phones to the Internet via a wireless radio connection." It is currently popular in hotels, airports, and cafés," with the second highest mean score of 4.54 and SD score of.669. The final question is about "Mobile devices can use quick response codes to obtain information about nearby attractions."

smart sightseeing

Variables	Items	Means	Std. Deviation	Ranks

SS1	Users can create unique itineraries based on their own points of interest and collaborate to develop tour plans using the collaborative tour-planner technology.	4.48	.630	2
SS2	The logical step after guidebooks and audio cassettes is intelligent-guide technology. Tourists' experiences may be enhanced, and they may get new or different information.	4.46	.665	1
SS3	E-tourism-recommendation technologies could provide tourists with important information and help them locate and choose the websites that best match their interests.	4.52	.617	3
SS4	With the use of global positioning systems, electronic maps and compasses may provide tourists, hikers, and boaters with detailed geographic positions and directions.	4.52	.634	4

The question "The logical step after guidebooks and audio cassettes is intelligent-guide technology," as shown in table 4.10, had the highest mean score. Visitors' experiences could be enhanced, and they may learn something new or different. The mean score is 4.46, with a standard deviation of.665. The second question, with a mean of 4.48 and a standard deviation of 0.630, is about "Users can create unique itineraries based on their own points of interest and collaborate to develop tour plans using collaborative tour-planner technology." Third, "e-tourism recommendation technologies could provide tourists with critical information and assist them in locating and selecting websites that best match their interests." This question's mean and standard deviation were 4.52 and.617, respectively. The last question is, "With the use of global positioning systems, electronic maps and compasses may provide tourists, hikers, and boaters with precise geographic positions and directions," and the mean and standard deviation scores are 4.52 and.634, respectively. This leads to the conclusion that tourist pleasure can influence any decision.

e-commerce system

Variables	Items	Mean	Std. Deviation	Ranks
E-CS1	The market for buying travel-related items through mobile websites and applications is expanding. Mobile devices	4.53	.629	3

	are used by an increasing number of tourists to plan, pay for, and enhance their travels.			
E-CS2	In the travel industry, online coupons are being used increasingly often. People can get substantial savings with online coupons.	4.53	.629	2
E-CS3	Technologies like Wi-Fi, global positioning systems, geographic information systems, and global navigation satellite systems are deployed to meet the expectations of travelers making online bookings.	4.52	.630	1

According table above, the question "Technologies like Wi-Fi, global positioning systems, geographic information systems, and global navigation satellite systems are deployed to meet the expectations of tourists making online bookings" had the highest mean score, 4.52, and the SD score,.630. The following question is, "In the travel industry, online coupons are being used more frequently." People can save a lot of money by using online coupons." With a mean score of 4.53 and a standard deviation of.629. "The market for purchasing travel-related items through mobile websites and applications is expanding," says the final question. An increasing number of tourists use mobile devices to plan, pay for, and enhance their travels," received a mean score of 4.53 and an SD score of.629, the same as the second question. It can be seen here that many respondents travel using the E-commerce System method.

smart forecasting

Variables	Items	Mean	Std. Deviation	Ranks
SF1	Using the routes followed and the movements of tourists, managers of tourist locations may forecast tourist flow and give early warnings.	4.51	.646	1
SF2	Tourist attractions can forecast and provide tourists a queueing time using smartphone applications.	4.49	.658	2

According to the table above, the question "Using the routes taken and the movements of tourists, managers of tourist destinations can forecast tourist flow and provide early warnings" had a

mean score of 4.51 and an SD of.646. The second question received a mean score of 4.49 and a standard deviation of.658 for "Tourist attractions can forecast and provide tourists with a queuing time using smartphone applications." This demonstrates that travellers' satisfaction with this application may increase their satisfaction with their trip to a location.

DISCUSSION AND RECOMMENDATION

As for the discussion part, there are three different limitations in this study which are first, the study's limitations relate to the data collection and data analysis. The data obtained from the respondents take the researcher a lot of time to collect and analyse. The second limitation is there are several problems in the study when there is a lack of participation. When the majority of respondents do not cooperate with the researcher, data collecting has become difficult and takes time. The third limitation is that there are a few articles that can access previous research, making it difficult to find any good and relevant literature reviews. Due to payments or time limits, certain articles which ask for access might not be accessible.

Furthermore, as for the recommendation part, this study has various recommendations. This study only looks at the influence of smart tourism application on the image of the destination that is perceived in Kelantan. As a result, there are many tourists who should be the focus of future research. This study provides a number of recommendations for future research. While this study only focuses on the influence of smart tourism applications on the perceived image of the destination in Kelantan, there are many other factors that could be explored in future research. For instance, researchers could expand the sample size to improve the accuracy and reliability of the study. Additionally, it is recommended that open-ended questions be developed to eliminate misunderstandings and improve research findings, rather than relying solely on respondents' answers to scale online surveys. Given the widespread use of social media platforms like Instagram, Facebook, Twitter, and tiktok, future researchers could use these platforms to expand their findings and improve our understanding of the quality factors that impact tourist satisfaction in Kelantan.

CONCLUSION

The goal of this study was to look into the impact of smart tourism applications on Kelantan's perceived destination image. In this study, the smart tourism application influenced the perceived destination image. In addition, four independent variables were present: smart information, smart sightseeing, smart ecommerce, and smart forecasting. The Pearson Correlation Coefficient was used to analyse these independent and dependent variables. This shows that the independent variable influences the dependent variable. Finally, the study's findings revealed a connection between smart

information, smart sightseeing, smart ecommerce, and smart forecasting and perceived destination image.

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