

FACULTY OF TECHNOLOGY MANAGEMENT AND TECHNOPRENEURSHIP

SERVICE QUALITY FOR CUSTOMER SATISFACTION SECTOR IN THE MOBILE APPLICATION TRAVEL



A project report submitted in partial fulfillment of the requirement for the award of
the degree of Bachelor (Hons.) of Technology Management (Innovation)

By

MUHAMAD SYAZWAN AMNI BIN SHAIDAN

2022

SUPERVISOR'S AND PANEL APPROVAL

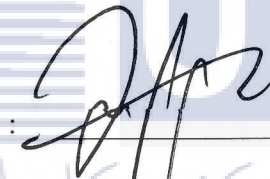
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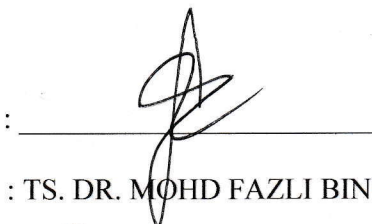
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Faculty of Technology Management and Technopreneurship Universiti Teknikal
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June 2022

STUDENTS DECLARATION

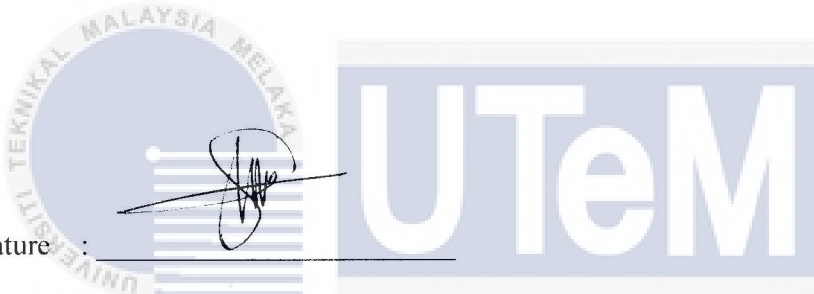
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DEDICATION

This humble work is dedicated to:

My supportive family, for the infinity love and sacrifices;

My dearest supervisor, for the never end words of encouragement;

My greatest friends, for being who they are;

And above all

To Allah SWT, the Almighty and;

Muhammad SAW, the best teacher and messenger.



ACKNOWLEDGEMENT

First of all, I would like to praise and thank Allah S.W.T for His Greatness and permission-giving me the time, healthy life, and opportunity to complete my first final year project titled “Service Quality For Customer Satisfaction Sector In The Mobile Application Travel” as fulfilling the compulsory requirements of Universiti Teknikal Malaysia Melaka (UTeM) and the Faculty of Technology Management and Technopreneurship (FPTT). I appreciate this opportunity to express gratefulness to those who made this project become possible.

Besides that, I want to give a big thanks to my supervisor Mr. Mukhiffun Bin Mukapit that gives a lot of guidance during this semester in session 2021/2022 on her knowledge expertise, suggestion, and useful comment while completing this research project.

I also would like to extend my thankfulness to the most precious persons in my life, my father and mother for all their moral support, financial and advice in all aspects during the report completion from the beginning till the end. Lastly, I want to express my gratitude to the all respondents that spend their time helping me to fulfill the questionnaire. I am truly appreciative and honestly grateful to all that participate while making this project.

ABSTRACT

According to studies, the availability of a wide range of high-quality mobile applications/services is a major factor in the expansion of m-commerce (apps). This has led to an increased focus from business managers on not just acquiring new clients, but also keeping their current clientele happy. Despite the large body of research on mobile applications, very little has been done to determine how different quality criteria associated with mobile services affect m-commerce customers' propensity to continue using certain apps. Because of this, a research model is created in this study that explains the connections between mobile-service quality elements, customer satisfaction, and the mobile-apps users' desire to continue using the service. Using data gathered from mobile app users in Langkawi, Kedah, the suggested study paradigm was experimentally confirmed. According to the findings, service quality criteria were critical in determining customer happiness and mobile app travel. The purpose of this research was to characterise service quality in the field of customer satisfaction as it relates to mobile application vacation planning. This project's research techniques included delivering questionnaires to participants and scouring the internet for relevant publications and journals, both of which provided valuable secondary data.

Keywords: Background of Research, Statement of Problem, Methodology of Research, Finding of Research, Recommendation

ABSTRAK

Menurut kajian, ketersediaan pelbagai aplikasi/perkhidmatan mudah alih berkualiti tinggi merupakan faktor utama dalam pengembangan m-dagang (apl). Ini telah membawa kepada peningkatan tumpuan daripada pengurus perniagaan untuk bukan sahaja memperoleh pelanggan baharu, tetapi juga memastikan pelanggan semasa mereka gembira. Walaupun badan penyelidikan yang besar tentang aplikasi mudah alih, sangat sedikit yang telah dilakukan untuk menentukan cara kriteria kualiti berbeza yang dikaitkan dengan perkhidmatan mudah alih mempengaruhi kecenderungan pelanggan m-dagang untuk terus menggunakan aplikasi tertentu. Oleh sebab itu, model penyelidikan dicipta dalam kajian ini yang menerangkan perkaitan antara elemen kualiti perkhidmatan mudah alih, kepuasan pelanggan dan keinginan pengguna aplikasi mudah alih untuk terus menggunakan perkhidmatan tersebut. Menggunakan data yang dikumpul daripada pengguna aplikasi mudah alih di Langkawi, Kedah, paradigma kajian yang dicadangkan telah disahkan secara eksperimen. Menurut penemuan, kriteria kualiti perkhidmatan adalah kritikal dalam menentukan kebahagiaan pelanggan dan perjalanan aplikasi mudah alih. Tujuan penyelidikan ini adalah untuk mencirikan kualiti perkhidmatan dalam bidang kepuasan pelanggan kerana ia berkaitan dengan perancangan percutian aplikasi mudah alih. Teknik penyelidikan projek ini termasuk menyampaikan soal selidik kepada peserta dan melayari internet untuk mendapatkan penerbitan dan jurnal yang berkaitan, yang kedua-duanya menyediakan data sekunder yang berharga.

Kata kunci: Latar belakang kajian, Kenyataan Masalah, Objektif Kajian, Dapatan Kajian, Cadangan Penambahnaikan

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CHAPTER 1

INTRODUCTION

This chapter will discuss the quality of the service sector as it pertains to mobile application customer satisfaction. The researcher also outlined the problem statement, research question, research objectives, and importance of the study. In the end, we will look closely at the study's scope and a summary of the research.

1.1 Background of Study

The travel industry is predicated on the idea that tourists are increasingly dependent on their mobile devices and related applications (apps) to have a more fulfilling and enjoyable experience. Smartphones, along with specialised travel apps, have emerged as a novel means for adventurers to create memorable encounters (Wang, Park, & Fesenmaier, 2011). The combination of smartphones and travel apps offers freedom via mobility, stimulates the decision to travel, helps visitors plan trips, book accommodations, engage with destinations, and lessens the impact of unknown factors (Bieger & Laesser, 2004; Gursoy & McCleary, 2004; Jeng & Fesenmaier, 2002). As a result of their widespread adoption, travel apps are also radically altering the way we travel and are quickly becoming indispensable to the process (eMarketer, 2011).

Travel applications for smartphones have revolutionised content distribution by making a variety of immediate tourist information services practically accessible anywhere and at any time over the Internet (Wang, Park, & Fesenmaier, 2012). These applications are accessible on several platforms, including iOS (iPhone), BlackBerry, and Windows Phone (Android). Due to developments in multimedia capabilities, sensors, and technology, the number of accessible information services on smartphones has increased substantially (Lashkari, Parhizkar, & Mohamedali, 2010).

Smartphones and travel applications are always improving to become more helpful, intuitive, user-friendly, and entertaining. Smartphone travel apps provide travellers with a flexible alternative, assist in highlighting a destination's significance, and foster pleasant interactions via the delivery of personalised, dynamic tourism data and services (IFITT, 2012; Wang et al., 2012). Consequently, more travellers are downloading travel apps to improve their trips (Benckendorff, Moscardo, & Murphy, 2006; Neuhofer & Buhalis, 2012).

Through the use of interactive graphical annotation and the conveyance of meaning, the interpretive media and technologies supplied by Enable destinations generate positive and enjoyable experiences. Visitors, particularly those in an unfamiliar location, benefit from context-aware information push, m-Commerce, social media assistance, feedback, and routing by receiving more natural and engaging material (Yovcheva et al., 2012).

This project's objective is to serve the tourism sector by developing a software application to facilitate tourist travel in Malaysia. This project aims to develop a simple application to promote the tourist business. The difficulty arises when they are living in locations outside of their normal surroundings and are restricted in their ability to travel in Malaysia at the lowest possible cost. As students travelling on a budget, they take public transportation to reach their destination since it is inexpensive. However, they are less informed about the appealing locations, facilities, and services offered by tourism Malaysia and need guidance from local acquaintances. (Mohamed Nazri, 2013)

Tourism Malaysia worked with the tourism sector to create homestays around the nation so that visitors may experience the culture and way of life in Malaysia. The

software apps immediately go to Tourism Malaysia's homestay website. This website provides tourists with an address, rental costs, a video of a local activity, and a few images from a gallery in order to make them feel more at home and want to try it for themselves. (Mohamed Nazri, 2013)

Thirdly, the tourist experience is dependent upon relevant information. For this reason, the software programme under the travel kits function supplied information on Malaysia's fundamental immigration laws and regulations, embassy contact information, emergency contact information, and travel recommendations. This information is collected from the tourist business in a number of contexts, including education tourism, migrant tourism, etc. (Mohamed Nazri, 2013)

Cuti-Cuti Langkawi, a future online travel company, will have its headquarters on the island. The advanced search engine of Cuti-Cuti Langkawi allows the firm to provide its professional services to travel agencies and their clients at any time and from any place. Thanks to Cuti-Cuti Langkawi's broad network and connection with Langkawi's boat operators, customers are able to organise transportation and holiday packages at any time. Cuti-Cuti Langkawi, a pioneer in the online travel industry, leverages its vast troves of user-generated travel data, cutting-edge product development expertise, solid financial backing, extensive connections, and synergistic partnership with Langkawi Ferry to create a comprehensive online and offline travel service ecosystem that consistently exceeds its customers' expectations. 2020 (Cuti Cuti Langkawi)

1.2 Problem Statement

In the tourist consumption processes defined by Gretzel, Fesenmaier, and O'Leary, mobile devices play an increasingly vital mediating function, according to recent research (Gretzel, 2010; Neuhofer & Buhalis, 2012). According to a study done by Gretzel et al., the information processing journey of a visitor may be divided into three stages. The steps of a tourist's consumption process include planning, execution, and assessment. Pre-consumption behaviours include planning, expectation setting, decision making, transactions, and anticipation, and it is hypothesised that consumers use travel-related data for these activities. Consuming is the last step of the travel planning process, which involves putting newly learned knowledge into practise by building connections, navigating, choosing, and purchasing while on the trip. Many individuals keep a record of their travels for memory jogging, family history, bragging rights, and other sentimental purposes.

Smartphones and applications may influence visitors' experiences by enabling time-sensitive travel arrangements (O'Brien & Burmeister, 2003; Rasinger et al., 2010) and affecting the timing and pattern of information search (Kramer, Modsching, & Ten Hagen, 2007). A group of researchers performed the investigation (Wang et al., 2012). Researchers have demonstrated that means vacationers are more reliant on their smartphones may act as a mediator of the relationship between the traveller and the destination through a variety of channels, including the ease with which information can be accessed, interpreted, and shared, as well as the feelings of familiarity or attachment evoked by the destination (Wang et al., 2012; Wang & Xiang, 2012). The bulk of the literature on innovative applications is devoted to usability issues. They promoted the use of user-centered analysis while building new apps and the accompanying user experience (Gabbard & Swan, 2008). While there is an abundance of information for developers, there is a dearth of research on the effect of new software systems on travelers' experiences (Reeves, 2004). There has been much study on the potential for mobile applications to increase museum attendance (Fraser et al., 2004).

There are no app-specific results coming from the several current studies on smartphone use in the tourist industry provide an overview of available apps for smart phones. In doing so, they provide the basis for the development of future location-aware mobile travel applications. Current smartphone apps are able to support the mobile in-site needs of tourists because they can: provide visitors location-specific information about their nearby area; provide access to timely and variable content; be adaptable in their delivery of text, video, or images; and provide interactive annotations that are integrated with map-based services and additional information (Yovcheva et al., 2012). The contemporary conveniences of cellphones and applications also promote the exploration of uncharted locations.

This kind of research is crucial for comprehending how the proliferation of mobile technology is transforming the tourism industry. In spite of the development of mobile-device-accessible information services, we still know surprisingly little about the effect of these applications and programmes on their users. This dissertation examines how the proliferation of smartphones and specialised travel apps is altering the way we see the world outside our houses by analysing the relevant literature.

More than 650 more programmes may now be downloaded from the Apple App Store. Wikitude World Browser, and others are a few of the well-known travel apps that have existed for some time (Linaza et al., 2012). There is a dearth of written material on niche tourist applications despite their widespread expansion, increasing appeal, and enormous popularity (Olsson & Salo, 2011; 2012). The amount to which tourists use mobile apps is not a matter of debate.

1.3 Research Questions

The following research question is examined in the study:

1. What recognizes the factors that influence users' understanding of the use of mobile application travel Cuti Cuti Langkawi?
2. What are the factors that most influence mobile application travel Cuti Cuti Langkawi on consumer understanding in Malaysia?
3. Does infrastructure supporting technology have an effect on the adoption of the mobile travel application Cuti Cuti Langkawi?
4. Does fixed price cost and privacy risks the adoption of mobile application travel Cuti Cuti Langkawi?

1.4 Research Objectives

With the above problem statement as view, the following are the research objectives:

1. To identify the relationship between factors that can influence users' understanding of mobile application travel Cuti Cuti Langkawi.
2. To determine the factors that most influence mobile application travel Cuti Cuti Langkawi on consumer understanding in Malaysia.
3. To evaluate the link between technological support infrastructure and the adoption of the mobile travel application Cuti Cuti Langkawi.
4. To study the link between fixed pricing costs and privacy hazards associated with the use of the mobile travel application Cuti Cuti Langkawi

1.5 Scope of Study

As for the study's scope, it focuses mostly on the factors mobile application travel Cuti Cuti Langkawi. This research will explore and establish the relationship between variables that influence user understanding, infrastructure perception, fixed price perception, and privacy risks in Cuti Cuti Langkawi apps. This study's target audience was adults over the age of 18. The age criterion for the study was based on the researcher's belief that participants would be able to voice their own opinions without consulting with their parents. Langkawi Island, Kedah, is home to a variety of historically and culturally important tourist attractions. Vacationers should thus download the Cuti Cuti Langkawi app on their mobile devices. Since Jetty Point Langkawi in Kedah became duty-free in 1987, the focus of this research switches to the quality of service for customer satisfaction sector in the mobile application travel. The island's rich history and breathtaking scenery have made it a popular tourist destination in recent years. There are have 99 islands are inhabited: the largest such as Langkawi; Tuba; Rebak; and Dayang Bunting. 90% of Langkawi's roughly 65,000 inhabitants identify as Malay. Approximately 99,000 individuals call this location home. Chinese, Indians, and Thais are the biggest of the other groups. It is feasible to reach Langkawi via air and water. Jetty Point connects Langkawi to mainland cities such as Kuala Perlis, Kuala Kedah, Penang, and Tamalang. In Thailand, you may also go by boat to Satun city and Ko Lipe island. From October to June, ferries offer transportation between Langkawi and Ko Lipe. Kuah Jetty, Langkawi, and Telaga Harbour, Langkawi are, respectively, the island's departure and arrival ports. Pattaya Beach hosts the embarkation and disembarkation ports for Ko Lipe. Since Ko Lipe lacks a port, visitors must depend on local long-tail boats to reach the beach. It will take around 1 hour and 30 minutes to get there.

1.6 Significant of Study

The study's results will aid company managers and government authorities in recognising Malaysian experience with technology and service quality for the mobile application travel customer satisfaction sector. On the basis of the literature, tangible, dependability, responsiveness, assurance, and empathy have been selected as five aspects of service quality in mobile application travel that will be explored in this research. These effects aid in determining the service quality for customer satisfaction sector in the mobile travel application market. In addition, recognising the linkages between these buildings will contribute to a broader knowledge that may be used by visitors travelling to Langkawi by water transportation, i.e., ferries. The Cuti Cuti Langkawi applications include a variety of information about noteworthy locations in Langkawi, such as the Cable Car and Cenang Beach. The research will also help get more people in Malaysia to use mobile travel apps by improving service quality in the customer satisfaction sector.

1.7 Summary

The study's primary focus is on how well app users in Malaysia understand the ideas behind the Cuti Cuti Langkawi apps. This paragraph provides context for the rest of the research. The purpose of the research, an outline of the problem, the questions that will be asked, and the desired outcomes are all presented here. The aims, methods, and restrictions of the research are discussed here. A literature review will follow this introductory chapter.

CHAPTER 2

LITERATURE REVIEW

2.0 Introduction

This chapter will examine the independent and dependent variables. All aspects of thesis writing need credible sources to support our scientific and empirical research. This study gathered reference materials, periodicals, and books in order to analyse hypotheses and relevant prior scientific research. This chapter starts with a brief introduction to the usage of mobile apps for travel, followed by a discussion of the perceived effect components that affect perception while using mobile applications for travel, which led to the suggested study setting. This chapter would also provide a quick analysis of pertinent theory, followed by a suggested research strategy. This chapter includes the literature review, conceptual framework, development of hypotheses, and conclusion of Chapter 2.

2.1 Mobile Applications/Services

A mobile application, or "app," is a software programme designed to run on a mobile device, such as a smartphone or tablet. Mobile applications make it easy and quick for users to accomplish a variety of things, like booking flights, ordering meals, buying online, and playing games, among others.

A mobile service is a service provided through a mobile application on a smartphone or tablet. Mobile services may encompass a variety of services, such as trip booking, food delivery, online shopping, and access to banking services, among others. These services are intended to give customers a handy and readily available means of doing a variety of chores whenever and wherever they want.

Due to the rapid expansion of the smartphone industry, app-based services have become the norm in mobile commerce. Taylor et al. (2011) define "applications for mobile devices" as "small computer programmes designed to perform specific tasks on a mobile device." There are several applications for the internet, including online shopping, gaming, banking, and email. In 2012, 54.9% of American cell phone customers had a smartphone due to the proliferation of useful mobile apps. Nielsen, a market research organisation, estimated that in the second quarter of 2012, the typical smartphone had 41 apps installed, up from 32 in the first quarter.

While the technique described above may be useful for assessing business-related e-services, it may not be the ideal option for reviewing mobile apps aimed at consumers. This study's conception of mobile app service quality is based on the work of Santos (2003) and the other sources indicated above. When we discuss the "mobile application service quality" of a company, we are referring to the quality of electronic services supplied to a mobile device. Consequently, mobile app service is distinct from online service. Customers' satisfaction with the service they get while using a mobile application on a smart device such as a smartphone or tablet determines the quality of the mobile application service. This analysis focuses on the history of budget airlines. By finding these similarities, we can begin to create the theoretical foundation required to generalise this model to other web-based service businesses that are comparable.

Some of the frameworks suggested by past academics are quite complex, and this is a problem since it is a problem that has been addressed before. Also, as was previously said, it is difficult to develop a robust theoretical model for the quality of service offered by smart phone apps using current mobile service quality assessment scales. Consequently, this study suggests a method for measuring the quality of service provided by mobile apps by drawing on prior studies and current tools in the field.

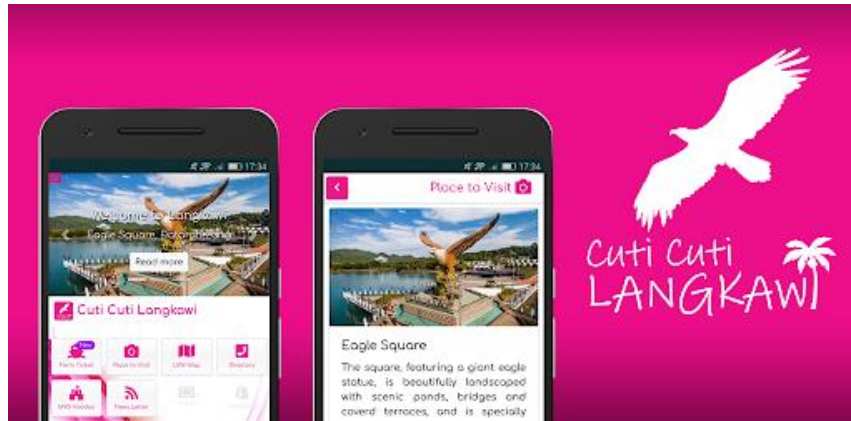


Figure 2.1: Mobile application Cuti Cuti Langkawi

2.2. Service Quality

Service quality is the extent to which a service satisfies the demands and expectations of its clients. It incorporates factors such as dependability, responsiveness, certainty, empathy, and tangibles to determine the overall greatness of a service. Service quality may have a substantial effect on customer happiness, customer loyalty, and company performance as a whole. Next, in order to provide high-quality services, businesses must comprehend their consumers' requirements and expectations and attempt to fulfil or surpass them. This may include using client feedback, performing market research, and consistently assessing and enhancing the quality of their offerings. Then, service quality may be assessed using a variety of models and frameworks, such as the SERVQUAL model. By using these models and frameworks, businesses may acquire a deeper knowledge of their service quality and find improvement opportunities.

Several academic publications, particularly those dealing with services and marketing, have dissected the term "service quality," which is comprised of a number of diverse components (Muhammad Shoaib Farooq et al., 2018;). How closely consumers' opinions of a service align with their own expectations is an indicator of service quality. Customers evaluate a company based on how well it matches their expectations, which are shaped by their past experiences, first impressions, and word-

of-mouth recommendations. In part, the quality of a service is determined by how effectively it meets the requirements and expectations of its users. Consequences for service quality measures such as customer satisfaction, repeat business, and brand loyalty will follow (Muhammad Shoaib Farooq et al., 2018; Meesala & Paul, 2018).

Due to the fact that service quality is not a permanent concept, its meaning may change over time and in reaction to several variables (Graham Saunders, 2008). Despite the fact that the Internet is the most often cited source for literature on service quality, academics whose primary works focus on business development and service marketing continue to be concerned with this topic in this age of intense competition. Studies have shown this to be true (Shabbir et al., 2016).

Smith & Swinehart (2001) and Meesala & Paul (2018) concur that delivering superior customer service is essential for retaining recurring business. We discovered this to be the case (Hu, Cheng, Chiu, & Hong, 2011). Moreover, a company's competitive advantage and financial success are proportionate to the calibre of its services (Chow, 2014; Gupta & Singh, 2017; Shi, Prentice, & He, 2014).

2.3. Concepts

2.3.1 Tangibles

As one of the five aspects of service quality, "tangibles" refers to the physical look and facilities of a service, such as its employees, equipment, and buildings. In the context of service quality, tangibles are seen as a crucial aspect of fostering a great customer experience and affecting customer satisfaction. It is essential to consider these notions while developing a great client experience and providing high-quality services. Companies should endeavour to provide concrete aspects that meet or exceed consumer expectations and contribute to customer satisfaction as a whole.

2.3.2 Reliability

One of the five service quality standards, reliability relates to the dependability and consistency of a service. It refers to the degree to which a service can be relied upon to execute as intended, consistently, and error-free. Creating a great client experience and providing high-quality services rely heavily on dependability. Companies should endeavour to deliver services that are consistent, dependable, and reliable and that meet or surpass client expectations. By doing so, companies may increase customer happiness and establish consumer trust.

2.3.3 Responsiveness

As one of the five qualities of service quality, responsiveness refers to a service provider's willingness and ability to respond to customer demands and requests in a timely and appropriate manner. Delivering high-quality services and generating a great client experience rely heavily on responsiveness. Companies should try to provide timely, accessible, and adaptable services that meet or exceed client expectations. By doing so, companies may increase client satisfaction and strengthen customer connections.

2.3.4 Assurance

One of the five elements of service quality, assurance refers to the amount of consumer confidence and trust in the service provider and the service being offered. It includes aspects such as the expertise, competence, and kindness of service workers, as well as the security and confidentiality of client information. Customer confidence and the delivery of high-quality services are dependent on assurance. Companies should try to deliver dependable, trustworthy, and secure

services that meet or exceed client expectations. By doing so, companies may increase client satisfaction and foster long-lasting customer connections.

2.3.5 Empathy

One of the five aspects of service quality, empathy refers to the service provider's degree of understanding and care for the customer's position and requirements. It entails understanding the customer's viewpoint, emotions, and motives and treating them with care and respect. Empathy is necessary for delivering high-quality services and promoting a positive customer experience. Companies should strive to provide customised, empathetic, and caring services that meet or exceed customer expectations. By doing so, companies may increase client satisfaction and strengthen customer connections.

2.4 Customer Satisfaction

Customer satisfaction is the degree to which a product or service meets the consumers' expectations. It is a subjective evaluation of a consumer's complete experience with a product or service, including quality, reliability, and customer service. High customer satisfaction correlates with improved customer loyalty, repeat business, and favourable word-of-mouth recommendations. Low customer satisfaction, on the other hand, may result in diminished client loyalty, lost sales, and unfavourable word-of-mouth recommendations. There are several ways for assessing customer happiness, including customer surveys, interviews, focus groups, and complaint data. These techniques provide useful insights into the customer experience and may assist businesses in identifying areas for improvement in their goods, services, and customer support operations.

MODEL AND THEORY

2.5 Technology Acceptance Model (TAM)

. The Technology Acceptance Model (TAM) is a popular theoretical framework that investigates how individuals embrace and exploit new information technology. Fred Davis and Richard Bagozzi created the concept in 1989. Since then, several researchers have contributed to and enhanced it.

According to the TAM principle, perceived utility and perceived usability have a significant impact on an individual's adoption and use of a technology. Perceived usefulness is the extent to which an individual feels that using a technology would improve their work performance or quality of life. Perceived ease of use is the degree to which an individual thinks a technology to be simple to understand and use.

According to TAM, users are more likely to adopt and utilise a technology if they see it as useful and user-friendly. Additionally, these two characteristics impact each other positively: if a person feels a technology is easy to use, they are more likely to find it helpful, and if they consider a technology is valuable, they are more likely to believe it is simple to use.

TAM also demonstrates that perceived utility and perceived ease of use influence an individual's desire to use a technology, and that intention drives actual use behaviour.

TAM has been applied to a number of information technologies, including computer software, mobile apps, and e-commerce websites, and has been shown to be a beneficial model for understanding technology adoption and usage behaviour.

In conclusion, the technology acceptance model provides a helpful framework for considering how individuals adopt and use new technology. It does this by considering two crucial factors: perceived utility and perceived usability.

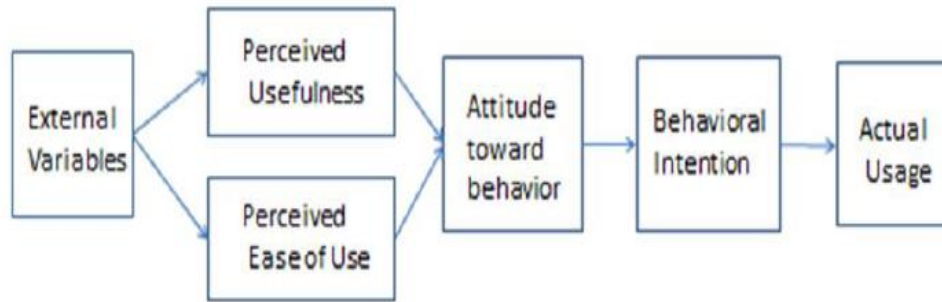


Figure 2.2: The Technology Acceptance Model

Source From: Davis, F.(1989) "Perceived Usefulness, Perceived Ease of Use and User Acceptance of Information Technology," MIS Quarterly, pp 319-340.

2.6 Research Framework

The research framework is a set of interrelated concepts that have been arranged in a logical and sequential form to provide the best method for making sense of the expected result. The literature review offered in Chapter 2 serves as the basis for the study's framework. The service quality for customer satisfaction sector in the mobile travel application was investigated by making some adjustments to earlier studies (Sedighimanesh et al., 2017). For the Wang model (2012) to be successful in describing customers' experiences and attitudes around mobile application travel, associated models and service quality must include the chosen elements (Jarina et al., 2019). In order to assess the service quality for customer satisfaction in mobile application travel at Jetty Point Langkawi, Kedah, the researcher developed a study framework. Tangibility, reliability, responsiveness, confidence, and empathy are the five constituent factors. This research design relied on participants' actual experiences as the dependent variable. The research team at Cuti Cuti Langkawi in Kedah, Malaysia set out to find the best ways to use mobile apps to promote tourism at Jetty Point Langkawi. Figure 2.6 displays the distinctive research framework for this idea:

INDEPENDENT VARIABLE

DEPENDENT VARIABLE

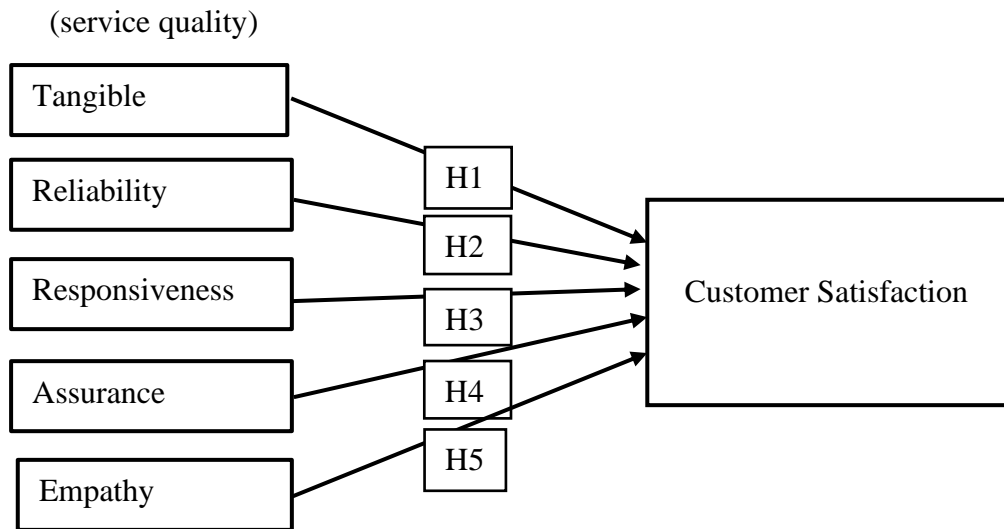


Figure 2.6: Servqual Theoretical Framework

2.7 Hypothesis Testing

Based on the research framework in Figure 2.1, five hypothesis had been made by the researcher to study the service quality for customer satisfaction sector in the mobile application travel. The hypotheses were:

Tangible

H1: There is a positive relationship between tangible using service quality for customer satisfaction sector in the mobile application travel at Jetty Point Langkawi, Kedah.

This hypothesis implies that tangible aspects of mobile travel applications, such as the look of equipment and staff, the physical circumstances during transactions, etc., have a favourable effect on consumer satisfaction. The greater the quality of the physical aspects, the greater the degree of client happiness. This hypothesis is based on the idea that physical aspects play a significant role in creating

a favourable impression on clients and contributing to their overall satisfaction with the mobile travel application. Thus, we hypothesized the following:

- There is a positive relationship between tangible using service quality for customer satisfaction sector in the mobile application travel at Jetty Point Langkawi, Kedah

Reliability

H2: There is a positive relationship between reliability using service quality for customer satisfaction sector in the mobile application travel at Jetty Point Langkawi, Kedah.

This hypothesis argues that the reliability of the mobile travel application, such as workers' capacity to supply services as promised and the uniformity of service offered to all clients, has a favourable effect on consumer satisfaction. The greater the dependability of the service offered, the greater the degree of client happiness. This hypothesis is predicated on the assumption that consumers anticipate a dependable and consistent experience when using a mobile travel application and that satisfying these expectations may increase customer satisfaction. The availability of information resources inside the app may also add to the app's efficiency and client happiness. Thus, we hypothesized the following:

- There is a positive relationship between reliability using service quality for customer satisfaction sector in the mobile application travel at Jetty Point Langkawi, Kedah

Responsiveness

H3: There is a positive relationship between responsiveness using service quality for customer satisfaction sector in the mobile application travel at Jetty Point Langkawi, Kedah.

This hypothesis argues that the responsiveness of the mobile travel application, such as the conduct of staff in answering customer demands in a timely manner and the capacity to communicate information, has a favourable effect on customer satisfaction. The greater the responsiveness of the personnel, the greater the degree of

client happiness. This hypothesis is predicated on the notion that consumers value timely and effective help from staff while using the mobile travel application and that this may lead to a pleasant overall experience and greater customer satisfaction levels. Employee incentives to handle customer issues may also favourably influence customer satisfaction. Thus, we hypothesized the following:

- There is a positive relationship between responsiveness using service quality for customer satisfaction sector in the mobile application travel at Jetty Point Langkawi, Kedah.

Assurance

H4: There is a positive relationship between assurance using service quality for customer satisfaction sector in the mobile application travel at Jetty Point Langkawi, Kedah.

This hypothesis argues that the assurance part of the mobile travel application, such as the workers' competence and professionalism during service delivery, has a favourable effect on client satisfaction. The greater the amount of confidence clients acquire from personnel, the greater their level of contentment. This hypothesis is predicated on the assumption that consumers value the assurance that comes from knowing that the service delivery agent is informed and competent, and that this may contribute to a good overall experience and greater customer satisfaction. Additionally, this may promote word-of-mouth, especially in the financial sector. Thus, we hypothesized the following:

- There is a positive relationship between assurance using service quality for customer satisfaction sector in the mobile application travel at Jetty Point Langkawi, Kedah.

Empathy

H5: There is a positive relationship between empathy using service quality for customer satisfaction sector in the mobile application travel at Jetty Point Langkawi, Kedah.

This hypothesis argues that the empathy feature of the mobile travel application, such as the staff's understanding and concern for consumers, has a beneficial effect on customer satisfaction. The more empathetic personnel are towards consumers, the greater their level of satisfaction. This hypothesis is predicated on the assumption that consumers value personnel who understand their requirements and give care and assistance, and that this may lead to a good overall experience and greater customer satisfaction. Evidence from Farooq et al. (2018) supports the notion that higher-quality personnel services result in greater customer satisfaction and that empathy is a crucial component of this quality. Thus, we hypothesized the following:

- There is a positive relationship between empathy using service quality for customer satisfaction sector in the mobile application travel at Jetty Point Langkawi, Kedah.

2.8 Summary

This chapter concludes by outlining the research strategy for investigating the link between service quality and customer satisfaction in mobile travel apps. The researcher based the framework on the Technology Acceptance Model (TAM) and Wang's (2012) model, which includes five independent factors (tangibility, dependability, responsiveness, assurance, and empathy) and one dependent variable (customer satisfaction). The researcher will employ appropriate data collection and analytic strategies to test hypotheses and achieve study objectives.

CHAPTER 3

RESEARCH METHODOLOGY

3.0 Introduction

This chapter explains the research methodology and techniques of study. Research methodology denotes the tools and procedures that will be utilised to perform research (Walliman, 2010). Using the Cuti Cuti Langkawi apps as a case study, this research seeks to help Malaysian customers comprehend the service quality of the customer satisfaction sector in the context of mobile applications. This chapter discusses the used research procedures, such as study design, methodological choice, data source, study strategy, study location, and study length. This chapter focuses on questionnaire design, survey results, and therefore data analysis.

3.1 Research Approach

The examination approach alludes to a reasoning technique in the exploration cycle (Saunders, Lewis, and Thornhill 2009). Comprising of two methodologies, inductive and deductive. A deductive methodology is usually connected with quantitative exploration where it depends on information to evaluate the hypothesis while in inductive methodology, a hypothesis is created from the information gathered (Saunders et al., 2016). It is determined that a deductive strategy is acceptable for this study in order to explain the difficult assertion brought up in Chapter 1 due to the goals of the research and the examination question, which calls for a mathematical

evaluation of the facts. As a result, a statistical method will be used in this investigation.

3.2 Study Design

This study will look into the link between the Cuti Cuti Langkawi app and service quality in Malaysia's customer satisfaction sector for mobile application travel. The study design gives a logical way to choose data sources, data collection methods, and ways to analyse the data (Saunders et al., 2016). Research design is important because it makes it easier to use many different research methods. This makes it easier to do as much professional research as possible and collect as much data as possible with as little work, time, and money as possible (Innam, 2016). The way this study was set up was meant to help explain things. This is because the study found a link between independent factors, like the four characteristics of self-service technology, and the most important dependent variable, the user experience.

3.2.1 Explanatory Research

The explanatory research design looked into the relationship between independent factors and dependent variables in terms of cause and effect. Using this kind of research will help the researcher understand the problem better. This is because the researcher will be able to react to new information and new ideas that come up as the study goes on. Also, a web-based questionnaire was used to test the research hypothesis as part of the study method. In order to stop the COVID-19 virus from spreading, the Malaysian government wants to make it harder for people to move around and get together by having them fill out this online questionnaire. As this was an explanatory study, all secondary data from current and past research would be looked at, and then the main data would be looked at to find the link between service quality and customer satisfaction in mobile application travel.

3.3 Methodology Choice

Methodologies can be either quantitative, qualitative, or a mix of the two. The researcher thinks that the quantitative method was better for gathering data for this study than the qualitative and mixed-method approaches. Quantitative research looked into the phenomenon by collecting numbers and analysing them using statistical processes that are based on math (Alia and Gunderson, 2002). This method is used to collect numbers from a web-based survey and then use a variety of statistical methods to look at the results. The goal of testing service quality dimensions is to learn about service quality for the customer satisfaction sector in the mobile application by travelling with a large number of customers so that the results can be simplified and used for the whole population. So, the data analysis for this study, which looks at the link between service quality and customer satisfaction, may use more accurate information.

3.4 Data Sources

Primarily, it was necessary to gather data and information from two sources: primary data sources and secondary data sources. The researcher used both data sources in this investigation.

3.4.1 Primary Data

Burns and Bush (2000) describe "primary data" as information gathered directly by the researcher for the purpose of addressing the research problem. It sought to collect information specifically for the current research endeavour. Primary sources include surveys, experiments, questionnaires, personal interviews, and observations that have not been filtered by a second party (Saunders et al., 2016). The study's primary data was collected by sending online questionnaires to each respondent.

According to Saunders et al. (2016), the questionnaire is a tool for collecting all the data required for this investigation. To ensure that the obtained data was relevant to the researcher, the questions were simple and easy to understand. The survey's emphasis was on the relationship between service quality and customer satisfaction. Respondents were requested to respond to the questionnaire in a closed-ended manner and to distribute it using Google Form on an online platform that included a handful of Likert scale statements evaluating the numerous independent factors under examination. In addition, the majority of poll participants would have used Cuti Cuti Langkawi apps to buy ferry tickets and other services in the past.

3.4.2 Secondary Data

The majority of researchers in this study used the typical practise of secondary data collection. Secondary data is comprised of reports of people who relate to the actual witness's or event participant's testimony (Singh, 2006). They may be evaluated based on the availability of novel or specific facts, explanations, or inferences (Saunders et al., 2016). Secondary data is comprised of information obtained from researchers by a third party for different purposes (Johnston, 2017). Saunders et al. (2016) include journal articles, internal documents, books, and websites for government publications as secondary data sources. Due to the restricted time available for this research, secondary data were used in the current study.

Secondary data has proven to be very useful in the context of the current coronavirus pandemic, as researchers now have access to information that cannot be gathered through direct contact with people. Journals cited in 2019 include Faiz's (2013) Smartphone-Mediated Tourist Experiences: Understanding the Influence of Applications in Tourism and Dalilah's (2015) Consumer's Comprehension Toward Online Travel Agency Application in Malaysia.

3.5 Research Strategy

The study methodology was crucial since it enabled the researcher to identify the investigation's flow and structure. A research strategy, according to Saunders et al. (2016), is a plan for addressing research issues and attaining research goals. This study indicated that a quantitative strategy should be used to address the topic. The overview is a useful strategy for gathering information from respondents at that moment. In line with the research method, research philosophy, and, most importantly, the research question and objectives of this study, a survey was chosen as the research approach.

3.5.1 Survey Strategy

This study will use survey techniques that are typically associated with a deductive methodology. The survey approach was used to gather data from a representative sample of respondents using an online questionnaire delivered via Google Form and completed by each respondent. In addition, the explanatory research was crucial so that the gathered data would provide the researcher with a better picture of modern phenomena. In addition, employing a questionnaire from survey research has the advantage of standardising data from a large population at a lower cost and facilitating data comparison. However, it allows the researcher to validate whether or not these elements will influence user experiences. Survey research will also provide plausible explanations for the specific link between variables in this study, such as analysing service quality for customer satisfaction in the mobile application travel.

3.5.2 Questionnaires Design

The website's questionnaire was well-structured and organized. Self-completion of the questionnaire allows respondents to respond from their own perspectives. In addition, online questionnaires are methods of data collection for


quantitative processes that analyse and evaluate hypotheses based on numerical data. A web-based questionnaire may also be used to poll respondents on their perceptions of service quality in relation to customer satisfaction in Langkawi as a result of the use of mobile apps. Web surveys are less expensive than paper surveys since the researcher does not need to print the questionnaire or spend money on travel. In addition, it saves time since the whole questionnaire was delivered by social media (Instagram), text message, and WhatsApp with a link that could be copied, pasted, and moved in order to connect with each respondent geographically.

The questionnaire will consist of three sections. Section A asks respondents to submit demographic information, such as gender, age, race, education level, and job status. In this section, you must respond to four multiple-choice questions and one dual-choice question. Twenty-six statements in Section B focused on the study's independent variables, which were the most effective factor using the mobile application "Travel Cuti Cuti Langkawi" among those in Jetty Point Langkawi, Kedah. In Section C, five assertions were used to define the service quality for the customer satisfaction sector in mobile application travel. The respondent will next react to this issue using the Likert scale, which reveals the replies by giving points from 1 to 5, corresponding to strongly disagree, disagree, natural, agree, and very agree. A scientifically accepted and approved Likert scale is widely used to assess "attitude"; attitudes may be described as preferred methods of responding to certain circumstances that are embedded in the relatively enduring arrangement of confidence and ideas established through social contact (Joshi et al., 2015).

Table 3.1: Questionnaire Design

Section	Content
A	Respondent background: Age Gender Race Marital Status Employment Status
B	Assessment of independent variables: The most effective factor using mobile application travel Cuti Cuti Langkawi among in Jetty Point Langkawi, Kedah. (Tangible, Reliability, Responsiveness, Assurance, Empathy)
C	Assessment of dependent variables: The service quality for customer satisfaction sector in the mobile application travel

Table 3.2: Likert Scale

				
Strongly Disagree				Strongly Agree
1	2	3	4	5

Source: Source: (Restivo, A.I,2017)

3.5.3 Sampling Technique

Sampling is a mechanism for generating conclusions about an entire population based on a representative sample of that population (Jemain et al., 2007). The sample is a subset of the population comprised of chosen individuals (Al-Omari et al., 2008). Adults from Jetty Point Langkawi, Kedah, who have used the Cuti Cuti Langkawi app at least once are the intended sample for this research.

According to AZ Nations (2022), Pulau Langkawi will have a population of 96,700 in 2021. At 96,700, the population is rather large. The sample size was determined using the Raosoft InterForm tool, which was created in November 1991. It was proposed that researchers use Raosoft Inc. to estimate survey sample sizes for larger or undetermined populations. Using Raosoft, Inc.'s sampling size calculator, a minimum sample size of 383 individuals was recommended; however, the researcher raised the number to 400 for a higher confidence level (i.e., between 95 and 99 percent) based on the anticipated response rate of 50 percent. However, according to the sample size principle, it is more accurate to do research on the target population (Babikir et al., n.d.). Therefore, 400 questionnaires were sought for distribution, since a higher response rate might lead to more accurate results (Nulty, 2008). In addition, the Raosoft, Inc. Sample Size Calculator was used in a few referenced publications (PQ Teo, 2013, S. Halder, 2012, and Mazikana et al., 2019) and a report (Central Library, Gombak CSS Team, 2012).

For this study, the researcher used simple random sampling as opposed to probability sampling, and an acceptable sample strategy was employed to reach the audience. All members of the population will have an equal chance of being selected, which is the method's principal advantage (Ross K. N., 2005). Therefore, respondents in Langkawi and Kedah will be selected at random, and the survey will be delivered online. In addition, since the questionnaire will be developed wholly in English as the transmission medium, the researcher will place particular emphasis on finding target respondents who can speak and comprehend English well.

Figure 3.1 Sample Size Calculator by Raosoft, Inc.



Sample size calculator

What margin of error can you accept? <small>5% is a common choice</small>	<input type="text" value="5"/> %	The margin of error is the amount of error that you can tolerate. If 90% of respondents answer yes , while 10% answer no , you may be able to tolerate a larger amount of error than if the respondents are split 50-50 or 45-55. Lower margin of error requires a larger sample size.
What confidence level do you need? <small>Typical choices are 90%, 95%, or 99%</small>	<input type="text" value="95"/> %	The confidence level is the amount of uncertainty you can tolerate. Suppose that you have 20 yes-no questions in your survey. With a confidence level of 95%, you would expect that for one of the questions (1 in 20), the percentage of people who answer yes would be more than the margin of error away from the true answer. The true answer is the percentage you would get if you exhaustively interviewed everyone. Higher confidence level requires a larger sample size.
What is the population size? <small>If you don't know, use 20000</small>	<input type="text" value="96700"/>	How many people are there to choose your random sample from? The sample size doesn't change much for populations larger than 20,000.
What is the response distribution? <small>Leave this as 50%</small>	<input type="text" value="50"/> %	For each question, what do you expect the results will be? If the sample is skewed highly one way or the other, the population probably is, too. If you don't know, use 50%, which gives the largest sample size. See below under More information if this is confusing.
Your recommended sample size is	383	This is the minimum recommended size of your survey. If you create a sample of this many people and get responses from everyone, you're more likely to get a correct answer than you would from a large sample where only a small percentage of the sample responds to your survey.

Online surveys with Vovici have completion rates of 66%!

Alternate scenarios

With a sample size of	<input type="text" value="100"/>	<input type="text" value="200"/>	<input type="text" value="300"/>	With a confidence level of	<input type="text" value="90"/>	<input type="text" value="95"/>	<input type="text" value="99"/>
Your margin of error would be	9.79%	6.92%	5.65%	Your sample size would need to be	270	383	659

Save effort, save time. Conduct your survey online with Vovici.

More information

If 50% of all the people in a population of 20000 people drink coffee in the morning, and if you were repeat the survey of 377 people ("Did you drink coffee this morning?") many times, then 95% of the time, your survey would find that between 45% and 55% of the people in your sample answered "Yes".
The remaining 5% of the time, or for 1 in 20 survey questions, you would expect the survey response to more than the margin of error away from the true answer.
When you survey a sample of the population, you don't know that you've found the correct answer, but you do know that there's a 95% chance that you're within the margin of error of the correct answer.
Try changing your sample size and watch what happens to the alternate scenarios. That tells you what happens if you don't use the recommended sample size, and how M.O.E and confidence level (that 95%) are related.
To learn more if you're a beginner, read [Basic Statistics: A Modern Approach](#) and [The Cartoon Guide to Statistics](#). Otherwise, look at the [more advanced books](#).

In terms of the numbers you selected above, the sample size n and margin of error E are given by

$$x = Z(c/100)^2 r(100-r)$$

$$n = N x / ((N-1)E^2 + x)$$

$$E = \text{Sqrt}[(N-n)x / n(N-1)]$$

where N is the population size, r is the fraction of responses that you are interested in, and $Z(c/100)$ is the critical value for the confidence level c .

If you'd like to see how we perform the calculation, view the [page source](#). This calculation is based on the [Normal distribution](#), and assumes you have more than about 30 samples.

About Response distribution: If you ask a random sample of 10 people if they like donuts, and 9 of them say, "Yes", then the prediction that you make about the general population is different than it would be if 5 had said, "Yes", and 5 had said, "No". Setting the response distribution to 50% is the most conservative assumption. So just leave it at 50% unless you know what you're doing. The sample size calculator computes the critical value for the normal distribution. Wikipedia has good articles on statistics.

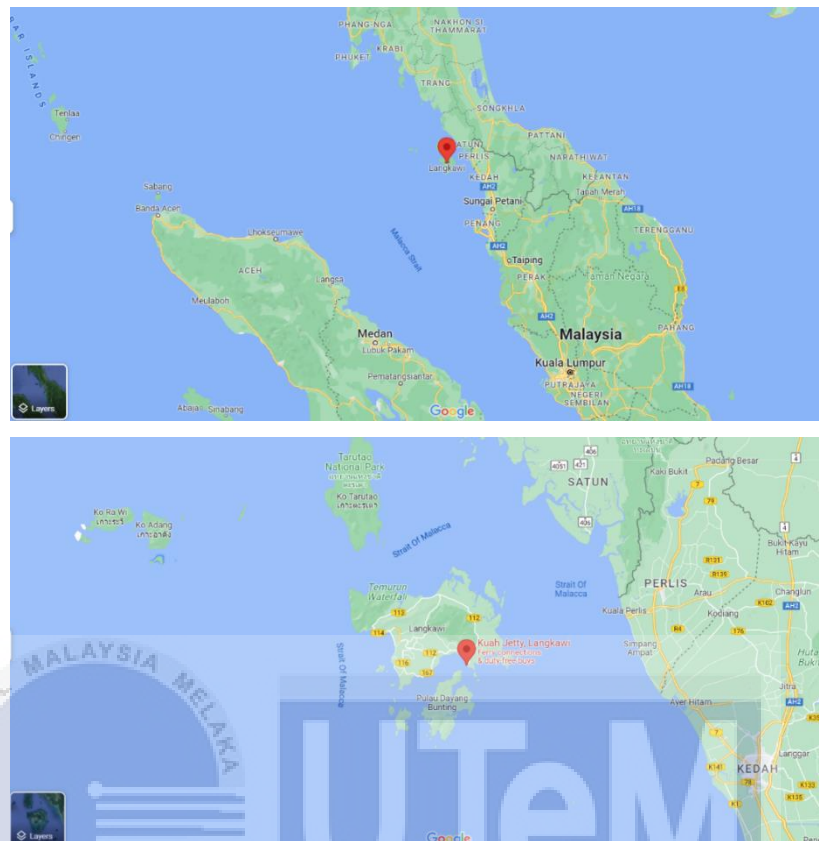
3.6 Location of Research

Langkawi is a group of 99 islands in the Andaman Sea, just north of Malaysia's northwest coast. The island is a popular place for tourists to go because of its clean beaches, lush rainforests, and duty-free shopping. Langkawi's main island also has a number of cultural sites, such as the Langkawi Sky Bridge, the Mahsuri Memorial, and the Langkawi Cable Car. The island is also home to monkeys, eagles, and otters, among other animals. This makes it a popular place for nature lovers and people who like to be outside. Langkawi is easy to get to by plane or ferry, and it has a well-developed tourism infrastructure with a range of places to stay, from cheap guesthouses to high-end resorts.

The land area of all the islands is 47,848 hectares. From north to south, the main island is about 25 kilometres long. From east to west, however, it is a bit longer. Langkawi is home to about 65,000 of the nearly 99,000 people who live there. Chinese, Indian, and Thai people make up most of the other groups. Most Malay people follow Islam. The other major religions are Hinduism (mostly among Indians), Buddhism (mostly among Chinese and Thais), and Christianity (mostly Chinese).

Langkawi Island is in the Andaman Sea, in the northwest corner of Malaysia. It is part of the state of Kedah and is about 30 kilometres off the coast of the Malaysian mainland in the northwest. Langkawi is close to the border between Thailand and Malaysia. The closest Thai island, Tarutao, is only 50 km to the northeast. The island is also close to Phuket and Krabi, two popular tourist destinations in Thailand. This makes it a popular stop for people travelling around the area. From Kuala Lumpur, the capital of Malaysia, it's easy to get to Langkawi Island. There are direct flights from Kuala Lumpur International Airport to Langkawi International Airport. The island is also easy to get to from other places in the area. There are regular ferry services between Langkawi and nearby islands, and there are also ferry services every day to the mainland.

Figure 3.2: Location of Pulau Langkawi on North-Western Coast Malaysia Map



Source: (Google Image, 2022).

3.7 Data Analysis Tools

There were many data analysis tools used in this research. Frequency analysis of samples for evaluating the respondent's demographic profile data, Cronbach's alpha, Pearson's assessment of correlation, and multiple regression constitute descriptive analysis. This study will use the Statistical Package for Social Scientists (SPSS) software for data analysis. Using SPSS, the researcher analyses and evaluates many types of data. This application can successfully manage large amounts of data to facilitate the assessment of data collection and tabulation for quantitative research. The collected data from the districts will subsequently be analysed by the software, which will then produce conclusions and summaries.

3.7.1 Pilot Test

The pilot test was characterised as a smaller study and the first phase of research to aid in the design and adjustment of the main study (Thabane et al., 2010). According to Bartlett (2013), the purpose of the pilot test was to establish the questionnaire's reliability and validity. Prior to collecting actual data, pilot testing may highlight any practical difficulties, identify necessary questionnaire design adjustments, and check the validity of the hypothesis testing study (Leon et al., 2011). The pilot test may reveal flaws and errors in the questionnaire, allowing for corrections to be made before the questionnaire is sent to respondents. Through the pilot test, recommendations and information from respondents would be collected to create the final survey questionnaire.

In the first step of this pilot test, a small sample of respondents will be evaluated to see if the questionnaire can collect the data required by the researcher. Due to time constraints and to maximise the questionnaire's validity and reliability, at least 30 individuals who had previously used Cuti Cuti Langkawi applications have been selected for the pilot study (Jarina et al., 2019). Consequently, the pilot test may be used to assess the questionnaire's validity and reliability. After collecting data, the researcher will revise the questionnaire so that respondents better comprehend the questions and provide more accurate responses.

3.7.2 Reliability

Saunders et al. (2016) defined reliability as "replication and consistency." Reliability was the examination of a process's ability to produce consistent and predictable results. There are several ways to measure reliability. Cronbach's alpha was used by the researchers to assess the dependability of the data. Cronbach's alpha is a statistic used to evaluate the reliability of research tests and scales. Cronbach's alpha is a coefficient of alpha with a value between 0 and 1. The Cronbach's alpha coefficient range and association strength are shown in Table 3.3. A Cronbach's alpha

of 0.70 or above was considered satisfactory. Cronbach's alpha levels over 0.8 are considered acceptable, while values above 0.9 are considered remarkable. If the Cronbach's alpha was below 0.6, it was declared insufficient; below 0.5, it was deemed unacceptable. This research will assess the dependability of four independent variables and one dependent variable.

Table 3.3: Cronbach's Alpha Coefficient Rang

Cronbach's Alpha Coefficient Range	Strength of Association
$\alpha \geq 0.9$	Excellent
$0.9 > \alpha \geq 0.8$	Good
$0.8 > \alpha \geq 0.7$	Acceptable
$0.7 > \alpha \geq 0.6$	Questionable
$0.6 > \alpha \geq 0.5$	Poor
$0.5 > \alpha$	Unacceptable

Source: (Saunders, Lewis and Thornhill, 2016)

3.7.3 Validity

According to Robert Heale and Alison Twycross (2015), validity is defined by the degree to which quantitative studies properly assess concepts. A high level of validity would indicate that the research yields a high level of confidence. When the study demonstrates a causal link between two variables, internal validity has been demonstrated. A questionnaire's internal validity would be demonstrated if a group of questions could be statistically connected with an analytical component or outcome. This research used questionnaires to examine the service quality and customer satisfaction in the mobile application travel sector at Jetty Point Langkawi, Kedah, Malaysia. To prevent validity risks, the researcher will conduct a pilot test on a small sample of the population. If the validity of the questionnaire is high, the researcher will continue to the real focus group.

3.7.4 Descriptive Analysis

In this study, descriptive statistics were utilized to summarize a significant quantity of information into a concise summary. According to Chan et al.,(2016), descriptive statistic includes distribution, variation, and tendency. Descriptive statistics may establish the basic aspects of the study, which are usually used for a regulated kind of quantitative description. The purpose of descriptive analysis in this study is to describe and compare statistical variables. The researcher can use the descriptive analysis to comprehend the numerical variables as well as the variables that are centered on the “demographic information” of the respondents. The most frequent data form displayed in descriptive statistics is Mean, Mode, and Medium. A descriptive study was once used to assemble a population and distribute it to several categories. A clearer explanation of a huge quantity of data is simplified from each descriptive statistic. The researcher used the descriptive analysis to distinguish the gender, age, race, educational level, and occupational among the respondent at Jetty Point Langkawi, Kedah

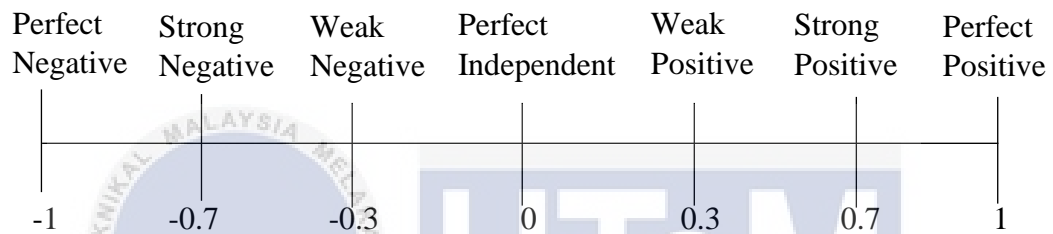
3.7.5 Pearson's Correlation Coefficient

Pearson's correlation coefficient (r) quantifies the strength of the relationship between two variables. In this study, the significance of the connection between the independent variables tangible, reliability, responsiveness, assurance, and empathy and the dependent variable customer satisfaction was determined using Pearson's association coefficient.

According to Saunders et al. (2016), Pearson's correlation coefficient runs from -1 to 1, denoting perfect negative and perfect positive correlations, respectively, while a value of 0 denotes an entirely independent relationship. The closer the value of r is to zero, the greater the divergence from the best-fit line. Then, the closer r is to +1 or -1, the lesser the divergence from the line of best fit. Figure 3.3 illustrates the variety of correlation coefficients and their rationale. The direction of the correlation indicates

the relevance of positive and negative signs. According to the positive linear correlation, an increase in the value of one variable will lead to an increase in the values of other variables. If the variable is increased to have a negative linear correlation, the correlation between other variables will decrease. When the correlation coefficient is 0, there is no linear relationship between the variables. Using a total of five variables, the relationship between four independent factors and one dependent variable will be examined in this research.

Figure 3.3: Pearson's Correlation Coefficient.



Source: (Saunders, Lewis and Tornhill, 2016)

3.7.6 Multiple Regression Analysis

Regression analysis is a statistical method for modelling the relationship between a dependent variable and one or more independent variables. Based on the values of the independent variables, it is used to make predictions about the dependent variable. Simple linear regression and multiple linear regression are the two main types of regression analysis. Simple linear regression models the relationship between a single independent variable and a dependent variable. Multiple linear regression models the relationship between multiple independent variables and a dependent variable.

Multiple Regression Analysis is a statistical method that enables researchers to evaluate the strength of a cause-and-effect relationship between two or more independent variables and one independent variable (Saunders et al., 2016). MRA

helped the researcher determine which tangible independent characteristics of service quality, such as reliability, responsiveness, assurance, and empathy, had the most impact on the dependent variable, customer satisfaction. Moreover, the equation below describes a multiple regression analysis:

$$\text{Equation: } Y = a + bX_1 + cX_2 + dX_3 + eX_4 + fX_5$$

Table 3.4: Equation of Multiple Regression Analysis.

Where:

A	Constant/ Other influences
B	Influence of X_1 (Tangible)
C	Influence of X_2 (Reliability)
D	Influence of X_3 (Responsiveness)
E	Influence of X_4 (Assurance)
F	Influence of X_5 (Empathy)
Y	Dependent Variable (Customer Satisfaction)
X_1, X_2, X_3, X_4, X_5	Independent Variables

Source: (Saunders, Lewis and Thornhill, 2016).

3.7.7 Statistical Package for Social Science (SPSS)

The Statistical Package for the Social Sciences (SPSS) was used to analyse and interpret the data in this study. SPSS is the most popular and user-friendly tool for statistical data analysis, manipulation, and presentation. Then, SPSS software was needed to decrease the researcher's workload and assist with proper data analysis in order to adequately examine the data from 400 respondents.

3.8 Time Horizon

Saunders et al. (2016) defined the temporal scope as the period necessary to conduct the investigation. The two types of temporal frameworks are cross-sectional research and longitudinal study. Due to the limited time available for data collection, analysis, and completion of this study, the researcher used a cross-sectional design. This is because the researcher has just eight months to complete the study. A cross-sectional study examines a phenomenon at a certain point in time. The bulk of research projects for academic courses are by nature time-sensitive (Saunders et al., 2016).

3.9 Summary

In Chapter 3, the methodology for this research study was devised and detailed in detail. The method of the research was explanatory, and a survey was used to collect quantitative data. The sample size focuses on customers in Jetty Point Langkawi, Kedah, Malaysia, and the response rate is around 400. A web-based questionnaire (Google Form) was used to collect data, and SPSS was used for data analysis. The researcher conducted pilot testing, reliability tests (Cronbach's alpha), validity tests, descriptive analysis, multiple regression analysis, and Pearson's correlation coefficient to establish the validity of the study's findings. The method was made so that the goals of the study could be met and so that the results would be valid and reliable.

CHAPTER 4

DATA ANALYSIS

4.1 Introduction

This chapter will discuss data analysis, including the normality test, descriptive analysis, correlation analysis, and checking for multiple regression. Each analysis will investigate and respond to the research questions. In the normality test, if the samples are regularly distributed, the parametric method will be utilised for further analysis; otherwise, the non-parametric approach will be employed. The descriptive analysis will detail the respondents' demographic characteristics. Validity and reliability are crucial in determining if the obtained samples are valid and consistent; consequently, Cronbach's alpha will be used to determine reliability.

4.2 Descriptive Analysis

The questionnaire was circulated by online to the public. A total of 400 questionnaires were obtained for usage. All of them were available Questionnaires collected from online questionnaires. No data was missing. The key purpose of the concise research is to consider the context of the respondent. A summary of the analysis of the description is shown in table below

Table 4.1: Frequency and Percentage of Age

AGE					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	18 years old and below	52	13.0	13.0	13.0
	19 - 23 years old	153	38.3	38.3	51.2
	24 - 28 years old	82	20.5	20.5	71.8
	29 - 33 years old	63	15.8	15.8	87.5
	34 years old and above	50	12.5	12.5	100.0
	Total	400	100.0	100.0	

(Source: SPSS Output)

Figure 4.1: Graph of Age

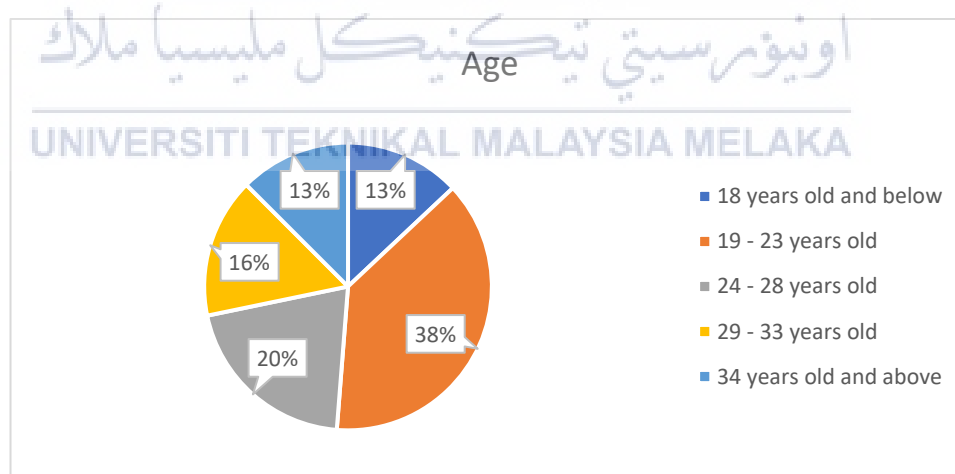


Table 4.1 and Figure 4.1 shows the frequency and percentage of respondents' age. From 400 respondents, the dominant respondents were in age within 19 years – 23 years consists of 38.3% (153 respondents). The second highest number of respondents who had participated in this survey were aged within 24 years – 28 years old consists of 20.5% (82 respondents). The third highest number of respondents were

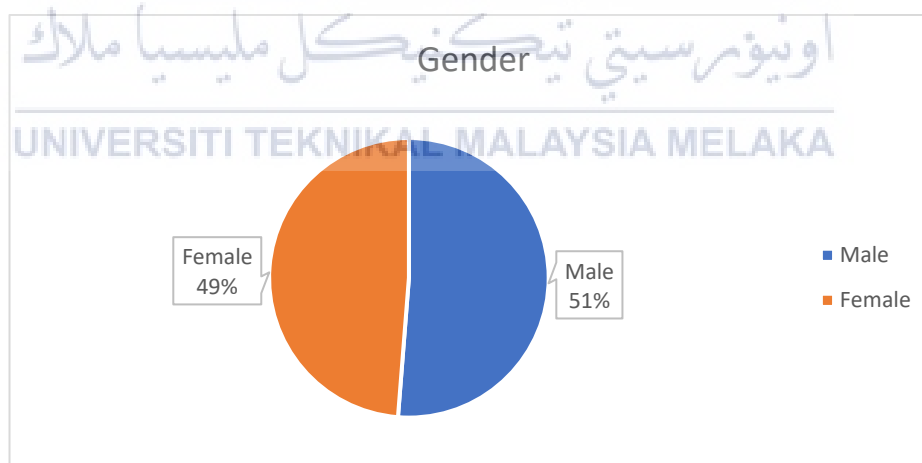
aged within 29 years – 33 years old consists of 15.8% (63 respondents). There were 13.0% (52 respondents) were aged between 18 years and below. The minority respondents were in aged group of 34 years – above consists 12.5% (50 respondents).

Table 4.2: Frequency and Percentage of Gender

GENDER					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Male	205	51.2	51.2	51.2
	Female	195	48.8	48.8	100.0
	Total	400	100.0	100.0	

(Source: SPSS Output)

Figure 4.2: Graph of Gender

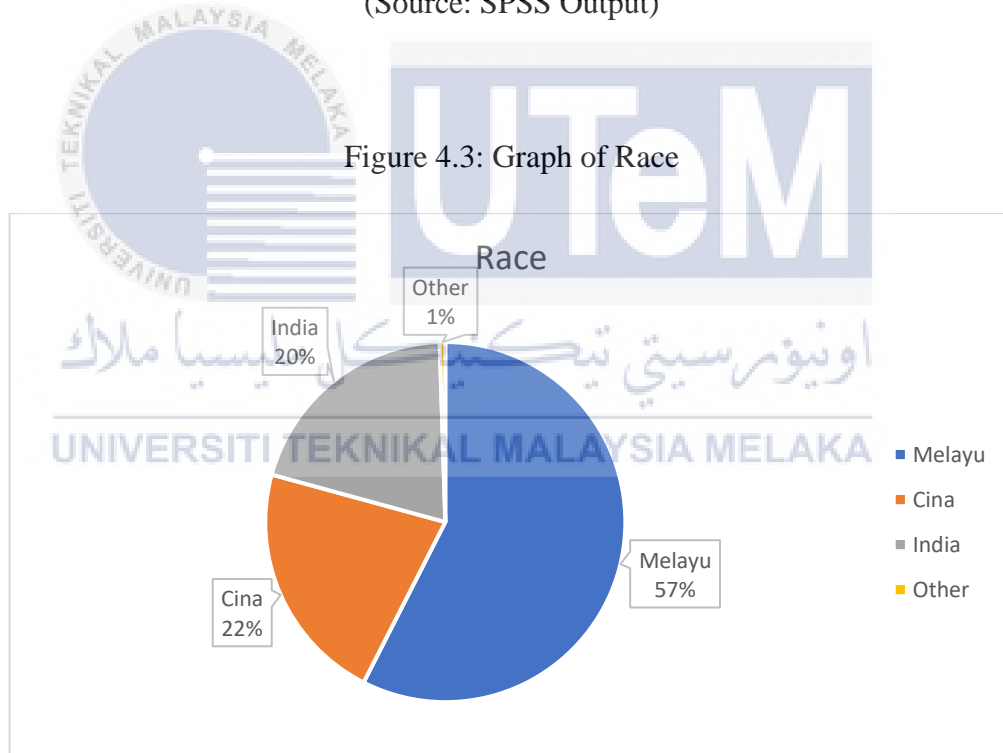


Based on Table 4.2 and Figure 4.2 showed the total number of 400 respondents. The dominant respondent was male which consists of 51% (205 respondents) while the rest were female respondents with 49% (195 respondents).

Table 4.3: Frequency and Percentage of Race

RACE					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Melayu	230	57.5	57.5	57.5
	Cina	87	21.8	21.8	79.3
	India	81	20.3	20.3	99.5
	Other	2	.5	.5	100.0
	Total	400	100.0	100.0	

(Source: SPSS Output)



The Table 4.3 and Figure 4.3 indicate the frequency and percentage of respondents' race. Malay was the major respondents consists of 57.5% (230 respondents) out of the 400 respondents. Cina consists of 21.8% (87 respondents) while Indian with 20.3% (81 respondents). The rest was others respondents consists of 0.5% (2 respondents)

Table 4.4: Frequency and Percentage of Marital Status

MARITAL STATUS					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Married	177	44.3	44.3	44.3
	Single	223	55.8	55.8	100.0
	Total	400	100.0	100.0	

(Source: SPSS Output)

Figure 4.4: Graph of Marital Status

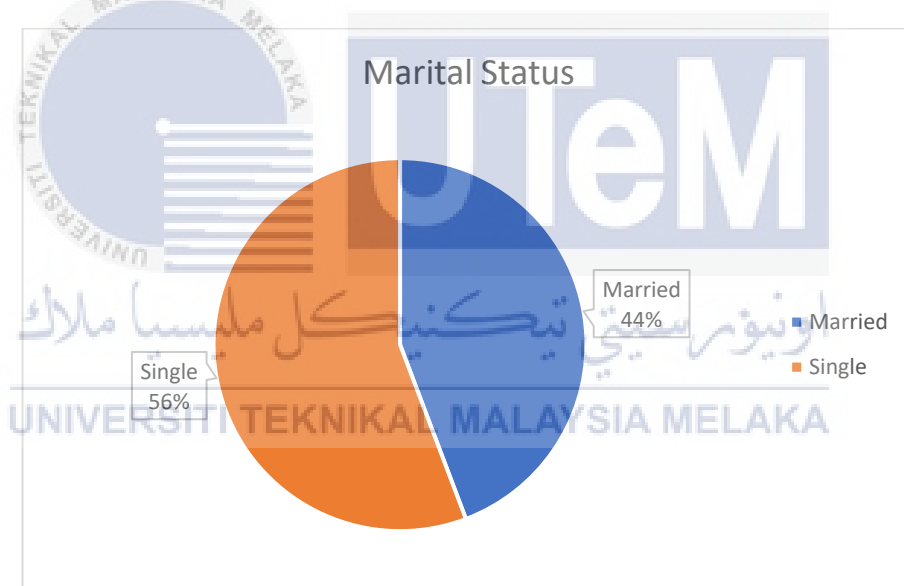
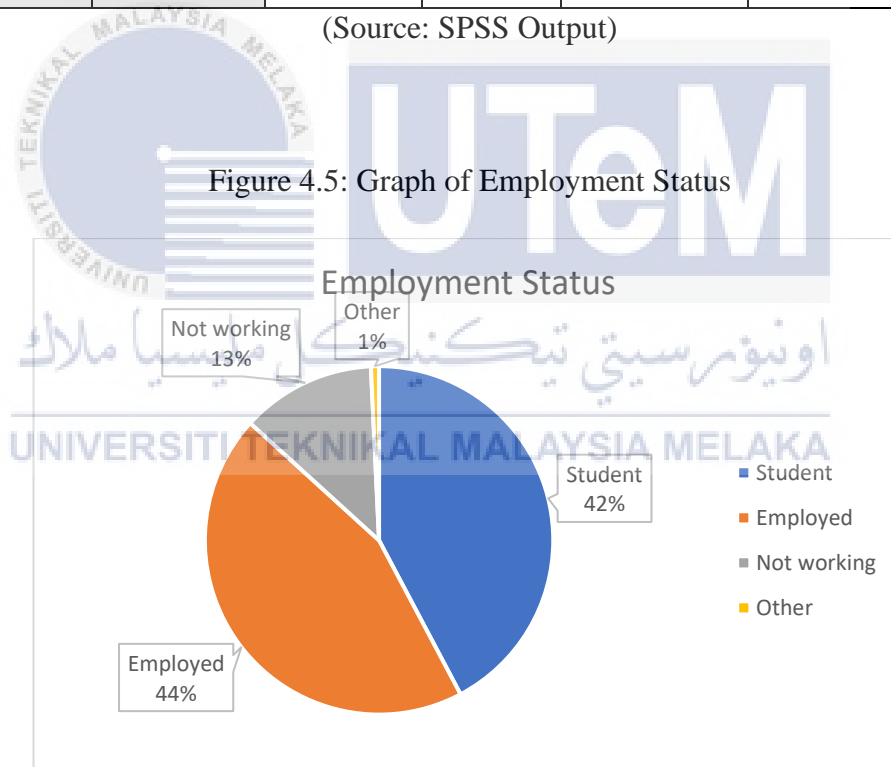


Table 4.4 and Figure 4.4 indicate the frequency and percentage of respondents' marital status. The respondents who are single are the highest, with 223 respondents making up 56% of the total respondents. The rest of the respondents who are married are about 44% or 177 respondents.

Table 4.5: Frequency and Percentage of Employment Status

EMPLOYMENT STATUS					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Student	169	42.3	42.3	42.3
	Employed	178	44.5	44.5	86.8
	Not working	50	12.5	12.5	99.3
	Other	3	.8	.8	100.0
	Total	400	100.0	100.0	

(Source: SPSS Output)



The Table 4.5 and Figure 4.5 indicate the frequency and percentage of respondents' employment status. Employed was the major respondents consists of 44.5% (178 respondents) out of the 400 respondents. Student consists of 42.3% (169 respondents) while not working with 12.5% (50 respondents). The rest was others respondents consists of 0.8% (3 respondents).

4.3 Reliability Test for Pilot Test

The reliability test determines if a scale demonstrates an absence of random error. Consequently, a measure's dependability reflects the degree to which it ensures consistent computation throughout time and among distinct objects inside the instruments. Cronbach's alpha coefficient testing was done to evaluate the effectiveness of the scale instrument used in this study. In this research, the Cronbach's alpha coefficient was applied to each variable to determine the internal consistency of the survey's scales. The pilot test has been conducted, and 30 UTeM respondents have been given the questionnaire. The Cronbach Alpha value for the growing vector is shown in the table below.

Table 4.6 Reliability Statistics

Case Processing Summary			
		N	%
Cases	Valid	30	100.0
	Excluded ^a	0	.0
	Total	30	100.0

a. Listwise deletion based on all variables in the procedure.

Reliability Statistics		
Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.979	.980	26

Table 4.6 displays the Cronbach Alpha findings for the Independent Factor, task based, and evaluate total. This test is used for testing the data to receive the data either accurate or not. The higher value 0.8 deemed quite strong reliability while reasonable results span 0.7 and 0.8. The independent variable review of outcomes was 0.980. This shows the Cronbach's are very good and perfect for independent variables.

The data is thus deemed to have been accurate. Furthermore, the Cronbach Alpha for firm results shows 0.979 which is the outcome is stability and very nice and the Cronbach Alpha average between the dependent variable was very strong as well. Consequently, the questions used in this research were deemed reliable and valid.

4.4 Descriptive Statistics on Independent Variables and Dependent Variable

The researcher used five points Likert Scale to identify the most effective factor mobile application travel Cuti Cuti Langkawi among in Jetty Point Langkawi, Kedah. The Likert Scale will be five points rating scale in which 1 represent strongly disagree, 2 represented disagree, 3 represented neutral, 4 represented agree and 5 represented strongly agree.

Table 4.7 Descriptive statistics for independent variable

Descriptive Statistics					
	N	Minimum	Maximum	Mean	Std. Deviation
Tangible	400	1.00	5.00	4.2444	1.00491
Reliability	400	1.00	5.00	4.2075	1.01804
Responsiveness	400	1.00	5.00	4.2244	1.00662
Assurance	400	1.00	5.00	4.2055	1.00189
Empathy	400	1.00	5.00	4.2037	1.03436
Valid N (listwise)	400				

Table 4.7 illustrated that the descriptive statistics analysis for the independent variables which were tangible, reliability, responsiveness, assurance, and empathy. Tangible has the highest value of mean which was 4.2444, then followed by responsiveness in the second highest place and place which is 4.2244. Reliability was

in the third highest place with a mean value of 4.2075, while assurance was in fourth place which has a mean value of 4.2055. Therefore, the lowest value of mean falls on empathy which was 4.2037. Empathy has the highest value of standard deviation which was 1.03436., while the second highest value of standard deviation value was reliability which was 1.01804. Responsiveness was in the third highest place of standard deviation which was 1.00662, while tangible was in fourth place which has a standard deviation of 1.00491. The lowest standard deviation falls on assurance which was 1.00189.

Table 4.8 Descriptive statistics of dependent variable

Descriptive Statistics					
	N	Minimum	Maximum	Mean	Std. Deviation
Customer Satisfaction	400	1.00	5.00	4.2200	1.02049
Valid N (listwise)	400				

Table 4.8 shows that the descriptive statistics for the dependent variable which is the service quality for customer satisfaction in the mobile application travel. The mean value for the dependent variable is 4.2200 while the standard deviation value is 1.02049.

4.4.1 Descriptive Statistics of Independent Variable 1 (IV1)

Table 4.9 Descriptive Statistics of Tangible

Statistics					
		TG 1	TG 2	TG 3	TG 4
N	Valid	400	400	400	400
	Missing	0	0	0	0

Mean	4.2475	4.2375	4.2175	4.2750
Median	5.0000	5.0000	5.0000	5.0000
Mode	5.00	5.00	5.00	5.00
Std. Deviation	1.08821	1.05064	1.09919	1.05696

Remark

TG 1: The mobile app cuti cuti langkawi have modern features in a tourism app.

TG 2: The material associated with this service is visually appealing in the mobile app cuti cuti Langkawi.

TG 3: You feel about the new app design from cuti cuti Langkawi.

TG 4: Ferry tickets easy to buy when using mobile apps?

The table 4.9 shows that the characteristics of tangible acting as the most effective factor using mobile application travel Cuti Cuti Langkawi among in jetty point Langkawi, Kedah.

Based on the table 4.9, it shows that the value of mean of every item is quite nearest to each other. The highest value of mean was scored by question TG 4 with the value of 4.2750, most of the respondents are believed that ferry tickets easy to buy when using mobile apps because they not need go to buy at the counter ticket ferry. The second highest values of mean were scored by question TG 1 with the value of 4.2475. The third highest value of mean was scored by question TG 2 with the value of 4.2375. However, the lowest value of mean was scored by question TG 3 with the value of 4.2175, it has the lowest mean value because respondents disagree about the design of the new application from cuti-cuti Langkawi did not bring any significant changes after updating the application.

The highest standard deviation value was score by question TG 3 with the value of 1.09919. The question TG 3 has the highest showed that the data points close to the mean of the data set. The second highest standard value was score by question TG 1 with the value of 1.08821. While, the third highest standard value was score by

question TG 4 with the value of 1.05696. The lowest standard deviation value was score by question TG 2 with the value of 1.05064

4.4.2 Descriptive Statistics of Independent Variable 2 (IV2)

Table 4.10 Descriptive Statistics of Reliability

		Statistics			
		RB 1	RB 2	RB 3	RB 4
N	Valid	400	400	400	400
	Missing	0	0	0	0
Mean		4.2075	4.2325	4.2200	4.1700
Median		5.0000	5.0000	5.0000	5.0000
Mode		5.00	5.00	5.00	5.00
Std. Deviation		1.13254	1.06361	1.08838	1.09960

Remark

RB 1: Mobile app cuti cuti Langkawi shows the price posted is the same as the counter price.

RB 2: This application makes it easy for me to update my account details

RB 3: Using the existing features, the mobile application helps you achieve your goals.

RB 4: The app cuti cuti langkawi made it easy for me to resolve my support question.

The table 4.10 shows that the characteristics of reliability acting as the most effective factor using mobile application travel Cuti Cuti Langkawi among in jetty point Langkawi, Kedah.

Based on the table 4.10, it shows that the value of mean of every question is quite nearest to each other. The highest value of mean was scored by question RB 2

with the value of 4.2325, most respondents agree that this application makes it easy for me to update my account details without buffering. The second highest value of mean was scored by question RB 3 which was 4.2200. The third highest value of mean was scored by question RB 1 with the value of 4.2075. However, the lowest value mean was scored by question RB 4 with the value of 4.1700, it has the lowest mean value because the respondents disagree that the cuti-cuti Langkawi application makes it easier for me to solve my support questions. Therefore, it leads to questions that do not provide useful answers.

The highest standard deviation value was score by question RB 1 with the value of 1.13254. The question RB 1 has the highest showed that the data points close to the mean of the data set. The second highest standard value was score by question RB 4 with the value of 1.09960. While, the third highest standard value was score by question RB 3 with the value of 1.08838. The lowest standard deviation value was score by question RB 2 with the value of 1.6361. The question RB 2 has the lowest value indicates that the data points are spread out over.

4.4.3 Descriptive Statistics of Independent Variable 3 (IV3)

Table 4.11 Descriptive Statistics of Responsiveness

Statistics					
		RS 1	RS 2	RS 3	RS 4
N	Valid	400	400	400	400
	Missing	0	0	0	0
Mean		4.1850	4.2300	4.2700	4.2125
Median		5.0000	5.0000	5.0000	5.0000
Mode		5.00	5.00	5.00	5.00

Std. Deviation	1.13755	1.06062	1.05351	1.06780
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Remark

RS 1: Satisfied were you with our support and support personnel from apps cuti cuti Langkawi.

RS 2: The customer service of the mobile app cuti cuti langkawi can gives you prompt service.

RS 3: You feel safe in your transaction with the mobile app cuti cuti langkawi because you will receive receipts in your email.

RS 4: Customer service of the mobile app cuti cuti langkawi will tell you exactly when services will be performed

The table 4.11 shows that the characteristics of responsiveness acting as the most effective factor using mobile application travel Cuti Cuti Langkawi among in jetty point Langkawi, Kedah.

Based on the table 4.11, it shows that the value of mean of every question is quite nearest to each other. The highest value of mean was scored by question RS 3 with the value of 4.2700, most respondents agree that you feel secure in your transactions with the Langkawi holidays mobile application because you will receive a receipt in your email as proof of your purchase. The second and third highest value of mean was scored by question RS 2 and RS 4 with the value of 4.2300 and 4.2125. However, the lowest value mean was scored by question RS 1 with the value of 4.1850. It has the lowest mean value because respondents disagree that you are satisfied with our support and support staff from cuti-cuti Langkawi apps provided by the application.

The highest standard deviation value was score by question RS 1 with the value of 1.13755. The question RS 1 has the highest value showed that the data points close to the mean of the data set. The second highest standard value was score by question RS 4 with the value of 1.06780. While, the third standard value was score by question

RS 2 with the value of 1.06062. The lowest standard deviation value was score by question RS 3 with the value of 1.05351.

4.4.4 Descriptive Statistics of Independent Variable 4 (IV 4)

Table 4.12 Descriptive Statistics of Assurance

Statistics						
		AS 1	AS 2	AS 3	AS 4	AS 5
N	Valid	400	400	400	400	400
	Missing	0	0	0	0	0
Mean		4.1975	4.1775	4.2000	4.2200	4.2325
Median		5.0000	5.0000	5.0000	5.0000	5.0000
Mode		5.00	5.00	5.00	5.00	5.00
Std. Deviation		1.10524	1.08810	1.07372	1.03406	1.07066

Remark

AS 1: Customer service of the mobile app cuti cuti langkawi are never too busy to respond to your requests

AS 2: Customer service of the mobile app cuti cuti langkawi is always willing to help you.

AS 3: Customer service of the mobile app cuti cuti langkawi give you prompt service.

AS 4: You feel safe in your transaction with the mobile app cuti cuti langkawi.

AS 5: Customer service of the mobile app cuti cuti langkawi tell you exactly when services will be performed.

The table 4.12 shows that the characteristics of assurance acting as the most effective factor using mobile application travel Cuti Cuti Langkawi among in jetty point Langkawi, Kedah.

Based on the table 4.12, it shows that the value of mean of every question is quite nearest to each other. The highest value of mean was scored by question AS 5 with the value of 4.2325, most respondents agree that the customer service of the Langkawi holiday mobile application tells you exactly when the service will be implemented, however there are still problems with service interruptions. The second and third highest value of mean was scored by question AS 4 and AS 3 with the value of 4.2200 and 4.2000. The fourth highest value of mean was scored by AS 1 with the value of 4.1975. However, the lowest value mean was scored by question AS 2 with the value of 4.1775. It has the lowest mean value as respondents were less agreed that customer service of the mobile app cuti cuti langkawi is always willing to help you.

The highest standard deviation value was score by question AS 1 with the value of 1.10524. The question AS 1 has the highest value showed that the data points close to the mean of the data set. The second highest standard value was score by question AS 2 with the value of 1.08810. While, the third and fourth highest standard value was score by question AS 3 then followed by question AS 5 with the value of 1.07372 and 1.07066. The lowest standard deviation value was score by question AS 4 with the value of 1.03406.

4.4.5 Descriptive Statistics of Independent Variable 5 (IV5)

Table 4.13 Descriptive Statistics of Empathy

Statistics					
		EP 1	EP 2	EP 3	EP 4
N	Valid	400	400	400	400
	Missing	0	0	0	0

Mean	4.2100	4.1975	4.1925	4.2150
Median	5.0000	5.0000	5.0000	5.0000
Mode	5.00	5.00	5.00	5.00
Std. Deviation	1.09494	1.09613	1.07626	1.11215

Remark

EP 1: The mobile app cuti cuti langkawi has customer service that gives you personal attention.

EP 2: The mobile app cuti cuti langkawi has your best interest at heart.

EP 3: Customer service of the mobile app cuti cuti langkawi understand your specific needs.

EP 4: Customer service of the mobile app cuti cuti langkawi have the knowledge to answer your questions

The table 4.13 shows that the characteristics of empathy acting as the most effective factor using mobile application travel Cuti Cuti Langkawi among in jetty point Langkawi, Kedah.

Based on the table 4.13, it shows that the value of mean of every question is quite nearest to each other. The highest value of mean was scored by question EP 4 with the value of 4.2150, most of the respondents were agreed that customer service of the mobile app cuti cuti langkawi have the knowledge to answer your questions. The second and third highest value of mean was scored by question EP 1 and EP 2 with the value of 4.2100 and 4.1975. However, the lowest value mean was scored by question EP 3 with the value of 4.1925. It has the lowest mean value as respondents were less agreed that customer service of the mobile app cuti cuti langkawi understand your specific needs.

The highest standard deviation value was score by question EP 4 with the value of 1.11215. The question EP 4 has the highest value showed that the data points close to the mean of the data set. The second highest standard value was score by question

EP 2 with the value of 1.09613. While, the third standard value was score by question EP 1 with the value of 1.09494. The lowest standard deviation value was score by question EP 3 with the value of 1.07626.

4.4.6 Descriptive Statistics of Dependent Variable (DV)

Table 4.14 Descriptive Statistics of Customer Satisfaction

Statistics						
		CS 1	CS 2	CS 3	CS 4	CS 5
N	Valid	400	400	400	400	400
	Missing	0	0	0	0	0
Mean		4.2075	4.2000	4.2100	4.2100	4.2725
Median		5.0000	5.0000	5.0000	5.0000	5.0000
Mode		5.00	5.00	5.00	5.00	5.00
Std. Deviation		1.15011	1.08070	1.08575	1.07647	1.11865

Remark

CS 1: Customer service met my expectations

CS 2: Mobile app cuti cuti langkawi offers the services with utmost accuracy and confidence.

CS 3: Staff characterized by professionalism that enhances customer satisfaction.

CS 4: I am satisfied with the quality of the mobile app cuti cuti langkawi services.

CS 5: In future plan to use again the mobile app cuti cuti langkawi and recommend it to colleagues and family.

The table 4.14 shows that the service quality for customer satisfaction in the mobile application travel. Based on the table 4.14, it shows that the value of mean and standard deviation of every question is near to each other.

The highest value of mean was scored by question CS 5 with the value of 4.2725, most of the respondents were agreed that in future plan to use again the mobile app cuti cuti langkawi and recommend it to colleagues and family. The second and third highest value of mean was scored by question CS 3 and CS 4 is equivalent value of 4.2100. The fourth highest value of mean was scored by CS 1 with the value of 4.2075. However, the lowest value mean was scored by question CS 2 with the value of 4.2000. It has the lowest mean value as respondents were less agreed that mobile app cuti cuti langkawi offers the services with utmost accuracy and confidence.

The highest standard deviation value was score by question CS 1 with the value of 1.15011. The question CS 1 has the highest value showed that the data points close to the mean of the data set. The second highest standard value was score by question CS 5 with the value of 1.11865. While, the third and fourth highest standard value was score by question CS 3 then followed by question CS 2 with the value of 1.08575 and 1.08070. The lowest standard deviation value was score by question CS 4 with the value of 1.07647.

4.5 Result of Measurement

It this section, it will give an act to researcher to observe the relationship among all independent variables and dependent variable which is applied in this research. In this research, all the variables that had been used will be test by the validity test and the reliability test.

4.5.1 Validity Test

Validity test was conducted with Pearson Correlation which is to describe the relationship between independent variables and dependent variable. Saunders et. al. (2016) mentioned that the strength of relationship between independent variables and dependent variables can be identified by correlation coefficient. Table 4.13 below shows that the Pearson's Correlation Coefficients for the interpreting correlation range of the R-Values.

Table 4.15 Range of Pearson's Correlation Coefficients and the Interpretation

Pearson's Correlation Coefficient (R-values)	Interpretation
± 0.70 to ± 1.0	Very strong relationship
± 0.40 to ± 0.69	Strong relationship
± 0.30 to ± 0.39	Moderate relationship
± 0.20 to ± 0.29	Weak relationship
± 0.01 to ± 0.19	No relationship

Table 4.16 Correlations between variables

Correlations							
		Tangible	Reliability	Responsiveness	Assurance	Empathy	Customer Satisfaction
Tangible	Pearson Correlation	1	.922**	.932**	.915**	.924**	.901**
	Sig. (2-tailed)		.000	.000	.000	.000	.000
	N	400	400	400	400	400	400

Reliability	Pearson Correlation	.922**	1	.923**	.954**	.903**	.881**
	Sig. (2-tailed)	.000		.000	.000	.000	.000
	N	400	400	400	400	400	400
Responsiveness	Pearson Correlation	.932**	.923**	1	.923**	.906**	.886**
	Sig. (2-tailed)	.000	.000		.000	.000	.000
	N	400	400	400	400	400	400
Assurance	Pearson Correlation	.915**	.954**	.923**	1	.914**	.883**
	Sig. (2-tailed)	.000	.000	.000		.000	.000
	N	400	400	400	400	400	400
Empathy	Pearson Correlation	.924**	.903**	.906**	.914**	1	.876**
	Sig. (2-tailed)	.000	.000	.000	.000		.000
	N	400	400	400	400	400	400
Customer	Pearson Correlation	.901**	.881**	.886**	.883**	.876**	1

Satisfaction	Sig. (2-tailed)	0.000	.000	.000	.000	.000	
	N	400	400	400	400	400	400

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

Table 4.16 shows the correlations between the independent variables and dependent variable. The independent variables in this research are tangible, reliability, responsiveness, assurance, and empathy while the dependent variable is customer satisfaction in the mobile application travel. The correlation of tangible, reliability, responsiveness, assurance, and empathy were categorized as strong positive relationship towards customer satisfaction in the mobile application travel as the correlation value are 0.901, 0.881, 0.886, 0.883, 0.876 respectively.

Based on table 4.16, the correlation value for the customer satisfaction expectancy is 0.901 with a significant level of 0.000 ($p < 0.01$). This showed that there was a strong relationship between tangible and customer satisfaction. Secondly, the correlation between reliability and customer satisfaction was 0.881 with a significant level 0.000 ($p < .01$), this showed that there was a strong relationship between reliability and customer satisfaction. Thirdly, the correlation between responsiveness and customer satisfaction was 0.886 with a significant level of 0.000 ($p < .01$), this showed that there was a strong relation between responsiveness and customer satisfaction. Next, the correlation between assurance and customer satisfaction was 0.883 with a significant level of 0.000 ($p < .01$), this showed that there was a strong relationship between assurance and customer satisfaction. Lastly, the correlation between empathy and customer satisfaction was 0.876 with a significant level of 0.000 ($p < .01$), this showed that there was a strong relationship between empathy and customer satisfaction.

In conclusion, based on the Table 4.15, there were positive and strong relation relationship between the five independent variables and one dependent variable which showed that all the independent variables were correlated to the dependent variable.

4.5.2 Reliability Test

Saunders et. al (2016) define the reliability as the replication and consistency. The researcher used the Cronbach's Alpha method to measure the reliability while level of reliability was analyzed by the range of values in Cronbach's Alpha Coefficient. Table 4.15 below shows that the Cronbach's Alpha coefficient range and the strength of association.

Table 4.17 Cronbach's Alpha Coefficient Range and Strength of Association

Cronbach's Alpha Coefficient Range	Strength of Association
$\alpha \geq 0.9$	Excellent
$0.9 > \alpha \geq 0.8$	Good
$0.8 > \alpha \geq 0.7$	Acceptable
$0.7 > \alpha \geq 0.6$	Questionable
$0.6 > \alpha \geq 0.5$	Poor
$0.5 > \alpha$	Unacceptable

Table 4.18 Reliability Test for Independent Variables and Dependent Variable

Case Processing Summary			
		N	%
Cases	Valid	400	100.0
	Excluded ^a	0	.0
	Total	400	100.0

a. Listwise deletion based on all variables in the procedure.

Reliability Statistics		
Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.990	.990	26

The table 4.18 above showed the reliability test for the both dependent variable and independent variables for this research. The total of question was 26 questions which were 21 questions for five independent variables and 5 questions for one dependent variable. The Cronbach Alpha value on these questions was 0.990. Based on the table of Cronbach's Alpha coefficient range and strength of association, these questions were excellent and has high reliable.

4.6 Hypothesis Testing

In this research, the hypothesis testing is needed to test either the constructed hypothesis is accepted or rejected. The researcher used the Multiple Regression Analysis to conduct the hypothesis testing. It consists of three sections in the Multiple Regression Analysis, which is Model Summary, ANOVA and coefficient.

Table 4.19 Multiple Regression Analysis (Model Summary)

Model Summary ^b					
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	.916 ^a	.840	.838	.41106	2.020
a. Predictors: (Constant), Empathy, Reliability, Responsiveness, Tangible, Assurance					
b. Dependent Variable: Customer Satisfaction					

Table 4.19 shows that the result of model summary demonstrated that the relationship between the independent variables and dependent variable. The value of correlation coefficient(R) was 0.916, which it means that there was strong relation between the variables.

Therefore, the value of coefficient of determinant(R Square) was 0.840 which indicates the customer satisfaction 84.0% affected by tangible, reliability, responsiveness, assurance, and empathy. Another 16.0% influenced by the other factors that are not been done in this research.

4.6.1 Multiple Regression Analysis (ANOVA)

Table 4.20 Multiple Regression Analysis (ANOVA)

ANOVA ^a						
Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	348.945	5	69.789	413.020	.000 ^b
	Residual	66.575	394	.169		
	Total	415.520	399			
a. Dependent Variable: Customer Satisfaction						
b. Predictors: (Constant), Empathy, Reliability, Responsiveness, Tangible, Assurance						

Based on the Table 4.20 above, the result of F-test value was 413.020 with a significant level $p=0.000(p<0.05)$. The F-test value was 413.020 which showed that a higher value, it indicated that the overall regression is a good fit for the data and can

conclude that there was a significant relationship between independent variables and dependent variable. The factor of independent variables of tangible, reliability, responsiveness, assurance, and empathy influenced the customer satisfaction in the mobile application travel. Moreover, the null hypothesis would be rejected because the significant level of regression model is less than 0.05.

4.6.2 Multiple Regression Analysis (Coefficients)

Table 4.21 Multiple Regression Analysis (Coefficients)

Coefficients ^a						
Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	.191	.091		2.091	.037
	Tangible	.379	.069	.373	5.506	.000
	Reliability	.105	.075	.105	1.403	.161
	Responsiveness	.169	.066	.167	2.554	.011
	Assurance	.162	.077	.159	2.111	.035
	Empathy	.139	.059	.141	2.371	.018
a. Dependent Variable: Customer Satisfaction						

Table 4.21 above indicates that the result of the coefficient for multiple regression analysis. The beta value of tangible was 0.373 with the significant value of 0.000, while the beta value of reliability was 0.105 with significant value of 0.161. Next, the beta value of responsiveness was 0.167 with significant value of 0.011, while

the beta value of assurance was 0.159 with significant value of 0.035 and lastly the beta value of empathy was 0.141 with the significant value of 0.018. Based on beta, four variables have a positive relationship, and one variable are negative sign with energy conservation. The constant is 0.370. Tangible has the highest beta value that was 0.373 compared with the other four variables, so it shows that tangible has the greatest effect on the factors that most influence mobile application travel Cuti Cuti Langkawi on consumer understanding in Malaysia

Based on table 4.18, the linear equation was developed as below:

$$Y = 0.191 + 0.379X_1 + 0.105X_2 + 0.169X_3 + 0.162X_4 + 0.139X_5$$

Where:

Y = Customer Satisfaction

X₁ = Tangible

X₂ = Reliability

X₃ = Responsiveness

X₄ = Assurance

X₅ = Empathy

Based on the linear equation above, there was a strong relation between the tangible, reliability, responsiveness, assurance, and empathy on customer satisfaction in the mobile application travel.

4.6.3 Summary of Hypothesis

Hypothesis 1: Tangible

H1o: There is no significant relationship between tangible using the service quality for customer satisfaction in the mobile application travel at Jetty Point Langkawi, Kedah.

H1a: There is a significant relationship between tangible using the service quality for customer satisfaction in the mobile application travel at Jetty Point Langkawi, Kedah.

From the table 4.21, the result of regression of tangible against the service quality for the customer satisfaction sector in the mobile application travel was shown. The significant value of tangible was $0.000 < 0.05$, so it can be assumed that tangible has the significant relationship on customer satisfaction sector in the mobile application travel. Therefore, the researcher accepted the alternative hypothesis (H1a) and rejected the null hypothesis (H1o).

Hypothesis 2: Reliability

H2o: There is no significant relationship between reliability using the service quality for customer satisfaction in the mobile application travel at Jetty Point Langkawi, Kedah.

H2a: There is a significant relationship between reliability using the service quality for customer satisfaction in the mobile application travel at Jetty Point Langkawi, Kedah.

From the table 4.21, the result of regression of reliability against the service quality for the customer satisfaction sector in the mobile application travel was shown. The significant value of reliability was $0.161 > 0.05$, so it can be assumed that reliability has the significant relationship on customer satisfaction in the mobile application travel. Therefore, the researcher rejected the alternative hypothesis (H2a) and accepted the null hypothesis (H2o).

Hypothesis 3: Responsiveness

H3o: There is no significant relationship between responsiveness using the service quality for customer satisfaction in the mobile application travel at Jetty Point Langkawi, Kedah.

H3a: There is a significant relationship between responsiveness using the service quality for customer satisfaction in the mobile application travel at Jetty Point Langkawi, Kedah.

From the table 4.21, the result of regression of responsiveness against the service quality for the customer satisfaction sector in the mobile application travel was shown. The significant value of responsiveness was $0.011 < 0.05$, so it can be assumed that responsiveness has the significant relationship on customer satisfaction in the mobile application travel. Therefore, the researcher accepted the alternative hypothesis (H3a) and rejected the null hypothesis (H3o).

Hypothesis 4: Assurance

H4o: There is no significant relationship between assurance using the service quality for customer satisfaction in the mobile application travel at Jetty Point Langkawi, Kedah.

H4a: There is a significant relationship between assurance using the service quality for customer satisfaction in the mobile application travel at Jetty Point Langkawi, Kedah.

From the table 4.21, the result of regression of assurance against the service quality for the customer satisfaction sector in the mobile application travel was shown. The significant value of assurance was $0.035 < 0.05$, so it can be assumed that assurance has the significant relationship on customer satisfaction in the mobile application travel. Therefore, the researcher accepted the alternative hypothesis (H4a) and rejected the null hypothesis (H4o).

Hypothesis 5: Empathy

H5o: There is no significant relationship between empathy using the service quality for customer satisfaction in the mobile application travel at Jetty Point Langkawi, Kedah.

H5a: There is a significant relationship between empathy using the service quality for customer satisfaction in the mobile application travel at Jetty Point Langkawi, Kedah.

From the table 4.21, the result of regression of empathy against the service quality for the customer satisfaction sector in the mobile application travel was shown. The significant value of empathy was $0.018 < 0.05$, so it can be assumed that empathy has the significant relationship on customer satisfaction in the mobile application travel. Therefore, the researcher accepted the alternative hypothesis (H5a) and rejected the null hypothesis (H5o).

4.7 Conclusion

In this chapter, all of the collected data was analysed by the researcher using SPSS version 26 software, and the results were shown in tables and figures. Descriptive statistics, validity test reliability testing and hypotheses testing had been done to analyse the data collected in this chapter. All of the hypotheses turned out to be true, the researcher found.

CHAPTER 5

DISCUSSION AND CONCLUSION

5.0 Introduction

In this chapter, the researcher found out what people thought about the research's conclusion. But it did include some results to help figure out what to conclude about Chapter 4 and an analysis of suggestions for what to use as a guide for future research. Aside from that, the researcher will talk about the data and results of the study that were looked at. In this chapter, we will talk about the part about demographics, the research goals, the implications of the study, the limits of the study, and suggestions for future research.

5.1 Summary of Study

The goal of this study was to look at the quality of service in the customer satisfaction sector of the travel app Cuti-Cuti Langkawi. In this research, there were five independent variables which are tangible, reliability, responsiveness, assurance, and empathy which influence the customer satisfaction in the mobile application travel.

5.2 Discussion on Demographic Background

The total of the respondents for this research were 400 respondents. The range of age for the respondents which were answering the questionnaire is between 18 years old and below to 34 years old and above. First of all, the most of the respondents are between 19 to 23 years old, which are 153 respondents made up of (38.3 %) from the total of respondents. Secondly, 82 respondents are between 24 to 28 years old with (20.5%) of the total of all respondents. Thirdly, 63 respondents are between 29 to 33 years old with (15.8%) of the total of all respondents. Fourthly, 52 respondents are between 18 years old and below with (13.0%) of the total of all respondents. Lastly, 50 respondents are between 34 years old and above which is (12.5%) from the total of respondents.

Next, for the gender the total for male was 205 respondents (51.2 %) from the total higher than the number of females which were 195 respondents (48.8 %) from the total of respondents.

Furthermore, for the race, 230 respondents with the percentage of (57.5 %) were from Melayu. 87 respondents were from Cina with the percentage of (21.8 %). Third were from India with 81 respondents (20.3 %). The lowest total of only 2 respondents with the percentage of (0.5 %) was from others race.

Besides that, for marital status the total for single was 223 respondents (55.8 %) from the total higher than the number of married which were 177 respondents (44.3%) from the total of respondents.

Last but not least, the most of the respondents were from the employed which represent 178 respondents with (44.5 %) in this research. There were 169 respondents from student with (42.3%) of the total of all respondents. There were 50 respondents from not working with (12.5 %) of the total of respondents. The lowest total of only 3 respondents with the percentage of (0.8%) was from others employment status.

5.3 Discussion and Interpretation of Finding

Research objective 1: To identify the relationship between factors that can influence users' understanding of mobile application travel Cuti Cuti Langkawi.

In research objective 1, the researcher wants to identify the relationship between factors that can influence users' understanding of the mobile application travel Cuti Cuti Langkawi. Display the correlation findings between mobile application travel variable practises based on Table 4.16. As the correlation values for tangible assurance, dependability, responsiveness, and empathy are 0.901, 0.881, 0.886, 0.883, and 0.876, respectively, a significant positive association exists between these factors and customer satisfaction in mobile applications. Consequently, the findings indicate that informative material has a substantial correlation with this characteristic.

The customer satisfaction expectations correlation value is 0.901, and the significance level is 0.000. ($p < 0.01$). This showed that there is a strong link between tangibles and customer happiness. At a significance level of 0.000 ($p < 0.01$), the correlation between dependability and customer satisfaction was 0.881. This shows that there is a strong link between the two. With a significance level of 0.000 ($p < 0.01$), the correlation between responsiveness and customer satisfaction was 0.886, which shows that there is a strong link between the two. In addition, the correlation between assurance and customer satisfaction was 0.883, and the significance level was 0.000 ($p < 0.01$), which shows that the two variables are strongly linked. At a significance level of 0.000 ($p < 0.01$), the correlation between empathy and customer satisfaction was 0.876, which shows a strong link between the two.

In addition, from the correlation value from objectives 1, we can see using the mobile application travel Cuti Cuti Langkawi is one of the latest innovations that have revolutionized various operations for online purchases. From the results of the questionnaire, it has become clear that the majority of respondents appreciate the mobile application Cuti Cuti Langkawi, and each of them has the application on their mobile phone by simply installing it in the play store or app store.

Last but not least, the findings of this study will prove useful to tourists and locals who live on Langkawi Island or who come to travel on the historic island because there are several interesting places to explore. This study can be used as a reference point to understand that the use of the application Cuti Cuti Langkawi can make it easier for using everywhere to buy ticket ferries using the application.

Research objective 2: To determine the factors that most influence mobile application travel Cuti Cuti Langkawi on consumer understanding in Malaysia.

In this research's second goal, the researcher wants to find out what factors most affect how people in Malaysia understand the mobile application travel Cuti Cuti Langkawi. Show the multiple regression analysis for table 4.21. (Coefficients), We can see that the flexibility of the multiple regression model lets us use a continuous outcome (like days to align) with two or more continuous or categorical predictors. Due to the number of independent variables in this study, the researcher decides to do this analysis to see how the dependent variable in the study relates to its opposite, the independent variable.

Table 4.21 shows the results of a coefficient analysis of multiple regression. The tangible factor had a beta value of 0.373 and a significance level of 0.000, while the dependability factor had a beta value of 0.105 and a significance level of 0.161. The beta value of responsiveness was 0.167 with a significance level of 0.011, the beta value of assurance was 0.159 with a significance level of 0.035, and the beta value of empathy was 0.141 with a significance level of 0.018. When compared to the other five variables, tangible's beta value of 0.373 is the highest. This means that it has the biggest effect on the factors that most affect customer satisfaction with the mobile application travel service Cuti Cuti Langkawi in Malaysia.

In addition, this study also mentions shows the effectiveness of questions that are beneficial to users, focusing more on tangibles. This is because it has the highest Beta value of the 5 independent variables and dependent variables. So, from that we can know some tourists need to find tourist spots depending on the recommendations

of friends or influencers to choose a specific place for a vacation on Langkawi Island. This study also requires time and money to take that decision for us to think and plan ahead. In fact, active travelers care less about promotions, discounts, and deals on travel, they are more influenced by the overall experience they will have. Therefore, it can give an example of the mobile application Cuti Cuti Langkawi which is the latest technology for purchasing tickets online. For this reason, the research carried out now can have a positive effect on tourists and local residents to gain deeper knowledge about the use of mobile applications Cuti Cuti Langkawi apps for ferry ticket buyers, seeing interesting places on Langkawi Island, and so on.

Research objective 3: To evaluate the link between technological support infrastructure and the adoption of the mobile travel application Cuti Cuti Langkawi.

In this research's third goal, the researcher wants to find out how technology support infrastructure and the use of the travel app Cuti Cuti Langkawi affect each other. Researchers use a multiple regression model to figure out how well the data fit the model. The R^2 value shows how well the data fit the regression model. Pandis (2016) says that the flexibility of multiple regression models makes it possible to use continuous outcomes (like the number of days to adjust) with two or more continuous or categorical predictors. R^2 's range has been set between 0 and 1. R^2 values between 0 and 1 mean that there is little, some, or a lot of variation. Table 21 of this study shows that the R^2 value for energy savings is high, at 0.840, which is a good sign.

As shown in table 4.19, the summary of the model showed the relationship between the independent factors and the dependent variable. The correlation coefficient (R) was 0.916, which shows that there was a strong link between the two variables. So, the coefficient of the determining factor (R Square) was 0.840, which means that tangible, dependability, responsiveness, assurance, and empathy all have an 84.0% effect on customer satisfaction. Another 16.0% were affected by things that this study didn't look into.

In addition, this research includes various infrastructure-related elements that support mobile apps for Cuti Cuti Langkawi. This shows that the technological support infrastructure offers crucial external help for the effective adoption of mobile applications. External consultants may be a significant source of mobile technology expertise and information for a firm. Also, businesses may be able to get training services in related fields to teach their current staff how to use the mobile application system that Langkawi Island ferry passengers just started using.

From a technical point of view, the infrastructure is also a big part of how the Travel Cuti Cuti Langkawi mobile app is used. This is because it makes it easier for businesses to use mobile apps without getting too busy picking ferry times, choosing interesting destinations, etc. The people who make mobile apps need to be creative and very skilled if they want to give people the best mobile app possible. The company also needs to set up a good infrastructure for telecommunications and information technology (IT), including hardware and software, because it knows how important the mobile app Cuti Cuti Langkawi is. Before replacing the old business strategy with a new technology infrastructure, the standards and common procedures of the technology infrastructure must be carefully defined.

Research objective 4: To study the link between fixed pricing costs and privacy hazards associated with the use of the mobile travel application Cuti Cuti Langkawi

In this research objective 4, the researcher wants to find out how the fixed price cost and privacy risks of the travel app Cuti Cuti Langkawi affect how many people use it. Table 4.20 shows that the F-test result was 413.020, and the level of significance was $p=0.000$ ($p<0.05$). The F-test score of 413.020 showed that the overall regression model fit the data well and that there was a significant link between independent factors and dependent variables. Consumer satisfaction with the mobile travel app was affected by how tangible, reliable, certain, responsive, and empathetic it was. Also, the

null hypothesis is not true because the regression model's significance level is less than 0.05.

Then, within the organisation, authorities like ferry companies need to be serious about managing ferry ticket sales and corporate affairs. Top management may be able to make mobile apps like Cuti Cuti Langkawi more popular by communicating with employees in a clear and convincing way. Involvement and commitment through a mission and vision, goals and objectives, and a long-term plan, as well as putting in the right amount of resources to make sure they can be put into action. It is important for upper-level managers to give their employees the tools they need to use mobile apps more.

But important things like security and privacy concerns have an effect on mobile apps. The risks to security and privacy that come with tourist businesses using mobile apps are also very important. If the business uses network access control and intrusion detection to prevent unauthorised access to the organization's network, which must be watched by IT experts, it could play a big role in getting users to use these apps.

Finally, this study also recommends considering the perceptions of tourists and local residents on Langkawi Island. The questionnaire should be given to passengers boarding the ferry at the Langkawi Island ferry terminal, Kuala Perlis and Kuala Kedah. These areas can use the mobile application Cuti Cuti Langkawi to purchase tickets online.

5.4 Scope and Limitation

The primary constraint of the study is that it was done in Malaysia, but the findings of studies undertaken in other nations may not be comparable (Wong, Lee, & Tan, 2012). Also, the study was based on a small number of previous studies in similar fields. Because of this, studies from other countries were used, even though their content and conclusions may not be applicable due to differences in culture and values between countries.

Second, the factors employed in this study framework have limits, while other variables may explain the adoption of mobile apps by tourist firms in Malaysia, particularly on Langkawi Island. Also, the TAM framework used in this study might not be enough to estimate the service quality for the customer satisfaction sector in mobile application travel.

In addition, the length of time available to perform this study is very constrained, and only respondents in Langkawi Island may be targeted, so the sample size may not be enough to generalise the usage of the mobile apps Cuti Cuti Langkawi in Langkawi Island, Kuala Perlis, and Kuala Kedah. In addition, only a questionnaire survey was used in this study; hence, the views of our respondents may be restricted to the preset response alternatives.

5.5 Conclusion

In conclusion, the purpose of our research study is to investigate the service quality for the customer satisfaction sector in the mobile app travel industry in Cuti Cuti Langkawi. This study used an expanded version of the TAM model to examine the adoption of mobile apps by tourist firms on Langkawi Island. In this study, we used five independent factors, namely tangible, reliability, responsiveness, assurance, and empathy, and one dependent variable, customer satisfaction, which was centred on service quality in the customer satisfaction sector of the mobile application trip. This study effort is able to provide beneficial foundational knowledge for future scholars, tourist industry sectors, software developers, and government officials that want to better the Malaysian tourism business.

Future research might expand upon this finding by doing similar examinations in other countries. This is owing to the fact that worldwide comparisons may be conducted to assess the service quality for customer satisfaction within the mobile application travel business. Other variables, such as government support and perceived risk, may be researched and added in future research analysing the adoption of mobile applications, in addition to the five variables addressed in this study. Moreover, a

longer length of time should be allowed to conduct the research in order to get a larger sample size and, thus, superior results.

Since the mobile application is new to tourism businesses on Langkawi Island, Malaysia, it is necessary to incorporate sectors other than lodging, tourist attractions, and travel agents. Finally, several data gathering strategies may be employed to gain better study information, comprehension, and outcomes (Tan, Sim, Ooi, & Phusavat, 2012). Interviews can be used to get information from respondents so that the researcher can learn more and get a fuller explanation of the information respondents give.

5.6 Summary

The four research objectives which are to identify the relationship between factors that can influence users' understanding of mobile application travel Cuti Cuti Langkawi, to determine the factors that most influence mobile application travel Cuti Cuti Langkawi on consumer understanding in Malaysia, to evaluate the link between technological support infrastructure and the adoption of the mobile travel application Cuti Cuti Langkawi, and to study the link between fixed pricing costs and privacy hazards associated with the use of the mobile travel application Cuti Cuti Langkawi. . In this chapter, the implications of the study, its limitations, and suggestions for further research were reviewed. This study may help future academics, tourist industry sectors, software developers, and the Malaysian government improve the tourism business on Langkawi Island.

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APPENDIX 1: QUESTIONNAIRE



SERVICE QUALITY FOR CUSTOMER SATISFACTION SECTOR IN THE MOBILE APPLICATION TRAVEL

Dear Sir/Madam,

My name is Muhamad Syazwan Amni Bin Shaidan and I am currently undertaking Bachelors of Degree in Technology Management (Innovation) in Universiti Teknikal Malaysia Melaka (UTeM). As part of my dissertation, I am conducting research to determine the quality service for customer satisfaction sector in the mobile application travel. This research usually focuses on the the most effective factor using mobile application travel Cuti Cuti Langkawi among in Jetty Point Langkawi, Kedah

Tuan / Puan,

Nama saya Muhamad Syazwan Amni Bin Shaidan dan saya kini sedang mengambil Ijazah Sarjana Muda Pengurusan Teknologi (Inovasi) di Universiti Teknikal Malaysia Melaka (UTeM). Sebagai sebahagian daripada disertasi saya, saya sedang menjalankan penyelidikan untuk menentukan kualiti perkhidmatan untuk sektor kepuasan pelanggan dalam perjalanan aplikasi mudah alih. Penyelidikan ini biasanya memfokuskan kepada faktor paling berkesan penggunaan aplikasi mudah alih perjalanan Cuti Cuti Langkawi di kalangan di Jetty Point Langkawi, Kedah.

I would be grateful if you completed the questionnaires and answer my google form. The test consists of two (2) section and shouldn't take more than ten minutes to finish. If you have any questions in relation to this study, please feel free to contact me anytime through the number (012-4480506) or by e-mail, syazwanamni0507@gmail.com and I will gladly answer your questions.

Saya amat berterima kasih sekiranya anda mengisi borang soal selidik dan menjawab borang google saya. Ujian ini terdiri daripada dua (2) bahagian dan tidak boleh mengambil masa lebih daripada sepuluh minit untuk diselesaikan. Sekiranya anda mempunyai sebarang pertanyaan berkaitan kajian ini, sila hubungi saya pada bila-bila masa melalui nombor (012-4480506) atau melalui e-mel, syazwanamni0507@gmail.com dan saya dengan senang hati akan menjawab soalan anda.

Yours sincerely,



اونيورسيتي تيكنيكل مليسيا ملاك

UNIVERSITI TEKNIKAL MALAYSIA MELAKA

(MUHAMAD SYAZWAN AMNI BIN SHAIDAN)

SECTION A: DEMOGRAPHIC PROFILE

BAHAGIAN A: PROFIL DEMOGRAFI

This section is survey about demographic of the respondents.

Please tick the appropriate column.

1. Age

<input type="checkbox"/>	18 years old and below
<input type="checkbox"/>	19 – 23 years old
<input type="checkbox"/>	24 – 28 years old
<input type="checkbox"/>	29 – 33 years old
<input type="checkbox"/>	34 years old and above

2. Gender

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

3. Race

<input type="checkbox"/>	Melayu
<input type="checkbox"/>	Cina
<input type="checkbox"/>	India
<input type="checkbox"/>	Others: _____

4. Marital Status

<input type="checkbox"/>	Married
<input type="checkbox"/>	Single

5. Employment Status

<input type="checkbox"/>	Student
<input type="checkbox"/>	Employed
<input type="checkbox"/>	Not working
<input type="checkbox"/>	Others: _____



اونيورسيتي تيكنيكل مليسيا ملاك

UNIVERSITI TEKNIKAL MALAYSIA MELAKA

**SECTION B: THE MOST EFFECTIVE FACTOR USING MOBILE
APPLICATION TRAVEL CUTI CUTI LANGKAWI AMONG IN JETTY
POINT LANGKAWI, KEDAH**

**BAHAGIAN B: FAKTOR PALING BERKESAN MENGGUNAKAN APLIKASI
MOBILE TRAVEL CUTI CUTI LANGKAWI ANTARA DI JETTY POINT
LANGKAWI, KEDAH**

Based on question below, please answer the question briefly by using 2-point Likert scale that consist of Strongly Disagree until Strongly Agree.

Strongly Disagree ←————→ Strongly Agree
1 - 5

The service quality for customer satisfaction in the mobile application travel at Jetty Point Langkawi, Langkawi Kedah.

(Kualiti perkhidmatan untuk kepuasan pelanggan dalam perjalanan aplikasi mudah alih di Jetty Point Langkawi, Langkawi Kedah.)

Strongly Disagree ←	→ Strongly Agree
1 - 5	

N0	TANGIBLE	1	2	3	4	5
1	The mobile app cuti-cuti langkawi have modern features in a tourism app. (Aplikasi mudah alih cuti-cuti langkawi mempunyai ciri moden dalam aplikasi pelancongan.)					
2	The material associated with this service is visually appealing in the mobile app cuti-cuti Langkawi. (Bahan yang dikaitkan dengan perkhidmatan ini menarik secara visual dalam aplikasi mudah alih cuti-cuti Langkawi.)					
3	You feel about the new app design from cuti-cuti Langkawi. (Perasaan anda tentang reka bentuk aplikasi baharu dari cuti-cuti Langkawi.)					
4	Ferry tickets easy to buy when using mobile apps? (Tiket feri mudah dibeli apabila menggunakan aplikasi mudah alih?)					

N0	RELIABILITY	1	2	3	4	5
1	Mobile app cuti-cuti Langkawi shows the price posted is the same as the counter price. (Mobile app cui-cuti langkawi menunjukkan harga yang diletakkan adalah sama harga dikaunter.)					
2	This application makes it easy for me to update my account details. (Aplikasi ini memudahkan saya mengemas kini butiran akaun saya.)					
3	Using the existing features, the mobile application helps you achieve your goals. (Menggunakan ciri-ciri sedia ada, aplikasi mudah alih membantu anda mencapai matlamat anda.)					
4	The app cuti-cuti langkawi made it easy for me to resolve my support question. (Aplikasi cuti-cuti langkawi memudahkan saya menyelesaikan soalan sokongan saya.)					

N0	RESPONSIVENESS	1	2	3	4	5
1	<p>Satisfied were you with our support and support personnel from apps cuti-cuti Langkawi.</p> <p>(Anda berpuas hati dengan sokongan dan kakitangan sokongan kami dari apps cuti-cuti Langkawi.)</p>					
2	<p>The customer service of the mobile app cuti-cuti langkawi can gives you prompt service.</p> <p>(Perkhidmatan pelanggan aplikasi mudah alih cuti-cuti langkawi boleh memberi anda perkhidmatan segera.)</p>					
3	<p>You feel safe in your transaction with the mobile app cuti-cuti langkawi because you will receive receipts in your email.</p> <p>(Anda berasa selamat dalam transaksi anda dengan aplikasi mudah alih cuti-cuti langkawi kerana anda akan menerima resit dalam e-mel anda)</p>					
4	<p>Customer service of the mobile app cuti-cuti langkawi will tell you exactly when services will be performed.</p> <p>(Perkhidmatan pelanggan aplikasi mudah alih cuti-cuti langkawi akan memberitahu anda dengan tepat bila perkhidmatan akan dilaksanakan.)</p>					

N0	ASSURANCE	1	2	3	4	5
1	Customer service of the mobile app cuti-cuti langkawi are never too busy to respond to your requests. (Perkhidmatan pelanggan aplikasi mudah alih cuti-cuti langkawi tidak pernah terlalu sibuk untuk menjawab permintaan anda.)					
2	Customer service of the mobile app cuti-cuti langkawi is always willing to help you. (Khidmat pelanggan aplikasi mudah alih cuti-cuti langkawi sentiasa bersedia membantu anda.)					
3	Customer service of the mobile app cuti-cuti langkawi give you prompt service. (Perkhidmatan pelanggan aplikasi mudah alih cuti-cuti langkawi memberi anda perkhidmatan segera.)					
4	You feel safe in your transaction with the mobile app cuti-cuti langkawi. (Anda berasa selamat dalam transaksi anda dengan aplikasi mudah alih cuti-cuti langkawi.)					
5.	Customer service of the mobile app cuti-cuti langkawi tell you exactly when services will be performed. (Perkhidmatan pelanggan aplikasi mudah alih cuti-cuti langkawi					

	memberitahu anda dengan tepat bila perkhidmatan akan dilaksanakan.)					
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N0	EMPATHY	1	2	3	4	5
1	The mobile app cuti-cuti langkawi has customer service that gives you personal attention. (Aplikasi mudah alih cuti-cuti langkawi mempunyai perkhidmatan pelanggan yang memberikan perhatian peribadi kepada anda.)					
2	The mobile app cuti-cuti langkawi has your best interest at heart. (Aplikasi mudah alih cuti-cuti langkawi mempunyai minat terbaik anda.)					
3	Customer service of the mobile app cuti-cuti langkawi understand your specific needs. (Perkhidmatan pelanggan aplikasi mudah alih cuti-cuti langkawi memahami keperluan khusus anda.)					
4	Customer service of the mobile app cuti-cuti langkawi have the knowledge to answer your questions. (Khidmat pelanggan aplikasi mudah alih cuti-cuti langkawi mempunyai pengetahuan untuk menjawab soalan anda.)					

N0	CUSTOMER SATISFACTION	1	2	3	4	5
1	Customer service met my expectations. (Perkhidmatan pelanggan memenuhi jangkaan saya.)					
2	Mobile app cuti-cuti langkawi offers the services with utmost accuracy and confidence. (Aplikasi mudah alih cuti-cuti langkawi menawarkan perkhidmatan dengan ketepatan dan keyakinan sepenuhnya.)					
3	Staff characterized by professionalism that enhances customer satisfaction. (Kakitangan bercirikan profesionalisme yang meningkatkan kepuasan pelanggan)					
4	I am satisfied with the quality of the mobile app cuti-cuti langkawi services. (Saya berpuas hati dengan kualiti perkhidmatan mobile app cuti-cuti langkawi.)					
5	In future plan to use again the mobile app cuti-cuti langkawi and recommend it to colleagues and family. (Pada masa hadapan merancang untuk menggunakan semula aplikasi mudah alih cuti-cuti langkawi dan mengesyorkannya kepada rakan sekerja dan keluarga.)					

APPENDIX 2: GANT CHART FOR FINAL YEAR PROJECT 1

WEEK/ ACTIVITIES	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
FYP talk									M I D S E M E S T E R B R E A K						
Search for FYP topic															
Meeting with supervisor															
Topic discussion & search for title															
Identify problem statement and background of study															
Identify research objectives and research questions															
Identify theoretical framework															
Title confirmation															
Search for literature review & hypothesis															
Do research methodology															
Presentation preparation															
Submission of FYP 1															
Presentation 1															
Correction of FYP 1															
Submission of FYP 1															

APPENDIX 3: GANT CHART FOR FINAL YEAR PROJECT 2

WEEK/ ACTIVITIES	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
Questionnaire Development									M I D S E M E S T E R B R E A K						
Pilot Test															
Collecting Data															
Analyze the Data															
Chapter 4															
Chapter 5															
Submission of Full Report															
Presentation															
Make Correction on the Report and submit															