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

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## ABSTRACT

This study is about the influence of smart tourism applications on perceived destination image in Kelantan. A smart tourism application gives the effect on a tourist's behavioral intention. However, this is often an issue among tourists who are new to being a smart tourist. Therefore, this study was conducted to examine the relationship between smart information systems and perceived destination image. In addition, this study was conducted to determine the relationship between smart sightseeing and perceived destination image. Other than that, this study was conducted to identify the relationship between e-commerce systems and perceived destination image. Finally, this study was conducted to identify the relationship between smart forecasting and perceived destination image. The quantitative method used was a questionnaire. About 384 respondents were selected among tourists Gen Z to answer questions to find out the influence of smart tourism applications on perceived destinations' image. The final results of this study indicate that there is a significant relationship between smart information systems, smart sightseeing, e-commerce systems and smart forecasting with the influence of smart tourism applications. In four independent variables, smart information systems and e-commerce systems are positively affected in information search and smart sightseeing and smart forecasting positively affected for e-recommendations.

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

## ABSTRAK

Kajian ini adalah tentang pengaruh aplikasi pelancongan pintar terhadap persepsi imej destinasi di Kelantan. Aplikasi pelancongan pintar memberikan kesan pada imej destinasi yang dilihat pelancong. Walau bagaimanapun, ini sering menjadi isu di kalangan pelancong yang baru menjadi pelancong pintar. Oleh itu, kajian ini dijalankan untuk mengkaji hubungan antara sistem maklumat pintar dan imej destinasi yang ditanggapi. Di samping itu, kajian ini dijalankan untuk menentukan hubungan antara persiaran pintar dan imej destinasi yang ditanggapi. Selain daripada itu, kajian ini dijalankan untuk mengenal pasti hubungan antara sistem e-dagang dan imej destinasi yang dilihat. Akhir sekali, kajian ini dijalankan untuk mengenal pasti hubungan antara ramalan pintar dan imej destinasi yang dilihat. Kaedah kuantitatif yang digunakan ialah soal selidik. Kira-kira 384 responden telah dipilih dalam kalangan pelancong Gen Z untuk menjawab soalan bagi mengetahui pengaruh aplikasi pelancongan pintar terhadap imej destinasi yang dilihat. Keputusan akhir kajian ini menunjukkan bahawa terdapat hubungan yang signifikan antara sistem maklumat pintar, persiaran pintar, sistem e-dagang dan ramalan pintar dengan pengaruh aplikasi pelancongan pintar terhadap imej destinasi yang dilihat. Dalam empat pembolehubah tidak bersandar, sistem maklumat pintar dan sistem e-dagang dipengaruhi secara positif dalam carian maklumat dan persiaran pintar dan ramalan pintar yang terjejas secara positif untuk pengesyoran elektronik.

**Kata kunci: Aplikasi Pelancongan Pintar, Gen Z, dan Imej Destinasi.**



## **CHAPTER 1**

### **1.1 INTRODUCTION**

This chapter contains multiple sections, each of which is described in turn. The first section opens with an introduction that provides a concise description of chapter 1. While providing some background about this study. Other than that, the researcher describes the problem statement and includes the study objectives and research questions and follows with explaining the significance of the study and definition of terms described.

### **1.2 BACKGROUND OF THE STUDY**

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. Transportation, lodging, food and beverages, shopping, entertainment, activities, and other hospitality services were all covered. These services are offered to individuals or groups of tourists who are away from home. Tourism was an industry that instilled compacts and organizations that provided services and tourist attractions to tourists. One of the tourist industries that has recently received attention in Malaysia is smart tourism.

According to Gretzel, Sigala, et al (2015) and 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 benefits over competition. According on the uniqueness and recognizableness of their product and service offerings, certain tourist destinations will stand out from others according to Cornejo Ortega & Malcolm (2020). Smart traveler application is defined in this study as the use of technology in tourism-related activities to improve visitors' travel experiences in a specific destination. This definition is based on the idea of intelligent tourism. Tourism technology can improve travelers' experiences while also promoting tourism activities and interactions among tourism stakeholders according to Swart, Sotiriadis & Engelbrecht in 2019. Smartphone apps are popular with e-tool in tourism that help travelers make decisions by delivering them marketing, security, emergency, and service information by bib Kennedy Eden and Gretzel (2012).

Those services provide travelers and travel operators with an up level of accessibility and convenience. There are many components to smart tourism, including the effectiveness of the website and the quantity and variety of data and information provided with all which influence perceived a destination image according to Molina, Jamilena, & Garcia in 2015. The three main benefits of smart travelers are economic, environmental, and sociocultural. Smart tourism generates economic gains by putting money into the infrastructure of a destination. Through the use of digital technologies, this infusion helps the area's competitiveness. The socio-cultural aspect refers to the indirect hedonic value produced by intelligent or smart tourism initiatives, whereas the environmental aspect is closely related to sustainability because smart tourist destinations frequently have self-sufficiency systems. Smart tourism depends heavily on efficient software, hardware, technology networking and equipment, tools for links communicating,

connect to the power, visitor trust and privacy, traveler's behavior, knowledge and training in the travel industry, and physical investment.

### **1.3 PROBLEM STATEMENT**

Smart tourism, being one of the economic sectors in tourism, was increasingly organized as a significant part of Information and Communication Technologies (ICT) which had an impact on the tourism industry. Generally, intelligence tourism applications can help tourists receive the true perception of the destination image that will influence and also can attract more tourists, inbound and outbound.

Visitors' perceptions of the destination are likely to improve when information technology advances enhance their travel experiences, which in turn influences their decision to recommend or visit the location again. The use of information and communication technologies in a tourist destination to improve services, foster economic growth and vacation spots, and enhance the journey in the smart destination is one of the characteristics of smart tourism applications (Dalgic & Birdir 2020) and (Gretzel, Sigala, Xiang, & Koo, 2015).

We know that information and communication technologies (ICT) have completely transformed the tourism industry, which has an impact on how tourism organisations conduct business and engage with their stakeholders (Buhalis & Law, 2008). Through the creation of new markets, management techniques, and competitive strategies by tourism actors, technological advancements result in significant changes in the tourism industry. This is because of the technology are converting the practical and static aspects of directing tourism and marketing into a series of stages (where managers and visitors use technological devices), allowing traders and

investors to technology to both influence and be affected by actors (tour operators, stakeholders, intermediaries, and visitors) in the tourism sector. (Sigala, 2018).

The goal of the concept of intelligent tourist industry or smart tourism, according to (Gretzel, Reino, Kopera, & Koo 2015), (Jovicic 2019, Wang, Li, & Li, 2013), is to clarify how each location can experience its visitor using information technology. It aims to improve the quality of the visitor experience in each destination by facilitating interactions between tourists and local communities, encouraging tourism's globalization, and facilitating interactions between tourists and local communities.

According to research by (Kock, Josias Sen, and Assaf in 2016) and (Papadimitriou, Apostolopoulou, and Kaplanidou in 2014), the availability of cutting-edge technology solutions can improve the level of service provided by travel agencies and government officials, improve the favorable perception of a destination, and improve visitors' intentions to visit and recommend it. The result is, the smart tourism pattern has consequently grown in importance for destination marketing.

Besides employing cutting-edge technologies, smart tourism aims to improve sustainability, competitiveness, and resource managerial effectiveness. As a result, more and more locations are innovating their business strategies, from methods of payment to various interactive activities organizations.

Meanwhile, smart tourism refers to the use of new technologies in the travel industry, such as booking lodging, transportation, and dining. Many tourist destinations have attempted to implement this "smart" concept because it provides them with a competitive advantage over

other tourist destinations based on the uniqueness of their offering. (2015) (Hunter, Chung, Gretzel, and Koo).

However, there are disadvantages in using smart tourism for travel, according to (Buhalis and Amaranggana, 2015), risk factors that can have a negative impact on the tourist experience include problems with navigation, security worries, and inadequate broadband connectivity. In their research, when asked what should be avoided in the creation of smart tourism destinations, 46% of respondents said they were concerned about the privacy of their personal information. They also mentioned having concerns about relying too heavily on technology, having less interaction with others, receiving inaccurate information, not experiencing the destination as it is, difficulties for older people, and losing their jobs as tour guides.

Hence, it is important to study more about STAs that give a positive impact in perceived destination image because depending on the user, the risks change. Smart device users may benefit from a number of advantages not available to those who are not familiar with them. According to (Dowden 2014), Trust in data privacy and system integrity were mentioned as obstacles to smart city projects by the UK's Department of Business, Enterprise, and Skills (BIS) in 2013.

#### **1.4 RESEARCH OBJECTIVE**

The main objective of this study was to determine the influence of smart tourism applications on perceived destination image. To be more specific and detailed, we are provided four research objectives that have been highlighted and important in this study. The objectives of this study were stated as below:

- i. To study a smart information system application can improve how tourist perceive a destination image.

- ii. To identify the efficient e-commerce system apps can improve how tourists' perceived a destination image.
- iii. To study the useful smart sightseeing applications can improve how tourists' perceived a destination image.
- iv. To study the efficient smart forecasting application can improve how tourists' perceived a destination image.

### **1.5 RESEARCH QUESTIONS**

1. What effective smart information system applications improve how tourists' perceived a destination image?
2. What effective e-commerce system applications improve how tourists' perceived a destination image?
3. What effective smart sightseeing applications improve how tourists' perceived a destination image.?
4. What effective smart forecasting application improve how tourists' perceived a destination image?

### **1.6 SIGNIFICANCE OF THE STUDY**

The significance of the study indicates the larger field of study, the specific question of the study, and the population being studied. Students are the intended audience in this case (be it school, college or university). This study aims to investigate how smart tourism applications and destination perceptions on perceived place image. Structural equation modeling is used to examine the relationship between the proposed and competing models. Therefore, researchers

looking at how smart tourism applications affect destination perceptions in western travel will undoubtedly contribute to interest in two areas.

#### **i. To the Academic Field**

The importance of a study is its importance. 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 the travel experience of future researchers is enhanced by the advancement in information technology, their experience improves and the perception of their destination image may increase, which in turn encourages their intention to recommend or revisit this destination. It can also build a more analytical thinking style because the researcher has to explore the possibilities of the situation in carrying out the research. Future researchers can use this study as a reference to make more studies.

#### **ii. Practical**

There are a small number of studies conducted to assess why tourists visit Kelantan. This study was conducted to obtain more information about Kelantan as one of the tourist destinations in Malaysia. From this discovery, a better understanding of the history of Kelantan, famous places in Kelantan and also the culture of the Kelantan community will be obtained. This study will also provide information about the influence of smart tourism applications on the perception of Kelantan's destination image to tourism agencies and the Kelantan government about the extent to which they are influenced by smart tourism applications in Kelantan. The industry needs it and delivers it. This ever-changing field provides an opportunity to use your



creativity to enhance the traveler experience. In addition, they will acquire transferable skills. Tourism teaches them about things that are not exclusive to this industry. It touches on many more, such as Marketing, Conflict Management, Negotiation, Sustainable Business Strategy, Event Planning and more. Therefore, you will gain skills that you can use even if you leave the field.

## **1.7 DEFINITION OF TERMS**

### **i. Smart system applications (STA)**

In smart systems, control functions, actuation, and sensing are combined to describe and analyze a situation and make predictive or adaptive decisions based on the information available, resulting in smart actions. The "intelligence" of the system is typically explained by autonomous operation based on closed loop control, energy efficiency, and networking capabilities.

### **ii. Smart information system**

A "smart information system" is one that provides free wireless networking, also known as area network, barcode scanners, and smartphone apps, according to several studies (Donya-e-eqtasad, 2016), (Ghaderi, Hatamifar, and Henderson, 2018), (Gretzel, Reino, et al.

### **iii. Smart sightseeing**

Smart sightseeing, such as the use of e-tour maps, e-guides, and recommendation services, contributes to a positive destination image. This relationship is consistent with modern tourism business methods, which provide interested travelers with electronic copies of goods, services, and information. For instance, e-maps and e-directions at malls show the location of each business and how to get there from the user's present location.



#### **iv. E-commerce system**

POS systems and PayPal are both considered "e-commerce systems" (da costa liberato et al., 2018; Wang et al., 2016). E-commerce, also known as electronic commerce or internet commerce, refers to the exchange of money and data for the purpose of conducting business over the internet.

#### **v. Smart forecasting**

Information on forecasting traffic flow and wait times is provided through "smart forecasting" (Wang et al., 2016). Through a collaborative digital platform, the smart forecasting system improves accuracy and decision-making. To provide demand predictions that assist organizations with their production planning, inventory planning, and distribution planning processes, it gathers and processes data from all stakeholders and systems.

## CHAPTER 2

### LITERATURE REVIEW

#### 2.1 INTRODUCTION

This chapter examines the impact of Independent Variable (IV) and Dependent Variable (DV) in our smart tourism application (STA) study on perceived destination image. Aside from that, we have an explanation in the relationship of each Independent Variable (IV) to Dependent Variable (DV). Tourists' travel experiences in a location may be influenced by STA categories. As our Independent Variable (IV), we have a list of the main characteristics of the STAs used in this study, which are smart information systems, e-commerce systems, smart sightseeing, and smart forecasting.

## **2.2 THE INFLUENCE OF SMART TOURISM APPLICATIONS (IV)**

The name of the variation we want to describe is variable. A variable is either the result of a force or the cause of another variable to change. These are known as the dependent and independent variables in an experiment, respectively. Dependent variable A dependent variable is one whose value can vary because of a change in the value of another variable. In other words, the characteristic is known as the dependent variable and might have multiple values based on the change in the independent variable. In this approach, the value of the dependent variable can vary with the value of the independent variable.

### **2.2.1 SMART INFORMATION SYSTEM (IV1)**

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 (Da Costa Liberato, Alen-Gonzalez, & De Azevedo Liberato in 2018) (Donya-e-Eght-esad in 2016) (Ghaderi, Hatamifar, & Henderson in 2018) (Gretzel, Reino, et al., 2015) and (Wang et al., 2016). Smart information systems benefit people and the environment, especially when it comes to learning new things in this modern era or getting information about things we don't know. We live in a world that is profoundly networked thanks to digital technologies.

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. By using these smart devices, tourists can receive services that are both convenient and effective.

According to Statista Inc. (2017), there will be 2.87 billion smartphone users worldwide by 2020. According to Facebook, the most popular online social network, in December 2016 there were 1.15 billion mobile daily active users and "over 2.01 billion monthly active Facebook users" as of June 2017.

According to Forbes Media LLC (2017), predicts that by 2025, "about 80 billion devices will be connected to the Internet," up from the current "approximately 11 billion devices connect to the Internet." The amount of digital data created globally is predicted to reach 180 zettabytes by 2025, according to IDC.

### **2.2.2 SMART SIGHTSEEING (IV2)**

According to Donya-e-Eghtesad and Wang et al. (2016), intelligence sightseeing in the form of e-tour maps, e-guides, and recommendation services helps promote a positive image of the destination. 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 travelers is the availability of e-tourism maps, e-guides, and e-directions. This relationship is consistent with modern tourism business practices, which

provide interested tourists with electronic copies of product and information. It helps tourists to achieve the place that they want with easy and smooth ways.

### **2.2.3 E-COMMERCE SYSTEM (IV3)**

The term 'E-commerce system' refers to POS systems and PayPal (Da Costa Liberato et al., 2018, Wang et al., 2016). 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. E-commerce systems that focus on online businesses help to manage their website, marketing, sales and operations. In the tourism industry, we can use the E-commerce system as a platform online for travelers or tourists to use it as a payment method and also booking their holidays especially for families. It will help them to manage it in easy and simple ways without needing to deal with them face to face.

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. The activities will be easier than before since we have the Covid-19 issues.

### **2.2.4 SMART FORECASTING (IV4)**

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.

The tourism business is naturally dependent on passenger transportation, so while developing a tourism development strategy, it is critical to do a transportation requirement analysis. The significance of transportation in the tourism industry needs forecasting studies for transportation facility development. Accurate forecasting of tourism demand is critical for developing a development and operational strategy to boost the profitability of the tourism and passenger transportation industries (Chen, Lai and Yeh, 2012)

Smart forecasting is essential because tourist flow (traveling from one location to another) and queuing time affect a large number of tourists. Accurate time forecasting and planning encourages travelers to visit attractions and participate in travel activities. Many restaurants have queue systems in place so that guests can pass the time. Each location has a distinct image of goods, services, and amenities that can undoubtedly be imitated by other locations. Certain places, for example, have similar characteristics of travel, goods, and services; as a result, these places can mimic each other's marketing tactics in order to market the similar image and attract tourists' attention with other activities. Meanwhile, visitor flow can assist in estimating arrival times at places and efficiently planning their travel activities.

### **2.3 PERCEIVED DESTINATION IMAGE (DV)**

According to Crompton in (1979) and MacKay and Fesenmaier (1997), respectively) define a person's all the destination image as the amount of all beliefs, opinions, and expressions about a specific location that individuals have acquired over time from various sources. According to Gartner (1993), 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 (Gajdosik, 2019). It is difficult to replicate the concept of location as a wise choice in the latter scenario. As a result, destination values may attract the process of co-creation with customers both directly and indirectly (Merz, He, & Vargo, 2009). Some travelers share their thoughts or perceptions about specific travel destinations via social media and other online channels.

Its concept might assist marketer places in conducting research on behavior of visitors, place selection, internet word-of-mouth recommendations, reputation, and success (Mak, 2017). The websites that provide tourists data (as example regional, natural, and cultural tourist spots, and pricing) may influence how a location is perceived (Jeong, Holland, Jun, & Gibson, 2012). Online information platforms must be improved, promoted, and content must be adjusted to market smart tourism locations. This technological infrastructure includes internet accommodations, usable technology, smartphone, virtual world, internet advances, user based service location, and accommodation of algorithms.

According to Kim, Lee, Shin, and Yang (2017) researched how high-quality tourist information on social media affects a person's perception of a location and found that Internet connection was an important factor influencing visitors' intention to return to a location. According to the findings, website effectiveness can improve perceived utility, usability, online knowledge, and destination or place image. The preceding material demonstrates the significance



of STA quality in location perception. Common smart tourism apps include internet networking connectivity, online methods payments, e-maps, travel goods, and service data.

Other than that, according to Chan, Peters, and Pikkemaat (2019), smart tourism destination characteristics such as consumption of energy, smart cities administration, and smart cities livelihoods can influence how travelers perceive the city. Smart travel, smart traffic, and smart forecasting are examples of STAs that have not been thoroughly researched in terms of how they influence how tourists perceive a location. When tourists have an unforgettable STA experience, their general perception of a particular location changes.

## **2.4 RELATIONSHIP BETWEEN INDEPENDENT VARIABLE (IV) AND DEPENDENT VARIABLE (DV).**

### **2.4.1 RELATIONSHIP SMART INFORMATION SYSTEMS AND PERCEIVED DESTINATION IMAGE.**

The usefulness of QR codes and Wi-Fi for smart information systems raises the perceived attractiveness of an intelligent location or destination. This concept is similar to that of a researcher in Da Costa, Liberato, and colleagues (2018). 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 neighborhood 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.

### **2.4.2 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 (Pimtong Tavitiyaman, Hailin Qu, Wing-sze Lancy Tsang & Chin-wah Rachel Lam.2021).

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 (Pimtong Tavitiyaman, Hailin Qu, Wing-sze Lancy Tsang & Chin-wah Rachel Lam.2021). 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

### **2.4.3 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. Additionally, tourist information on online shopping can be useful for future data analysis, marketing, and strategic planning (Li et al. 2009).

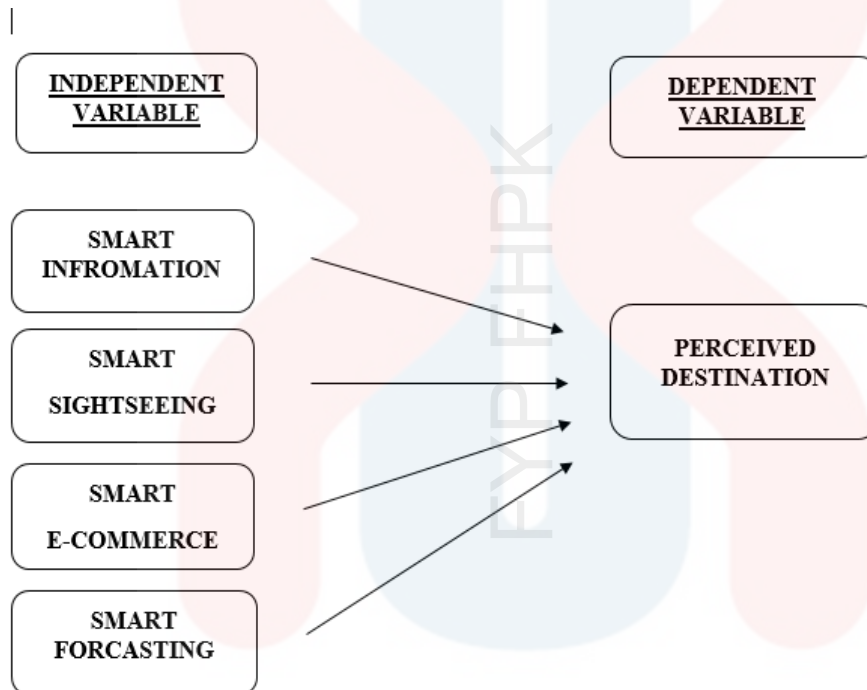
#### **2.4.4 RELATIONSHIP SMART FORECASTING AND PERCEIVED DESTINATION IMAGE.**

Model-based approaches and feature-based approaches are the two groups of anomaly detection techniques used in forecasting applications (Luo et al., 2018a, Luo, Hong, Yue, 2018, Sobhani et al., 2020). Tourists can benefit greatly from forecasting tools and data. By having complete and accurate knowledge of tourist flow and line-up times, travelers can plan their trip experience with smart forecasting (Tavitiyaman et al., 2021). Tourists can benefit from time flexibility and reduced travel costs by being given options. Big data projects can help with real-time queueing time projections, population and traffic management, crisis management, and policymaking. Destination information can improve resource efficiency, reduce traffic and wait times for visitors on public transportation, and encourage locals to communicate with one another.

#### **2.5 CONCEPTUAL FRAMEWORK**

The conceptual framework is a written or visual representation of the variables' expected relationships. Variables are simply properties or properties that must be verified. A conceptual framework is frequently developed after a review of existing research literature and theories on the subject.

The conceptual framework is a main selection and it is intended to demonstrate the connection between the independent variable and dependent variable was shown in figure 2.5.1



Tavitiyaman, P., & Qu, H. (2013)

Figure 2.5.1: Conceptual Framework

Figure 2.5.1 shows the independent variable (IV) and dependent variable (DV) of this study. Independent variables are factors that affect perceived destination. This study identified four independent variables: smart information, smart sightseeing, smart e-commerce and smart forecasting. For perceived destinations, this graph depicts the relationship between smart information, smart sightseeing, smart e-commerce, and smart forecasting.

## 2.6 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.

## CHAPTER 3

### 3.1 INTRODUCTION

The previous chapter in this research described the relationship between Independent Variable and Dependent Variable for each point in the smart tourism application on perceived destination image. In this chapter we talk about research methodology that is used for research design which consists of what research design researchers use, sampling method, population and sample size, research instrument, data collection, data analysis, about reliability test and also summary of this chapter.

### 3.2 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. Qualitative research designs use case research to elaborate the significance of dynamic social environment, like the way people experience life.

Aside from that, the analysis of quantitative designs has made use of graphs and numbers to explain and clarify the connection between the variables and the results. However, for descriptive correlational, experimental, and quasi-experimental studies, there are four quantitative research designs. Through the use of quantitative research techniques, new knowledge can be found in previously unexplored fields. To generate results, quantitative design

also uses statistical and mathematical tools like coefficient of variation, SPSS, ANOVA, and others

### **3.3 POPULATION**

A research population is a large group of people or things that use the focus of the researcher's investigation (Sekaran & Bougie, 2013). Select samples from the population and generalize the result to the population. Based on the Department of Statistics Malaysia, in 2019 Kelantan received RM 4.8 billion while in 2020 they received RM 1.6 billion. The performance of Domestic Tourism by state in 2020 at Kelantan, 6058 thousand domestic visitors and 2021, 1921 thousand domestic tourists have achieved in Kelantan. The Statistics of Malaysia Domestic Tourism by State in 2021, Kelantan received the highest percentage which is 3.14 % compared with Labuan (3.03 %) and Sarawak (2.52 %).

### **3.4 SAMPLE SIZE**

A sample is a subset of the entire population that perfectly represents it. This means that the units chosen as a sample from the population must accurately reflect all of the characteristics of the various types of population units (Satishprakash Shukla 2020). 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 by (Michael Dimock, 2019) in the Pew Research Centre, the sample size is 384 Gen Z people born between 1997 and 2012.

### **3.5 SAMPLING METHOD**

Probabilistic and non-probabilistic sampling are the two types. In order to select a sample from a larger population, a sampling technique known as probability sampling employs methods based on probability theory. Every case that researchers look at is a population. Systematic sampling, random sampling, and stratified sampling are all types of probability sampling. The non-probability sampling method, on the other hand, is referred to as non-probability sampling. The survey does not offer equal participation opportunities to all population units. Non-probability sampling methods such as convenience sampling, snowball sampling, quota sampling, and judgment sampling do not use random selection.

The respondents' samples were chosen using a convenience sampling method based on the non-probability sampling method. The sample size for this study was 384 respondents. As a result, respondents in Kota Bharu, Kelantan, will receive the questionnaire. Convenience sampling enabled the collection of a large number of completed questionnaires in a timely and cost-effective manner.

### **3.6 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. Furthermore, the data gathered will be used to test the hypothesis and evaluate the results. The two types of data that are commonly gathered to complete a research study are primary data and secondary data. Primary data is the original data source, or, to put it another way, the firsthand data that researchers have only recently collected. Examples of primary data collecting sources include personal interviews and questionnaires. Customers, users, non-users, or organizations involved in the research project



may provide the data. In essence, it is information that has been gathered with the goal of finishing the research in mind.

The researcher used Google Forms to distribute a questionnaire to gather data for this research study. This method will be employed because questionnaires are typically less expensive to administer due to their standardization and are also generally error-free. Additionally, it is a productive way of getting data from lots of respondents. To enable respondents to complete the questionnaire whenever, wherever, and at a time that was convenient for them, it was conducted online with researcher review. Furthermore, the researcher used simple questions and words to help respondents understand the questions and provide relevant answers. When the questionnaire sets were distributed to the respondents, they were required to complete the questionnaire. The best responses from respondents are critical for the researcher because they are critical for this research. The researcher needed two weeks to collect all of the data and information from individuals who responded to the prepared questionnaire.

### **3.7 RESEARCH INSTRUMENT**

Regardless of the type of research, researchers might employ a variety of assessment methods, including surveys, case studies, or questionnaires (Umoh,2019). Additionally, research tools can be selected based on the data being evaluated, the instrument's goal, and the sample being studied (Zikmud et al., 2010). According to Adomaitien, Roma, and Seyidov, Javid (2017), a questionnaire is a type of data collection tool that consists of a series of questions and other prompts designed to elicit responses from respondents.

In order to collect data accurately, the survey will be performed through a google form. As a result, everyone in the area can use google form to respond to the questionnaire. The



questionnaire will be distributed to all generation x society via online platforms like WhatsApp, twitter and Facebook. Web-based surveys are a more efficient way to reach your target audience and easier to grasp for the responder. The questionnaire will be distributed to respondents in two languages: English and Malay, to make it easier for them to complete. In the table below, as stated Section A, section B and section C and divide the questionnaire into three sections.

The questionnaire's first section is question section A. Focusing on gender, age, education, and occupation, Section A is a demographic section. The second section, Section B, includes several questions based on the independent variable (IV), which asks respondents to rate the effectiveness of a smart tourism application while on trip. The smart information system, smart sightseeing, e-commerce system, and smart forecasting are examples of smart tourism applications (Wang et al (2016). Part C, last section questions based on the dependent variable (DV).

<b>MEASURE</b>	<b>No of Item</b>
<b>Section A (Demographic Profile)</b>	5 Item
<b>Section B Independent Variable</b>	11 Item
<b>Section C (Dependent Variable)</b>	3 Item

Table 1: Survey Instruments for The Study Variables

A Likert scale will be used to give the questionnaire for this research. The commonly used Likert scale asks respondents to select whether or not they agree or disagree with each set of statements. Each section of the questionnaire will use one of these five-point Likert scales.

POINT OF SCALE	STRONGLY DISAGREE	DISAGREE	NEUTRAL	AGREE	STRONGLY AGREE
LEVEL	1	2	3	4	5

Table 2: Likert Scale Type Ranging

### 3.8 DATA ANALYSIS

According to LeCompte and Schensul in 2015, 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. Among the most popular statistical software tools, it allows its users to create distribution charts and plots as well as do complicated data processing and analysis with only a few basic commands. The reliability test will be utilized in this research's analysis of results.

#### 3.8.1 FREQUENCY

The frequency analysis, a type of descriptive statistics, displays the frequency of each response selected by the respondents. Frequency analysis is a branch of statistics that looks into different statistical measures, dispersion, percentiles, and other things related to multiple occurrences or frequency of a certain phenomenon. Frequency analysis will often concentrate on one of these three types of measures. The central

tendency is the first parameter to be measured. It is a single component that seeks to describe a set of data using a central position identifier.

The central measure is the name of this measurement such as the mean, median, and mode are the three metrics most frequently used in frequency analysis to describe central tendency. Measures of dispersion are included in the second measurement category. These represent the variability, or range of values that can be found with a specific set data. In a frequency analysis, there are provided the standard deviation, variance, and range are the metrics of dispersion that are most frequently. Percentile values make up the last category of frequency analysis measurement. A percentile number displays the percentage of values in a data set that fall below a given cutoff. Frequency analysis frequently uses percentile values like quartiles, deciles, percentiles, and others. The value at the 10th percentile, which indicates that 10% of the data set's observations fall below it, is also referred to as the first decile when a data set is divided into 10th deciles at intervals of 10%. The 25th, 50th, and 75th percentiles are referred to as the first, second, and third quartiles, respectively, when the data set is divided into four quartiles at intervals of 25%.

### **3.8.2 DESCRIPTIVE STATISTIC**

In this study, the descriptive analysis method was used. Descriptive statistics collect and summarize the characteristics of a data set. Descriptive analysis is defined as a method of presenting data in research in a more straightforward and convenient manner. It's frequently utilized to fit quantitative explanation into a comprehensible format. The reader can gain a better comprehension of the details offered by using simple graphical

visualization. The demographic profile of the respondents, including the percentage, frequency, mean, and average, would also be ascertained using descriptive analysis. Bar chart, pie chart and histograms are examples of graphs that can be used to represent data, as a result, the report's ranking may be easily differentiated and evaluated using the nominal scale.

### **3.8.3 RELIABILITY TEST**

Reliability testing is a method of evaluating software that determines whether a programmed will work properly in a given environment for a set period of time. Reliability testing looks for bugs and ensures that the programmed is fit for its intended purpose. The definition of "reliable" is "yielding the same," which indicates that it can be trusted to deliver the same result every time. Reliability tests are the same. Reliability analysis was also used to analyze total responses. Reliability tests were performed to examine the internal consistency and content validity of the instrument. More specifically, internal consistency reliability refers to the extent to which items representing the same concept provide similar results.

Cronbach's alpha was used to determine dependability. The purpose is to assess the validity of the questionnaire items. The resulting scale is more reliable the higher the score, indicating that the items exhibit strong intercorrelations. Checking the properties of measuring scales and the pieces that make them up is possible because of reliability testing.

### **3.8.4 PILOT TEST**

A pilot test is when a researcher makes changes based on feedback from a small group of people who complete and evaluate the instruments. Furthermore, it improved the effectiveness and suitability of questions before they were used in data collection. A total of 30 people were chosen for the pilot test. The instrument was reviewed based on respondent feedback before being distributed to the study's sample.

### **3.8.5 CORRELATION TEST**

Pearson correlation is a statistical method for determining whether two variables or datasets have a relationship and how strong that relationship is (Emily James, 2020). This is a mathematical method for determining the frequency with which two quantitative variables are associated. When a situation is imminent association between two or more variables, the result has a high correlation, whereas when the variables are barely related, the result has a weak correlation (Monica Franzese, Antonella Luliano, 2019).

The Pearson correlation coefficient can be used to calculate values ranging from +1 to - 1. The value 0 indicates that the two variables have no relationship. A positive relationship is indicated by a value greater than 0; that is, as the value of one variable rises, so does the value of the other variable. A number less than 0 indicates a negative relationship that is the value of the other variable falls as the value of the first variable rises (Stephanie Glen, 2020). In the table below, the Pearson's correlation coefficient criteria have been provided.

Strength of association	Coefficient , r	
	Positive	Negative
Small	1 to 3	-0.1 to -0.3
Medium	3 to 5	-0.3 to -0.5
Large	5 to 10	-0.5 to -1.0

**Table 3.3 : The criteria to interpreting Pearson's correlation coefficient**

### 3.9 CONCLUSION

This chapter also discussed the questionnaire's development and potential application to this study. This chapter discusses the number of tourism students who enrolled in online courses. The researcher discussed the target demographic, sample size, sampling technique, data collection, research tool, and data analysis. As a result of this study, the researcher may learn how to use the research design, method, and other aspects.

## **CHAPTER 4**

### **RESULTS AND DISCUSSION**

#### **4.1 INTRODUCTION**

This chapter summarizes the findings and results of the study data on the survey data obtained from respondents. Our analyses are based on the data collected using a questionnaire (Quantitative methods). The total number of questionnaires were 384 were distributed data then analyzed to evaluate and determine the element's influence of smart tourism application on perceived destinations image. As a result, the researcher was able to put the hypothesis to the test and answer the research question. The Statistical Package for the Social Sciences (SPSS) was used to analyze the data.

#### **4.2 RELIABILITY TEST**

According to Linn and Gronlund (2000), reliability is a crucial component, no matter if the test is a written one, a performance evaluation, an informal observation, or a question. It offers the consistency required for achieving validity.

The relationship reliability and validity which a measurement must be trustworthy in order to be valid. Reliability is all about consistency, whereas validity is linked to accuracy. Consequently, a measurement that is unreliable cannot be valid.

So based on the study conducted, researchers have used the SPSS for a calculated reliability test or analysis in 30 respondents which is a pilot test. In the observations of the SPSS result, researchers have used Cronbach's Alpha results listed according to Hair (2011) which are 0.7 (adequate), 0.8 (fine) and 0.9 (excellent).



<b>Independent Variables (IV)</b>	<b>Cronbach's Alpha</b>	<b>Number of Items</b>
Smart Information System (IV 1)	0.870	2
Smart Sightseeing (IV 2)	0.926	4
E-commerce systems (IV 3)	0.840	3
Smart Forecasting (IV 4)	0.926	2
<b>Dependent Variable (DV)</b>		
Perceived Destination Image	0.881	3

Sources : SPSS

**TABLE 4.1 : Result of ALL VARIABLES between Independent and Dependent Variable in Cronbach's Alpha**

Table 4.1, it shows the Independent and Dependent Variables value of the Cronbach's Alpha in this study including the items. According to the table, Cronbach's Alpha result for both IV and DV shows the variable's values in 0.8 and above and 0.9. As the outcome, the presented variable's values result is reliable and acceptable for this research.

In independent variables measurement, for the IV 1 (Smart Information System) which included 2 items of question and as the result of Cronbach's Alpha values are 0.870. It shows the acceptable values of Cronbach's Alpha because the internal consistency is good. Smart information systems give a good effect as a smart tourism application on perceived destinations' image and the suggested point result is suitable with high reliability (0.70-0.90).

In the next measure is IV 2 (Smart Sightseeing), which included 4 items of questions and as a result Cronbach's Alpha values are 0.926. It shows the acceptable values of Cronbach's Alpha because the internal consistency is excellent. It gives an excellent effect to smart tourism applications on perceived destination image. According to Hinton et al. (2004), its suggested to give the points result, which are as excellent reliability (0.90 and above)



Based on the IV 3 (E-commerce system) which included 3 items of question and as a result Cronbach's Alpha are 0.840. It shows the acceptable values of Cronbach's Alpha because the internal consistency is good and the suggested point result is suitable with high reliability (0.70-0.90) .

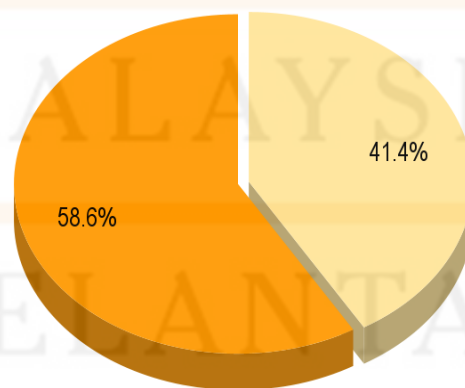
Last measure is IV 4 (Smart forecasting) which includes 2 items of question and as a result Cronbach's Alpha is 0.866. It shows the acceptable values of Cronbach's Alpha because the internal consistency is good also. Smart forecasting also gives a good Cronbach's Alpha suggested point result such as Smart Information systems and E-commerce systems.

Other than that, the pilot test result for Dependent Variable (Perceived Destination Image) shows the result for Cronbach's Alpha is 0.881 which included 3 items of questions. It means acceptable values from Cronbach's Alpha because it is good in internal consistency.

#### **4.3 FREQUENCY ANALYSIS (DEMOGRAPHIC OF THE RESPONDENTS)**

Researchers have analyzed the data with frequency analysis as an observation. Section A (Demographic Information) is a survey data result that contains questions about respondents' gender, age, race, education status, occupation and salary.

##### **4.3.1 GENDER**

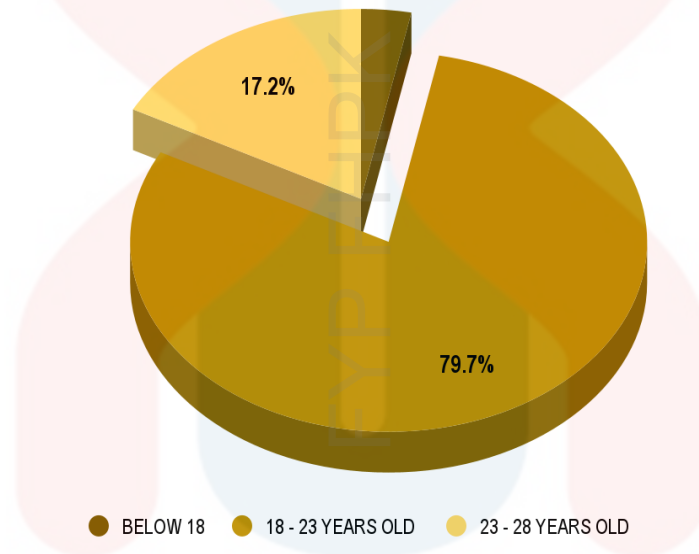


● MALE ● FEMALE

**FIGURE 4.1 : The Percentage of Respondents by Gender**

As demonstrated in the table, above out of 384 respondents for gender, females become a majority respondent that answered the questionnaire, 58.6 % that is 225 respondents. Meanwhile the second respondent was male which is 41.4 % that is 159 respondents.

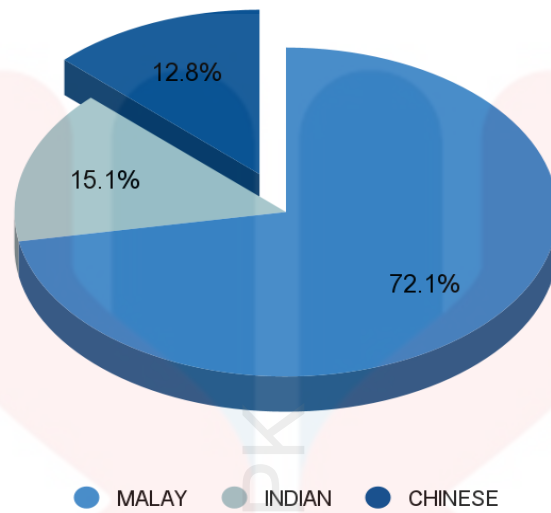
#### 4.3.2 AGE



**FIGURE 4.2 : The Percentage of Respondents by Age**

According to this table above, out of the 384 respondents for age, researchers have provided the respondents who came from Generation Z. 18 to 23 years old become a majority respondent that answered the questionnaire which shows 79.9 % that are 306 respondents. Meanwhile the second most respondent is 24 to 28 years old, 17.2 % which are 66 respondents and for the lowest is below 18 years old which is 3.1 % that is 12 people responds.

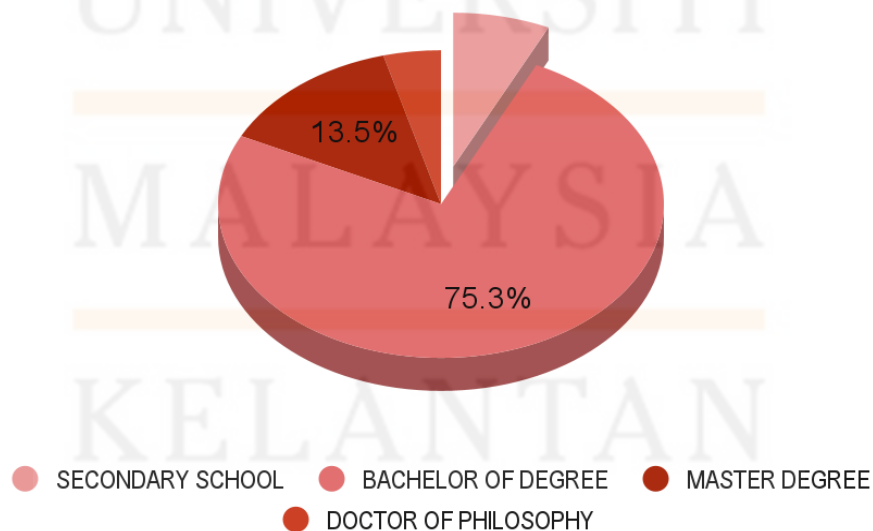
### 4.3.3 RACE



**FIGURE 4.3 : The Percentage of Respondents by Race**

In this table above, out of the 384 respondents for race, researchers have identified Malay as the higher majority respondent that answered the questionnaire which shows 72.1 % that are 277 respondents compared with Indian and Chinese which are 58 respondents (15.1 %) and 49 (12.8 %).

### 4.3.4 EDUCATION STATUS



#### FIGURE 4.4 : The Percentage of Respondents by Education Status

Based on the Education's Status table, Bachelor of Degree became a majority of 384 respondents out of 503 respondents which is (76.3 %). Meanwhile, Master Degree become the most second higher in 52 respondents (10.3 %) and Secondary school and other have shown the result 27 and 16 respondents (5.4 % and 3.2 %)

#### 4.3.5 OCCUPATION

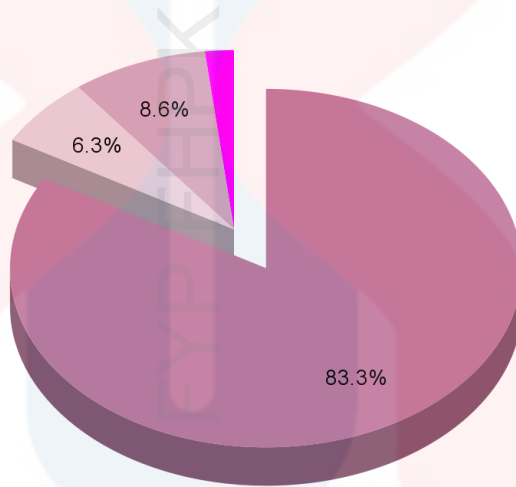
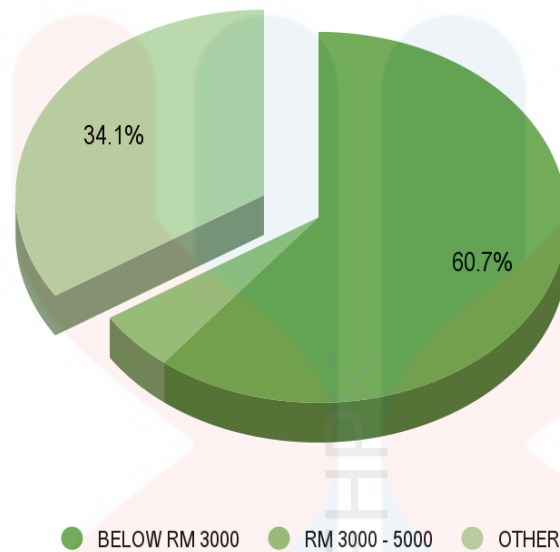


FIGURE 4.5 : The Percentages of Respondents by Occupation

In this table above, out of the 503 respondents for occupation, researchers have identified students as the higher majority respondent that answered the questionnaire which shows 83.3 % that are 419 respondents compared with employee sector and private sector which are 24 respondents (4.8 %) and 33 (6.6 %). Meanwhile, others respondents 7 respondents (1.4 %)

### 4.3.6 SALARY



**FIGURE 4.6 : The Percentage of Respondents by Salary**

According to the salary table, out of the 384 respondents below RM 3000 salary was 233 respondents which is 60.7 % being the higher majority respondent that answered the questionnaire. Meanwhile, others become a second higher which shows 34.1 % of 131 respondents compared with RM 3500 to RM 5000 only 20 respondents (5.2 %).

#### 4.4 RESULT OF DESCRIPTIVE ANALYSIS

In parts B and C of this study, the mean and standard deviation are displayed in tables below. The purpose of this questionnaire analysis is to identify elements of a high-quality experience that have an impact on perceived destination image. The researcher compared the mean of the independent variable with the dependent variable of each item in the questionnaire based on the analysis findings. The researchers provided by the respondents are on a scale of 1 to 5, where 1 represents "Strongly Disagree," 2 "Disagree," 3 "Naturally," 4 "Agree," and 5 "Strongly Agree." The following table shows the analysis' findings.

##### 4.4.1 Smart Information System (SIS)

2 items of SIS related to perceived destination image have been evaluated using a Likert scale. The two questions range in average from 4.47 to 4.54. Perceived destination image may be interpreted as a measure for assessing tourists' acceptance of a location in using smart tourism applications there.

Variable	Items	Mean	Std. Deviation	Ranks
SIS1	Through a wireless radio connection, Free Wifi 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

Sources: SPSS

**Table 4.2 : Descriptive Statistic of Smart Information System**

According to table 4.9, it shows the highest mean score for the question about “Through a wireless radio connection, Free Wifi 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” with the second highest mean score of 4.54 and SD score of .669. While the last question is about "Mobile devices can use quick response codes to acquire details about nearby attractions" with the lowest mean score of 4.47 and SD score of .681. it can be concluded that tourist

#### 4.4.2 Smart Sightseeing

There are four Smart Sightseeing items that have been measured with a Likert scale. The mean score for the four (4) questions ranges from 4.46 to 4.52. One of the applications that helps tourists may be considered as having factors from 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
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Sources: SPSS

**Table 4.3 : Descriptive Statistic of Smart Sightseeing**

The question, "The logical step after guidebooks and audio cassettes is intelligent-guide technology," had the highest mean score, as shown in table 4.10. The experiences of visitors could be improved, and they might learn something new or different. The mean score is 4.46, while the SD is .665. The second question, which has a mean score of 4.48 and an SD score of 0.630, is about "Users can create unique itineraries based on their own points of interest and collaborate to develop tour plans using the collaborative tour-planner technology." Thirdly, "E-tourism recommendation technologies could give tourists crucial information and assist them in finding and selecting the websites that best match their interests." The mean and standard deviation of this question were 4.52 and .617, respectively. The final 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 SD scores are 4.52 and .634, respectively. This leads to the conclusion that every decision may be influenced by tourist pleasure.

#### **4.4.3 E-Commerce System**

There are three E-Commerce-related questions that have been evaluated on a Likert scale. The mean score for the three questions is between 4.52 and 4.53. E-commerce is the exchange of money through transactions using electronic parts or the internet.

Variables	Items	Mean	Std. Deviation	Ranks
E-CS1	The market for buying travel-related items through mobile websites and applications is expanding. Mobile devices are used by an increasing number of tourists to plan, pay for, and enhance their travels.	4.53	.629	3
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 WiFi, 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

Sources: SPSS

**Table 4.4 : Descriptive Statistic of E-Commerce System**

The question "Technologies like WiFi, 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, which is .630, according to table 4.11 above. The next question is "In the travel industry, online coupons are being used increasingly often. People can get substantial savings with online coupons". With a mean score of 4.53 followed by a SD of .629. The last question is "The market for buying travel-related items through mobile websites and applications is expanding. Mobile devices are used by an increasing number of tourists to plan, pay for, and enhance their travels"

got a mean score of 4.53 followed by a SD score of .629, the same as the second question. Here it can be seen that many respondents use the E-commerce System method when traveling.

#### 4.4.4 Smart Forecasting

Two questions under the heading of "tourist satisfaction" in terms of smart forecasting are rated on a Likert scale. The two (2) questions' average scores are 4.49 and 4.51. Smart Forecasting factors have significantly aided tourists in trip planning and satisfaction.

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

Sources: SPSS

**Table 4.5 : Descriptive Statistic of Smart Forecasting**

The question "Using the routes followed and the movements of tourists, managers of tourist locations may forecast tourist flow and give early warnings" had a mean score of 4.51 and an SD of .646 based on the table above. The second question had a mean score of 4.49 and an SD score of .658 for "Tourist attractions can forecast and provide tourists a queuing time using smartphone applications." This shows that travelers' satisfaction with utilizing this application may boost their satisfaction with their trip to a location.

#### 4.4.5 Independent Variable and Dependent Variable

Variables	N	Mean (M)	Standard deviation (SD)	range
Smart information system	384	4.5052	.62995	.073
Smart sightseeing	384	4.4922	.57038	.010
E-commerce system	384	4.5286	.56776	.010
Smart forecasting	384	4.4987	.61264	.018

Table 4.6 : Descriptive Analysis between IV(1-4) with DV.

#### 4.4.6 Perceived Destination Image

In terms of perceived destination, there are three items measured using a Likert scale. The three (3) questions have a mean score between 4.44 to 4.48. Perceived destination can be understood as a measure of the influence of smart applications in the perception of the image of the destination in the generation Z group at Universiti Malaysia Kelantan.

Variables	Items	Mean	Std. Deviation	Ranks
P.Destination Image 1	What is your impression of the overall image of the destination?	4.46	.657	2

P.Destination Image 2	How would you describe your overall feeling about the destination?	4.44	.627	1
P.Destination Image 3	How likely is it that you would recommend this destination to your friends/family/colleagues?	4.48	.638	3

Sources: SPSS

**Table 4.7 : Descriptive Statistic of Perceived Destination Image**

According to table 4.7, it shows the highest mean score for the question about "How likely is it that you would recommend this destination to your friends/family/colleagues?". It shows a mean score of 4.48 and a SD score of .638. It is followed by the second question "What is your impression of the overall image of the destination?" with the second highest mean score of 4.46 and SD score of .657. While for the last question is "How would you describe your overall feeling about the destination?" showing the lowest mean score of 4.44 and SD score of .627. This concludes that tourist satisfaction influences decision making.

#### 4.5 PEARSON'S CORRELATION COEFFICIENT

In this study, the researchers conducted an analysis of the data using Pearson's Correlation, a commonly used statistical method to investigate the relationship between two continuous variables. The first variable had a binary value of either 1 or 0, while the second variable had a value of 2. The relationship between the two variables was examined, where it was found that as the value of one variable increased, the value of the other variable decreased. The variables were identified as the dependent and independent variables, respectively. Furthermore, a monotonic relationship was observed, which is characterized by the consistency in the direction of the relationship between the variables. Specifically, the study investigated the relationship between the two variables and other variables, namely, smart information, smart sightseeing, smart e-commerce and smart forecasting, where the value of the first variable was binary, either 1 or 0, while the other variables had values of 2. Finally, the strength of the relationship between the two variables was assessed using the correlation coefficient value, which ranges between -1 and 1, indicating the robustness of the connection.

Size of Correlation	Strength of Association
$\pm 0.91$ to $\pm 1.00$	Very Strong
$\pm 0.71$ to $\pm 0.90$	High
$\pm 0.51$ to $\pm 0.70$	Moderate
$\pm 0.31$ to $\pm 0.50$	Small but define relationship
$\pm 0.00$ to $\pm 0.30$	Slight, almost negligible

**Table 4.7: The Rule of Thumb of Correlation Coefficient Size**

## 4.6 RELATIONSHIP BETWEEN TWO VARIABLES

### 4.6.1 Hypothesis 1 : Smart Information systems

H1: There is a positive relationship between the smart information and perceived destination image.

Correlations				
			Smart information	Perceived destination image
Pearson	Smart information	Correlation Coefficient	1	.520**
		Sig. (2-tailed)		.001
	Perceived destination image	Correlation Coefficient	.520**	1
		Sig. (2-tailed)	.001	
**. Correlation is significant at the 0.01 (2-tailed).				
B. Listwise n = 384				

Sources: SPSS

**Table 4.8 : The Correlation Coefficient for smart information and perceived destination image**

The results of the Pearson Correlation are presented in Table 4.6 in which these results were needed to construct the relationship between effective use of smart information systems that can influence how visitors view a place. This Pearson Correlation Analysis between smart



information and perceived destination image has found the result of, significant value,  $r=0.520$  and coefficient correlation value ( $p=0.01$ ). The total number of populations,  $N$ , was 384 respondents. The significant value was ( $p=0.01$ ) which is less than ( $p<0.01$ ). The significant value of the correlation analysis is  $p<0.01$  which shows it is significant. The correlation coefficient of smart information is 0.520 which indicates a positive moderate correlation suggesting a moderate positive correlation relationship between effective use of smart information systems to perceived destination image. As a conclusion, hypothesis 1 was accepted.

#### 4.6.2 Hypothesis 2 : Smart sightseeing

H2: There is a positive relationship between the smart sightseeing and perceived destination image.

Correlations				
			Smart sightseeing	Perceived destination image
Pearson	Smart sightseeing	Correlation Coefficient	1	.609**
		Sig. (2-tailed)		.001
	Perceived destination image	Correlation Coefficient	.609**	1
		Sig. (2-tailed)	.001	

\*\* . Correlation is significant at the 0.01 (2-tailed).

B. Listwise n = 384

Sources: SPSS

**Table 4.9 : The Correlation Coefficient for smart sightseeing and perceived destination image**

The outcome of the Pearson Correlation test, which was done to examine an efficient smart sightseeing app that can improve how travelers see a destination is presented in Table 4.7. This Pearson Correlation Analysis between genuineness and tourist satisfaction has found the result of, significant value,  $r=0.609$  and coefficient correlation value ( $p=0.01$ ). The total number of populations,  $N$ , was 384 respondents. The significant value was ( $p=0.01$ ) which is less than ( $p<0.01$ ). The significant value of the correlation analysis is  $p<0.01$  which shows it is significant. The correlation coefficient of smart sightseeing is 0.609 which indicates a positive moderate correlation suggesting a moderate positive correlation relationship between an efficient smart sightseeing app can improve the perceived destination image. As a result, hypothesis 2 was accepted.

### 4.6.3 Hypothesis 3 : Smart e-commerce

H2: There is a positive relationship between the smart e-commerce and perceived destination image.

Correlations				
			Smart e-commerce	Perceived destination image
Pearson	Smart e-commerce	Correlation Coefficient	1	.655**
		Sig. (2-tailed)		.001
	Perceived destination image	Correlation Coefficient	.655**	1
		Sig. (2-tailed)	.001	
**. Correlation is significant at the 0.01 (2-tailed).				
B. Listwise n = 384				

Sources: SPSS

**Table 5.0 : The Correlation Coefficient for smart sightseeing and perceived destination image**

Table 4.8 presents the findings of the Pearson correlation test, which was performed in order to know that a successful application for an e-commerce system can improve the perceived destination image. This Pearson Correlation Analysis between smart e-commerce and perceived

destination image has found the result of, significant value,  $r=0.655$  and coefficient correlation value ( $p=0.01$ ). The total number of populations,  $N$ , was 384 respondents. The significant value was ( $p=0.01$ ) which is less than ( $p<0.01$ ). The significant value of the correlation analysis is  $p<0.01$  which shows it is significant. The correlation coefficient of smart e-commerce is 0.655 which indicates a positive moderate correlation suggesting a moderate positive correlation relationship between the application for an e-commerce system can improve the perceived destination image. As a conclusion, hypothesis 3 was also accepted.

#### 4.6.4 Hypothesis 4 : Smart forecasting

H2: There is a positive relationship between the smart forecasting and perceived destination image.

Correlations				
			Smart forecasting	Perceived destination image
Pearson	Smart forecasting	Correlation Coefficient	1	.622**
		Sig. (2-tailed)		.001
	Perceived destination image	Correlation Coefficient	.622**	1
		Sig. (2-tailed)	.001	
**. Correlation is significant at the 0.01 (2-tailed).				
B. Listwise n = 384				

Sources: SPSS

**Table 5.1 : The Correlation Coefficient for smart forecasting and perceived destination image**

The results of the Pearson Correlation are presented in Table 4.16 in which these results were needed to construct the relationship between a successful smart forecasting application and improve how visitors perceive a destination. This Pearson Correlation Analysis between smart forecasting and perceived destination image has found the result of, significant value,  $r=0.622$  and coefficient correlation value ( $p=0.01$ ). The total number of populations,  $N$ , was 384 respondents. The significant value was ( $p=0.01$ ) which is less than ( $p<0.01$ ). The significant value of the correlation analysis is  $p<0.01$  which is significant. The correlation coefficient of smart forecasting is 0.622 which indicates a positive moderate correlation suggesting a moderate positive correlation relationship between smart forecasting applications can improve how visitors perceive a destination. As a conclusion, hypothesis 4 was accepted.

#### **4.7 DISCUSSION**

In the previous chapter, we analyzed the data in order to answer the research questions posed in Chapter 1. The purpose of this discussion is to interpret and describe the data analysis results in order to gain a better understanding of the research problems. Additionally, researchers will briefly discuss the findings of the research regarding the correlation test conducted between four independent variables and a dependent variable. According to the correlation analysis results, there is a significant relationship between both variables. Information systems have shown the coefficient correlation value which is ( $r=0.520$ ), which indicates a positive moderate relationship with perceived destination image. Smart sightseeing has shown the coefficient correlation value which is ( $r=0.609$ ), which indicates a positive moderate relationship with perceived destination image. Next, smart e-commerce systems have shown the coefficient correlation value which is ( $r=0.655$ ), which indicates a positive moderate relationship with perceived destination image. Lastly, Smart Forecasting has shown the coefficient correlation

value which is ( $r=0.622$ ), which indicate a positive moderate relationship with perceived destination image

As a result, the correlation between smart e-commerce systems and perceived destination image has shown the highest value of Pearson Correlation 60 Analysis.

#### **4.8 CONCLUSION**

The results of the descriptive analysis, the reliability test, and the Pearson Correlation will be discussed in the following chapter. The goal of this chapter was to examine the research hypotheses and determine their validity using the data that had been collected.



## **CHAPTER 5**

### **DISCUSSION, CONCLUSION, IMPLICATION AND RECOMMENDATION**

#### **5.1 INTRODUCTION**

This chapter will discuss the results of researchers in chapter 4. The demographic information of respondents, smart information systems, smart sightseeing, e-commerce system, smart forecasting, perceived destination image, and the relationship between smart information systems (IV1), smart sightseeing (IV2), e-commerce system (IV3), smart forecasting (IV4), and perceived destination image (DV) were all discussed in this study. Furthermore, using the analyzed data information from Chapter 4, this chapter 5 discussed the recommendation, limitation, and conclusion.

#### **5.2 FINDING AND DISCUSSION**

This chapter provides a summary of the study's most important findings. This chapter is an explanation of the research objectives and research question of this research that mentioned in chapter 1 while analyzing it in hypothesis.

##### **5.2.1 RESEARCH QUESTION ONE**

What effective smart information system applications improve how tourists' perceived a destination image ?

The hypothesis stated that there would be a correlation that was both moderately favorable and statistically significant between the smart information system applications that can improve how tourists can perceive a destination image in Kelantan. According to the Pearson Correlation Analysis (see table 4.8), smart information systems have a strong

impact on the relationship between smart information system applications and improve how tourists' perceived a destination image in Kelantan. The Pearson Correlation findings demonstrate a positive moderate correlation between independent variable 1 (smart information systems) and dependent variable (tourist's satisfaction) at  $r=0.520$ ,  $p=0.01$ .

Based on this study, there are positive moderate smart information system applications impacting the perceived destination image in Kelantan. Therefore, by implementing a smart information system, destinations can create a seamless, personalized, and informative experience for visitors, thereby positively influencing the perceived destination image.

## **5.2.2 RESEARCH QUESTION TWO**

What effective smart sightseeing applications improve how tourists' perceived a destination image ?

The hypothesis stated that there would be a correlation that was both moderately favorable and statistically significant between the smart sightseeing applications that can improve how tourists can perceive a destination image in Kelantan. According to the Pearson Correlation Analysis (see table 4.9), smart information systems have a strong impact on the relationship between smart information system applications and improve how tourists' perceived a destination image in Kelantan. The Pearson Correlation findings demonstrate a positive moderate correlation between independent variable 2 (smart sightseeing systems) and dependent variable (tourist's satisfaction) at  $r=0.609$ ,  $p=0.01$ .

Based on this study, there are positive moderate smart sightseeing system applications impacting the perceived destination image in Kelantan. Therefore, in order smart sightseeing embraces technology to create immersive, interactive, and personalized experiences that enhance the perceived destination image. By incorporating these elements, destinations can position themselves as modern, innovative, and visitor-friendly, ultimately attracting more tourists and positively influencing their perception of Kelantan.

### **5.2.3 RESEARCH QUESTION THREE**

What effective e-commerce system applications improve how tourists' perceived a destination image?

The hypothesis stated that there would be a correlation that was both moderately favorable and statistically significant between the smart information system applications that can improve how tourists can perceive a destination image in Kelantan. According to the Pearson Correlation Analysis (see table 5.0), smart information systems have a strong impact on the relationship between smart e-commerce system applications and improve how tourists' perceived a destination image in Kelantan. The Pearson Correlation findings demonstrate a positive moderate correlation between independent variable 3 (smart e-commerce systems) and dependent variable (tourist's satisfaction) at  $r=0.655$ ,  $p < 0.01$ .

Based on this study, there are positive moderate smart e-commerce system applications impacting the perceived destination image in Kelantan. Therefore, by implementing a SMART e-commerce system, destinations can provide a seamless

example, engaging online shopping experience, ultimately shaping a positive perceived destination image.

#### **5.2.4 RESEARCH QUESTION FOUR**

What effective smart forecasting application improve how tourists' perceived a destination image ?

The hypothesis stated that there would be a correlation that was both moderately favorable and statistically significant between the smart forecasting system applications that can improve how tourists can perceive a destination image in Kelantan. According to the Pearson Correlation Analysis (see table 5.1), smart information systems have a strong impact on the relationship between smart forecasting system applications and improve how tourists' perceived a destination image in Kelantan. The Pearson Correlation findings demonstrate a positive moderate correlation between independent variable 4 (smart information systems) and dependent variable (tourist's satisfaction) at  $r=0.622$ ,  $p < 0.01$ .

Based on this study, there are positive moderate smart forecasting system applications impacting the perceived destination image in Kelantan. Therefore, smart forecasting can help in perceived destinations' image to gain valuable insights, develop targeted strategies, and make informed decisions to create a positive and desirable image among visitors.

### **5.3 LIMITATION OF STUDY**

There will inevitably be some problems such as obstacles or limitations in completing the research. First, the study's limitations relate to the data collection and data analysis. The data obtained from the respondents should take the researcher a lot of time to collect and analyze. The data analysis will take longer to gather and will need to be redone if the respondent does not provide accurate information and disagrees with the question's requirements.

Additionally, there are several problems in the study when there is a lack of participation, which is one of its limitations. When the majority of respondents do not cooperate with the researcher, data collecting has become difficult and takes time. This has made researchers much more patient, especially when it takes some time to distribute questionnaires using Google Form. The majority of responders thought that it was unnecessary to answer the questions and even wasted their time. As a result, the findings will be invalid and maybe even partial because the target was not reached, necessitating the need to identify another responder.

The 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. Finding the best journals has come to be difficult for researchers.

### **5.4 RECOMMENDATIONS**

The main goal of the research study is to interpret and explain the results of the data analysis from the previous chapters and develop a better understanding of the research problem. The data shows that there is a relationship between the independent variables of smart

information system, smart sightseeing, smart e-commerce and smart forecasting on the influence of smart tourism applications on the perceived image of the destination in Kelantan.

In addition, the results of hypothesis 1 show smart information systems with the correlation between the two is the lowest, compared to hypothesis 2 shows that there is smart sightseeing, and also the third hypothesis which is smart e-commerce and hypothesis 4 smart forecasting shows that there is this Pearson Correlation Analysis between smart forecasting and perceived destination image has found the result of, significant value,  $r=0.622$  and coefficient correlation value ( $p=0.01$ ) based on Pearson Correlation value (value).

This study has various recommendations. 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.

## **.5 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. There were also four independent variables: smart information,

smart sightseeing, smart ecommerce, and smart forecasting. To analyze these independent and dependent variables, the Pearson Correlation Coefficient was used. This demonstrates that the independent variable has an impact on the dependent variable. In conclusion, the findings of this study revealed a link between smart information, smart sightseeing, smart ecommerce, and smart forecasting and perceived destination image.



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UNIVERSITI  
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**FACULTY OF HOSPITALITY , TOURISM AND WELLNESS**  
**SURVEY ON THE INFLUENCE OF SMART TOURISM APPLICATIONS ON**  
**PERCEIVED DESTINATION IMAGE**  
**KAJIAN MENGENAI PENGARUH APLIKASI PELANCONGAN PINTAR TERHADAP**  
**IMEJ DESTINASI YANG DIPERSEPSIKAN**

Dear Respondent,

Assalamualaikum w.m.t and greetings. We are students of Universiti Malaysia Kelantan (UMK) in the Bachelor's Degree in Entrepreneurship (Tourism) who are conducting a research study on Smart Tourism Applications on the Perceived Destination Image. The purpose of the study is to determine the relationship between Smart Information System, Smart Sightseeing, E-commerce System and Smart Forecasting. We are very grateful to the respondents if you answer all the questions and really appreciate that you are willing to take the time to answer our questions. These questions only take 5 minutes. Thank you to the respondents.

UNIVERSITI  
MALAYSIA  
KELANTAN

Respondent yang dihormati,

Assalamualaikum w.m.t dan salam sejahtera. Kami adalah pelajar Universiti Malaysia Kelantan (UMK) di dalam Ijazah Sarjana Muda Keusahawanan (Pelancongan) sedang menjalankan kajian mengenai Aplikasi Pelancongan Pintar Terhadap Image Destination Yang Dipersepsikan. Tujuan kajian adalah untuk menentukan hubungan antara Sistem Maklumat Pintar, Bersiar-siar Pintar, Sistem E-dagang dan Ramalan Pintar. Kami amatlah bersyukur kepada responden sekiranya anda menjawab semua soalan dan amatlah menghargai kerana anda sanggup meluangkan masa dengan menjawab soalan-soalan dari kami. Soalan-soalan ini hanya mengambil masa 5 minit sahaja. Terima kasih diucapkan kepada responden.

**Prepared by:**

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## RESEARCH QUESTIONNAIRE

### THE INFLUENCE OF SMART TOURISM APPLICATIONS ON PERCEIVED DESTINATIONS IMAGE

#### SECTION A: DEMOGRAPHIC INFORMATION

#### BAHAGIAN A: MAKLUMAT DEMOGRAFI

Instruction: Please read each question carefully and tick (/) at the appropriate answer.

Sila baca soalan dengan teliti dan tandakan (/) dengan jawapan yang sesuai.

1. What is your gender?

Apakah jantina anda?

<input type="checkbox"/>	Male / Lelaki
<input type="checkbox"/>	Female / Perempuan

2. What is your age?

Berapakah umur anda?

<input type="checkbox"/>	Below 18
<input type="checkbox"/>	18 - 23
<input type="checkbox"/>	24 - 28
<input type="checkbox"/>	29 - 33

3. Education status

Taraf Pendidikan

<input type="checkbox"/>	Spm
<input type="checkbox"/>	Stpm
<input type="checkbox"/>	Diploma
<input type="checkbox"/>	Ijazah

	Master
	Phd

4. What is your occupation ?  
Apakah pekerjaan awak ?

	Student / pelajar
	Government employee / Pekerja kerajaan
	Private sector / Sektor Swasta
	Others / Lain-lain

5. How much is your salary ?  
Berapakah gaji awak ?

	Below Rm 3000
	Rm 3500 - 5000
	Rm 5000 above
	Others

## SECTION B : INDEPENDENT VARIABLES

Analyzing the influence of smart tourist applications in the generation Z group at Universiti Malaysia Kelantan (UMK).

### BAHAGIAN B : PEMBOLEHUBAH BEBAS

Menganalisis tentang pengaruh aplikasi pelancong pintar dalam golongan gen Z di Universiti Malaysia Kelantan ( UMK ).

Please answer all the questions and use the following key to indicate the degree that you agree or disagree with each statement. Tick the number that best describes your level of agreement with each statement.

Sila jawab semua soalan dan gunakan kekunci berikut untuk menunjukkan tahap yang anda bersetuju atau tidak bersetuju dengan setiap pernyataan. Tandakan nombor yang paling menggambarkan tahap persetujuan anda dengan setiap kenyataan.

<b>Strongly Disagree</b>	<b>Disagree</b>	<b>Neutral</b>	<b>Agree</b>	<b>Strongly Agree</b>
<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>

### Smart Information System / Sistem Maklumat Pintar ( SIS )

System that provides information or benefits to tourists.

Sistem yang memberi informasi atau faedah kepada pelancong.

<b>No</b>	<b>Question</b>	<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>
<b>1</b>	<p><i>Through a wireless radio connection, Free Wifi 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.</i></p> <p>Melalui sambungan radio tanpa wayar, Wifi Percuma membolehkan pengguna menyambungkan peranti mudah alih</p>					

	seperti pembantu digital peribadi dan telefon mudah alih ke Internet. Pada masa ini, ia digunakan secara meluas di hotel, lapangan terbang, dan kafe.					
2	<p><i>Mobile devices can use quick response codes to acquire details about nearby attractions.</i></p> <p>Peranti mudah alih boleh menggunakan kod respons pantas untuk mendapatkan butiran tentang tarikan berdekatan.</p>					

### Smart Sightseeing / Bersiar-siar dengan bijak ( SS )

Smart sightseeing is very useful for tourists especially traveling abroad because it makes it easier for tourists to make choices.

Bersiar -siar dengan bijak sentiasa menjadi pilihan kepada pelancong terutama melancong di luar negara kerana memudahkan pelancong membuat pilihan.

No	Question	1	2	3	4	5
1	<p><i>Users can create unique itineraries based on their own points of interest and collaborate to develop tour plans using the collaborative tour-planner technology.</i></p> <p>Pengguna boleh mencipta jadual perjalanan unik berdasarkan tempat menarik mereka sendiri dan bekerjasama untuk membangunkan rancangan pelancongan menggunakan teknologi perancang pelancongan kolaboratif.</p>					
2	<p><i>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.</i></p> <p>Langkah logik selepas buku panduan dan kaset audio adalah teknologi panduan</p>					



	pintar. Pengalaman pelancong mungkin dipertingkatkan, dan mereka mungkin mendapat maklumat baharu atau berbeza.					
3	<p><i>E-tourism-recommendation technologies could provide tourists with important information and help them locate and choose the websites that best match their interests.</i></p> <p>Teknologi pengesyoran e-pelancongan boleh menyediakan maklumat penting kepada pelancong dan membantu mereka mencari dan memilih tapak web yang paling sesuai dengan minat mereka.</p>					
4	<p><i>With the use of global positioning systems, electronic maps and compasses may provide tourists, hikers, and boaters with detailed geographic positions and directions.</i></p> <p>Dengan penggunaan sistem penentu kedudukan global, peta dan kompas elektronik mungkin menyediakan kedudukan geografi dan arah yang terperinci kepada pelancong, pejalan kaki dan bot.</p>					

### E-commerce System ( ES )

E-commerce systems are trading in electronic parts or the internet which means money exchange using online transactions such as touch n go, big pay and so on.

System E-dagang adalah perdagangan dalam bahagian elektronik atau internet yang memberi maksud pertukaran wang menggunakan transaksi dalam talian seperti touch n go, bigpay dan sebagainya.

No	Question	1	2	3	4	5
1	<i>The market for buying travel-related items through mobile websites and applications is expanding. Mobile devices</i>					

	<p><i>are used by an increasing number of tourists to plan, pay for, and enhance their travels.</i></p> <p>Pasaran untuk membeli barangan berkaitan perjalanan melalui tapak web dan aplikasi mudah alih semakin berkembang. Peranti mudah alih digunakan oleh semakin ramai pelancong untuk merancang, membayar dan meningkatkan perjalanan mereka.</p>					
2	<p><i>In the travel industry, online coupons are being used increasingly often. People can get substantial savings with online coupons.</i></p> <p>Dalam industri pelancongan, kupon dalam talian semakin kerap digunakan. Orang ramai boleh mendapat penjimatan yang banyak dengan kupon dalam talian.</p>					
3	<p><i>Technologies like WiFi, global positioning systems, geographic information systems, and global navigation satellite systems are deployed to meet the expectations of travelers making online bookings.</i></p> <p>Teknologi seperti WiFi, sistem kedudukan global, sistem maklumat geografi dan sistem satelit navigasi global digunakan untuk memenuhi jangkaan pengembara yang membuat tempahan dalam talian.</p>					

MALAYSIA

KELANTAN

### Smart Forecasting / Ramalan Pintar ( SF )

Smart forecast is an application that helps tourists in seeing the development of tourists in a certain place.

Ramalan pintar merupakan aplikasi yang membantu pelancong dalam melihat perkembangan pelancong dalam sesuatu tempat.

No	Questions	1	2	3	4	5
1	<p><i>Using the routes followed and the movements of tourists, managers of tourist locations may forecast tourist flow and give early warnings.</i></p> <p>Dengan menggunakan laluan yang diikuti dan pergerakan pelancong, pengurus lokasi pelancongan boleh meramalkan aliran pelancong dan memberi amaran awal.</p>					
2	<p><i>Tourist attractions can forecast and provide tourists a queueing time using smartphone applications.</i></p> <p>Tarikan pelancong boleh meramal dan menyediakan masa beratur kepada pelancong menggunakan aplikasi telefon pintar.</p>					

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## SECTION C : DEPENDENT VARIABLES

Analyzing the satisfaction of the influence of smart tourism applications in the perception of the image of the destination in the generation Z group at Universiti Malaysia Kelantan ( UMK ).

### BAHAGIAN C: PEMBOLEHUBAH BERSANDAR

Untuk menganalisis kepuasan pengaruh aplikasi pelancongan pintar dalam persepsi imej destinasi dalam golongan gen Z di Universiti Malaysia Kelantan ( UMK ).

#### **Tourist Satisfaction with the Influence of Smart Tourism Applications on the Perceived Destination Image / Kepuasan Pelancong Terhadap Pengaruh Aplikasi Pelancongan Pintar Terhadap Imej Destinasi Yang Dipersepsikan**

The influence of smart tourism applications on the perceived destination image is to find out how good and satisfied tourists are with smart tourism applications when using the application while traveling.

Pengaruh aplikasi pelancongan pintar terhadap imej destinasi yang dipersepsikan adalah untuk mengetahui seberapa baik dan kepuasan pelancong terhadap aplikasi pelancongan pintar apabila menggunakan aplikasi itu ketika melancong.

No	Question	1	2	3	4	5
1	<i>What is your impression of the overall image of the destination?</i> Apakah tanggapan anda tentang imej keseluruhan destinasi?					
2	<i>How would you describe your overall feeling about the destination?</i> Bagaimanakah anda menerangkan perasaan keseluruhan anda tentang destinasi?					

3	<p><i>How likely is it that you would recommend this destination to your friends/family/colleagues?</i></p> <p>Seberapa besar kemungkinan anda akan mengesyorkan destinasi ini kepada rakan/keluarga/rakan sekerja anda?</p>					
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