EXAMINING THE DETERMINANTS OF GEN Z'S INTENTION TO USE AR IN MALAYSIA'S TOURISM INDUSTRY

BY

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A final year project submitted in partial fulfilment of the requirement for the degree of

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ABSTRACT

AR technology offers new tourism improvements as it develops. This research seeks to help tourism stakeholders engage Gen Z by knowing what motivates them to use AR. Surveys and data analysis evaluate and identify key determinants including perceived usefulness, perceived ease of use, attitude, and perceived enjoyment.

The findings aim to help tourism experts and developers produce better AR experiences, boosting Malaysia's tourism attractiveness. The findings should help create friendly for Generation Z AR solutions. This study evaluated factors influencing Gen Z's intention to use AR in Malaysia's tourist industry.

The Technology Acceptance Model (TAM) will be used to determine the intention of using AR in the tourism industry, including Perceived Usefulness (PU), Perceived Ease of Use (PEOU), Attitude (ATT), Perceived Enjoyment (PE), and Intention to Use AR (IU).

This study collects data from 397 respondents via a questionnaire. SPSS is used to analyze the data. To show the independent variable and dependent variable's relationship, this study carried out a reliability test, Pearson's correlation coefficient analysis, and multiple regression analysis.

The data show that all hypotheses significantly influenced Malaysia's tourism industry's AR usage. Researchers can learn from this study on the variables that

affect Generation Z's intention to use AR in Malaysia's tourist industry. With that, top managers may take actions to promote AR adoption and attractiveness.

Keywords: TAM Model, Perceived Usefulness, Perceived Ease of Use, Attitude, Perceived Enjoyment, Intention to Use AR, Gen Z, Tourism Industry, Augmented Reality(AR).

T1-995 Technology (General)

TABLE OF CONTENTS

LIST OF TABLES

LIST OF FIGURES

LIST OF ABBREVIATION

A	Constant
AR	Augmented Reality
ATT	Attitude
Bx	Each parameter estimates the unit
DMOs	Destination Management Organizations
DV	Dependent Variable
FYP	Final Year Project
Gen Z	Generation Z
HONS	Honours
IU	Intention to use AR
IV	Independent Variable
PEOU	Perceived Ease of Use
PE	Perceived Enjoyment
PU	Perceived Usefulness
SPSS	Statistical Package for the Social Sciences
TAM	Technology Acceptance Model
UTAR	Universiti Tunku Abdul Rahman
UTAUT	Unified Theory of Acceptance and Use of Technology
VR	Virtual Reality

LIST OF APPENDICES

CHAPTER 1: RESEARCH OVERVIEW

1.1 Research Background

1.1.1 Background of AR

Augmented Reality (AR) is in the context of superimposing digital data on the physical world, achieving an augmented reality environment and enhancing the tourism experience (Keckes & Tomicic, 2017). The origins of Augmented Reality can be traced back to 1950, when Morton Heilig invented it, and it has played a vital role in real-world environments (Santi et al., 2021). Technology enriches understanding by including digital images, graphics, and sensations in enhancing interaction with the natural world (Çöl et al., 2023). In addition, the technology is enhanced by different devices, including tablets, smartphones, and various specialized glasses, which are equipped with sensors to detect and augment the user's environment in real-time (Russo, 2021). It has continuously grown in its performance with various advancements in machine learning, spatial mapping, and computer vision, leading to immersive experiences (Russo, 2021).

AR has many applications in various areas, from gaming and entertainment to healthcare and education (Barteit et al., 2021). Considering the significant potential of AR technology, businesses that have adopted the technology promote effective interaction with customers, especially in the tourism sector (Dadwal & Hassan, 2016). The technology enables the tourists' effective engagement, leading to a new level of discovery (Baldi & Botti, 2024). AR enables businesses and marketers to produce personalized experiences and immersive marketing campaigns that enhance adequate customer satisfaction and loyalty (Teo & Wong, 2023). The potential of AR technology to completely change our perception and interactions with the world around us is becoming increasingly apparent as it develops and becomes more widely available (Hamad & Jia, 2022). Comprehending the history and possibilities of

augmented reality is crucial to realizing its full potential and investigating its uses in various industries, including travel.

Despite Augmented Reality being most common in various parts of the world, its penetration within Malaysia's tourism industry remains relatively limited. Mustapha (2021) explored the adoption of Augmented Reality (AR) in the Malaysian tourism industry. It highlighted the potential of AR to enhance the tourist experience through applications such as interactive maps, historical insights, and real-time translations. However, based on Siang (2020), the adoption of AR is still in its early stages, and it is mentioned that Malaysia is starting to integrate augmented reality technology into the tourism industry. Malaysia will still investigate augmented reality's possible advantages and applications in improving visitor experiences and engagement. Despite the great potential of AR technology, its practical implementation and wide application in the Malaysian tourism industry still need to be improved. One of the significant factors why AR has not gained much popularity in Malaysia is due to the limited knowledge and awareness regarding AR technology among the general population (Khazaei, 2020). AR technology still needs to be introduced to sectors, including tourism. On the other hand, Malaysia's current infrastructure and technological advancement may significantly hinder the adoption of AR experiences in the tourism sector (Osman, 2022). The existing infrastructural and technological challenges must be addressed to fully utilize AR technology in enhancing tourists' engagement and experience—these studies center on augmented reality trends and developmental constraints in the Malaysian tourism industry.

The integration of AR into the tourism sector in Malaysia is of great significance and has led to various changes and developments over time. However, some challenges have been identified. One of the most significant challenges is technological constraints. The utilization of mobile devices for augmented reality experiences may be impeded by specific issues, such as battery life and low processing power, which can impair the smooth functioning of AR applications and thus affect user experience (Alzahrani, 2020). Concerning perceived usefulness and perceived ease of use, users may think AR is less useful or easier to use when they run into technology issues.

Another challenge is privacy and security issues. The application of technology in Malaysia's tourism industry involves using sensitive data, such as personal preferences and

location information; hence, this raises many concerns regarding privacy and protection (Pencarelli, 2020). These issues may prevent some users from adopting the technology if they think their personal information will not be kept confidential.

AR is mainly related to Gen Z since they are more familiar and comfortable with digital technologies. Gen Z has grown in a technologically immersed environment with increased smartphone and social media usage. Their penchant for immersive and interactive technologies is well-suited to augmented reality, which provides them with new opportunities to interact with their surroundings (Buhalis & Karatay, 2022). Moreover, Gen Z is highly interested in personalized and immersive content, which augmented reality may provide by superimposing digital data on actual situations.

1.2 Research Problem

The use of AR by Gen Z in the tourism industry in Malaysia has mainly been influenced by several factors; hence, understanding these factors is of great significance in enabling effective strategies that mainly target their preferences. According to Faqih (2022), perceived usefulness significantly shapes Gen Z's intention to adopt AR technology in the tourism industry. Oyman et al. (2022) say that perceived usefulness is how much people think that using AR in tourist activities would make their whole experience better. The specific challenges that are mainly related to the perceived usefulness of AR in the Malaysian tourism sector have, however, yet to be explored thoroughly. Issues including the quality of the AR content, availability of AR-enhanced offerings, and the alignment of the experiences with the needs of the tourists remain understudies (Ghesh et al., 2023). AR applications that provide valuable features like immersive historical insights, real-time navigation, or interactive trip guides are likely to be seen favorably by Gen Z, who places a high value on speed and convenience (Kotler et al., 2023). By highlighting the usefulness of AR in augmenting travel experiences, tourism stakeholders may successfully draw in Gen Z customers and encourage adoption.

Another factor is perceived ease of use, which plays a significant role in enabling efficient adoption of AR technology in the tourism industry. According to Al-Adwan (2024), perceived ease of use determines how people view AR applications and how straightforward and user-friendly they are when traveling. It is much easier for Gen Z to adopt AR technologies that mainly provide a smooth user experience since they are known to like user-friendly interfaces. In the tourism sector, easy-to-use elements like unambiguous instructions, simple controls, and a low learning curve can significantly improve Gen Z's impression of augmented reality apps and boost their propensity to utilize them in a travel setting (Crooks, 2023). However, there is a need for more sufficient studies examining specific challenges that users face while using AR-enabled tourism services within the Malaysian context. Factors including user interface design, technological barriers, and user support mechanisms may affect AR applications' perceived ease of use in the Malaysian tourism context but still need to be adequately addressed (Alam et al., 2021).

The attitudes of Gen Z toward Augmented Reality (AR) will largely influence their behavior in adopting the technology in the tourism industry. Mavragani (2022) emphasizes the necessity for Destination Management Organizations (DMOs) to satisfy the expectations of Generation Z through the provision of inventive experiences that incorporate augmented reality (AR). Ameen et al., (2022) provide additional evidence in support of this notion, revealing that the perceived usefulness and ease of use of augmented reality positively influenced the attitudes of Generation Z. Particularly, their reliance on social media and receptivity to innovative technologies, Pricope Vancia et al., (2023) identified as disruptive characteristics of Generation Z within the tourism sector. However, Saneinia (2022) cautions about the possibility of immersive, addictive behaviors in VR tourism, a warning that may equally apply to AR. As a result, while the perspectives of Generation Z could make it easier for them to accept augmented reality in the tourist industry, vigilance is required to avoid possible adverse effects.

The adoption of augmented reality (AR) technology in the Malaysian tourism industry among the Gen Z population has been considered to be influenced by factors such as perceived enjoyment and perceived ease of use. The Technology Acceptance Model, also known as TAM, says that these things are very important in figuring out if someone wants to employ the latest technology (Gharaibeh et al., 2021). Perceived enjoyment with components such as

interactive displays and virtual tours can significantly enhance the user experience, making it a key determinant of AR adoption (Yu et al., 2024). The enormous essential challenges, such as user interface design and technological barriers, have yet to be studied, especially in Malaysia. (Mohamad et al., 2021; Ronaghi & Ronaghi, 2022). This study attempts to fill these gaps to examine the relations between perceived enjoyment and ease of use and Gen Z's intention to use AR in the tourism sector.

1.3 Research Objectives & Research Questions

1.3.1 General Objectives

The objective of this research is to examine the determinants of Gen Z's Intention to use AR in Malaysia's Tourism Industry. AR technologies can enhance the tourism experience and increase Generation Z's willingness to adopt AR technology in their travels. Since Malaysia's tourism industry is still relatively limited in utilizing AR technologies, the result can help analyze its potential growth and assist with AR technology adoption.

1.3.2 Specific Research Objectives

1. To examine tourist's perceived usefulness of AR impacts the tourist intention to use AR in the tourism industry.
2. To examine tourist's perceived ease of use of AR affects the tourist intention to use AR in the tourism industry.
3. To examine tourist's attitude impact on intention to use AR in the tourism industry.
4. To examine perceived enjoyment towards intention to use AR in the tourism industry.

1.3.3 Research Questions

1. How does the perceived usefulness of augmented reality (AR) influence travelers' intent to use it in the tourism industry?
2. What is the connection between the perceived ease of use of AR technology and the intention of Gen Z tourists to adopt AR in the context of tourism?
3. How do the attitudes of Gen Z tourists toward AR technology affect their intention to use AR in tourism experiences?
4. To what extent does the perceived enjoyment of Gen Z tourists influence their adoption of AR technology within the tourism industry?

1.4 Research Significance

1.4.1 Theoretical Significance

This research holds significant theoretical value as it offers insights into understanding the factors influencing Generation Z's intention to use Augmented Reality (AR) in the tourism industry, aligning with the Technology Acceptance Model (TAM) tenets. Investigating the factors influencing Generation Z's intention to use AR in the tourism industry within the TAM framework enhances our knowledge of how perceived usefulness, ease of use, enjoyment, and attitudes interrelate in shaping technology adoption behavior.

The findings of this research can serve as a foundation for future studies, enabling researchers to forecast the variables impacting Generation Z's intentions regarding AR adoption. Moreover, it allows for a deeper understanding of the individual contributions of perceived usefulness, perceived ease of use, attitudes, and travel experiences to the intention to use AR in the tourism industry.

Furthermore, this research contributes to the broader comprehension of economic aspects within the tourism sector. Uncovering the factors influencing Generation Z's adoption of AR in tourism sheds light on the potential economic implications and opportunities for tourism businesses. This understanding can inform strategic decisions and investments aimed at leveraging AR technology to enhance tourist experiences and drive economic growth within the tourism industry.

1.4.2 Managerial Significance

The findings of this research hold significant practical implications for the tourism industry, particularly in Malaysia. With Generation Z being highly adept at technology due to their upbringing in an era of instant access to information via social media, the adoption of Augmented Reality (AR) in the tourism sector has increased, subsequently expanding employment opportunities within this field.

The insights gained from this study can assist the tourism sector in Malaysia in several ways. Firstly, it can aid industry stakeholders in anticipating the future market potential of AR technology, allowing them to prepare and adapt their strategies accordingly. By understanding the determinants influencing the intentions of Generation Z, tourism businesses can tailor their offerings to meet the preferences and expectations of this tech-savvy demographic, thereby enhancing their competitiveness in the market.

Moreover, venture capitalists and investors in the tourism industry stand to gain inspiration and deeper insights into the potential of AR through this research. By understanding the practical applications and market demand for AR within the tourism sector, they can make informed investment decisions and support innovative initiatives that drive growth and innovation in the industry.

CHAPTER 2: LITERATURE REVIEW

2.1 Underlying Theories

Previous studies focused on technology adoption and acceptance in the tourism industry are the focus, along with mobile travel applications, augmented reality (AR), and intelligent technologies. Studies draw upon different theoretical contexts of the Technology Acceptance Model (TAM), especially Davis, 1989. The goal of Davis' (1989) TAM is to explain the general determinants of computer acceptance that lead to explaining users' behaviour across a broad range of end-user computing technologies and user populations (Lai et al., 1989). The Technology Acceptance Model, also known as the TAM, is the best tool for this study to better understand the reasons individuals use new technologies.

Information systems' acceptability by people is also explained by the technology acceptance model (TAM). According to the Technology Acceptance Model (TAM), users' behavioural intentions are a predictor of technology acceptance, and behavioural intentions are based on the user's perceptions of the technology's utility and simplicity of use (Davis, 1993). Based on the TAM model in Li and Jiang's (2023) study, the perceived ease of use will impact perceived usefulness and memorable tourism experience, then impact the attitudes towards usage and behavioural intention. Shen et al. (2022) also utilized TAM to explore the factors impacting the adoption and use of augmented reality and virtual reality technologies in tourist education and how perceived usefulness, perceived ease of use, hedonic motivation, and perceived price value will impact the attitude, then impact the behavioural intention. Hence, TAM is also suitable for examining the factors that influence Gen Z's intention to use AR in the tourism industry in this study. Bano and Siddiqui (2022) also employ TAM to reflect customers' intention towards intelligent technology. Below is the framework of TAM.

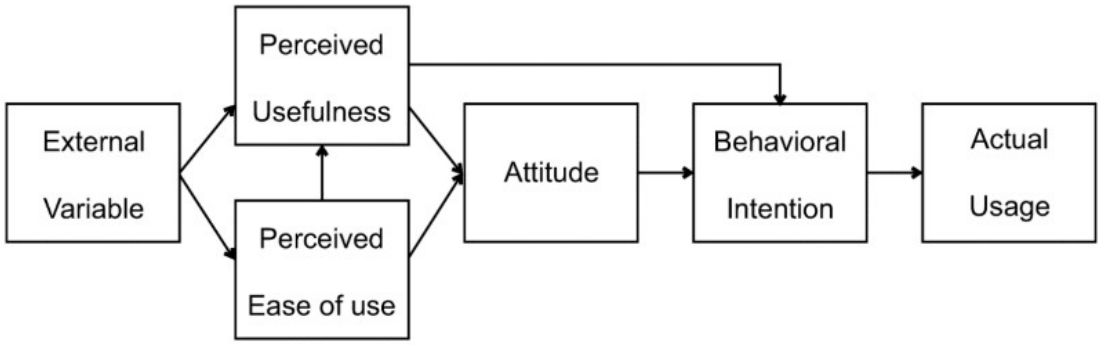


Figure 2.1 TAM Framework

The scientific nature of their research envisages AR as a highly relevant and important technology for travelers who wish to add value and relevance to their sales, promotion, and marketing initiatives. These studies are a significant source of information to explain the factors that motivate travelers to use AR technologies in tourism businesses.

2.2 Review of the Variables

2.2.1 Intention to use AR in the tourism industry

Zhuang et al. (2021) discovered the factors that trigger tourists to use AR technology in tourism, and a positive association between their understanding of the features is found in their ease of use and usefulness perception. Although no significant factor in the formulation of intention is perceived risk, the underlying reason is that what determines the formation of intention are beliefs, hopes, and expectations about the consequences of a new technology for oneself. The research reveals powerful positive associations between visitor attitudes and subjective norms. The effect of subjective norms on the AR application purpose intentions of millennials is greater than that of non-millennials.

On the other hand, Gharaibeh et al. (2021) also examined that performance expectancy, aesthetics, social influence, facilitating conditions, hedonic motivation, value, and effort expectancy significantly influence the intention to use AR applications for travel and tourism in Jordan. The findings showed that performance expectancy and aesthetics had the highest significant impact; social influence, facilitating conditions, hedonic motivation, and value were second; and effort expectancy had the lowest significant impact. Therefore, the most significant factors are performance expectancy and aesthetics, which are the lower effort expectancies.

Additionally, Prodan et al. (2023) investigated the fact that technology readiness, perceived ease of use, perceived usefulness, and hedonic motivation significantly influence the intention to use AR in tourism in the Balkans. The most significant impact factors are perceived usefulness, and the lowest significant impact factors are technology readiness.

Lastly, Ronaghi and Ronaghi (2022) also examined the factors that influence the use of AR technology in tourism. The results demonstrated that effort expectancy, usefulness, social influence, facilitating conditions, and enjoyment impact perceived value, and perceived value significantly impacts AR technology used in tourism in Iran. Therefore, the highest factor that significantly impacts AR technology use in tourism is also perceived usefulness.

According to existing research, the most important factors that influence tourists to use AR technology in tourism are perceived usefulness, perceived ease of use, attitude, and tourist experience (enjoyment). However, this existing research is conducted in overseas countries. Thus, this study must examine Malaysian visitors' AR technology utilization variables.

2.2.2 Perceived Usefulness

Typically, Generation Z expects to be able to use technology if they feel that it is helpful to them, backed up by research work. Zhuang et al. (2021) found a strong correlation between AR technology useability and Chinese tourists' preferences.

Online shopping offers overseas visitors such a relaxing experience as they do not have to wander from shop to shop. Hatamifar et al. (2021) contend that the primary online shopping selections among 385 overseas tourists in Iran. The findings demonstrated that perceived usefulness positively impacts the intention to purchase via apps.

Additionally, Vitezić and Perić (2021) highlighted that the opinion of usefulness and acceptability are the main attributes of technology among Generation Z members who use it in the hospitality sector. Gharaibeh et al. (2021), Prodan et al. (2023), and Ronaghi and Ronaghi's (2022) studies also examined the main factors that influence the intention to use AR in tourism is perceived usefulness in Jordan, the Balkans, and Iran.

While Shen et al. (2022) believe that the VR and AR technologies in tourism education will change tourism education in the tourism sector, they are particularly pronounced during the COVID-19 pandemic. Technology is regarded as beneficial, from the viewpoint of Generation Z, and it puts an impression on their behaviour and intention in most technology-oriented sectors. According to the findings of a number of studies, perceived usefulness is one of the elements that influences the intention to utilize augmented reality (AR) in the tourism industry. However, most studies were only conducted overseas, and most used the UTAUT theory model. According to the TAM theory models, this study is necessary to find out how perceived usefulness affects the intentions of individuals to use AR for tourism in Malaysia.

2.2.3 Perceived Ease of Use

This factor, "Perceived Ease of Use," is closely associated with the reasons why Generation Z would choose to use augmented reality (AR) technology in different kinds of settings related to travelling. Zhuang et al. (2021) reasoned out that Generation Z's preparedness to use AR technology in tourism activities is proportional to how positive they feel about adopting AR among 224 Chinese. Shin and Jeong's (2021) research about tourists'

motives demonstrated that ease of operation resulted in the most significant impact on the resultant adoption behaviour related to AR technology in tourist destinations among 473 Chinese.

According to Gharaibeh et al. (2021), Prodan et al. (2023), and Ronaghi and Ronaghi's (2022) studies, perceived ease of use is one of the factors that influence intention to use AR in tourism in Jordan, the Balkans, and Iran's population.

Alam et al. (2022) also examined the intention of AR adoption in travel and tour operators in Malaysia. The results indicated that perceived ease of use has a significant impact on AR adoption intention through linear regression. Additionally, Senalasari et al. (2022) investigated the fact that perceived ease of use significantly influences the intention to adopt virtual tourism technology in Indonesia.

However, Hatamifar et al. (2021) examined different results. According to Hatamifar et al. (2021), there was no significant impact of perceived ease of use on usage intention on local mobile apps in online purchases among international tourists in Iran.

Although the majority of research indicates that perceived ease of use impacts the intention to use augmented reality (AR) technology, Hatamifar et al. (2021) examined different results, which have no significant impact. However, most of the research was also conducted in overseas countries and all ages involved. Therefore, this research focused continuously on convenience and highlighted the fact that this factor can have a crucial impact on the behaviour and willingness of Generation Z to adopt AR technology during their travels in Malaysia.

2.2.4 Attitude

The degree to which a person evaluates the conduct of interest favorably or unfavorably depends on their attitude, which also considers the consequences of engaging in the action (King, 1975). Several studies indicate that attitude impacts the behavior intention to adopt AR in tourism.

Zhuang et al. (2021) emphasize the connection between the uniqueness of perceived usefulness and ease of use with young travelers like for AR technology in tourism. The study revealed that these two elements, with a favorable attitude being an outcome, significantly influence the intent to use AR technology in the tourism experience. On the other hand, Shin and Jeong (2021) examined the motives of the passengers and demonstrated how consumer and usage convenience (hedonic and utilitarian motivations) cause different views on the efficiency of AR in tourism. The findings provided great insight into the interaction of 3 main perceptual factors (perceived usefulness, perceived ease of use, and motivational variables) through which Generation Z holds overall positive attitudes toward AR technology and plans to benefit from it during their travel experience.

A study conducted in 2015 by Chung et al. in South Korea with 145 participants investigated the impact of attitudes of visitors on their willingness to use AR to visit a destination. Li and Jiang (2023) also investigated the significant impact of tourists' attitudes on the behavioural intention of using AR in tourism among 303 Chinese.

Although Shin and Jeong's (2021) study focused on examining the factors that influence Gen Z's intention to adopt AR in tourism, these studies mostly focused on all age-level participants. Most research is conducted in overseas countries. This research was very important for figuring out the reasons why Gen Z want to use AR in the Malaysian tourism industry.

2.2.5 Perceived Enjoyment

Perceived Enjoyment can be described as the extent to which a particular individual finds the use of a technology enjoyable or pleasurable (Gharaibeh et al., 2021). It has a great deal to do with the degree of technology usage and the incorporation of such into the activity in question since it zeroes in on the level of satisfaction that the users derive out of the specific technology being examined. Regarding the present research, Perceived Enjoyment can be described as the extent of satisfaction and pleasure that users feel in front of the Augmented content – this includes additional features such as interactive displays and immersive experiences (Yu et al., 2024).

According to Yu et al. (2024), the adoption of AR enhances the user experience, leading to higher perceived enjoyment. This study also highlighted that the features of AR responsible for providing interactive and engaging experiences are important in enhancing user appreciation, especially for older users, given that traditional experiences appear generic and less exciting. Moreover, Mohamad et al. (2021) added Perceived Enjoyment as an aspect of the extended TAM to analyze booking behavior through mobile hotel apps, demonstrating its relevance in motivating user actions.

In order to account for perceived enjoyment, the study uses items adapted from prior literature that relate to the level of utility of the AR experience. This can entail questions such as measures of perceived fun, satisfaction with the AR application, and the willingness to do the activity again in the future or recommend it to others. For instance, Do et al. (2020) and Rouibah et al. (2021) employ Perceived Enjoyment using scales that incorporate positive and negative passionate feelings, including joy and excitement. Moreover, in their modified TAM, Mohamad et al. (2021) incorporated Perceived Enjoyment to predict behavior regarding mobile bookings, thus confirming the relevance of this aspect in influencing user decisions and actions.

2.3 Conceptual Framework

The research framework investigates how perceived usefulness, perceived ease of use, attitude, and perceived enjoyment (independent variable) affect Gen Z's intention to use AR (dependent variable) in the tourism industry. Their perceived usefulness, perceived ease of use, attitude, and tourist experience show how individuals feel about using AR in tourism. The study's goal is to determine how these factors influence Gen Z's intentions.

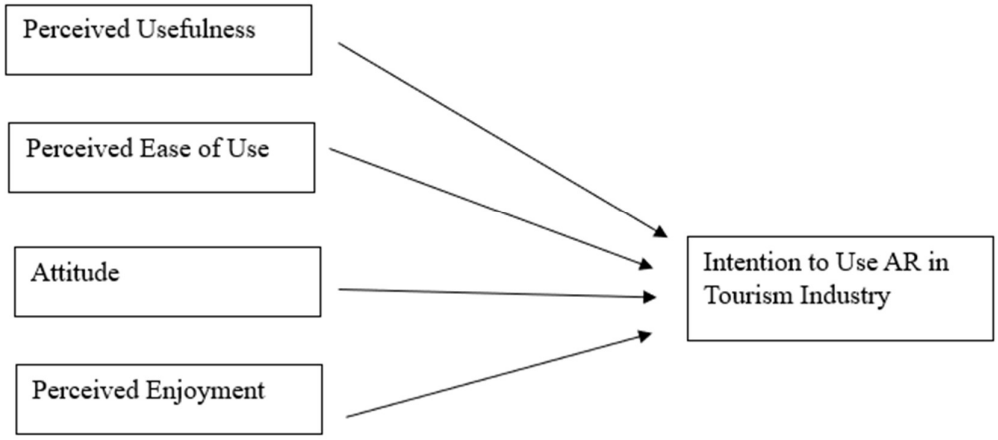


Figure 2.3 Conceptual Framework in This Study

2.4 Hypothesis Development

Perceived Usefulness and Intention to Use AR among Gen Z in Malaysia tourism industry

Augmented Reality (AR) integration in tourism has been significantly influenced by its perceived usefulness, directly impacting Generation Z's intention to utilize such technologies during their travels. Studies have demonstrated that AR applications' perceived ease of use, innovativeness, and practical benefits can enhance tourists' satisfaction and their intentions to engage with AR-enhanced experiences (Lim, Jasim, & Das, 2024). Furthermore, the impact of AR on revisiting intentions emphasizes the value of technology in creating memorable and engaging tourism experiences (Madi et al., 2024). Prodan, Tanković, and Čekić (2023) explored the mediator role of hedonic motivation in the intention to use AR, highlighting the

complex interplay between technological appeal and user engagement. Additionally, Methlouthi and Dekhil's (2023) research on the BARDOUP AR app suggests that perceived usefulness, user experience, and personal innovation significantly affect users' attitudes towards adopting AR in tourism. These findings underscore the importance of perceived usefulness in shaping the intention to use AR technologies in the tourism sector among Generation Z. Thus, the following hypothesis is developed:

H1: There is a significant relationship between perceived usefulness and intention to use AR in the tourism industry.

Perceived Ease of Use and Intention to Use AR among Gen Z in Malaysia tourism industry

The perceived ease of use of Augmented Reality (AR) technology in tourism significantly influences Generation Z's willingness to adopt such applications, underscoring the pivotal role of user-friendly interfaces. Research indicates that the simplicity and intuitiveness of AR applications enhance Gen Z's attitudes and willingness to engage with these technologies, thereby increasing their potential use in tourism (Chung et al., 2015). Studies further demonstrate that the perceived ease of use, alongside the innovativeness and practical benefits of AR, boosts tourist satisfaction and fosters a stronger intention to stay and return (Lim, Jasim, & Das, 2024). Additionally, the role of hedonic motivation as a mediator in the relationship between ease of use and intention to use AR suggests that enjoyment and pleasure derived from using AR can further influence tourists' intentions (Prodan et al., 2023). This collective body of work highlights the importance of developing accessible and user-friendly AR applications to captivate and retain Generation Z tourists within the tourism sector. Consequently, the subsequent hypothesis is proposed:

H2: Perceived ease of use significantly influenced the intention of Gen Z to use AR in the tourism industry.

Attitude and Intention to Use AR among Gen Z in Malaysia tourism industry

Attitudes towards using Augmented Reality (AR) in tourism and the intention to use it are significantly shaped by perceived usefulness, ease of use, and the content quality of AR

applications. Research indicates that a positive attitude towards AR technology, stemming from its perceived benefits and ease of use, directly influences users' intention to adopt AR in tourism contexts (Madi et al., 2024). Furthermore, user experience and personal innovation play critical roles in forming favorable attitudes towards AR applications, affecting their intention to use AR in tourism (Methlouthi & Dekhil, 2023). The integrated theory of acceptance and use of technology further underscores the importance of attitude alongside technological knowledge as significant predictors of the intention to use AR in tourism applications (Jingen Liang & Elliot, 2020). These findings collectively emphasize the need for user-friendly and valuable AR applications to foster positive attitudes and increase the willingness among tourists to engage with AR technology. With that, the subsequent hypothesis is formulated:

H3: Attitude is positively influenced to the intention of Gen Z to use AR in the tourism industry.

Perceived Enjoyment and Intention to Use AR among Gen Z in Malaysia tourism industry

Perceived enjoyment is one of the most important factors that affects Generation Z's decision to use augmented reality in the tourist industry. Gen Z can be considered a tech-savvy generation, and these spheres have a high chance of captivating them with the help of engaging and intensive technologies. Gen Z users are always drawn towards those augmented reality (AR) applications that they enjoy using, contributing to the high adoption rate. According to Gharaibeh et al. (2021), perceived enjoyment directly affects the intention to use mobile AR; indeed, new experiences are crucial to younger generations, such as Gen Z, and thus, enjoyable applications can keep them engaged. Yu et al. (2024) also linked older tourists' perceived enjoyment of AR applications to enhanced reuse intentions, which can also be the case for Gen Z, as they seek creativity. Furthermore, based on the study done by Ronaghi and Ronaghi (2022), it is suggested that the sense of creativity and interactivity of AR can increase the level of perceived enjoyment and thus are more appealing to customers, particularly to Gen Z. Therefore, there is a strong connection between the IV (independent variable) of perceived enjoyment and the DV, which is the dependent variable, of intention to use AR in the tourism industry. This is because having fun on purpose makes people want to use new technology more and get involved. Thus, the following hypothesis is developed:

H4: There is a positive relationship between perceived enjoyment and intention of gen Z to use AR in tourism industry.

CHAPTER 3: METHODOLOGY

3.0 Introduction

In Chapter 3, it will talk about the steps we took to do our research. These steps include planning the research, gathering data, choosing samples, doing practice tests, measuring constructs, processing the data, and analyzing the data.

3.1 Research Design

A research design serves as the general framework for the study (Akhtar, 2016). This research focuses on exploring the factors that influenced Gen Z's intention to use AR in the tourism industry. Descriptive and quantitative research methods were utilized to conduct the analysis.

According to Campbell (2014), applying quantsitative research methods enables data collection for this study. As Atmowardoyo (2018) stated, statistical equations are employed to analyze the gathered data to determine relationships and correlations that either validate or invalidate of the hypothesis. Researchers employ the quantitative method when performing experiments or surveys. According to Smith (2021), quantitative research is reliable, accurate, and legitimate. This study aims to comprehensively understand the determinants that impact the intention to use augmented reality (AR) in the tourism industry through a quantitative methodology.

A descriptive research design was chosen as part of the quantitative research method to investigate the critical characteristics of the market. Manjunatha (2019) posits that descriptive research strives to clarify the attributes of the population or issue under investigation. This

approach provides a precise and in-depth description of the population under investigation (Hair et al., 2019). According to Schindler (2022), it can answer the questions of who, what, where, when, and how within descriptive analysis. With valuable insights, this research is anticipated to contribute to the existing literature on AR adoption in the tourism industry.

3.2 Data Collection Methods

3.2.1 Primary Data

The first information gathered for research via surveys, observations, and experiments is known as primary data (Khuc & Tran, 2021). This study used the primary data approach to obtain data pertinent to the presented research topics. Questionnaires facilitate data acquisition in a more streamlined and effective manner. Therefore, Google Forms was chosen as the main tool for gathering and sharing data for this study among Malaysian Generation Z.

3.3 Sampling Design

3.3.1 Target Population

Barnsbee (2018) says that the target population is the particular population of people from whom the intervention's study goals and conclusions come. Generation Z in Malaysia will constitute the target population for this study. Generation Z comprises people born between 1997 and 2012, and they have characteristics that distinguish them from the older generations, especially in the way They interact with brands and take in information. While our research will only focus on the Gen Z population from year 1997 to 2006, which is age 18 to 27. It is

because the population that aged below 18 will need their family approval (Singh et al., 2019). The estimated population of Malaysia in the year of 2022 is 32.73 million, of which Gen Z contributed around 8.476 million (Department of Statistics Malaysia, 2023). Al-Sharafi et al. (2023) assert that Generation Z is technologically proficient, having been raised with unrestricted exposure to the internet, technological devices, and readily available networks. As a result, they possess the knowledge and skills necessary to navigate the technological world. Therefore, according to Budac (2015), generation Z is the key target market for AR.

3.3.2 Sampling Frame and Sampling Location

An outline of the parts of society that can be used to get a sample is called a sampling frame (Lohr, 2021). Given that Generation Z constitutes the target market for the research, the sampling frame is deemed unsuitable for the study. This is because Generation Z comprises a vast and substantial population in Malaysia, where the estimated population of Malaysia in 2022 is 32.73 million (Department of Statistics Malaysia, 2023). According to Tjiptono et al., (2020), Generation Z in Malaysia is currently the largest age group, representing 29% of the population. Additionally, obtaining personal information from the respondents, including names and contact numbers, is unattainable. Therefore, since the research focuses on Generation Z in Malaysia, the sampling location will be determined by all the states in Malaysia. The way of collecting the data will be conducted through the online platform.

3.3.3 Sampling Elements

In this study, it will investigate the Gen Z population in Malaysia. This research will include all members of Generation Z that with or without the interest in utilizing augmented reality in the tourism industry.

3.3.4 Sampling Technique

Since the sampling frame and location are unavailable for this research, a nonprobability sampling technique will be applied to determine the sample. The judgment sampling method was chosen for this study among the several methods of non-probability sampling. The judgment sampling method is employed when the researcher believes the selected sample contains the necessary information and represents the area under investigation (Deshpande & Girme, 2019). Judgemental sampling will select people with particular characteristics for this research (Boeren, 2018). According to Perla and Provost (2012), judgement samples have more advantages that provide the most convenient and cost-effective way to study process performance and change. The researcher may also directly communicate with the target respondents to get the intended outcomes.

Consequently, Generation Z tourists, who satisfy the criteria for the attributes of this research, are chosen as respondents in this study. Before distributing the questionnaire, screening or filtering inquiries must be established to ascertain whether the respondents satisfy the criteria pertinent to the research topic. Filtering questions will be provided in the survey that need to be answered by the target populations, such as age range, interest in Augmented Reality and technological proficiency. Subsequently, the questionnaire will be shared with those respondents who meet the criteria.

3.3.5 Sampling Size

Sufficient sample size must be ascertained before collecting data to evaluate the attributes of a sizable population (Hair et al., 2019). Finding the right sample size is critical for avoiding misleading findings. Also, the expense will be increased if the sample size is excessively enormous. An error-prone scenario may ensue when the sample size exceeds 500, as it becomes possible for insignificant relationships between variables to accumulate to a significant level (Armstrong, 2019). This is why the Krejcie and Morgan table will be used to find the ideal number of participants to include in the study. In 1970, Krejcie and Morgan put

out a table to address the growing need for a quick and easy method to calculate the sample size required to be statistically valid (Krejcie & Morgan, 1970). Krejcie and Morgan's Table (refer to Figure 3.3.5) has already supplied the sample needed for various population sizes. Therefore, there is no need to calculate to acquire the sample size. As the population of Gen Z in Malaysia contributes to around 26% of the overall population, which is 32.73 million, we need to take 26% and multiply it by 32.73 million to get the population of Gen Z Malaysian, which is roughly 8.476 million. In accordance with Krejcie and Morgan's (1970) research, the total number of samples that will be used in this study is 384.

N	*S*	*N*	*S*	*N*	*S*
10	10	220	140	1200	291
15	14	230	144	1300	297
20	19	240	148	1400	302
25	24	250	152	1500	306
30	28	260	155	1600	310
35	32	270	159	1700	313
40	36	280	162	1800	317
45	40	290	165	1900	320
50	44	300	169	2000	322
55	48	320	175	2200	327
60	52	340	181	2400	331
65	56	360	186	2600	335
70	59	380	191	2800	338
75	63	400	196	3000	341
80	66	420	201	3500	346
85	70	440	205	4000	351
90	73	460	210	4500	354
95	76	480	214	5000	357
100	80	500	217	6000	361
110	86	550	226	7000	364
120	92	600	234	8000	367
130	97	650	242	9000	368
140	103	700	248	10000	370
150	108	750	254	15000	375
160	113	800	260	20000	377
170	118	850	265	30000	379
180	123	900	269	40000	380
190	127	950	274	50000	381
200	132	1000	278	75000	382
210	136	1100	285	1000000	384

Note.—*N* is population size. *S* is sample size.

Source: Krejcie & Morgan, 1970

Figure 3.3.5 Sample Size Table of Krejcie and Morgan

3.4 Pre-Test

Pretesting is an essential component of survey research, during which survey questionnaires are evaluated by a lecturer to verify the validity and reliability of the instruments, enhance the quality of data collection, and improve the overall research process (Hu, 1970). To participate in the survey pre-test, two specialists from Universiti Tunku Abdul Rahman's (UTAR), Department of Marketing. After the feedback was obtained, adjustments were made to the measurement items to enhance their lucidity and comprehensibility.

3.5 Pilot Test

Pilot testing is an integral component of the research process, fulfilling multiple objectives, including but not limited to enhancing educational programmes (Reineck, 1995), validating research instruments (Brooks, 2016), and ensuring the dependability and validity of qualitative interview data (Gani, 2020). By conducting preliminary testing, the continuing education (CE) programme aimed to enhance both the experience of its participants and its administrative management. According to Leon et al. (2011), the outcomes of a pilot study can provide valuable insights into the viability of a concept and highlight any necessary adjustments to the design of a subsequent, more extensive hypothesis-testing study. To test the internal consistency, researchers needed the pilot study respondents to fill out a questionnaire. This allowed researchers to compute the Cronbach Alpha score for each variable. The research indicates that at least 30 individuals should be included in the pilot study (Whitehead et al., 2015). So far, 30 people have participated in our research through the pilot study.

Regarding reliability testing, Cronbach's alpha has likely been the most used method for assessing the internal consistency of assessment tools. The accuracy coefficient can take on a value between zero and one, as Bujang et al. (2018) stated. When the result is small and close

to zero, Cronbach's alpha is inaccurate. Beanlands et al. (2019) state that Cronbach's alpha coefficients should be at least 0.7. The dependent variable, IU, is deemed to be reliable and acceptable based on the Cronbach's Coefficient Alpha value of 0.784, as indicated in Table 3.5.2. 0.797 is the Cronbach's Alpha coefficient value for ATT, which indicating a significant association between the other variables. In contrast, the remaining variables have specific values including PU (0.704), PEOU (0.700), and PE (0.685).

Alpha Coefficient Range	Strength of Association
<0.6	Poor
0.6 to < 0.7	Moderate
0.7 to < 0.8	Good
0.8 to < 0.9	Very Good
0.9	Excellent

Figure 3.5.1 Cronbach's alpha table

Variable		Number of Items	Cronbach's Alpha Value	Result
DV	IU	5	0.784	Good
IV	PU	5	0.704	Moderate
	PEOU	5	0.700	Moderate
	ATT	5	0.797	Very Good
	PE	5	0.685	Moderate

Table 3.5.2 Pilot Test Result

3.6 Construct Measurement

3.6.1 Origins of Construct

The origins of construct management in research can be traced to the need for a solid foundation of descriptive research in construction management (Puddicombe, 2011). This methodology incorporates management research approaches and theoretical foundations that show potential for construction management research (Puddicombe, 2011). The questionnaire for origins of construct can be refer to Appendix 3.

3.6.2 Research Questionnaire Sections Management

This study's survey was divided into four distinct sections, represented as Section A to Section D. With that, the respondents will feel more accessible and more understanding of the questionnaire when filling out. Section A will ask the filtering question so that the respondents are related to the research purpose (Refer to Appendix 1). In Section B, the questionnaire will include demographic questions (Refer to Appendix 2). In contrast, in Section C, the question related to the IV will be asked. Lastly, the question of the dependent variable will be asked.

3.7 Data Processing

3.7.1 Data Checking

According to Treder (2022), the process of data checking is critical to the data analysis process. Data checking helped find and send out missing data that could affect the reliability of tests. Consequently, the researchers must verify that every question was completed accurately, without any grammatical errors or complicated phrases that could confuse, and that the questionnaire adheres to the specified variables. There were no omissions, invalid codes, or unreasonable, or inconsistent responses because the questionnaire was developed in Google Form format. Participants must select all the options for the questions.

3.7.2 Data Editing

Data editing is most research projects' predominant data management activity (David & Christiansen, 2010). Data editing consisted of reviewing and redressing errors to ensure that the collected data were error-free, consistent, and comprehensive. Hence, the process of analysing all questionnaires to identify any missing data or omissions was underway. It is necessary to make changes if it turns out that some answers need to be included or consistent. Nevertheless, the questionnaire's questions will be deemed invalid and deleted from the database if they are overlooked in large numbers.

3.7.3 Data Coding

All the data collected for this research were coded using SPSS software. Data coding was employed to assign numbers to each response that respondents could provide in the questionnaire. With that, coding can reduce errors or compress the signal (Laemmel, 1963).

3.8 Data Analysis

3.8.1 Descriptive analysis

Descriptive analysis is a statistical technique applied to gather, summarize, and depict data by employing measures such as variability and central tendency, as stated by Bhattacherjee

(2012). According to Kaur et al. (2018), it is the initial stage in the research process and should be completed before comparing inferential statistics. Determining or drawing informative conclusions from most data sets is typically challenging due to their substantial scale. Descriptive analysis facilitates data synthesis into fundamental quantitative measures, including percentages or means and graphical representations like pie charts, illuminating the acquired data (Kaliyadan & Kulkarni, 2019). By employing descriptive analysis, the researcher can efficiently assess populations and gain a more comprehensive understanding of the data.

Data analysis in this study was carried out using SPSS, or the Statistical Package for the Social Sciences. Data management, presentation of data, descriptive statistics, inferential statistics, regression analysis, and a wide range of other statistical analysis methods are covered extensively (Cronk, 2019). The ability to import and export data from various sources and SPSS's comprehensive features and easy-to-use interface contribute to its popularity. Consequently, the researcher will be able to examine the data obtained more efficiently with the help of this tool, leading to more thorough and valuable results for the study.

3.8.2 Inferential Analysis

According to Allua & Thompson (2009), the inferential analysis aims to generalize the results obtained from a sample to the target population. Additionally, by examining the received samples, this analysis can be employed to develop a comprehensive understanding of the population data (Agresti & Finlay, 2009). In this research, the researcher will apply 2 analysis, which are first, Pearson Correlation and second, multiple regression analysis to explore the potential associations and predictive factors between the variables of interest in the study.

Pearson Correlation determines the nature and direction of a linear relationship between two continuous variables in a study, and statisticians use correlation analysis (Perinetti, 2019). Details are provided by the correlation coefficient, which can take values between -1 and +1.

When one variable goes up as the other goes down, researchers say there is a negative correlation (-1). In contrast, one value indicates a perfectly positive correlation, where the two variables grow together. There is no correlation and no linear relationship when the value is zero.

Still, multiple regression analysis is used to investigate the connections between the study's dependent variable (DV) and the numerous independent variables (IVs). According to Hassan et al. (2019), the multiple regression equation is expressed as follows:

$$Y'=A+ B1 (X1) + B2 (X2) + B3(X3) + ...+Bk (Xk)$$

The equation that generated for this research will be:

IU = A + B1 (PU) + B2 (PEOU) + B3 (ATT) + B4 (PE)

Whereby,

PI = Intention to use AR in tourism industry

A = Constant

Bx = Each parameter estimates the unit

PU= Perceived usefulness

PEOU= Perceived ease of use

ATT= Attitude

PE= Perceived Enjoyment

With the utilization of this equation, researchers can predict the value of a single dependent variable (IU) by using the known values of independent variables (PU, PEOU, ATT, PE), where each independent variable is assigned a weight that represents its relative contribution to the overall prediction (Feng et al., 2020).

Correlation Coefficient Value (r)	Direction and Strength of Correlation
- 1	Perfectly negative
- 0.8	Strongly negative
- 0.5	Moderately negative
- 0.2	Weakly negative
0	No association
0.2	Weakly positive
0.5	Moderately positive
0.8	Strongly positive
1	Perfectly positive

Figure 3.8.2 Table for Pearson Correlation Coefficient

3.9 Conclusion

This chapter provides a concise overview of each research strategy implemented in the investigation to guarantee the reliability and validity of the findings. Through a pilot test and evaluation with an academic expert, the researcher enhanced the consistency of the questionnaire. This section reviewed over each of the methods and tools that were used in this study, which helped to fully understand how the data was gathered. Chapter 3 will help the researcher with the data research that comes next in Chapter 4.

CHAPTER 4: DATA ANALYSIS

4.0 Introduction

Using the statistics program SPSS Version 27, Chapter 4 will talk about and describe the results and information gathered. There were an overall of 402 responses, and only 397 valid comments were used for the analysis.

4.1 Descriptive Analysis

Appendix 4, Figure 4.1.1 shows that most of the respondents were born between 1997 and 2012 (N=387, 97.5%), followed by 10 respondents, who contributed 2.5% of respondents who were not born between 1997 and 2012.

The results in Appendix 4, Figure 4.1.2 show that 388 out of 397 respondents were interested in augmented reality, with 97.7% of them expressing interest, while only 9 respondents (2.3%) were not interested.

As for technological proficiency, as stated in Appendix 4, Figure 4.1.3, 2.5% of respondents (N=10) stated that they are not familiar with the technology. While 43 of the respondents, 10.8%, stated that they are familiar with technology proficiency. Most of the respondents, 86.6%, N=344, responded that their technology proficiency is at an average level.

Appendix 4, Figure 4.1.4 shows that respondents aged 21-23 have the highest percentage, 53.9% (214 respondents) of all respondents, followed by 45.3% (180 respondents) of respondents aged 24-27 and 0.8% (3 respondents) of respondents aged 18-20. Most of the respondents are 21-23 because most are university students.

Appendix 4, Figure 4.1.5 shows that most of the respondents are female, with 216 respondents representing 54.4%. The other 181 respondents are male, which consists of 45.6%. There were more women than men who participated. This is because women are more likely interested in AR industry, which makes them more likely to get involved.

As shown in Appendix 4, Figure 4.1.6, Chinese respondents are in the majority place, with a percentage rate of 96.5% (383 respondents) and 3.0% (12 respondents) for Malay respondents. On the other hand, only 0.5% (2 respondents) of respondents were Indian.

According to Appendix Figure 4, 4.1.7, it shows that most of the respondents are from Selangor, Penang, and Johor, that consists of 23.9% (N=95), 22.7% (N=90), and 22.2 (N=88). Kedah comprises 10.3% (N=41) respondents, and Perak 7.6% (N=30). While the other respondents are from Pahang (N=10), Perlis (N=7), Kelantan (N=7), Sarawak (N=7), Terengganu (N=6), Melaka (N=6), Sabah (N=6), and Negeri Sembilan (N=4).

Appendix 4, Figure 4.1.8 states that most of the respondents are in tertiary education, which is 98.5%, N=391. Only 1.0%, N=4, of respondents have secondary education. While 0.5%, N=2, consist of other education levels, such as employees.

As for occupation, the pie chart in Appendix 4, Figure 4.1.9 showed that 54.9% (218 respondents) of respondents are students. On the other hand, 45.1% (179 respondents) are considered employees.

According to Appendix 4, Figure 4.1.10, 40.3% (N=160) of respondents have a monthly income of RM3,000-RM4,999. 38.5% (N=153) have income of RM1,000-RM2,999, 14.1% (N=56) have income of below RM1,000, 5.3% (N=21) have income of RM5,000-RM6,999, and 1.8% (N=7) have no income.

Appendix 4, Figure 4.1.11 shows that 59.7%, N=237 of respondents, stated that their level of comfort and proficiency with using technology is moderate. The second highest level is high, which consists of 34.5%, N=137. Next, 5.0% of respondents, N=20, state that their level of comfort and proficiency is very high, and 0.8% of respondents, N=3, said they are at a low level.

Appendix 4, Figure 4.1.12 shows that most of the respondents in this study are aware of the use of Augmented Reality (AR) in the tourism industry with a percentage of 56.2% (223 respondents), followed by respondents who are somewhat aware of the use at 40.6% (161 respondents), very aware at 2.5% (10 respondents), and 0.8% (3 respondents).

4.2 Scale of Measurement

4.2.1 Reliability Test

The reliability test checks how well the different categories of the study results match up with each other. A Cronbach's alpha value of more than 0.70 means that an idea can be trusted (Kilic, 2016). With the 397 responses, the reliability test has been finished, and the results can be seen in Table 4.2.1. The Alpha number of IU, the dependent variable, is 0.854, which means it is very reliable. Cronbach's Alpha shows that ATT has the greatest relationship with the other variables (0.885), according to Cronbach's Coefficient. The values for the different variables are as follows: PU = 0.868, PEOU = 0.871, and PE = 0.824.

Variable		Number of Items	Cronbach's Alpha Value	Result
DV	IU	5	0.854	Very Good
IV	PU	5	0.868	Very Good
	PEOU	5	0.871	Very Good
	ATT	5	0.885	Very Good
	PE	5	0.824	Very Good

Table 4.2.1 Reliability Test Result

4.3 Inferential Analysis

4.3.1 Pearson Correlation Analysis

The IU measurement has relationships to PU (r=0.504), PEOU (r=0.483), ATT (r=0.531), and PE (r=0.488), as shown in Table 4.3. At an R-value of 0.4 to 0.5, the Pearson correlation values of all the IVs show that they are positively related to the DV. Any correlation coefficient number between 0.4 and 0.59, as defined by Alaloul et al. (2021), is thought to be moderate. All of the study's data fall into the moderate correlation range.

	PU	PEOU	ATT	PE	IU
PU	1				
PEOU	.474	1			
ATT	.495	.496	1		
PE	.455	.532	.573	1	
IU	.504	.483	.531	.488	1

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

Table 4.3.1 Pearson Correlation Analysis Result

4.3.2 Multiple Regression Analysis

As shown in Table 4.3.2.1, there was a strong link between the factors PU, PEOU, ATT, and PE. The value of R = 0.635 and R Square = 0.403 showed this. All together, these four factors account for 40.3% of the variations in the IU of using Augmented Reality (AR) in the tourism industry.

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate

1	0.635	0.403	0.397	0.38029

Table 4.3.2.1 Model Summary

Table 4.3.2.2 shows that the significance value is less than 0.05, and the value of F is 66.216. IU can be predicted using all four variables: PU, PEOU, ATT, and PE.

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	38.305	4	9.576	66.216	<0.05
	Residual	56.692	392	.145		
	Total	94.997	396			

Table 4.3.2.2 ANOVA Result Test

The standardized values of IVs shown in Table 4.3.2.3 show that ATT has the most significant effect on the DV (β =.243), followed by PU (β =.240). It turns out that PU, PEOU, ATT (p<.05), and PE (p=.003) are all within acceptable levels and show a strong connection between IU of Generation Z and Augmented Reality (AR) in tourism. Among all the IVs, ATT shows the most significant relative standardized coefficient of 0.243, meaning it has the biggest impact on the DV, or IU. Therefore, the following is one way to look at the multiple regression equation:

IU = 0.613 + 0.240 (PU) + 0.191 (PEOU) + 0.243 (ATT) + 0. 163 (PE).

This equation suggests that the DV's low significant connection indicates none of IVs.

Whereby:

IU= Intention to use Augmented Reality in Tourism Industry

PU= Perceived Usefulness

PEOU= Perceived Ease of Use

ATT= Attitude

PE= Perceived Enjoyment

Model		Unstandardized B	Coefficients Std. Error	Standardized Coefficients Beta	t	p-value	Significance
	(Constant)	.613	.208		2.949	.003	
	PU	.240	.049	.233	4.888	<.001	Significant
	PEOU	.191	.055	.171	3.457	<.001	Significant
	ATT	.243	.051	.244	4.762	<.001	Significant
	PE	.163	.055	.051	2.943	.003	Significant

a. Dependent Variable: IU

Table 4.3.2.3 Coefficients of Equation

4.4 Conclusion

Finally, the tests and analyses in Chapter 4 help an individual to investigate and understand the outcomes of the gathered data. Every test and analysis were conducted with the statistics program SPSS Version 27, and then compiled into tables and pie charts.

CHAPTER 5: DISCUSSION, IMPLICATIONS AND CONCLUSION

5.0 Introduction

In Chapter 5, the main results, implications, and suggestions will be addressed about. It will also look at both the theoretical and practical implications of this study and suggest ways to make its weaknesses better.

5.1 Discussion of Major Findings

Hypothesis	Sig.	Result
H1: Perceived Usefulness and Intention to Use AR in Tourism Industry	<.001	Supported
H2: Perceived Ease of Use and Intention to Use AR in Tourism Industry	<.001	Supported
H3: Attitude and Intention to Use AR in Tourism Industry	<.001	Supported
H4: Perceived Enjoyment and Intention to Use AR in Tourism Industry	.003	Supported

Table 5.1 Summary of hypothesis testing result

5.1.1 Relationship between PU and IU

The value of t is 4.888, the value of β is 0.240, as well as the value of p is less than 0.05. This means that Generation Z's IU will go up if they think that using Augmented Reality (AR) in the tourism business will make the products or services better or more useful. Gen Z is happier when they think AR will help them get the most out of their trips. The research by Zhuang et al. (2021) found a strong correlation between actual usability and tourists' desire to employ AR technology in tourism.

5.1.2 Relationship between PEOU and IU

A p-value of less than 0.05, a β value of 0.191, and a t-value of 3.457 are present in our data. This means that Generation Z might be happy as long as they can use an easy-to-understand system or enjoy the services that Augmented Reality (AR) offers in tourism. Generation Z will be naturally motivated to use AR in the tourism industry, resulting in satisfaction when they enjoy it. Our results match the studies published by Shin and Jeong (2021) on the motivations of visitors, which show that the most influential factor in the resulting adoption behaviour regarding the use of AR technology in destinations for tourism is the ease of operation.

5.1.3 Relationship between ATT and IU

The numeric values for the variables are as follows: $t = 4.762$, $\beta = 0.243$, and p-value < 0.05. It shows that Generation Z wants to know how ATT can use AR to make tourism more interesting, which might lead to their IU. When AR works well in tourism, users will like it. As Generation Z gains experience using AR in this field, their desire to do so grows. Our results align with the findings of Chung et al. (2015), who investigated the significant impact of visitors' opinions on their preference to use AR to get to a specific place.

5.1.4 Relationship between PE and IU

The value of p is below 0.05, the β value is 0.163, and the t-value is 2.943. These results show that Generation Z is more interested in the fun and easy-to-use augmented reality (AR) in tourism, which can lead to their IU. The experience of Generation Z using AR in the tourism industry goes up when it works well, is easy to use, and looks good. This makes them more likely to want to use it again. Additionally, our results support what Ronaghi and Ronaghi (2022) said, which is that the creative and interactive aspects of AR can make people enjoy it more, which makes it more attractive to customers, especially Gen Z.

5.2 Implications of Study

5.2.1 Theoretical Implications

This study uses the Technology Acceptance Model (TAM) as its theoretical framework to investigate the factors influencing Gen Z's intention to utilize Augmented Reality (AR) in the Malaysian tourist sector. The study uses PU, PEOU, ATT, and PE, four independent variables that affect the dependent variable, IU of Generation Z in AR in Malaysia's tourism industry. Every IV has been found to have a significant positive impact on the IU of AR in the tourism industry of Generation Z in Malaysia. Future studies on relevant topics can find direction from the theoretical basis of this work. This paper might help clarify on how important the TAM model is for Generation Z's IU when it comes to using AR in the Malaysia tourism industry and how important each independent variable is for predicting IU. Researchers can figure out why some independent factors have such a big effect on how the IU uses AR in the Malaysian tourism business. Other independent variables, on the other hand, may not have a big effect but may be useful in some study situations. Apart from that, the

results of this study could offer a deeper understanding of a particular generation in Malaysia since past research has focused on the characteristics of IU in the framework of using AR in tourism industries targeting a general population.

5.2.2 Practical Implications

The R-squared value of 40.3% in our study means that IU accounts for 40.3% of the variation in Generation Z's plans to use Augmented Reality (AR) in the tourism business. To get young people excited about travel and help the country's economy, Malaysia's government should support the growth and use of augmented reality (AR). People who want to get into the travel business should use AR to learn what Generation Z really wants.

The primary factor influencing the use of AR among Generation Z in our research is that travel companies or agencies should provide consumers with AR programs with features and advantages like interactive and creative interfaces. Travel companies and certain travel spot management may use social sharing, recommendations, or user-generated content to address Generation Z's reliance on social media for AR. We consider this to be a crucial component in our study of people's intentions to use AR, the managers of the company ought to be careful when making AR content to make sure that creative designs are backed up by pictures and knowledge of the website. The travel agency or company should keep improving the simplicity and ease of understanding of AR's design to meet customer expectations. The travel business is a very competitive industry. To increase the participation rate and get an advantage in the tourism industry in Malaysia, new competitors, and existing travel agencies can try to give consumers the use of AR, which offers enjoyable and exciting experiences. The travel agency or company may consider including a feedback system whereby customers may share AR-based comments on their experiences and use this data for ongoing improvement.

Moreover, travel agencies or companies can design and use AR programs in the tourism industry that provide advantages to increase user enjoyment. If consumers believe they will

gain valuable advantages, they will be more willing to use AR in the tourism industry. Using AR in the tourism industry, which supports elements like better information, virtual tours, interactive maps, and others, may provide adequate support services for consumers who face difficulties.

5.3 Limitations of Study

The first limitation is the limited scope of variables. This study fails to account for all possible variables influencing Gen Z's intention to use AR in the tourism industry. For example, variables like perceived trust and self-efficacy, which can significantly affect user intentions, were not included. The omission of these variables means that the study may only partially capture some relevant factors influencing Gen Z's adoption of AR in tourism, limiting the study's comprehensiveness and potentially leading to an incomplete understanding of the determinants of AR usage.

The second restriction is related to methodology. This study employed a self-administered survey, which inherently possesses limitations. Participants' comprehension and interpretation of the inquiries are instrumental in self-administered surveys. Another issue with self-administered surveys is the possibility of biases like social desirability bias, which occurs when people give responses, they think society would approve of instead of their actual thoughts or actions. This may lead to data that are not accurate reflections of the experiences or intents of the participants.

5.4 Recommendations for Future Study

Mediators and moderators should be included in future studies to better understand the independent-dependent connection. Variables such as social influence, user experience, and

perceived risk might act as mediators or moderators in the connection between AR features and user adoption. These features can enhance comprehension of the fundamental mechanisms and contextual elements that impact the adoption of AR, delivering the research findings more intricately and practically.

In the future, research should combine qualitative and quantitative methodologies to address the shortcomings of self-administered surveys. For instance, the effective use of interviews or focus groups can augment survey data by offering a more profound understanding of the attitudes and behaviors of survey respondents. Through these methods, responses can be clarified and nuances that may have been overlooked by the survey can be explored, thus increasing the reliability and validity of the data collected.

5.5 Conclusion

This study substantially contributes to understanding how Generation Z adopts augmented reality (AR) in the tourism industry. The research offers unique insights into the aspects influencing technology adoption among Generation Z, including perceived usefulness, simplicity of use, attitudes, and especially perceived enjoyment. This emphasis is particularly pertinent considering the growing integration of digital technologies in everyday life, such as travel and tourism.

The findings in this study have significant ramifications for both the field of academia and society at large. By examining a topic that remains unexplored, namely the significance of perceived enjoyment when it comes to augmented reality application in tourism, the research adds to the body of literature on technological adoption in academia. The findings can assist society, especially corporations, and governments, in developing and executing more efficient digital strategies to engage the Gen Z group. By knowing what motivates this generation to accept new technologies, developers may create more specialized and approachable augmented reality applications, eventually improving user satisfaction and experience.

One of the study's significant contributions is its emphasis on perceived enjoyment, a measure that has received little attention in the tourism industry concerning AR technology. This study highlights that perceived enjoyment significantly influences Gen Z's intention to use AR, suggesting that users are more likely to engage with AR technologies if they find the experience enjoyable and entertaining. The significance of including features that boost enjoyment in augmented reality applications becomes apparent by this insight, which is vital for anyone involved in the tourist sector.

However, the study's limitations, such as the limited scope of variables and reliance on the self-administered survey, the researcher should approach the conclusions with prudence. Future research should overcome these shortcomings by utilizing a wider variety of approaches, examining a more significant number of variables, and incorporating mediating and moderating factors.

Overall, this study contributes to the growing body of literature on AR technology adoption and provides a foundation for further research to enhance our understanding of the determinants of AR use in tourism, particularly among Gen Z.

References

Agresti, A., & Finlay, B. (2009). Statistical methods for the social sciences (Vol. 207). Upper Saddle River, NJ: Pearson Prentice Hall.

Akhtar, I. (2016). Research Design. *SSRN Electronic Journal*. https://papers.ssrn.com/sol3/papers.cfm?abstract_id=2862445

Al-Adwan, A. S. (2024). The Government Metaverse: Charting the Coordinates of Citizen Acceptance. *Telematics and Informatics*, 102109. https://www.sciencedirect.com/science/article/pii/S0736585324000133

Alaloul, W. S., Musarat, M. A., Liew, M. S., Qureshi, A. H., & Maqsoom, A. (2021). Investigating the impact of inflation on labour wages in construction industry of Malaysia. Ain Shams Engineering Journal, 12(2), 1575–1582. https://doi.org/10.1016/j.asej.2020.08.036

Alam, S. S., Masukujjaman, M., Susmit, S., Susmit, S., & Aziz, H. A. (2022). Augmented reality adoption intention among travel and tour operators in Malaysia: mediation effect of value alignment. *Journal of Tourism Futures*. https://www.emerald.com/insight/content/doi/10.1108/JTF-03-2021-0072/full/html

Alam, S. S., Susmit, S., Lin, C. Y., Masukujjaman, M., & Ho, Y. H. (2021). Factors affecting augmented reality adoption in the retail industry. Journal of Open Innovation: Technology, Market, and Complexity, 7(2), 142. https://www.sciencedirect.com/science/article/pii/S2199853122009118

Allua, S., & Thompson, C. B. (2009). Inferential Statistics. *Air Medical Journal*, *28*(4), 168–171. https://doi.org/10.1016/j.amj.2009.04.013

Al-Sharafi, M. A., Al-Emran, M., Arpaci, I., Iahad, N. A., AlQudah, A. A., Iranmanesh, M., & Al-Qaysi, N. (2023). Generation Z use of artificial intelligence products and its impact on environmental sustainability: A crosscultural comparison. Computers in Human Behavior, 143, 107708. https://doi.org/10.1016/j.chb.2023.107708

Alzahrani, N. M. (2020). Augmented reality: A systematic review of its benefits and challenges in e-learning contexts. *Applied Sciences*, *10*(16), 5660. https://www.mdpi.com/2076-3417/10/16/5660

Ameen, N., Cheah, J., & Kumar, S. (2022). It's all part of the customer journey: The impact of augmented reality, chatbots, and social media on the body image and self-esteem of Generation Z female consumers. *Psychology & Marketing*.

Armstrong, R. (2019). Is there a large sample size problem? *Ophthalmic and Physiological Optics, 39*, 129 - 130.

Atmowardoyo, H. (2018). Research methods in TEFL studies: Descriptive Research, Case Study, error analysis, and R & D. Journal of Language Teaching and Research, 9(1), 197. https://doi.org/10.17507/jltr.0901.25

Baldi, G., & Botti, A. (2023). The Use of Technology Enhancing Tourist Engagement at an Archaeological Site: A Cross-Cultural Analysis. *Research & Innovation Forum*.

Bano, N., & Siddiqui, S. (2022). Consumers' intention towards the use of smart technologies in tourism and hospitality (T&H) industry: a deeper insight into the integration of TAM, TPB and trust. Journal of Hospitality and Tourism Insights. https://doi.org/10.1108/JHTI-06-2022-0267

Barnsbee, L. (2018). *Target Population - an overview | ScienceDirect Topics*. Www.sciencedirect.com. https://www.sciencedirect.com/topics/engineering/target-population

Barteit, S., Lanfermann, L., Bärnighausen, T., Neuhann, F., & Beiersmann, C. (2021). Augmented, mixed, and virtual reality-based head-mounted devices for medical education: systematic review. *JMIR serious games*, *9*(3), e29080. https://games.jmir.org/2021/3/e29080/

Beanlands, H., McCay, E., Fredericks, S., Newman, K., Rose, D., Santa Mina, E., Schindel Martin, L., Schwind, J., Sidani, S., Aiello, A., & Wang, A. (2019). Decreasing stress and supporting emotional well-being among senior nursing students: A pilot test of an evidence-based intervention. Nurse Education Today, 76, 222–227. https://doi.org/10.1016/j.nedt.2019.02.009

Bhattacherjee, A. (2012). Social Science Research: Principles, Methods, and Practices. http://repository.out.ac.tz/504/

Boeren, E. (2018). The methodological underdog: A review of quantitative research in the key adult education journals. Adult Education Quarterly, 68(1), 63- 79.

Brooks, J., Reed, D. M., & Savage, B. (2016, June). Taking off with a pilot: The importance of testing research instruments. In *ECRM2016-Proceedings of the 15th European Conference on Research Methodology for Business Management": ECRM2016. Academic Conferences and publishing limited* (pp. 51-59).

Budac, A. (2015). NEXT GENERATIONS OF CONSUMERS – CHALLENGES AND OPPORTUNITIES FOR BRANDS. *Bulletin of Taras Shevchenko National University of Kyiv Economics*, *171*, 6–10. https://doi.org/10.17721/1728-2667.2015/171-6/1

Buhalis, D., & Karatay, N. (2022). Mixed reality (MR) for Generation Z in cultural heritage tourism towards metaverse. In *Information and communication technologies in tourism 2022: Proceedings of the ENTER 2022 eTourism conference, January 11–14, 2022* (pp. 16-27). Springer International Publishing. https://link.springer.com/chapter/10.1007/978-3-030-94751-4_2

Bujang, M. A., Omar, E. D., & Baharum, N. A. (2018). A review on sample size determination for Cronbach's alpha test: A simple guide for researchers. Malaysian Journal of Medical Sciences, 25(6), 85–99. https://doi.org/10.21315/mjms2018.25.6.9

Campbell, S. (2014). What is Qualitative Research? *American Society for Clinical Laboratory Science*, *27*(1), 3–3. https://doi.org/10.29074/ascls.27.1.3

Chung, N., Han, H., & Joun, Y. (2015). Tourists' intention to visit a destination: The role of augmented reality (AR) application for a heritage site. *Computers in Human Behavior*, *50*, 588–599. https://doi.org/10.1016/j.chb.2015.02.068

Çöl, B. G., İmre, M., & Yıkmış, S. (2023). Virtual reality and augmented reality technologies in gastronomy: A review. *Efood*, *4*(3), e84. https://onlinelibrary.wiley.com/doi/abs/10.1002/efd2.84

Cranmer, E. E., tom Dieck, M. C., & Fountoulaki, P. (2020). Exploring the value of augmented reality for tourism. *Tourism Management Perspectives*, *35*, 100672. https://doi.org/10.1016/j.tmp.2020.100672

Cronk, B. C. (2019). How to use SPSS®: A step-by-step guide to analysis and interpretation. Routledge.

Crooks, J. (2023). *Virtual Reality for Fashion Education* (Doctoral dissertation, Arizona State University). https://search.proquest.com/openview/f364ba4aac53b6bb5870368ca634acf1/1?pq-origsite=gscholar&cbl=18750&diss=y

Dadwal, S.S., & Hassan, A. (2016). The Augmented Reality Marketing: A Merger of Marketing and Technology in Tourism.

David, H., & Christiansen (2010). INTERIM ERROR HANDLING STRATEGIES IN A SAS BASED RESEAECH DATA MANAGEMENT SYSTE~I.

Davis, F. D. (1989). Perceived usefulness, perceived ease of use, and user acceptance of information technology. MIS Quarterly, 13(3), 319-340.

Davis, F.D. (1993). User Acceptance of Information Technology: System Characteristics, User Perceptions and Behavioral Impacts. *Int. J. Man Mach. Stud., 38*, 475-487.

Department of Statistics Malaysia. (2023). Current Population Estimates Malaysia. Malaysia Official Statistic, July.

Deshpande, A., & Girme, A. (2019). Sampling techniques. Advances and Applications in Mathematical Sciences, 18 (10), 1055-1062.

Do, H. N., Shih, W., & Ha, Q. A. (2020). Effects of mobile augmented reality apps on impulse buying behavior: An investigation in the tourism field. *Heliyon*, *6*(8).

Faqih, K. M. (2022). Factors influencing the behavioural intention to adopt a technological innovation from a developing country context: The case of mobile augmented reality games. *Technology in Society*, *69*, 101958. https://www.sciencedirect.com/science/article/pii/S0160791X22000999

Feng, D. C., Liu, Z. T., Wang, X. D., Chen, Y., Chang, J. Q., Wei, D. F., & Jiang, Z. M. (2020). Machine learning-based compressive strength prediction for concrete: An adaptive boosting approach. Construction and Building Materials, 230, 117000.

Gani, N. I. A., Rathakrishnan, M., & Krishnasamy, H. N. (2020). A PILOT TEST FOR ESTABLISHING VALIDITY AND RELIABILITY OF QUALITATIVE INTERVIEW IN THE BLENDED LEARNING ENGLISH PROFICIENCY COURSE. *Journal of Critical Reviews*, *7*(05), 140–143. https://doi.org/10.31838/jcr.07.05.23

Gharaibeh, M. K., Gharaibeh, N. K., Khan, M. A., Abu-ain, W. A. K, & Alqudah, M. K. (2021). Intention to Use Mobile Augmented Reality in the Tourism Sector. Computer Systems Science and Engineering, 37(2), 187–202. https://doi.org/10.32604/csse.2021.014902.

Ghesh, N., Alexander, M., & Davis, A. (2023). The artificial intelligence-enabled customer experience in tourism: a systematic literature review. *Tourism Review*. https://www.emerald.com/insight/content/doi/10.1108/TR-04-2023-0255/full/html

Hair, J. F., Page, M., & Brunsveld, N. (2019). Essentials of Business Research Methods (4th ed.). Routledge, an imprint of the Taylor & Francis Group.

Hamad, A., & Jia, B. (2022). How virtual reality technology has changed our lives: an overview of the current and potential applications and limitations. *International journal of environmental research and public health*, *19*(18), 11278. https://www.mdpi.com/1660-4601/19/18/11278

Hassan, Yukl, G., Mahsud, R., Prussia, G., S. (2019). Effectiveness of broad and specific leadership behaviors. Personnel Review, 48(3), 774-783.

Hatamifar, P., Ghaderi, Z., & Nikjoo, A. (2021). Factors affecting international tourists' intention to use local mobile apps in online purchase. Asia Pacific Journal of Tourism Research, 26(12), 1285-1301. https://doi.org/10.1080/10941665.2021.1983626

Hu, S. (1970). Pretesting. Encyclopedia of Quality of Life and Well-Being Research, 5048–5052. https://doi.org/10.1007/978-94-007-0753-5_2256

Jingen Liang, L., & Elliot, S. (2020). A systematic review of augmented reality tourism research: What is now and what is next? *Tourism and Hospitality Research, 21*, 15 - 30.

Kaliyadan, F., & Kulkarni, V. (2019). Types of variables, descriptive statistics, and sample size. Indian dermatology online journal, 10(1), 82. https://doi.org/10.4103%2Fidoj.IDOJ_468_18

Kaur, P., Stoltzfus, J., & Yellapu, V. (2018). Descriptive statistics. International Journal of Academic Medicine, 4(1), 60.

Keckes, A., & Tomicic, I. (2017). Augmented Reality in Tourism - Research and Applications Overview. *Interdisciplinary Description of Complex Systems*, *15*(1), 157–167. https://doi.org/10.7906/indecs.15.2.5

Khazaei, H. (2020). Integrating cognitive antecedents to UTAUT model to explain adoption of blockchain technology among Malaysian SMEs. *JOIV: International Journal on Informatics Visualization*, *4*(2), 85-90. https://joiv.org/index.php/joiv/article/view/362

Khlaif Gharaibeh, M., Khlaif Gharaibeh, N., Ayoub Khan, M., Abdel karim Abu-ain, W., & Kasim Alqudah, M. (2021). Intention to Use Mobile Augmented Reality in the Tourism Sector. *Computer Systems Science and Engineering*, *37*(2), 187–202. https://doi.org/10.32604/csse.2021.014902

Khuc, V., & Tran, D. (2021, February 1). Primary data. https://doi.org/10.31219/osf.io/f25v7

Kilic, S. (2016). Cronbach's alpha reliability coefficient. *Journal of Mood Disorders*, *6*(1), 47. https://doi.org/10.5455/jmood.20160307122823

King, G.W. (1975). An analysis of attitudinal and normative variables as predictors of intentions and behavior. *Communication Monographs, 42*, 237-244.

Kotler, P., Kartajaya, H., & Setiawan, I. (2023). *Marketing 6.0: The Future Is Immersive*. John Wiley & Sons. https://books.google.com/books?hl=en&lr=&id=I3zdEAAAQBAJ&oi=fnd&pg=PR1&dq=AR+applications+that+provide+useful+features+like+immersive+historical+insights,+real-time+navigation,+or+interactive+trip+guides+are+likely+to+be+seen+favorably+by+Gen+Z,+who+place+a+high+value+on+speed+and+convenience&ots=v17DRYDDSy&sig=Bw-pCAh8CtwwyAxJtCeHoeIR48g

Krejcie, R. V., & Morgan, D. W. (1970). Determining sample size for research activities. Educational and Psychological Measurement, 30(3), 607–610.Sekaran, U., & Bougie, R. (2016). Research method for business: a skill building approach 7th edition. John Wiley & Sons Ltd.

Laemmel, A. E. (1963). *STUDY ON APPLICATION OF CODING THEORY*. https://doi.org/10.21236/ad0401924

Lai, P. C. (1989). The Literature Review of Technology Adoption Models and Theories for the Novelty Technology. JISTEM - Journal of Information Systems and Technology Management, 14(1), 21–38. https://www.redalyc.org/journal/2032/203251213002/html/#B5

Leon, A. C., Davis, L. L., & Kraemer, H. C. (2011). The Role and Interpretation of Pilot Studies in Clinical Research. *Journal of Psychiatric Research*, *45*(5), 626–629. https://doi.org/10.1016/j.jpsychires.2010.10.008

Li, S., & Jiang, S. (2023). The Technology Acceptance on AR Memorable Tourism Experience—The Empirical Evidence from China. *Sustainability 2023*, 15, 13349. https://doi.org/10.3390/su151813349.

Lim, W. M., Jasim, K. M., & Das, M. (2024). Augmented and virtual reality in hotels: Impact on tourist satisfaction and intention to stay and return. International Journal of Hospitality Management, 116, 103631. https://doi.org/10.1016/j.ijhm.2023.103631

Lohr, S. L. (2021). Sampling: design and analysis. CRC press.

Madi, J., Al Khasawneh, M., & Dandis, A. O. (2024). Visiting and revisiting destinations: impact of augmented reality, content quality, perceived ease of use, perceived value and usefulness on E-WOM. International Journal of Quality & Reliability Management. https://doi.org/10.1108/IJQRM-10-2023-0314

Manjunatha, N. (2019). Descriptive Research. Journal of Emerging Technologies and Innovative Research, 6(6), 863-867.

Mavragani, E., & Dionysios, P. (2022). Gen "Z" and Tourism Destination: A Tourism Perspective of Augmented Reality Gaming Technology. *International Journal of Innovation and Technology Management*. https://doi.org/10.1142/s0219877022410012

Methlouthi, K., & DEKHIL, P. F. (2023). Antecedents of intention to adopt the BARDOUP AR app in tourism: exploring the role of user experience and personal innovation.

Mohamad, M. A., Hanafiah, M. H., & Radzi, S. M. (2021). Understanding tourist mobile hotel booking behaviour: Incorporating perceived enjoyment and perceived price value in the

modified Technology Acceptance Model. *Tourism & Management Studies*, *17*(1), 19-30.

Moon, J. W., & Kim, Y. G. (2001). Extending the TAM for a World-Wide-Web context. Information & management, 38(4), 217-230.

Mustapha, F., Ismail, F., Mohd Zamro Muda, Mohd Zulkifly Abdullah, Mohd, Mohd, & Teknologi Malaysia. (2021). *A "NEW NORMAL" CONCEPTUAL APPROACH; AUGMENTED REALITY (AR) TOURISM IN TERENGGANU*. https://doi.org/10.46754/gtc.2021.11.007

Osman, S. (2022). Virtual Tourism Experience: A Tale from Malaysia. In *Technology Application in Tourism in Asia: Innovations, Theories and Practices* (pp. 283-294). Singapore: Springer Nature Singapore. https://link.springer.com/chapter/10.1007/978-981-16-5461-9_17

Oyman, M., Bal, D., & Ozer, S. (2022). Extending the technology acceptance model to explain how perceived augmented reality affects consumers' perceptions. *Computers in Human Behavior*, *128*, 107127. https://www.sciencedirect.com/science/article/pii/S0747563221004507

Papakostas, C., Troussas, C., Krouska, A., & Sgouropoulou, C. (2021). Measuring user experience, usability and interactivity of a personalized mobile augmented reality training system. Sensors, 21(11), 3888.

Pencarelli, T. (2020). The digital revolution in the travel and tourism industry. *Information Technology & Tourism*, *22*(3), 455-476. https://link.springer.com/article/10.1007/s40558-019-00160-3

Perinetti, G. (2019). StaTips part VI: Bivariate correlation. South European journal of orthodontics and dentofacial research, 6(1), 2-5.

Perla, R. J., & Provost, L. P. (2012). Judgment Sampling. Quality Management in Health Care, 21(3), 169–175. https://doi.org/10.1097/qmh.0b013e31825e8806

Pricope (Vancia), A.P., Băltescu, C.A., Brătucu, G., Tecău, A.S., Chițu, I.B., & Duguleană, L. (2023). Examining the Disruptive Potential of Generation Z Tourists on the Travel Industry in the Digital Age. *Sustainability*.

Prodan, M. P., Tanković, A. C., & Čehić, E. (2023). Intention To Use Augmented Reality In Tourism: Exploring The Mediator Relation Of Hedonic Motivation. Tourism and Hospitality Planning & Development, no 44, 2023. DOI:10.34624/rtd.v44i0.30837.

Puddicombe, M. S., & Johnson, B. (2011). Research and Theory Building in Construction Management. *International Journal of Construction Education and Research*, *7*(2), 126–142. https://doi.org/10.1080/15578771.2011.557142

Reineck, C. A. (1995). Pilot Testing an Independent Study Series on Research. *The Journal of Continuing Education in Nursing*, *26*(6), 249–252. https://doi.org/10.3928/0022-0124-19951101-05

Rese, A., Baier, D., Geyer-Schulz, A., & Schreiber, S. (2021). How augmented reality apps are accepted by consumers: A comparative analysis using scales and opinions. Technological Forecasting and Social Change, 124, 306-319.

Ronaghi, M. H., & Ronaghi, M. (2022). A Contextualized Study Of The Usage Of The Augmented Reality Technology In The Tourism Industry. Decision Analytics Journal, Volume 5, December 2022, 100136. https://doi.org/10.1016/j.dajour.2022.100136.

Rouibah, K., Al-Qirim, N., Hwang, Y., & Pouri, S. G. (2021). The determinants of eWoM in social commerce: The role of perceived value, perceived enjoyment, trust, risks, and satisfaction. *Journal of Global Information Management (JGIM)*, *29*(3), 75-102.

Russo, M. (2021). AR in the Architecture Domain: State of the Art. *Applied Sciences*, *11*(15), 6800. https://www.mdpi.com/2076-3417/11/15/6800

Saneinia, S., Zhou, R., Gholizadeh, A., & Asmi, F. (2022). Immersive Media-Based Tourism Emerging Challenge of VR Addiction Among Generation Z. *Frontiers in Public Health*, *10*. https://doi.org/10.3389/fpubh.2022.833658

Santi, G. M., Ceruti, A., Liverani, A., & Osti, F. (2021). Augmented reality in industry 4.0 and future innovation programs. *Technologies*, *9*(2), 33. https://www.mdpi.com/2227-7080/9/2/33

Schindler, P. S. (2022). Business Research Methods: Fourteenth Edition. McGrawHill.

Senalasari, W., Setiawati, L., & Wibisono, N. (2022). The Role of Technology Acceptance and Readiness on Intention to Adopt Virtual Tourism Technology during The New Normal Era. Proceedings of the International Conference on Applied Science and Technology on Social Science 2022 (iCAST-SS 2022), pp.212-217. DOI:10.2991/978-2-494069-83-1_38.

Sevim, B., & Çalışkan, G. (2021). Augmented Reality Technologies From the Tourist Perspective: A Systematic Review. *Journal of Tourism and Gastronomy Studies*, *9*(3), 1501–1521. https://doi.org/10.21325/jotags.2021.851

Shen, S., Xu, K., Sotiriadis, M., & Wang, Y. (2022). Exploring the factors influencing the adoption and usage of Augmented Reality and Virtual Reality applications in tourism education within the context of COVID-19 pandemic. Journal of hospitality, leisure, sport & tourism education, 30, 100373. https://doi.org/10.1016/j.jhlste.2022.10037

Shin, H. H., & Jeong, M. (2021). Travelers' motivations to adopt augmented reality (AR) applications in a tourism destination. Journal of Hospitality and Tourism Technology, 12(2), 389-405. https://doi.org/10.1108/JHTT-08-2018-0082

Siang, T. G., Aziz, K. A., & Ahmad, Z. (2020). Developing a framework for augmented reality mobile application success and world heritage sites sustainability. *International Journal of Advanced Science and Technology*, *29*(108), 287-296.

Singh, J. A., Siddiqi, M., Parameshwar, P., & Chandra-Mouli, V. (2019). World Health Organization Guidance on Ethical Considerations in Planning and Reviewing Research Studies on Sexual and Reproductive Health in Adolescents. *Journal of Adolescent Health*, *64*(4), 427–429. https://doi.org/10.1016/j.jadohealth.2019.01.008

Smith, T. (2021). Qualitative and quantitative research. Salem Press Encyclopedia.

Teo, K. S., & Wong, Y. W. (2023). *The determinants of Augmented Reality (AR) marketing affect purchase intention in the beauty and makeup industry among gen z in Malaysia*

Tjiptono, F., Khan, G., Yeong, E. S., & Kunchamboo, V. (2020). Generation Z in Malaysia: The Four 'E' generation. The New Generation Z in Asia: Dynamics, Differences, Digitalisation, 149–163. https://doi.org/10.1108/978-1-80043-220 820201015

Treder, M. (2022). Analyzing Data. *Apress EBooks*, 353–381. https://doi.org/10.1007/978-1-4842-6115-6_20

Vitezić, V., & Perić, M. (2021). Artificial intelligence acceptance in services: connecting with Generation Z. The Service Industries Journal, 41(13-14), 926-946. https://doi.org/10.1080/02642069.2021.1974406

Whitehead, A. L., Julious, S. A., Cooper, C. L., & Campbell, M. J. (2015). Estimating the sample size for a pilot randomised trial to minimise the overall trial sample size for the external pilot and main trial for a continuous outcome variable. Statistical Methods in Medical Research, 25(3), 1057– 1073. https://doi.org/10.1177/0962280215588241

Yu, J., Kim, S., Hailu, T. B., Park, J., & Han, H. (2024). The effects of virtual reality (VR) and augmented reality (AR) on senior tourists' experiential quality, perceived advantages, perceived enjoyment, and reuse intention. *Current Issues in Tourism*, *27*(3), 464-478.

Zhuang, X., Hou, X., Feng, Z., Lin, Z., & Li, J. (2021). Subjective norms, attitudes, and intentions of AR technology use in tourism experience: The moderating effect of millennials. Leisure Studies, 40(3), 392-406. https://doi.org/10.1080/02614367.2020.1843692

Appendices

Appendix 1

Questionnaire in Section A: (Filtering Question)

Filtering Question for Judgemental Sampling Method	
Age range	o Born in between year 1997-2012 o Not born in year between 1997-2012
Interest in Augmented Reality	o Yes o No
Technological proficiency	o Unfamiliar o Average o Familiar

Appendix 2

Questionnaire in Section B: (Demographic Question)

No	Question	Selection
Q1	Age	o 12-15 o 16-19 o 20-23 o 24-27
Q2	Gender	o Male o Female
Q3	Race	o Chinese o Malay o Indian o Others
Q4	State	o Perlis o Kedah o Penang o Perak o Pahang o Terengganu o Selangor o Negeri Sembilan

		○ Melaka ○ Johor ○ Kelantan ○ Sabah ○ Sarawak
Q5	Education level	○ Secondary education ○ Tertiary education ○ Others
Q6	Occupation	○ Student ○ Employee ○ Others
Q7	Monthly income	○ Below RM1,000 ○ RM1,000-RM2,999 ○ RM3,000-RM4,999 ○ RM5,000-RM6,999 ○ RM7,000 and above ○ Others
Q8	How would you rate your level of comfort and proficiency with using technology (e.g., smartphones, apps, AR)?	○ Very high ○ High ○ Moderate ○ Low ○ Very low
Q9	How aware are you of the use of Augmented Reality (AR) in the tourism industry?	○ Very aware ○ Aware ○ Somewhat aware ○ Not aware

Appendix 3

Origins of Construct:

Questionnaire:

Section C: Questions pertaining to independent variable					
No	Constructs		Adapted Items	Original Items	Sources
1	Perceived usefulness	PU1	I think it is useful to integrate AR into tourism as it offers enhanced information about tourist destinations.	AR is useful in providing information in tourism industry.	Cranmer et al., 2020
		PU2	I think integrating AR into tourism enhances tourists' learning about destination spots.	Using AR application improves my learning performance.	Papakostas et al, 2021
		PU3	I think integration of AR make tourism industry more productive.	Using AR application makes my training more productive.	Papakostas et al, 2021
		PU4	I think integration of AR enhance tourist's effectiveness during their tourism experience.	Using AR application enhances my effectiveness on my training.	Papakostas et al, 2021
		PU5	I think integration of AR technology facilitates user convenience for tourists in the industry.	AR make user feel convenient in tourism industry.	Cranmer et al., 2020
2	Perceived ease of use	PEOU1	I think integration of AR features offer a	AR feature is very easy to use.	Rese et al, 2021

			simple usage experience.		
		PEOU2	I think integration of AR features are naturally easy to use.	AR feature is intuitive to use.	Rese et al, 2021
		PEOU3	I find using AR becomes straightforward when integrated into tourism applications.	It is easy to learn how to use AR feature.	Papakostas et al, 2021
		PEOU4	I think that my interaction with AR applications become clear and understandable when they are integrated into the tourism industry.	My interaction with AR application is clear and understandable.	Papakostas et al, 2021
		PEOU5	I think the integration of AR is easy for tourist to do what they want to do.	I find it easy to get AR application to do what I want to do.	Papakostas et al, 2021
3	Attitude	ATT1	I think tourists generally respond positively to AR technologies.	Tourists have a positive approach to augmented reality technologies.	Sevim & Çalışkan, 2021
		ATT2	I think the usage of AR lead to tourist's satisfaction towards the benefits of AR and influence the tourist's	Augmented Reality technologies' perceived advantage and aesthetics affect	Sevim & Çalışkan, 2021

			intention to use AR in tourism industry.	satisfaction and behavioral intention.	
		ATT3	I think AR functional features make the tourists satisfy and lead to intention to use AR.	Tourists are satisfied with the functional features of AR.	Sevim & Çalışkan, 2021
		ATT4	I think AR features such as personalized service, content, and system quality will bring the satisfaction to tourists and effect on their intention to use AR.	The personalized service, content, and system quality affected satisfaction and the intention	Sevim & Çalışkan, 2021
		ATT5	I think the rising popularity of AR technology in tourism destinations reflects my desire for innovative experiences.	This generation's demand for innovative experiences has led to the exploration of AR gaming technology in tourism destinations.	Mavragani & Dionysios, 2022
4	Perceived enjoyment	PE1	I think employing AR enhances my enjoyment when exploring tourist spots.	The individual finds the interaction intrinsically enjoyable or interesting.	Moon & Kim, 2001

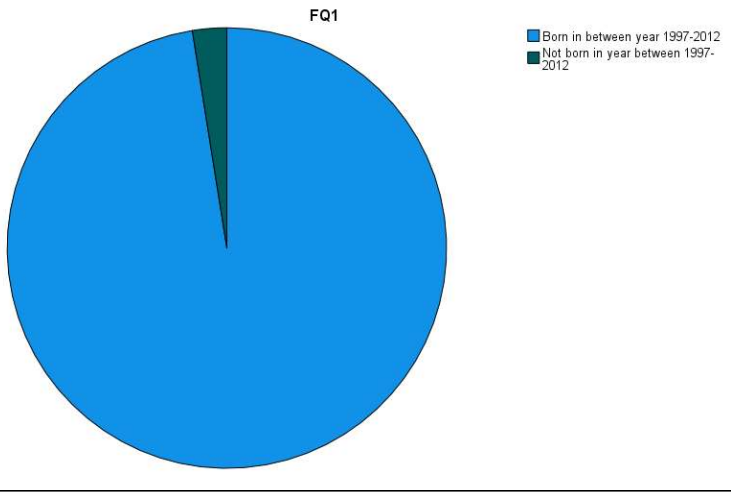
		PE2	I think employing AR contributes to my happiness while exploring tourist attractions.	Using WWW keeps me feel happy.	Moon & Kim, 2001
		PE3	I think employing AR encourages me to explore further and discover hidden gems at tourist destinations.	Using WWW leads to my exploration.	Moon & Kim, 2001
		PE4	I think employing AR fuels my imagination, creating immersive experiences at tourist spots.	By having WWW, it helps to arouse my imagination.	Moon & Kim, 2001
		PE5	I think employing AR sparks my curiosity as I discover new aspects of tourist spots.	The individual is curious during the interaction.	Moon & Kim, 2001

Section D: Questions pertaining to dependent variable					
No	Constructs		Adapted Items	Original Items	Sources
1	Intention to use AR in tourism industry	IU1	I find AR easy to use and understand, which increases my willingness to accept it in tourism.	I think it does not require much effort to use an augmented reality application.	Alam et al., 2022
		IU2	AR makes it simple to share its benefits and how it works with others, enhancing its acceptance in the tourism industry.	I could communicate to others the consequences of using AR.	Alam et al., 2022

		IU3	Using AR saves my time during tourism activities, making it more likely for me to accept and use it regularly.	I think using the mobile internet will enable me to conduct tourist activities more quickly.	Khlaif Gharaibeh et al., 2021
		IU4	AR makes tourism activities more fun and enjoyable, increasing my acceptance of its use.	Using mobile internet in touristic activities will be very entertaining.	Khlaif Gharaibeh et al., 2021
		IU5	AR increases my desire to use it in every tourism activity, showing a high level of acceptance.	I will always try to use the mobile internet in my touristic life.	Khlaif Gharaibeh et al., 2021

Appendix 4

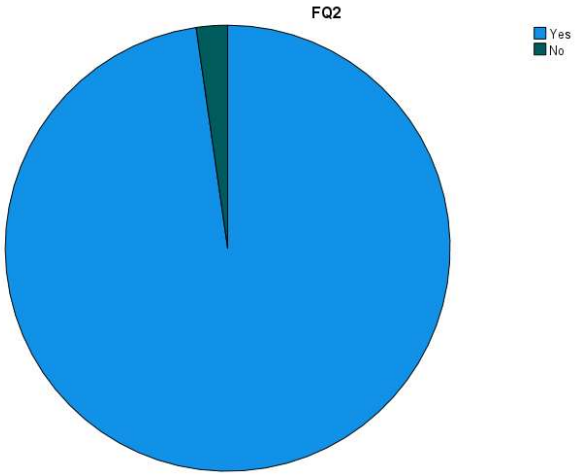
Descriptive Analysis



FQ1

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Born in between year 1997-2012	387	97.5	97.5	97.5
	Not born in year between 1997-2012	10	2.5	2.5	100.0
	Total	397	100.0	100.0	

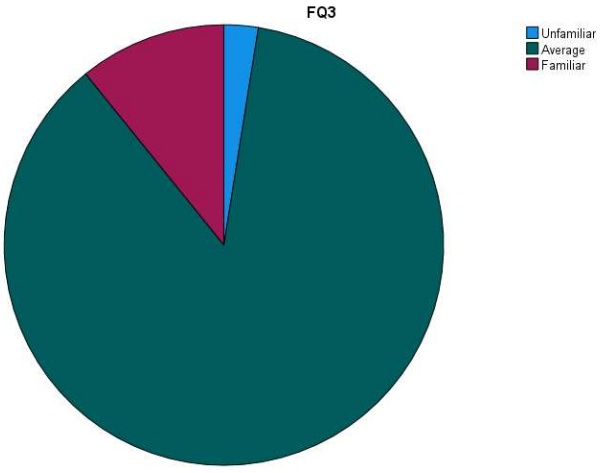
Figure 4.1.1 Age Range of Respondents



FQ2

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Yes	388	97.7	97.7	97.7
	No	9	2.3	2.3	100.0
	Total	397	100.0	100.0	

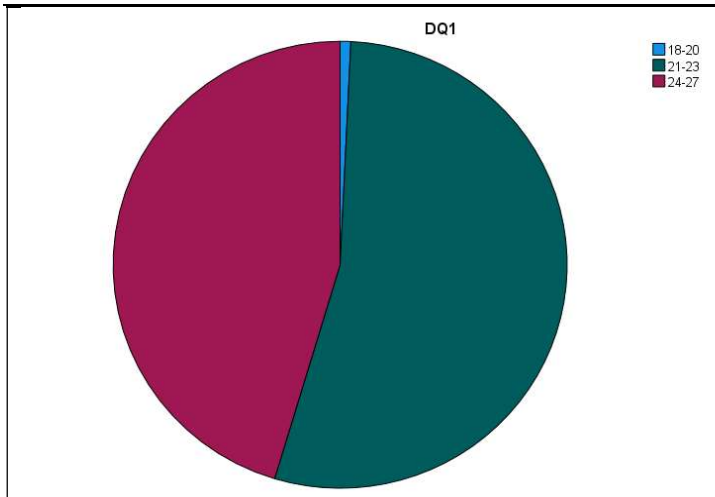
Figure 4.1.2 Interest in Augmented Reality



FQ3

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Unfamiliar	10	2.5	2.5	2.5
	Average	344	86.6	86.6	89.2
	Familiar	43	10.8	10.8	100.0
	Total	397	100.0	100.0	

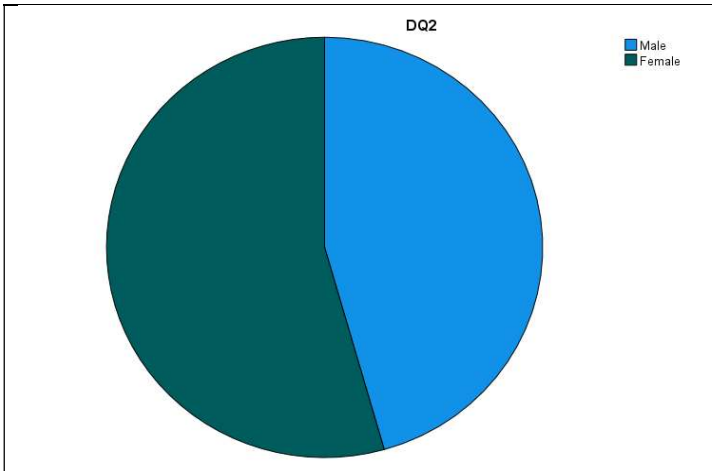
Figure 4.1.3 Technological proficiency



DQ1

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	18-20	3	.8	.8	.8
	21-23	214	53.9	53.9	54.7
	24-27	180	45.3	45.3	100.0
	Total	397	100.0	100.0	

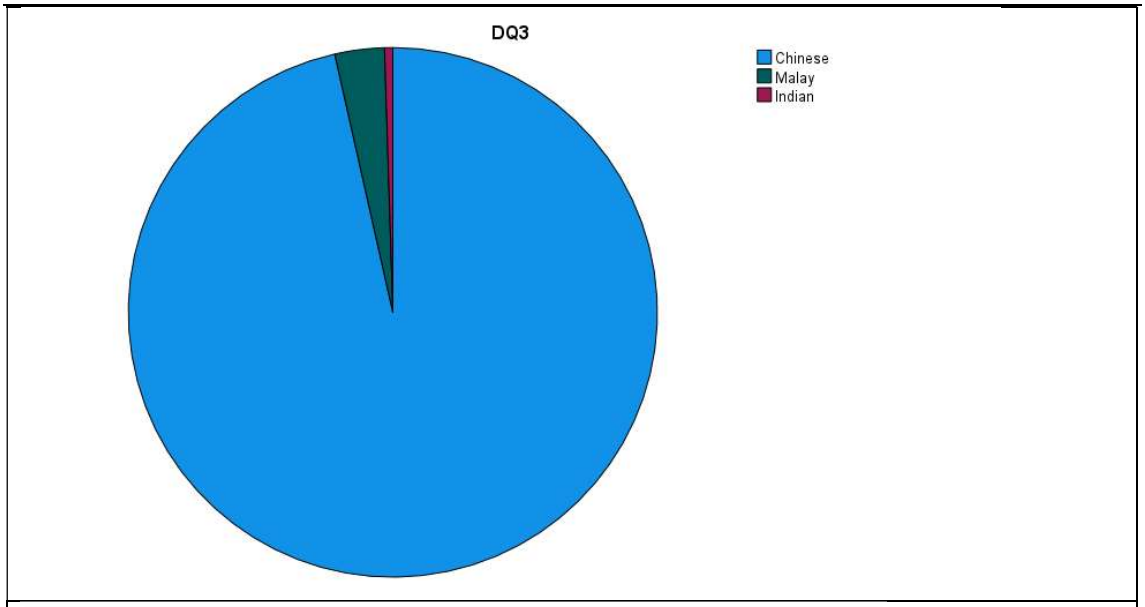
Figure 4.1.4 Age



DQ2

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Male	181	45.6	45.6	45.6
	Female	216	54.4	54.4	100.0
	Total	397	100.0	100.0	

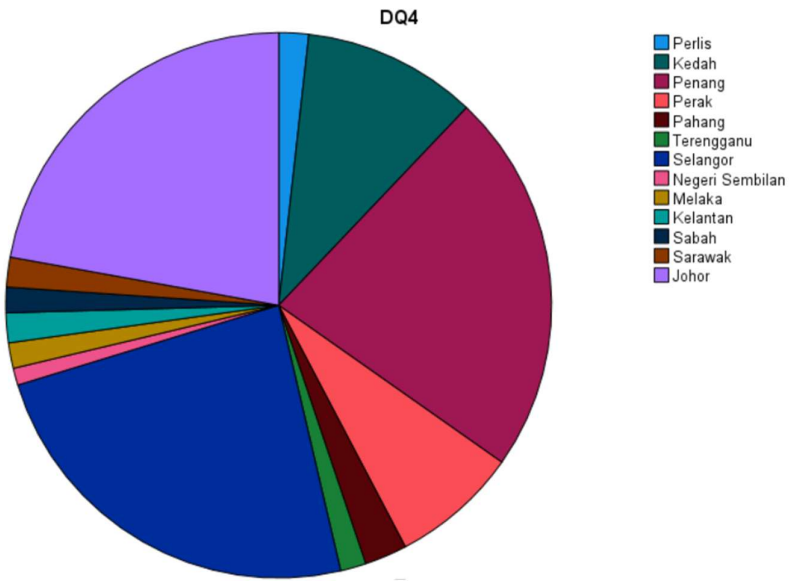
Figure 4.1.5 Gender



DQ3

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Chinese	383	96.5	96.5	96.5
	Malay	12	3.0	3.0	99.5
	Indian	2	.5	.5	100.0
	Total	397	100.0	100.0	

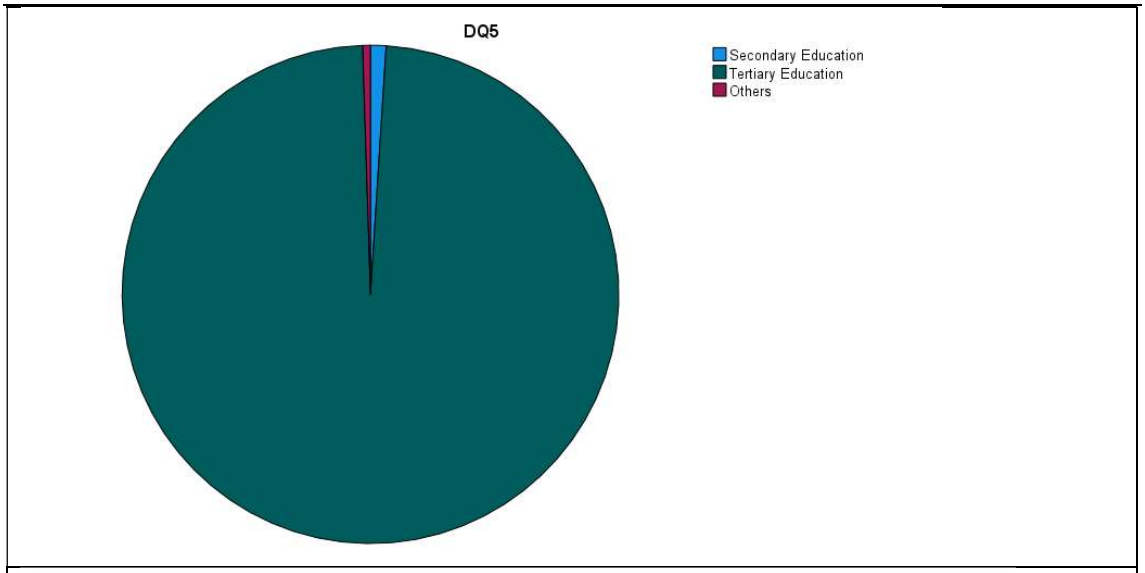
Figure 4.1.6 Race



DQ4

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Perlis	7	1.8	1.8	1.8
	Kedah	41	10.3	10.3	12.1
	Penang	90	22.7	22.7	34.8
	Perak	30	7.6	7.6	42.3
	Pahang	10	2.5	2.5	44.8
	Terengganu	6	1.5	1.5	46.3
	Selangor	95	23.9	23.9	70.3
	Negeri Sembilan	4	1.0	1.0	71.3
	Melaka	6	1.5	1.5	72.8
	Kelantan	7	1.8	1.8	74.6
	Sabah	6	1.5	1.5	76.1
	Sarawak	7	1.8	1.8	77.8
	Johor	88	22.2	22.2	100.0
	Total	397	100.0	100.0	

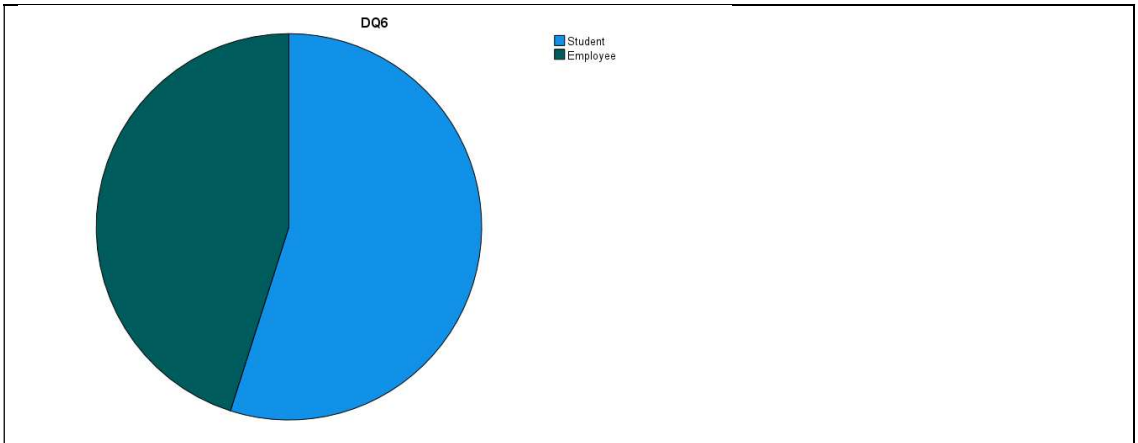
Figure 4.1.7 State



DQ5

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Secondary Education	4	1.0	1.0	1.0
	Tertiary Education	391	98.5	98.5	99.5
	Others	2	.5	.5	100.0
	Total	397	100.0	100.0	

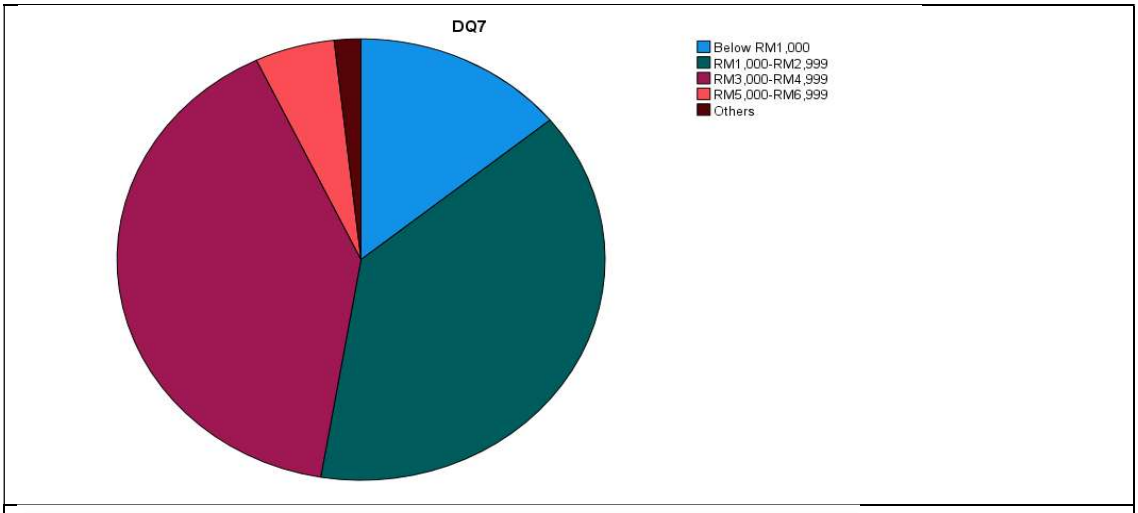
Figure 4.1.8 Education level



DQ6

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Student	218	54.9	54.9	54.9
	Employee	179	45.1	45.1	100.0
	Total	397	100.0	100.0	

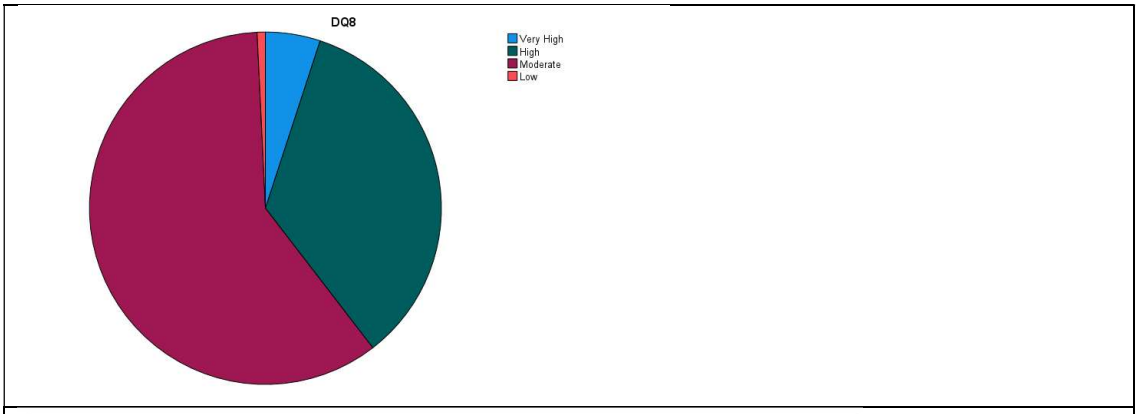
Figure 4.1.9 Occupation



DQ7

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Below RM1,000	56	14.1	14.1	14.1
	RM1,000-RM2,999	153	38.5	38.5	52.6
	RM3,000-RM4,999	160	40.3	40.3	92.9
	RM5,000-RM6,999	21	5.3	5.3	98.2
	Others	7	1.8	1.8	100.0
	Total	397	100.0	100.0	

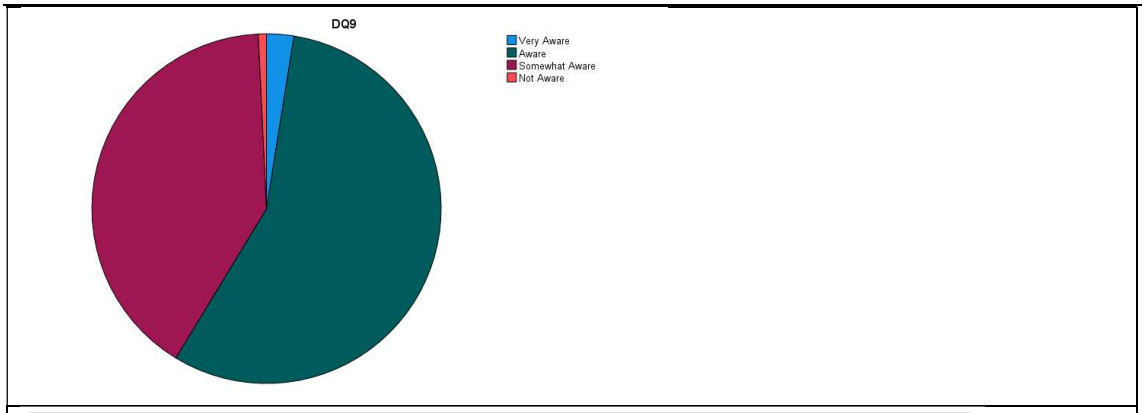
Figure 4.1.10 Monthly income



DQ8

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Very High	20	5.0	5.0	5.0
	High	137	34.5	34.5	39.5
	Moderate	237	59.7	59.7	99.2
	Low	3	.8	.8	100.0
	Total	397	100.0	100.0	

Figure 4.1.11 Level of comfort and proficiency with using technology



DQ9

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Very Aware	10	2.5	2.5	2.5
	Aware	223	56.2	56.2	58.7
	Somewhat Aware	161	40.6	40.6	99.2
	Not Aware	3	.8	.8	100.0
	Total	397	100.0	100.0	

Figure 4.1.12 Aware of the use of Augmented Reality (AR) in the tourism industry

Appendix 5

Survey Questionnaire

Section A: Filtering Question

In this section, the respondents will do with the filtering questions to make sure that the respondents are meet with the requirements.

Q1: Age Range *

- ◯ Born in between year 1997-2012
- ◯ Not born in year between 1997-2012

Q2: Interest in Augmented Reality *

- ◯ Yes
- ◯ No

Q3: Technological proficiency *

- ◯ Unfamiliar
- ◯ Average
- ◯ Familiar

Section B: Demographic Question

In this section, the respondents will answer on the questions that related to the demographic.

Q1: Age *

- ◯ 18-20
- ◯ 21-23
- ◯ 24-27

Q2: Gender *

- ◯ Male
- ◯ Female

Q3: Race *

- ◯ Chinese
- ◯ Malay
- ◯ Indian
- ◯ Other: _____

Q4: State *

- ◯ Perlis
- ◯ Kedah
- ◯ Penang
- ◯ Perak
- ◯ Pahang
- ◯ Terengganu
- ◯ Selangor
- ◯ Negeri Sembilan
- ◯ Melaka
- ◯ Johor
- ◯ Kelantan
- ◯ Sabah
- ◯ Sarawak

Q5: Education level *

- ◯ Primary Education
- ◯ Secondary Education
- ◯ Tertiary Education
- ◯ Other: _____

Q6: Occupation *

- ◯ Student
- ◯ Employee
- ◯ Other: _____

Q7: Monthly income *

- ◯ Below RM1,000
- ◯ RM1,000-RM2,999
- ◯ RM3,000-RM4,999
- ◯ RM5,000-RM6,999
- ◯ RM7,000 and above
- ◯ Other: _____

Q8: How would you rate your level of comfort and proficiency with using technology (e.g., smartphones, apps, AR)? *

- ◯ Very high
- ◯ High
- ◯ Moderate
- ◯ Low
- ◯ Very low

Q9: How aware are you of the use of Augmented Reality (AR) in the tourism industry? *

- ◯ Very aware
- ◯ Aware
- ◯ Somewhat aware
- ◯ Not aware

Section C: Instrument Question

In this section, the respondents will be answering on the question that pertaining to the independent variables that directly related to the research objective.

Perceived Usefulness

Q1. I think it is useful to integrate AR into tourism as it offers enhanced information about tourist destinations. *

	1	2	3	4	5	
Strongly disagree	○	○	○	○	○	Strongly agree

Q2. I think integrating AR into tourism enhances tourists' learning about destination spots. *

	1	2	3	4	5	
Strongly disagree	○	○	○	○	○	Strongly agree

Q3. I think integration of AR make tourism industry more productive. *

	1	2	3	4	5	
Strongly disagree	○	○	○	○	○	Strongly agree

Q4. I think integration of AR enhance tourist's effectiveness during their tourism experience. *

	1	2	3	4	5	
Strongly disagree	○	○	○	○	○	Strongly agree

Q5. I think integration of AR technology facilitates user convenience for tourists in the industry *

	1	2	3	4	5	
Strongly disagree	○	○	○	○	○	Strongly agree

Perceived Ease of Use

Q1. I think integration of AR features offer a simple usage experience. *

	1	2	3	4	5	
Strongly disagree	○	○	○	○	○	Strongly agree

Q2. I think integration of AR features are naturally easy to use. *

	1	2	3	4	5	
Strongly disagree	○	○	○	○	○	Strongly agree

Q3. I find using AR becomes straightforward when integrated into tourism applications. *

	1	2	3	4	5	
Strongly disagree	○	○	○	○	○	Strongly agree

Q4. I think that my interaction with AR applications become clear and understandable when they are integrated into the tourism industry. *

	1	2	3	4	5	
Strongly disagree	○	○	○	○	○	Strongly agree

Q5. I think the integration of AR is easy for tourist to do what they want to do. *

	1	2	3	4	5	
Strongly disagree	○	○	○	○	○	Strongly agree

Attitude

Q1: I think tourists generally respond positively to AR technologies. *

	1	2	3	4	5	
Strongly disagree	○	○	○	○	○	Strongly agree

Q2: I think the usage of AR leads to tourists' satisfaction with the benefits of AR and influences the tourist's intention to use AR in the tourism industry. *

	1	2	3	4	5	
Strongly disagree	○	○	○	○	○	Strongly agree

Q3: I think AR functional features satisfy tourists and lead to the intention to use AR. *

	1	2	3	4	5	
Strongly disagree	○	○	○	○	○	Strongly agree

Q4: I think AR features such as personalized service, content, and system quality will bring satisfaction to tourists and affect their intention to use AR. *

	1	2	3	4	5	
Strongly disagree	○	○	○	○	○	Strongly agree

Q5: I think the rising popularity of AR technology in tourism destinations reflects my desire for innovative experiences. *

	1	2	3	4	5	
Strongly disagree	○	○	○	○	○	Strongly agree

Perceived enjoyment

Q1. I think employing AR enhances my enjoyment when exploring tourist spots. *

	1	2	3	4	5	
Strongly disagree	○	○	○	○	○	Strongly agree

Q2. I think employing AR contributes to my happiness while exploring tourist attractions. *

	1	2	3	4	5	
Strongly disagree	○	○	○	○	○	Strongly agree

Q3. I think employing AR encourages me to explore further and discover hidden gems at tourist destinations. *

	1	2	3	4	5	
Strongly disagree	○	○	○	○	○	Strongly agree

Q4. I think employing AR fuels my imagination, creating immersive experiences at tourist spots. *

	1	2	3	4	5	
Strongly disagree	○	○	○	○	○	Strongly agree

Q5. I think employing AR sparks my curiosity as I discover new aspects of tourist spots. *

	1	2	3	4	5	
Strongly disagree	○	○	○	○	○	Strongly agree

Section D: Instrument Question

In this section, the respondents will be answering on the question that pertaining to the dependent variables that directly related to the research objective.

Q1: I find AR easy to use and understand, which increases my willingness to accept it in tourism. *

	1	2	3	4	5	
Strongly disagree	○	○	○	○	○	Strongly agree

Q2: AR makes it simple to share its benefits and how it works with others, enhancing its acceptance in the tourism industry. *

	1	2	3	4	5	
Strongly disagree	○	○	○	○	○	Strongly agree

Q3: Using AR saves my time during tourism activities, making it more likely for me to accept and use it regularly. *

	1	2	3	4	5	
Strongly disagree	○	○	○	○	○	Strongly agree

Q4: AR makes tourism activities more fun and enjoyable, increasing my acceptance of its use. *

	1	2	3	4	5	
Strongly disagree	○	○	○	○	○	Strongly agree

Q5: AR increases my desire to use it in every tourism activity, showing a high level of acceptance. *

	1	2	3	4	5	
Strongly disagree	○	○	○	○	○	Strongly agree

Appendix 6

Survey Question Permission Letter

UNIVERSITI TUNKU ABDUL RAHMAN *DU012(A)*
Wholly owned by UTAR Education Foundation *(200201010564(578227-M))*
Faculty of Business and Finance
Jalan Universiti, Bandar Barat, 31900 Kampar, Perak
Phone: 05-468-8888
https://fbf.utar.edu.my/

27 May 2024

To Whom It May Concern

Dear Sir/Madam,

Permission to Conduct Survey

This is to confirm that the following students are currently pursuing their *Bachelor of Marketing (Honours)* program at the Faculty of Business and Finance, Universiti Tunku Abdul Rahman (UTAR) Perak Campus.

I would be most grateful if you could assist them by allowing them to conduct their research at your institution. All information collected will be kept confidential and used only for academic purposes.

The students are as follows:

Name of Student	Student ID
Teh Yi Ming	20ABB04717
Kua Siau Wen	20ABB05696

If you need further verification, please do not hesitate to contact me.

Thank you.

Yours sincerely,

.....

Dr Choy Johnn Yee
Head of Department
Faculty of Business and Finance
Email: choyjy@utar.edu.my

Appendix 7

Survey Questionnaire

Greeting to all,

We are final year undergraduate students of Bachelor of Marketing (Hons), from Faculty of Business and Finance in University Tunku Abdul Rahman (UTAR) Kampar campus. As part of our research, we are conducting a research project on **" Examining the determinants of Gen Z's intention to use AR in Malaysia Tourism Industry"** This research aims to **(To examining the factors that influence the intention of AR in tourism industry).**

This survey will only take you approximately **5 minutes**, and all participation towards this survey are voluntary. Rest assured that all the responses collected will be used solely for academic purposes and will be kept private and confidential. Thank you in advance for your time and cooperation in answering our questionnaire.

Your participation is highly appreciated.

For further inquiries, please contact us at **(yiminn02@1utar.my).**

Yours sincerely,

Name and ID of Student 1 & 2

Prepared by:

Teh Yi Ming

Name and Signature of Student 1

Kua Siau Wen

Name and Signature of Student 2

Endorsed by:

Ms Yip Yen San

Name and Signature of Supervisor

Appendix 8

Pilot Test

Dependent Variable: Intention to Use AR in Malaysia's Tourism Industry

Reliability Statistics

Cronbach's Alpha	N of Items
.784	5

Independent Variable 1: Perceived Usefulness

Reliability Statistics

Cronbach's Alpha	N of Items
.704	5

Independent Variable 2: Perceived Ease of Use

Reliability Statistics

Cronbach's Alpha	N of Items
.700	5

Independent Variable 3: Attitude

Reliability Statistics

Cronbach's Alpha	N of Items
.797	5

Independent Variable 4: Perceived Enjoyment

Reliability Statistics

Cronbach's Alpha	N of Items
.685	5

Appendix 9

Dependent Variable: Intention to Use AR in Malaysia's Tourism Industry

Reliability Statistics

Cronbach's Alpha	N of Items
.854	5

Independent Variable 1: Perceived Usefulness

Reliability Statistics

Cronbach's Alpha	N of Items
.868	5

Independent Variable 2: Perceived Ease of Use

Reliability Statistics

Cronbach's Alpha	N of Items
.871	5

Independent Variable 3: Attitude

Reliability Statistics

Cronbach's Alpha	N of Items
.885	5

Independent Variable 4: Perceived Enjoyment

Reliability Statistics

Cronbach's Alpha	N of Items
.824	5

Appendix 10

Pearson Correlation Analysis

Correlations

		PU	PEUO	ATT	PE	IU
PU	Pearson Correlation	1	.474**	.495**	.455**	.504**
	Sig. (2-tailed)		.000	.000	.000	.000
	N	397	397	397	397	397
PEUO	Pearson Correlation	.474**	1	.496**	.532**	.483**
	Sig. (2-tailed)	.000		.000	.000	.000
	N	397	397	397	397	397
ATT	Pearson Correlation	.495**	.496**	1	.573**	.531**
	Sig. (2-tailed)	.000	.000		.000	.000
	N	397	397	397	397	397
PE	Pearson Correlation	.455**	.532**	.573**	1	.488**
	Sig. (2-tailed)	.000	.000	.000		.000
	N	397	397	397	397	397
IU	Pearson Correlation	.504**	.483**	.531**	.488**	1
	Sig. (2-tailed)	.000	.000	.000	.000	
	N	397	397	397	397	397

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

Appendix 11

Multiple Regression Analysis

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.635[a]	.403	.397	.38029

a. Predictors: (Constant), PE, PU, PEUO, ATT

ANOVA[a]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	38.305	4	9.576	66.216	.000[b]
	Residual	56.692	392	.145		
	Total	94.997	396			

a. Dependent Variable: IU

b. Predictors: (Constant), PE, PU, PEUO, ATT

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients		
		B	Std. Error	Beta	t	Sig.
1	(Constant)	.613	.208		2.949	.003
	PU	.240	.049	.233	4.888	.000
	PEUO	.191	.055	.171	3.457	.001
	ATT	.243	.051	.244	4.762	.000
	PE	.163	.055	.151	2.943	.003

a. Dependent Variable: IU