



**INTEGRATED MODEL FOR TOURISTS' INTENTION USING WEB 3.0  
BASED ON TECHNOLOGY ACCEPTANCE MODEL AND UPDATED  
INFORMATION SYSTEMS SUCCESS MODEL**

**By**

**MOHAMMED ABDO MOHAMMED ALBAOM**

**Thesis Submitted to the School of Graduate Studies, Universiti Putra Malaysia,  
in Fulfilment of the Requirements for the Degree of Doctor of Philosophy**

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Abstract of thesis presented to the Senate of Universiti Putra Malaysia in fulfilment  
of the requirement for the degree of Doctor of Philosophy

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**February 2024**

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The rapid revolution of information technology has enhanced the global tourism industry that positively changed the structure of economy in large scale. Today, tourists face difficulties to find information to meet their needs or exceed their expectations due to the huge amount of information in the current web and tourism portals. This has made the tourists or travelers decision to visit a particular destination very difficult. Therefore, despite the enormous transformative innovation that Web 3.0 provides, there is still a significant gap between the current applied systems and the new technology at this moment. Besides that, the literature has shown that there are only few publications that used integrated theoretical model of Technology Acceptance Model (TAM) and Delone and Mclean Information System Model (DMISM) to investigate tourist's intention to use new technology particularly Web 3.0. The main purpose of this research is to propose a conceptual integrated model to determine the factors influencing tourist's intentions to use Web 3.0. Besides that, this research is being conducted to address information overload, bridging the gap in

literature, understanding the impact of Web 3.0 on tourists' intention, advancing knowledge and understanding. In addition, this research not only defines Web 3.0, but also determines the possible challenges, risks, and opportunities that emerged from Web 3.0 technology specifically in the tourism domain. Furthermore, this study provides an overview of the application of the Web 3.0 in the tourism and how Web 3.0 will provide a great benefit to both the tourism organizations and tourists as this research issue has not investigated and enriched well in the literature. Moreover, while Web 3.0 is prominent across businesses, there is surprisingly very limited academic work devoted to study its effect on consumer's intentions to use and the tourism industry is not an exception. Besides that, the integrated model of this study was empirically tested using questionnaire survey as the data collected from 643 participants and the subsequent analysis employed structural equation modelling (SEM) via SmartPLS 3.3.3. The results revealed that perceived usefulness, perceived ease of use, information quality, system quality, service quality, computer self-efficacy, social influence, perceived privacy risk, and personal innovativeness are positively associated with tourists' intention to use Web 3.0. While awareness is negatively associated with tourists' intention to use Web 3.0. As a result, this research offers further understanding, enhances insights, and adds value to the expanding field of study. Moreover, the integrated conceptual model proposed can serve as a foundational framework adaptable across various domains for future investigations.

**Keywords:** Web 3.0, Information System Success Model, Technology Acceptance Model, Tourists.

**SDG:** GOAL 4: Quality Education

Abstrak tesis yang dikemukakan kepada Senat Universiti Putra Malaysia sebagai memenuhi keperluan untuk ijazah Doktor Falsafah

**MODEL BERSEPADU UNTUK NIAT PELANCONG MENGGUNAKAN  
WEB 3.0 BERDASARKAN MODEL PENERIMAAN TEKNOLOGI DAN  
MODEL KEJAYAAN SISTEM MAKLUMAT TERKINI**

Oleh

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Revolusi pesat teknologi maklumat telah meningkatkan industri pelancongan global yang secara positif mengubah struktur ekonomi dalam skala besar. Hari ini, pelancong menghadapi kesukaran untuk mencari maklumat untuk memenuhi keperluan mereka atau melebihi jangkaan mereka kerana jumlah maklumat yang besar dalam web semasa dan portal pelancongan. Ini telah menjadikan keputusan pelancong atau pengembara untuk melawat destinasi tertentu sangat sukar. Tujuan utama penyelidikan ini adalah untuk mencadangkan model bersepadu berkonsep untuk menentukan factor yang mempengaruhi niat pelancong untuk menggunakan Web 3.0. Oleh itu, walaupun terdapat banyak inovasi transformatif yang disediakan oleh Web 3.0, masih terdapat jurang yang ketara antara sistem gunaan semasa dan teknologi baharu pada masa ini. Selain itu, literatur menunjukkan bahawa terdapat hanya beberapa penerbitan yang menggunakan model teori bersepadu Model Penerimaan Teknologi (TAM) dan Model Sistem Maklumat Delone dan Mclean (DMISM) untuk menyiasat niat pelancong untuk menggunakan teknologi baharu khususnya Web 3.0.

Selain itu, penyelidikan ini bukan sahaja mentakrifkan Web 3.0, tetapi juga menentukan kemungkinan cabaran, risiko dan peluang yang muncul daripada teknologi Web 3.0 khususnya dalam domain pelancongan. Tambahan pula, kajian ini memberikan gambaran keseluruhan tentang aplikasi Web 3.0 dalam pelancongan dan bagaimana Web 3.0 akan memberikan manfaat yang besar kepada kedua-dua organisasi pelancongan dan pelancong kerana isu penyelidikan ini tidak disiasat dan diperkaya dengan baik dalam literatur. Selain itu, walaupun Web 3.0 menonjol di seluruh perniagaan, terdapat kerja akademik yang sangat terhad yang menghairankan untuk mengkaji kesannya terhadap niat pengguna untuk menggunakannya dan industri pelancongan tidak terkecuali. Selain itu, model bersepadu kajian ini telah diuji secara empirikal menggunakan tinjauan soal selidik kerana data yang dikumpul daripada 643 peserta dan analisis seterusnya menggunakan pemodelan persamaan struktur (SEM) melalui SmartPLS 3.3.3. Keputusan menunjukkan bahawa persepsi kebergunaan, persepsi kemudahan penggunaan, kualiti maklumat, kualiti sistem, kualiti perkhidmatan, kecekapan sendiri komputer, pengaruh sosial, persepsi risiko privasi, dan inovasi peribadi dikaitkan secara positif dengan niat pelancong untuk menggunakan Web 3.0. Manakala kesedaran dikaitkan secara negatif dengan niat pelancong untuk menggunakan Web 3.0. Hasilnya, penyelidikan ini menawarkan pemahaman lebih lanjut, mempertingkatkan cerapan dan menambah nilai kepada bidang pengajian yang semakin berkembang. Selain itu, model konseptual bersepadu yang dicadangkan boleh berfungsi sebagai rangka kerja asas yang boleh disesuaikan merentasi pelbagai domain untuk penyiasatan masa depan.

**Kata Kunci:** Web 3.0, Model Kejayaan Sistem Maklumat, Model Penerimaan Teknologi, Pelancong.

**SDG:** MATLAMAT 4: Pendidikan Berkualiti

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## LIST OF ABBREVIATIONS

|        |                                                   |
|--------|---------------------------------------------------|
| AVE    | Average Variance Extracted                        |
| DMISM  | Delone and Mclean Information System Model        |
| DOI    | Diffusion of Innovations                          |
| DTPB   | Decomposed Theory of Planned Behavior             |
| ETP    | Economic Transformation Programme                 |
| GDP    | Gross Domestic Product                            |
| HTMT   | Heterotrait-Monotrait Ratio                       |
| HTTP   | Hyper Text Transfer Protocol                      |
| ICTs   | Information and Communication Technologies        |
| IDT    | Innovation Diffusion Theory                       |
| IPMA   | Importance-Performance Matrix/Map Analysis        |
| ISSM   | Information System Success Model                  |
| LOD    | Linking Open                                      |
| MM     | Motivational Model                                |
| MOTAC  | Ministry of Tourism and Culture                   |
| MPCU   | Model of PC Utilization                           |
| OWL    | Web Ontology Language                             |
| PIIT   | Personal Innovativeness in Information Technology |
| RDFS   | Resource Description Framework Schema             |
| SCT    | Social Cognitive Theory                           |
| SEM    | Structural Equation Modelling                     |
| SOAP   | Simple Object Access Protocol                     |
| SPARQL | Simple Protocol and RDF Query Language            |
| SQL    | Structured Query Language                         |

|       |                                                    |
|-------|----------------------------------------------------|
| TAM   | Technology Acceptance Model                        |
| TPB   | Theory of Planned Behavior                         |
| TRA   | Theory of Reasoned Action                          |
| URI   | Uniform Resource Identifiers                       |
| UTAUT | Unified Theory of Acceptance and Use of Technology |
| VMY   | Visit Malaysia Year                                |
| VR    | Virtual Reality                                    |
| WTTC  | World Travel and Tourism Council                   |
| WWW   | World Wide Web Online                              |
| XML   | Extensible Markup Language                         |

## CHAPTER 1

### INTRODUCTION

#### 1.1 Background

The tourism industry is one of the leading service industries and is considered a pivotal source of economic growth in the world economy (Bhattarai and Karmacharya, 2022).

A developed and established tourism industry serves as the catalyst for national and regional development, helps establish the foreign exchange rate, creates more employment opportunities, and contributes to social development that will benefit the local community and tourists (Wang et al., 2022; Puah et al., 2018).

In addition, the travel and tourism business are one of the largest and fastest-growing industries in the world, with economic growth in 2017 (4.6%) surpassing the global economy (3%) and all other major industrial sectors for the seventh consecutive year. This indicates that the travel and tourism industry's GDP growth was 50% higher than the global economy's growth. In the same year, it employed 313 million people worldwide, or one in ten, and contributed 10.4% of global gross domestic product (GDP) (Sofronov, 2018). In the case of Malaysia, the country was placed among the top ten worldwide tourist destinations from 2009 to 2011, indicating that it was the ninth most visited location on earth also Malaysia was listed in the fifth position as the most visited country in South East Asia (Habibi, 2017).

Besides that, the vision of the Malaysian government in 2020 is to attract 30.0 million tourists' arrivals with total tourists' receipts RM100.0 billion. Therefore, tourism is becoming very strategic area to be widely studied. Equally important, online

communication options have multiplied exponentially as a result of the fast development of information and communication technologies (ICT) and their growing significance in the tourist industry (Bayrakcı and Özcan, 2022; Wong et al., 2019).

Moreover, information technology is intertwined with travel and tourism in so many ways that it will expand our capacity for creativity and our ability to anticipate the future. Because of technology, it is now feasible to obtain a variety of data in large amounts, in many forms, and potentially in real time; and because of technology, we can now "connect the dots" to map the complex tourist system (Xiang, 2018).

As a result of the fact that ICTs have revolutionized tourism on a global scale and created a plethora of innovative development opportunities for tourism (Bayrakcı and Özcan, 2022). Travel and leisure are a highly information-intensive industry; hence its development is intimately tied to the progression of new information technology. In addition, increased rivalry in the worldwide tourist industry has compelled linked businesses to implement cutting-edge ICTs in order to maintain a competitive advantage and achieve satisfying development. (Bayrakcı and Özcan, 2022).

The vast amount of digital information available on the World Wide Web Online (WWW), the diversity of web search tasks, the variety of information-seeking user profiles, and the rapid increase in the usage of varied devices have made information retrieval increasingly difficult. This has led to a growing need for contextual knowledge-based search effectiveness enhancement (An et al., 2022; Tamine and Daoud, 2018). Progress in information, interaction, and multimedia technologies, as well as the growing expansion and use of the Internet, intranets, extranets, and

websites, etc., are fostering gradual innovation in numerous fields, resulting in the proliferation of new information- and knowledge-based business models (Garrigos-Simon et al., 2012) where networks, collaborations, and partnerships between businesses and other actors are vital (Chantrapornchai and Tunsakul, 2021).

New networks and improvements in so-called Web 3.0 technology solutions are transforming business structures and value chains or networks, as well as the configuration of managers' decision-making processes. Therefore, their proper usage is vital in the contemporary social and corporate context in order to build and solidify the competitive advantages of contemporary firms (Nicolaou, 2021; Garrigos-Simon et al., 2012).

According to Lin et al. (2020) and Fotis et al. (2012), tourism is often seen as an information-intensive business. Tourists depend on Internet to discover information at the appropriate time, and at the right time, the importance of information accessibility grows (Voronkova et al., 2021; Wang et al., 2014; Fotis et al., 2012).

Additionally, there is a vast amount of tourism-related dynamic information accessible on the Internet, which is expanding exponentially. In this day of advanced online technology, an increasing number of travellers are searching for different forms of information on the Internet in order to better organise their trips (Laddha and Jawandhiya, 2017). With the tourism growth of the last decade, however, information sources play a crucial part in travellers' decision-making and destination selection. The Internet is now regarded as the primary source of product and service information for travellers. On the other hand, the sheer amount of data on the Internet has made it

difficult for travellers to comprehend information, whether they are pre-planning a vacation or making decisions while travelling (Rehman Khan et al., 2021). As several factors are involved in the decision-making process, the issue of trip planning is very complicated, time-consuming, and dynamic. The trip budget, the number of nights one wishes to spend at a specific place, the food quality, the number of persons travelling, the method of transportation, leisure activities, the weather, etc. are some of the aspects involved in travel planning (Laddha and Jawandhiya, 2021, 2020).

## **1.2 Problem Statement**

The Internet is crucial for travelers' information needs (Liu et al., 2020; Xiang, 2018), yet current technologies struggle to forecast attraction visitors accurately (Berhanu and Raj, 2020; Volchek et al., 2019; Huang et al., 2017; Zhang et al., 2017). Limited data availability and scope constrain predictive models (Wu et al., 2017), despite vast tourism data supporting better information systems (Eratne and Malkanthie, 2022; Muangon et al., 2018; Thasal et al., 2018; Kumar and Sharma, 2016). Users face challenges due to unknown search logic (Laddha et al., 2018) and outdated web interfaces (Bi et al., 2022), leading to information overload and inefficient decision-making (Komarnitskyi et al., 2022; Park et al., 2017; Magnini, 2017).

Insufficient knowledge integration (Rai and Rai, 2021; Angele et al., 2020; Ben Seghir et al., 2017; Almalahmeh, 2014; Lam and McKercher, 2013) and lack of personalization (Lee, 2022) compound these issues, highlighting the need for improved retrieval interfaces (Zhang, 2022; Laddha et al., 2018). Despite the promise of Web 3.0, research on its impact in tourism remains limited (Daif and Elsayed, 2019; Kurgun et al., 2018; Tavakoli and Mura, 2018; Ferrari, 2016; Poore, 2014).

According to Laddha and Jawandhiya (2021) tourism is a highly information-intensive industry, with tourists increasingly relying on the Internet to acquire timely information. At the same time, tourists are struggling with challenges and difficulties in finding the right information about particular destinations they intend to visit due to the highly dynamic availability of information on the current Web (Komarnitskyi et al., 2022; Zhang, 2022; Buhalis, 2019; Minić et al., 2014).

In addition, tourists should be able to look for information on activities that they are willing to take part in, and this will take considerable time and effort (Li and Fan, 2021). Many tourists have a hard time finding and using information because there is so much digital information available on the Web, as well as a wide range of search tasks, different user profiles, and many different types of devices. This has led to an increasing need to use contextual knowledge to improve the effectiveness of search functions (Tamine and Goeuriot, 2021).

The current Web has a huge amount of dynamic tourism information that is rapidly expanding. In this technological era, more travelers tend to search for travel information online (Laddha and Jawandhiya, 2021). According to Badiger et al. (2018) and Prabhu (2017) indicted that “the safety of the data on Web 2.0 is a major risk and credibility of information on the websites is still questionable”. In addition, traditional Web 2.0 sites rely heavily on keyword-based searches, which are typically time-consuming and inefficient since they require users to distinguish relevant from irrelevant information (Zhang, 2022; Li and Fan, 2021; Minić et al. 2014). Due to the deficiency of safe technology, it is difficult to preserve privacy and copyrights (Sivarajah et al., 2016; Nath et al., 2014).

Defining Web 3.0 poses a significant challenge as scholars continue to debate and exchange differing opinions, resulting in a lack of consensus on its definition (Rathor et al., 2023). Despite being in its late stage of evolution, the literature offers varying definitions, with scholars disagreeing on the concept (Wang et al., 2022). Rudman and Bruwer (2016) emphasized the need for a clear definition, noting the randomness of current definitions due to limited research on Web 3.0. Consequently, despite numerous definitions in the literature, a clear and unified definition remains elusive (Rathor et al., 2023).

Furthermore, numerous studies in the wider academic literature have investigated personal innovativeness and utilised it as a moderator in the current information systems literature by employing the technology acceptability model, including research by Alkawsi et al. (2021). According to Chen et al. (2022) and Turan et al. (2015) mentioned that there was a gap found in the previous research of the information technology studies between the acceptance of technology and personal characteristics namely personal innovativeness, user awareness and social influence.

The current literature lacks comprehensive research on the factors influencing tourists adoption of Web 3.0 technologies. While investigations into the impacts of Web 2.0 applications across various domains, including tourism, are abundant, there is a notable scarcity of studies focusing on the intention to use Web 3.0. Additionally, existing studies often overlook the integration of key theoretical models such as Technology Acceptance Model (TAM) and Information System Success Model (ISSM). Despite their prominence and extensive validation, these models are frequently applied independently. Fahrianta et al. (2018) noted a significant gap in the

literature, with minimal integration of these theoretical frameworks in relevant studies.

### **1.3 Research Questions**

- i. What is the effect of technology acceptance model factors (perceived usefulness and perceived ease of use) on tourist's intention to use Web 3.0?
- ii. What is the effect of Delone and McLean IS success model dimensions (information quality, system quality, and service quality) on tourist's intention to use Web 3.0?
- iii. What is the effect of computer self-efficacy on tourist's intention to use Web 3.0?
- iv. What is the effect of user awareness on tourist's intention to use Web 3.0?
- v. What is the effect of social influence on tourist's intention to use Web 3.0?
- vi. What is the effect of perceive privacy risk on tourist's intention to use Web 3.0?
- vii. What is the moderating effect of personal innovativeness on the relationship between (Perceived Usefulness, Perceived Ease of Use, Information Quality, System Quality, Service Quality, Computer Self-Efficacy, User Awareness, Social Influence, and Perceive Privacy Risk,) and tourist's intention to use Web 3.0?

### **1.4 Research Objectives**

The objectives of this study are listed below:

- To systematically identify and categories the factors affecting tourists' intentions to use Web 3.0.
- To develop an integrated model that incorporates the identified factors, along with TAM and DMISM dimensions, to better understand tourist's intention to use Web 3.0.

- To validate the proposed integrated model empirically by examining the relationships between the model variables through quantitative analysis.
- To investigate the moderating effect of personal innovativeness on the relationship between the model variables.

## 1.5 Significance of Study and Motivation of Research

Tourism has become a global service business in recent decades. Tourism boosts economies, therefore, governments globally promote it (Goffi et al., 2019; Suhel and Bashir, 2018). Tourism is an important service industry and global economic driver (Habibi, 2017). Tourism is constantly changing; therefore, it must adapt to new technology as more travellers utilise it. Due to Internet saturation, this is mostly accurate.

Besides that, when visitors arrive the destination, they desire the most enjoyment and sights when sightseeing in a country, area, or city (Al Fararni et al., 2021). Over the past decade, Web content and users have risen rapidly. Travellers to unfamiliar places may benefit. Tourists investigate hotels, restaurants, museums, and activities before travelling. Web search engines and travel sites may provide too many options. Travellers find it difficult and time-consuming to compare thus many options and choose the best one (Nemade et al., 2017). Online travel information searches are increasing in this technological age (Laddha and Jawandhiya, 2017).

Moreover, finding information in this large ocean of data depends on whether a human or a machine searches. Search engines are important since they supply a lot of information. We can evaluate several webpages and draw conclusions because we

grasp the information's importance (Ismail and Shaikh, 2016). Modern Web helps systems find content. It's not enough to find relevant data. For now, machines can only find information using keywords and variants. Machines cannot comprehend these ideas (Taher et al., 2021; Ismail and Shaikh, 2017). Data on Web 2.0 is disorganised. Individuals can modify websites. Users' freedom of expression and content filtration's incapacity content oversight complicates legality monitoring. Furthermore, Web 2.0 has flawed that limit business and social applications. Creative thinking is needed to tackle challenges with Web 2.0. Web 2.0 can only grow financially and help society. Thus, Web 3.0 may fix most tourism Web 2.0 issues.

In addition, the tourist sector is continuously looking for creative ways to improve client experiences and streamline operations in the current digital era. ChatGPT presents itself as a game-changing technology that might completely change how tourists use travel websites and services. ChatGPT facilitates effortless and customised communication by utilising natural language processing capabilities, accommodating the varied requirements and inclinations of voyagers. For ChatGPT to be fully utilised and its advantages fully realised, research into its integration with tourism systems is essential. Studies like Wang et al. (2012) and Xiang and Gretzel (2010) show that using AI-driven chatbots like ChatGPT increases productivity, boosts customer happiness, and encourages innovation in the travel and tourism sector. Thus, in order to maintain competitiveness in the digital economy and provide travellers with experiences that are unmatched globally, it is essential to engage in research to incorporate ChatGPT into tourist platforms.

This study investigates what factors influence travellers' Web 3.0 adoption. Combining the most reliable models, TAM and DMISM, which have been examined, tested, confirmed, and proven in numerous business domains. Most information system academics know these two models, showing their capacity to predict consumer technology adoption. Most research has used TAM and DMISM separately, limiting integration. Validity, adaptability, and study challenge fit determined these two models. Since the tourism industry is information-based, Web 3.0, which is still in development, provides a more intelligent search engine called the "semantic web" that can understand word meanings to extract all the information from different Internet sources and provide it to consumers in a more accurate, computer self-efficacy, user awareness, societal effect, perceived privacy risk, and personal innovativeness as moderator were included to the integrated model.

Notably, to indicate that these variables have been extensively studied in the literature in different contexts, but those factors were not collectively studied in the proposed integrated model to study the factors influencing tourist's intention to use Web 3.0. In addition, TAM or DMISM models have not been studied in the literature separately or integrated to study the factors influencing tourist's intention to use Web 3.0.

## **1.6 Scope of Study**

This research focuses to study the factors influencing tourist's intention to use Web 3.0 in Malaysia. The proposed model of this study was based on integrating the TAM and Updated DMISM and extended it with unique variables namely (computer self-efficacy, user awareness, social influence, perceived privacy risk including personal innovativeness as moderator) to determine the factors influencing tourist's intentions

to use Web 3.0. Besides that, this study only focuses on Web 3.0 technology and tourism in Malaysia where the data collection was done among the international tourists in Malaysia.

Besides that, since the 1980s, the government of Malaysia has prioritised the tourism business. Prior to its independence in 1957, Malaysia was heavily reliant on its primary and secondary industries. Thus, in 1987, the Ministry of Culture and Tourist was established to limit economic risk by emphasising the competitive edge of the tourism business. The Ministry of Culture and Tourism was renamed the Ministry of Tourism and Culture (MOTAC) in 2013. Its mission is to promote Malaysia as a premier tourism destination. In 2014, tourism was the sixth biggest contributors to Malaysia's national account (Puah et al., 2018). The government is focused this industry as part of its Economic Transformation Programme (ETP) to enhance and diversify economic risk. According to the World Travel and Tourism Council (WTTC, 2015), tourism accounted for 14.9% of Malaysia's gross domestic product (GDP) in 2014.

However, the total contribution of Malaysian tourism to GDP decreased to 9.8% in 2015 as a result of two airway disasters in 2014 (Tourism Malaysia, 2016). After slowing in 2015, the tourism sector showed signs of recovery with a 4.3% increase in visitor arrivals in 2016 (Tourism Malaysia, 2017). It is claimed that tourism in Malaysia has greatly contributed to national income. The entire contribution of tourism to the Malaysian economy was RM182.4 billion, or 14.8% of national GDP (De Vita and Kyaw, 2016). According to Misachi (2017) "tourism is the third largest foreign income source in Malaysia after manufacturing and the palm oil industry,

accounting for about 7.0% of the economy in 2016". The government received a total of RM65,4 billion from tourism in 2013, above the intended target of RM65,0 billion (Tourism Malaysia, 2014).

In addition, Tourism Malaysia (2015) claimed that visitor revenues climbed by 10% to RM72.0 billion in 2014 as a result of the robust promotion of Visit Malaysia Year (VMY). In contrast, tourism receipts decreased marginally to RM69.1 billion in 2015 (Tourism Malaysia, 2016). The decrease in overall contribution to GDP, employment in the tourism industry, and tourist revenues in Malaysia in 2015 may have been caused by security difficulties in Sabah, aviation mishaps, and the recession in the global economy.

However, Tourism Malaysia (2016) reported that a fair comparison between the years 2015 and 2013 revealed that visitor receipts in 2015 grew by 5.6% despite their being no specific cash allocation for marketing activities. In 2016, tourism receipts climbed by 18.8% to RM82.1 billion, compared to 2015 levels (Tourism Malaysia, 2017). The reduction of the Ringgit Malaysia has made it more affordable for tourists from other countries to shop in Malaysia. Tourist income and capital investments in the tourism industry are two important ways to help the business grow in a sustainable way.

This is because tourism income comes from what tourists spend directly in the destination country. The industry's income comes from tourism receipts, which are a big part of the national economy. To reach its goal of becoming a high-income economy by 2020, the government can put its money into the tourism industry or other businesses. A variety of tourism packages have been made and marketed to bring in

more travellers from both inside and outside the country. The goal of capital spending in the tourism industry is to help companies reach their goals, and it is expected that such spending will pay off in the long run. Putting money into the tourist business could make it more competitive. The value chain for this business includes transportation, lodging, food and drink, telecommunications, and entertainment.

As a result, it may have a number of positive effects on the local economy, such as economic growth and the creation of jobs. Government and non- government organisations (NGOs) must put money into special event tourism to improve the positive effects of tourism on economic growth (Habibi, 2017). Earnings from tourists and the number of tourists who visit are important for the growth of the tourism industry, but the biggest impact of the Malaysian tourism sector is on the economy and society as a whole (Puah et al., 2018).

## **1.7 Organization of the Thesis**

The thesis comprises six chapters and each of the chapters is introduced as follows: Chapter 1: Introduction explores the effect in tourism, research background, problem statement, research questions, objectives of the research, significance of study and research motivation, scope of study and organization of the study.

Chapter 2: Literature review divided into two parts as the first part of this chapter provide overview of tourism in Malaysia, historic review of the Web, the birth of the WWW, Web 1.0, limitations of Web 1.0, features of Web 2.0, characteristics of the Web 2.0, advantages of Web 2.0 technology tools, limitations, challenges, and problems of the Web 2.0, then move on into critically explaining Web 3.0, its concepts

and various definitions in the literature, the study definition of Web 3.0, characteristics of Web 3.0, defining technologies associated with Web 3.0, then explaining that tourism and in the era of Web 3.0, tourism in the new era of Metaverse as an application of Web 3.0, the innovative ideas-tourism services 3.0, application of Web 3.0 based Semantic Web on tourism, opportunities, challenges, and risks emerging from Web 3.0 in the tourism domain, and information overload and privacy concerns in the era of Web 3.0. While the second part of the literature focus on explaining the theories in IT/IS acceptance research, review of related work, hypothesis development, explain the determinants of behavioral intention to use Web 3.0 and end this chapter two with a summary.

Chapter 3: Focus on research methodology and includes the research philosophy, research strategy, the rationale for the quantitative approaches for this study, population and sample size, response rate, sampling techniques, time horizon, unit of analysis, measurement of constructs, research instrument, survey data, analytical tools of quantitative data, data collection method, pre-testing the questionnaire and content validity, pilot study, statistical tools and data analysis approach, and end this chapter three with a summary.

Chapter 4: Focus specifically on model development to propose conceptual integrated model is based on TAM and DMISM theories. The selected factors such as computer self-efficacy, user awareness, social influence, perceive privacy risk and personal innovativeness used to develop and extend the proposed conceptual integrated model as well to investigate factors influence tourist's intention to use Web 3.0.

Chapter 5: Provides data analysis and interpretation of results, includes data editing and coding, data screening, treatment of missing data, assessment of the outliers assessment of the normality, frequencies distribution of respondents profile, analysis and results of structural equation modeling (SEM), measurement model assessment, individual indicator/item reliability, internal consistency reliability, convergent validity, discriminant validity, evaluation of overall fit of the saturated model, structural model assessment, hypotheses testing, summary of all hypotheses result (direct and moderation hypotheses), importance performance matrix/map analysis (IPMA).

Furthermore, proposed and competing models have been tested in SEM and compared with the overall measurement model to verify the overall fit to the data and the theory. Construct validity and reliability have also been reported in this chapter of the study. To consolidate the answer of the research question and objective, this chapter synthesizes the overall findings, which follows the research implications for researchers and practitioners. Detailed contributions to the theory and the body of knowledge are also discussed. As directed by the present research findings and background, several future research directions are suggested. Finally, Chapter 6: Provides the research contribution, the limitations of this research are addressed and future works.

In sum, this chapter of the study has provided the background and overview of this thesis. The background information explicitly specifies the research gap in the literature. The research problem, research question and objective, and justification of the study clearly signify the importance of this research. This chapter also provides an

outline of the investigation including the research framework, methodological approach and areas of contributions. Given the framework of this thesis, the following chapter contains a comprehensive discussion of the relevant theories which emerged from a detailed review of the literature focusing on specific importer perspectives.



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