



**Accessible Tourism: An Assessment of Senior Tourists on Facilities at Cultural
and Historical Tourist Attractions in Phuket based on the Seven Principles of
Universal Design**

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**A Thesis Submitted in Partial Fulfillment of the Requirement for the Degree of
Master of Business Administration in Hospitality and Tourism Management
(International Program)**

Prince of Songkla University

2018

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Thesis Title Accessible Tourism: An Assessment of Senior Tourists on Facilities at Cultural and Historical Tourist Attractions in Phuket based on the Seven Principles of Universal Design

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ชื่อวิทยานิพนธ์	การประเมินสิ่งอำนวยความสะดวกของนักท่องเที่ยวสูงอายุในแหล่งท่องเที่ยวทางวัฒนธรรมและประวัติศาสตร์ของจังหวัดภูเก็ตตาม 7 หลักการพื้นฐานของอารยสถาปัตย์
ผู้เขียน	นางสาวกนกกรส ขาวนวล
สาขาวิชา	การจัดการการบริการและการท่องเที่ยว (หลักสูตรนานาชาติ)
ปีการศึกษา	2560

บทคัดย่อ

จำนวนนักท่องเที่ยวสูงอายุกำลังเพิ่มขึ้นเป็นอย่างมากในช่วงหลายปีที่ผ่านมา การท่องเที่ยวเพื่อคนทั้งมวลได้เกิดขึ้น โดยการนำหลักการของอารยสถาปัตย์ ดังนั้นวิทยานิพนธ์เล่มนี้จึงจัดทำขึ้นเพื่อมุ่งค้นหาคำตอบตามวัตถุประสงค์ โดยเลือกกลุ่มตัวอย่างแบบเจาะจงซึ่งนักท่องเที่ยวอายุ 55 ปีขึ้นไปเป็นผู้ทำแบบสอบถามและนำตาราง IPA (Importance and Performance Analysis) มาใช้ในการศึกษาค้นคว้า เพื่อตรวจสอบหาค่าความสำคัญของสิ่งอำนวยความสะดวกและค่าปฏิบัติงานของสิ่งอำนวยความสะดวกปรากฏอยู่แล้วในแหล่งท่องเที่ยวทางประวัติศาสตร์และวัฒนธรรมทางภูเก็ตตามหลักการของอารยสถาปัตย์

ผลจากการสำรวจพบว่า กลุ่มนักท่องเที่ยวผู้สูงอายุให้มีความสำคัญต่อสิ่งอำนวยความสะดวกตามหลักการของอารยสถาปัตย์ค่อนข้างสูง นักท่องเที่ยวสูงอายุให้ความสำคัญกับสิ่งอำนวยความสะดวกในแง่ของความปลอดภัย ส่วนใหญ่พบว่าอยู่สิ่งอำนวยความสะดวกนั้นอยู่ในหลักการที่ 3 ใช้ง่ายเข้าใจง่าย (principle 3 “simple and intuitive”) และ หลักการที่ 6 ทนแรงกาย (principle 6 “low physical effort”) อีกทั้งผลจากการสำรวจได้แสดงให้เห็นต่อไปอีกว่า มีนัยสำคัญระหว่างความสำคัญของสิ่งอำนวยความสะดวกและประสบการณ์ในการท่องเที่ยวของนักท่องเที่ยวสูงอายุโดยรวม อีกทั้งมีการพบนัยยะสำคัญของความสำคัญของสิ่งอำนวยความสะดวกและการประเมินสิ่งอำนวยความสะดวกที่ปรากฏอยู่แล้วตามกลุ่มอายุที่แตกต่างกัน

วิทยานิพนธ์ชิ้นนี้เป็นประโยชน์อย่างยิ่งต่อกลุ่มนักลงทุนหรือกลุ่มนักพัฒนาแหล่งท่องเที่ยว ซึ่งสามารถนำผลการวิจัยที่ได้นี้ไปปรับใช้และพัฒนาแหล่งท่องเที่ยวด้านการพัฒนาสิ่งอำนวยความสะดวกของแหล่งท่องเที่ยวอื่นๆให้เป็นไปตามหลักการอารยสถาปัตย์ รวมทั้งเพื่อตอบสนองความต้องการของนักท่องเที่ยวผู้สูงอายุมากยิ่งขึ้น

คำสำคัญ : นักท่องเที่ยวสูงอายุ, สิ่งอำนวยความสะดวก, แหล่งท่องเที่ยวทางวัฒนธรรมและประวัติศาสตร์, การท่องเที่ยวเพื่อคนทั้งมวล, อารยสถาปัตย์

Thesis Title An Assessment of Senior Tourists on Facilities at Cultural and Historical Tourist Attractions in Phuket based on the Seven Principles of Universal Design

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Academic Year 2017

ABSTRACT

Recently, senior tourists are remarkably increasing. Insufficiency and inefficiency of facilities are noticed amount senior tourists. Accessible tourism is introduced under the concept of universal design. This study aims to assess the importance of the facilities to senior tourists based on the seven principals of universal, to measure the existent facilities in cultural and historical tourist attractions in Phuket meet senior tourist's needs and to find out whether facilities affect overall senior' tourist experiences. Purposive sampling is applied and the respondents who are 55 years old and over to complete the questionnaire. Importance and Performance analysis is utilized to analyze the level of the importance of the facilities and the performance of the existent facilities in cultural and historical tourist attractions in Phuket by 36 attributes of facilities and items based on universal design in the area of exit, entrance and pathway, information, service, restroom and toilet, and safety. It founded that facilities related to principle 3 "simple and intuitive" and principle 6 "low physical effort" in the area of safety were mostly concerned. There is a relationship between the importance of facilities with overall senior tourist's experience. Furthermore, there is significant differences between the importance of the facilities and the assessment of the existent facilities among age group. The study is beneficial for destination's developers and others to be more concerned on the design of facilities based on universal design.

Keyword: senior tourist, facilities, cultural and historical tourist attraction, accessible tourism, universal design

ACKNOWLEDGEMENTS

The study “An Assessment of Senior Tourists on Facilities at Cultural and Historical Tourist Attractions in Phuket based on the Seven Principles of Universal Design” was accomplished with the great support, commitment and value guidance from especially my advisor, Asst. Prof. Tatiyaporn Jarumaneerat .

I would like to express my appreciations to all of respondents who completed the questionnaires and Phuket International Airport that allowed me to collect the data there. Also, I would like to expand deeply thankfulness to Mr. Manoosak Mattharak and Ms. Kalpassorn Kongritpittaya as a great team of data collection. Furthermore, thank you to MBA’s friends especially Bung, P’Nan, P’Porn, Nong Pearl, P’Nick, and Oil who encourage me for thesis completion and MBA’s office especially Nong Fon. Also, I would like to sincerely thank you to my bosses, Mr. Narongveth Samakasevi and Ms. Natwara Phetheed. They always understood me and allowed me to take some extra day off to complete the thesis as well as my colleague, Ms. Noona, Ms. Kwang, and Ms. Pao who truly cheered me up and helped me to take care of daily job tasks while I was away from the office.

Last but not least, thank you very much to my grandmother and grandfather, Mr. Sudjai and Mrs Tongoi Thongkiat who supported my tuition fee. Importantly, the achievement of my graduation received tons of encouragement from my parents, Mr. Samai and Mrs. Kamonporn Khaonoul. With all of encourangment of this group of people, the thesis was finally complete.

Kanokros Khaonoul

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Chapter 1

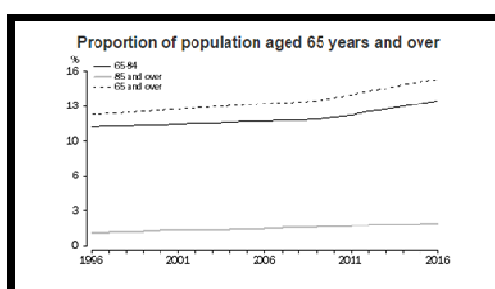
Introduction

1.1 Statement of the problems

The continuity of medical technology, selections of pure nutrition and hygiene prolongs the elderly's life expectancy. The evidence shown by World Health Organization (WHO, 2002) officially indicated that the rise of the aging population of baby boomer have been identified. In America, National Center for Chronic Disease Prevention and Health Promotion announced that the expectancy of the elderly at the age of 65 years old or older will reach at 80 million people 2050 which could roughly be calculated at 20% of the whole population in the United States (CDC, 2016). In addition, Japan, globally known as the ageing country, the statistics indicated that the elderly the Japanese aged 65 and older are estimated at 27.28 % of the country in 2016 (CIA World Factbook, 2016).

As shown in Figure 1.1, Australia Bureaus Statistics (2016) has significantly shown that the country is currently challenging with the aging population. The average age of life span is 83 years old, and the growth of the elderly is 12% to 15.3% from June 1996 to June 2016 as well as people who are over 85 years old had reached 484,600 people, increasing by 3.2% by June 2016.

Figure 1.1 Population of people who are 65 years and over



Source: Australia Bureaus Statistics (2016)

In Europe, the rise of the elderly who are 65 years old and over has increased for 0.4% comparing with year 2015 and its growth has been up to 2.3% comparing with last 10 years

(EUROSTAT, 2016). The proportion of the elderly will gradually be increasing each year, and it could be shared up to 16.4% of the whole population in 2060 (EUROSTAT, 2016). For example, in France, the ratio of the seniors aged 65 years old and over is at 12.31% of the whole population in 2016, which increased by 2.4% (STATISTA, 2016).

Consequently, by this recent change on the global demographics, active aging program has promoted by “*WHO’s Ageing and Life Course Program*” as a support of “*the World Health Organization to the Second United Nations World Assembly on Ageing, Madrid, Spain in 2002*” (WHO, 2002). The program was to endorse positively the elderly in term of physical, social and mental conditions at their current stage of ages. The program, in particular, supported them to enjoy all aspects of lives continuously and reassert them to participate in the society such as volunteering, exercising, or travelling (WHO, 2002). For example, the organization of Active Ageing Australia, supported by the government of South Australia enhances the elderly by providing projects and activities; for example: playing golf, tennis and other beach sports they could fulfill their physical well-being and elevates their social relationship among their groups and communities (Active Ageing Australia, 2017).

From those recognitions, the elderly or baby boomer generation has numerous marketed in by several kinds of businesses as its new-emerging market with the highly purchasing power observed especially in the section of tourism. Kingman (2012) stated that Britain at age 65 years old and over increased in spending on expenditures while traveling oversea. Comparing with year 1999, the elderly had paid £1.4 billion for travel-related expenditures at 12%, which formerly at 8% in year 1999. The market size of senior tourists is remarkably potential (Horneman, Carter, Wei, & Ruy, 2002). To abandon boredom and revel their retirement actively, travelling and tourism are prior activities for the elderly. It is an association of joys and pleasure that enables the elderly to spend a particular of time to seek for a moment of relaxation, to discover new experiences, and to fulfill an inspiration through the approach of travelling, where self-actualization can accomplish according to Maslow's theory (Maslow, 1943). Therefore, in virtue of the rapid growth of tourism, tourism business sectors and other relevance have fundamentally developed their products and services to response the diverse of tourists’ demands, which currently the elderly or senior tourists are in earnest cogitated.

However, some obstacles or barriers have noticeably threatened the elderly either partial or full access on tourist attractions because of insufficiency of facilities to support their movement and activities at tourist attraction. In addition, age is correlated with disabilities, which is an obstacle for accessibility in tourist attractions (Darcy & Dicson, 2006; ENAT, 2013). The elderly or senior tourists have been recognized seriously by the World Tourism Organization according to the declaration of Global Code of Ethics for Tourism in 1999 (Global code, 1999). One of the significant 10 principles is “*right to tourism*”. The elderly have the same basic rights to perceive the same standards of services and opportunities to access a tourist’s destination and participate in activities of that area with appropriate facilities on site provided (ENAT, 2007).

From those recognized problems, there is an emergence of accessible tourism, which has intentionally been impelled by the collaborations of several organizations such as World Tour Organization or European Network for Accessible Tourism. The organization aims to officially promote the core ideas, significances and awareness of accessible tourism to all stakeholders related to tourism around the world, which supports the elderly to entirely experience in any tourists’ destinations and attractions and receives the standards of services equally throughout the process of travelling (ENAT, 2013). Accessible Tourism is regarded as an attractive market, which prosperously enables the growth of revenues as well as the outcome of good image to the country. United Nations approximately anticipated the numbers of the elderly at 15% of the world population or 1,400 million people (UN Factsheet, 2014), which clearly reflects that accessible tourism becomes increasingly important and it is a great possibility for tourism business. Accessible tourism employs the concept of universal design in all tourism-oriented places and activities (ENAT, 2013). Universal design is a scheme for creating things and facilities for broad users to be exploitable by disregarding physical individual's abilities, size, ages or even knowledge such as information, places, activities, and communication (CEUD, 2013). Universal design is comprised of seven principles to be concentrated which are “*equitable use, flexibility in use, simple and intuitive use, perceptible information, tolerance for error, low physical effort, and size and space for approach and use*” (CEUD, 2013). For this reason to tourism’s situation, it will be beneficial to senior tourists if universal design is applicable for practice at tourist attraction they travel to (ENAT, 2013). In Thailand, by Ministry of Sport and Tourism, there is a strategic plan to develop accessible tourism by developing infrastructure and

facilities as well as more investment with private sectors on this specific market because the average expenditure on travelling is higher than general tourists, which the estimate of the growth of this specific market will be 5-10% (Bangkokbiz, 2017).

By this current movement in tourism, Phuket is globally well known which is frequently listed as one of the most attractive destinations. Tourists all around the world have planned to explore this island where is consisting of a variety of tourist attractions and has been categorized as one of the Asia Pacific's and world's most popular tourist's destination for international tourists (TATNEWS, 2016). However, Phuket may not appropriately support senior tourists in the contents of facilities. This leads the researcher to assess the facilities according to the concept of universal design at cultural and historical tourist attraction in Phuket as well as to find out if facilities at cultural and historical tourist attractions in Phuket affect their overall tourist's experiences so that recommendations can construct to improve Phuket as being accessible for senior tourists.

1.2 Aim of the Study

1.2.1 Purpose of the Study

The purpose of the study is to assess the facilities in cultural and historical tourist's attractions by senior tourists in Phuket based on the seven principles of universal design (CEUD, 2013) in cultural Phuket's tourist attraction.

1.2.2 Objectives of the study

(1) To assess the importance of the facilities by senior tourists based on the seven principles of universal design at cultural and historical tourist attractions in Phuket.

(2) To measure if the existing facilities in cultural and historical tourist attractions in Phuket meet senior tourist's needs.

(3) To find out facilities at cultural and historical tourist attractions affects overall senior' tourist's experiences

1.3 Research Questions

Research questions are created to conduct the entire study.

(1) Does the facility affect overall senior tourist's experience?

(2) Do existing facilities in Phuket's tourist attractions meet senior tourist's need?

(3) What are recommendations for Phuket to be an accessible place for senior tourists?

1.4 Hypothesis

The hypothesis will be tested

H₀: There is no relationship between the importance of facilities with overall senior tourist's experience

H_A: There is a relationship between the importance of facilities with overall senior tourist's experience

1.5 Significance of the Study

As per the change of demography, the number of old people is getting high. The generation of baby boomer is going to be retired. Also, because of the new technology that support baby boomer generation to maintain healthy. Therefore, tourism is one of their alternative activities after retirement. However, with their age, some researcher found that they have a correlation with disabilities or limitation on mobility. The concept of universal design applied on facilities at tourist attractions will be significantly beneficial to them as they help to support their activities. This research will obtain some expected benefits as follows;

(1) To obtain better insights into facilities based on universal design for senior tourists at cultural and historical tourist attraction in Phuket.

(2) To propose useful recommendations that improves facilities in Phuket cultural and historical tourist attraction in Phuket for senior tourists.

1.6 Scope of the study

Scope of time

This study was carried out from January 2013 - December 2017. The numbers of 400 questionnaires were given to senior tourists with age of 55 years old and over at Phuket International Airport. All questionnaires were distributed in December 2017.

Scope of research area

The survey was conducted at Phuket International Airport.

Scope of demography

In the study, senior tourists who were 55 years old and over is the target population. This study aims to assess the facilities at cultural and historical tourist's attractions by senior tourists in Phuket according to the seven principles of universal design in cultural Phuket's tourist attraction.

Scope of geography

Sampling were taken while they were waiting at the departure hall at the Phuket International airport during 08.00 am – 11.00 pm.

1.7 Definition of Terms

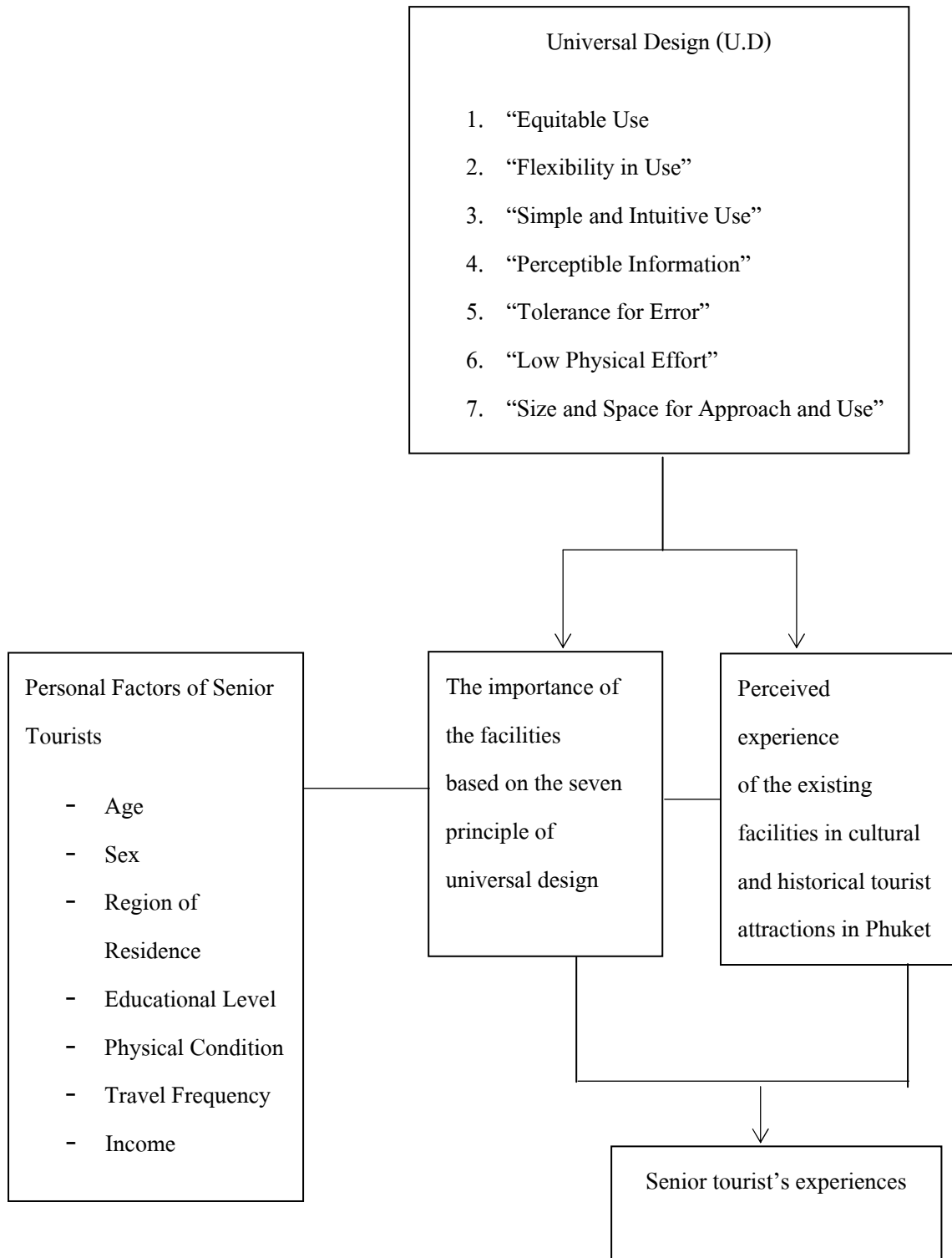
Accessible Tourism: European Network for Accessible Tourism (2013) presented that accessible tourism is the tourism that support all ranges of tourists that the conditional of personal ability, gender, or physical limitation can limit their accessibility on travelling. Every person is able to access the place, product, facilities, information and service at that tourist attraction.

Senior Tourist: senior tourists are tourists who are at the age of 55 years and above.

Universal Design: Universal design is the design for every person at all levels of ages and unites of abilities, which allow one to utilize product and access the place without the limitation or the condition of their own abilities, size, ages or knowledge (CEUD, 2013). Universal design is comprised of seven principles to be concentrated which are “*equitable use, flexibility in use, simple and intuitive use, perceptible information, tolerance for error, low physical effort, and size and space for approach and use*” (CEUD, 2013).

1.8 Conceptual framework

Figure 1.2 Conceptual Framework of the Study



1.9 Organization of the thesis

An thesis organization is outlined as follows:

Chapter 1 presents the statement of the problem of the study by giving the details of statistics. Furthermore, it provides objectives, research questions, significance of the study, scope of the study, and key terms

Chapter 2 presents the reviews of literature, theories, concepts and ideas that are related senior tourist on their travelling interest and problem, the facilities at tourist attraction, universal design's concept and other related issues

Chapter 3 explains the methodology in order to accomplish the objective of the research This section described the area of the study, sampling size, data collecting, and data analysis.

Chapter 4 presents the results which Statistical Package for Social Sciences (SPSS) is an important tool to gain the result

Chapter 5 presents the summary and discusses key findings, and limitations and suggestions for the future research are also explained.

Chapter 2

Literature Review

This chapter presents the reviews of literature, concepts and ideas that are related to mainly about senior tourists on their travelling interests and problem, the facilities at tourist attractions, universal design's concepts, and other related issues. The chapter is organized as follows:

2.1 Senior Tourist Concepts

2.1.1 Baby Boomer Generation as Competitive Market for Tourism

2.1.2 Definition of senior tourist

2.1.3 Senior Tourist in Thailand

2.1.4 The interest of senior tourist

2.2 Cultural and Historical tourist attraction concepts

2.2.1 Definition of Tourist Attractions

2.2.2 Types of Tourist Attraction in Thailand

2.2.3 Types of Tourist Attractions in Phuket

2.3 Accessibility Concept

2.3.1 Accessibility and Tourism Systems

2.3.2 “*Right to Tourism*” to Sustainability

2.3.3 The issues on facilities for accessibility in senior tourists

2.3.4 Definition of Accessible Tourism

2.3.5 Accessible Tourism in Thailand

2.3.6 World Tourism Day: Tourism for All

2.4 Universal Design Concept

2.4.1 The Concept of Universal Design in Accessible Tourism

2.5 The Concept of Tourist's experiences

2.6 The Concept of Importance and Performance Analysis

2.1 Senior Tourist Concepts

2.1.1 Baby Boomer Generation as a Competitive Market for Tourism

At present, baby boomers generations mostly enter the retirement period and because of its large size of baby boomers populations, they are regarded as one of high potential for tourism segments (Horneman, et al., 2002). In terms of the flexibility, income and time, the group of people who are 65 years old was established as an essential market (Moscardo & Green, 1999). Pearce (1999) found that senior tourists spent longer stay as well as travelled further than other group of age. Ross (2014) discovered that baby boomer generations love to travel and have more disposal income for it than their parent's generation.

2.1.2 Definition of Senior Tourists

Baby boomer generation is considered as the major change in demographical phenomenon, described as a group of people who was born after World War II from 1946 to 1964, period of soldiers returning homes (Boomer Statistic, 2017). The U.S. Department of Commerce, Bureau of Census estimated that the birth rate dramatically increased from 2.86 billion to 3.41 billion, which continuously grew in the following year (Boomer Statistic, 2017). In 1954 after the end of Korean War, the birth rate reached 4,078 million babies born or 11,172.6 per day, which is equal to 7.76 newborns per minutes (CNN Library, 2013) and the highest rate was in 1957 at 4,300 million of babies born on that year or 8.018 babies born per minutes (CNN Library, 2013). The decline of birth rate started in the year of 1964 was at 4.03 billion of babies born in 1964 and in 1965, the rate dropped to 3,760 million (Boomer Statistic, 2017). The term "baby boomer" has been defined differently as follows;

Table 2.1 The year of baby boomer

Country	The Year of Baby boomer
Australia	People who were born during 1946-1965 (Australian Bureau of Statistics, 2007)
New Zealand	People who were born during 1949-1959 (Pool and Du Plessis, 2012)
Canada	People who were born during 1946-1965 (Statistics Canada, 2013)
Japan	People who were born during 1947-1949 (Hashimoto, 1974)

Also, Many authors defined various range of age for senior tourists shown in Table 2.2

Table 2.2 Age of senior tourists

Author	Age of Senior Tourists
Zimmer; Brayley; & Searle (1995)	65 years old and over
Alcaide (2005)	55 years old and over
Hsu & Lee (2002)	55 years old and over
Jang & Wu (2006)	60 years old and over

Therefore, with the different aspects of age of senior tourists, for this study, senior tourists are operationally defined as tourists who are at the age of 55 years and over.

2.1.3 Senior Tourists in Thailand

The statistic of National Statistical Office Survey (2011-2015) showed that in Thailand senior tourists who were 55 years old and over were from Europe, East Asia, and Americas accordingly. Since 2011, the numbers of senior tourists were rising yearly. However, the statistics presented that the numbers of senior tourists in year 2014 decreased because of political issue in Thailand. After the situation of Thai coup d'état in 2014, the numbers of senior tourists arrival to Thailand was increasing in 2015.

Table 2.3 International Tourist Arrivals by Age (2011–2015 in Thailand)

55 years old and over					
Region	2011	2012	2013	2014	2015
East Asia	1,611,449	2,218,271	2,885,107	2,643,899	3,990,191
Europe	701,548	803,639	917,815	932,073	1,014,768
The Americas	188,586	227,842	265,797	252,028	285,998
South Asia	105,298	127,932	135,952	124,205	153,998
Middle East	67,694	76,824	88,579	80,847	93,984
Africa	17,090	21,772	24,534	22,603	22,663
Total	2,866,803	3,677,103	4,524,810	4,253,590	5,769,762

Source: National Statistical Office (2016)

2.1.4 The Interest of Senior Tourists

Senior tourists sought for the trip that generated learning, relaxation, and relationship (Horneman et al., 2002) For senior tourists, cultural and historical attractions are preferred places as they are likely to experience local cultures and history (Jang & Wu 2006; Sangpikul 2008; Hu et al. 2009). History and local-based attractions as well as are one of the top five destinations that senior tourist decided to go for holiday (Tourage, 2014; Gheno, 2015) also founded that “*nature and culture*” is marked as the highest rank for senior tourists to select the destination for holiday. Senior tourists who traveled to the village of Sanur preferred to attend cultural activities and learned local lifestyles (Bagus & Utama, 2012).

2.2 Cultural and Historical Tourist Attractions Concept

2.2.1 Definition of Tourist Attractions

Tourist attractions are nature-based location, landscapes, objects, or man-made buildings, which create interest and demand to tourists and could subsequently generate pull factor to the tourists (Robinson, 2013). Many researchers defined tourist attractions in different ways. Prentice (1993) gave a definition of tourist attractions as “a site, theme or area which attracts visitors”. Similarly, Swarbrook (2002) categorized tourist attractions into four types as follows;

1. The features in nature-based environment such as seas, rivers, beaches, forests, and caves
2. The structure, or the building constructed by human with a specific purpose such as temples or churches that can attract a persons to visit with leisure drive
3. The built sites, building or structure for recreation such as theme parks or casinos
4. Special Event

Proposed by MacCannell (1976), a sight, a marker and a tourist are the major three elements of tourist attractions. A marker such as signs, marking, postcard or book is the most significant component that illustrates the sight or location to the tourist. Without it, a tourist is unable to recognize the sight.

The categories of tourist attractions by Inskeeps (1991) are divided into nature-based sites, culture-based sites, and special features and other related activities of the area. Inskeeps (1991) identified tourism components in terms of supply sectors including tourist attractions, accommodation, transportation, other infrastructure, and other institutional elements.

Similarly, Collier & Harraway (1997) explained that a tourist attraction is composed of three components which are attraction, accessibility, amenities and

1. Attraction – a site, location or event that attract a tourist
2. Amenities - facilities that promote a tourist for convenience while visiting the attraction
3. Accessibilities – transportation or vehicles that support tourist to travel to the attraction

2.2.2 Types of Tourist Attractions in Thailand

Tourism Authority of Thailand (2012) categorized 12 types of tourist attraction in Thailand as follows;

1. Eco-Tourism based attraction is a site that surrounds with the indigenous uniqueness of natural environment that supports the knowledge of eco system and sustainability of eco system.

2. Art and sciences educational based attraction is a site or an activity that fulfill specific needs of tourists such as science museums, meeting or incentive.

3. Historical attraction is a site that integrates values and significances of history, archeological backgrounds, and religions as well as antique building or other sites that represents historical incidents such as historical heritages, museums, temples, religious sites, and other art-architectural buildings.

4. Natural attraction is a site or destination where the state of nature, geology, and geography is promoted.

5. Recreational attraction is a place that is constructed by humans for wellness and recreation such as pubs, zoos, theme parks and stadiums.

6. Cultural attraction represent arts traditions of the ancestors such as traditional events, lifestyles, local products, cultural and traditional performance, clothing, and language.

7. Natural hot spring attractions is a place where hot spring for wellness is a major component

8. Beach attraction is a site that beach is used for recreational activities such as watersport, sunbathing and swimming.

9. Waterfall attraction is a site that tourists can enjoy the nature of waterfall and other natural activities such as bird observation and nature walk.

10. Cave is where tourists can have sightseeing and study stalactite as well as archeological arts of the Stone Age.

11. Islands is the place tourists can relax and spend recreation activities far away from the main land

12. Rapids is the feature that tourists can participate adventurous activities such as rafting , nature walk and seedling explore

2.2.3 Types of Tourist Attractions in Phuket

Table 2.3 summarises types of tourist attraction in Phuket as categorized by different organizations. Mainly, Phuket is composed of natural attractions, cultural attractions, historical attractions and others. Therefore, from the previous researches, it was founded that culture and history is one of the most interest by senior tourists as well as according to the current strategy of Phuket City Municipality (2017) for year 2017-2020, it is that to support local cultures and products for tourism.

Table 2.4 Types of Tourist Attractions in Phuket

Organization	Type of Tourist Attractions in Phuket			
	Natural	Cultural	Historical	Others
Phuket Provincial Governor's Office (2017)	✓	✓	✓	
Tourism Authority of Thailand (2017)	✓	✓	✓	✓ Special Interests such as wellness and spa or entertainment

Table 2.4 Continued

Organization	Type of Tourist Attractions in Phuket			
	Natural	Cultural	Historical	Others
The office of Strategy Management for Southern Province cluster (2017)	✓	✓	✓	✓
				Special Interests such as Sea Walking or medical tourism

According to Tourism Authority of Thailand (2018), there are several cultural and historical tourists attractions in Phuket as following examples

- Phuket Old Town – built in 1923 as the growth ear of mine industry in Phuket, tourists find the art of history through Sino-Portuguese architectures and local lifestyles
- Phra Nang Sang temple – the name of the temple was from the legend of “Phra Nang Lewd Khao”, the lady of an emperor who was dedicated to Buddhism. Before getting life sentence as she was accused of love affair, she took a journey from Lanka where she worshiped to Buddha's relics, and stopped at Thalang to build this temple. Also, from history, this temple was the camp of Thao Thep Kasattri to battle with Burmese army, and finally victory was gained. At present, there is one of the world’s oldest and largest tinned Buddha statues enshrined in this temple
- Chalong Temple – the temple is one of the most famous landmarks of Phuket. Tourists can visit to worship Luang Por Cham who is very admirable amount local people. Also, people can enjoy with local lifestyle and religious activities as well as art of Buddhism through architecture inside the chapel
- Big Bhuddha Temple – Established on the top hill in Karon Beach, the construction of the temple symbolized peace and hope. The remarkable symbol of the temple is Big Bhuddha or Phra Putta Mongkol Nakkiri which the statue was built in the style of contemporary art, The attitude of subduing Mara. It is made of white marble from Burma. The

activities tourists can participate is to show the respect to Big Bhuddha, to see local's lifestyle and to enjoy with the magnificent view of Karon Beach.

- Phuket Heroines Monument – it was built as a commemoration to to Thao Thep Krasattri and Thao Si Sunthon. The two ladies who entered the war and fought with Burmese intruders and finally they were able to save Phuket. The battle occurred during King Rama I. Tourists are able to show the respect by bringing flowers to the monument. Sometimes tourists is able to see a show from local people or foreigners because their vows were fulfilled after they asked for lucks from the monument.

2.3 Accessibility Concept

2.3.1 Accessibility and Tourism Systems

Accessibility is not about a transfer to the destination or mode of transports to move a person to a place; however: it means to participate in or engage that destination in terms of such as information, services, and activities (Darcy, 2006). The theory developed by Leiper (1990) revealed that there are five primary components independently in tourism system.

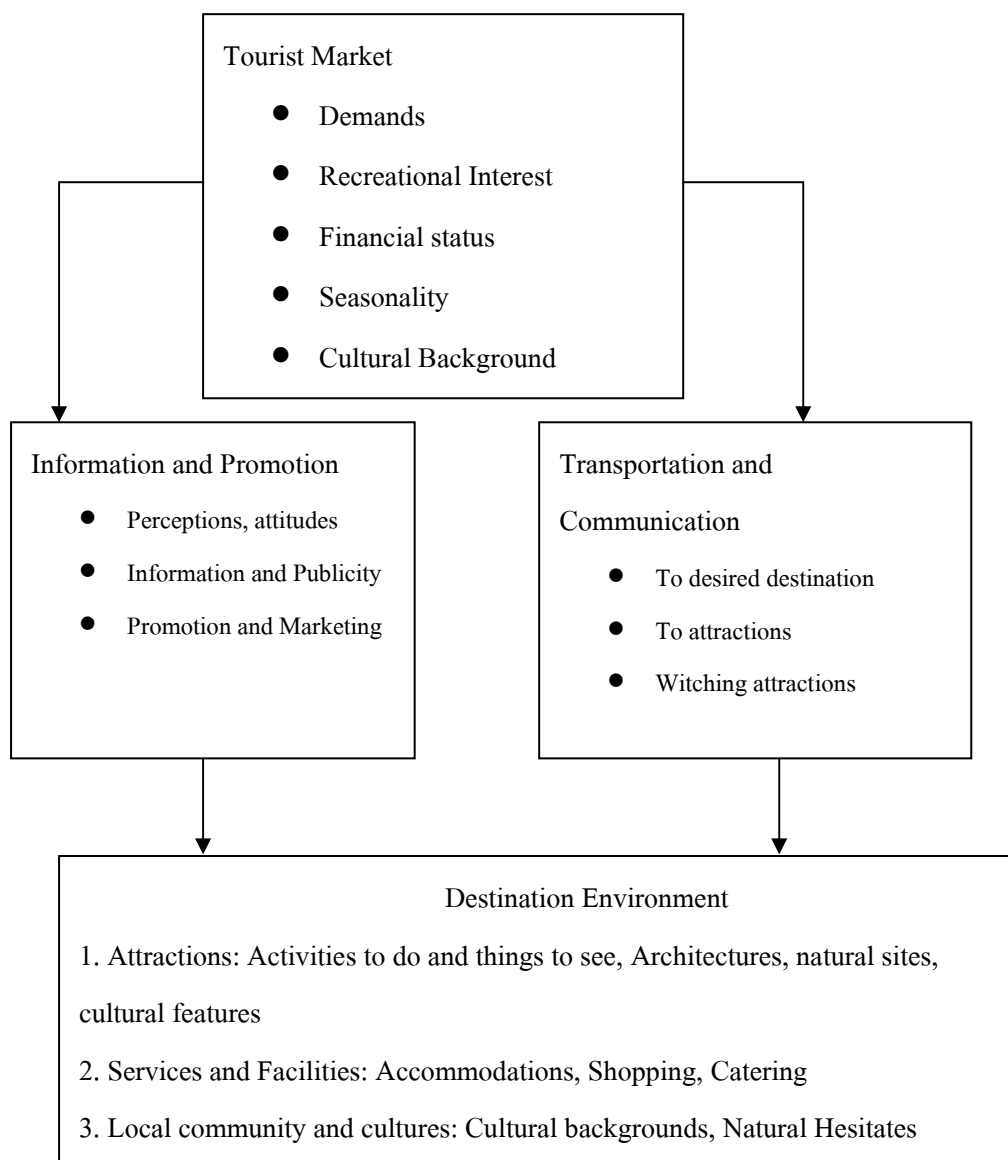
1. *“At least one tourists”*
2. *“At least one generating region”*
3. *“At least one transit route”*
4. *“At least one tourist destination”*
5. *“A travel and tourism which support the movement within the system”*

From Leiper's theory (1990), for senior tourists, it could be implied that accessibility is one of society-based elements that supports a movement to a desired destination for a person carried a touristic need and accessible products and services at tourist attractions are importantly underlined to senior tourists which constructs the operation within the system. Supported by Gunn (1979) who proposed *“The tourism functioning system”* employs two major drivers which are demand and supply. In terms of supply, it consists of a tourist attraction, services, promotions, transportation and information. Without accessibility, it could be referred that senior tourists are not able to contact tourism supply appropriately.

Similarly, Prosser (1998) presented *“the tourism environment”* which clearly demonstrates the significance of accessibility in tourism system, and it takes part in every sector

of the operation. If inaccessibility occurs, it could produce non-participation to seniors as per Figure 2.1 adopted from Prosser (1998)

Figure 2.1 Accessibility and Tourism Systems



Source: Prosser (1998)

2.3.2 “Right to tourism” to sustainability

According to Global Code of Ethics for Tourism (UNWTO, 1999), it is a vision to certify that every country and all stakeholders in tourism generate the maximum of economy, culture and society as well as their operation has to reduce negative effects to society and environment to bring sustainability of tourism to the destination. It mainly consists of 10 articles of Global Code of Ethics for Tourism. Relevant to accessible tourism, benefits and rights of senior tourists were identified which stakeholders should accomplish to implement these codes of conducts. According to article 7 “*right to tourism*”, it is mentioned that “*Family, youth, student and senior tourism and tourism for people with disabilities, should be encouraged and facilitated*”. Senior tourists have got basic right to access the destination and should be supported from that tourist destination through its facilities. Also, according to Article 1, it stated that tourists has to be protected and safety should be delivered to them while travelling as well as tourists should not encounter with crime or other offensive act by local people. Therefore, all stakeholders should make sure that its destination is safe for senior tourist and lack of any violence while travelling. Therefore, accessible tourism is able to avail and support the tourist destination to accomplish Global Code of Ethics for Tourism which results in sustainability of tourism.

2.3.3 The Issues on Facilities for Accessibility in Senior Tourists

As age has significance with some disabilities or impairments in baby boomer generation (Population Reference Bureau, 2007) as well as health limitation influences them to be away from tourism (McIntosh, Goeldner & Ritchie, 1995), some issues about accessibilities are investigated while they are on holiday. Esaichaikul (2012) found that senior tourists encountered with inadequacy of accessible facilities to support their movement such as lacking of ramps, elevators, and flat footpath. Furthermore, at Suvannabhumi airport, senior tourists have to take a long distance to immigration and baggage claims without supporting facilities, which caused their inconvenience. Lee & Tideswell (2005) also mentioned that Korean senior tourists avoided travelling because of the existence of appropriate facilities to support them at tourists’ attractions. Bates (2004) showed that the government needed to pay an attention in terms of security to senior tourists. Facilities such as ramps, bars, or hand rails should be provided in public area and bathroom to break barriers to them. It is also indicated that accessible bathrooms and

accommodation are senior tourists' preferences, which rooms are located near the center area such as reception or activity areas (Ananth, DeMicco, Moreo, & Howey, 1992; Australian Bureau of Statistic, 2003). Chen, Wu, Huang, & Cheng (2013) investigated in senior tourist's satisfaction in spa experiences, and it was found that "use of facilities" and ease of use in facilities are the areas they needed to put more attention to achieve higher satisfaction in senior tourists. Paper based communication with large sized provided is a preferred way such as instructions, brochures, and menus (Marvel, 1999; Bates, 2004). Batra (2009) found that senior tourists are most concerned on their personal safety while traveling and the difference in language created the difficulty in communication. According to Prosser (1998), accessibility plays an important role in "the tourism environment" as it leads to participation to senior tourists. In United States, participation in activities has a relationship with senior tourist's satisfaction or happiness of the trip (Milman, 1998) as well as senior tourists would like to engage in all aspects in travelling through physical, emotional, and intellectual involvement (Rose, 2014). Niyomadul (2010) found that facilities in area of Kathu, Phuket. It was difficult to find the main entrance of the building, car parking was too far from the main building as well as no slop and ramps were provided. Also, the entrance of the restroom was too narrow and bar and grabs in the toilet was not available.

2.3.4 Definition of Accessible Tourism

As the ongoing growth of aging population, tourism is a major activity of baby boomer generation after the period of retirement to experience adventurousness, to remain vigorousness, and to continuously enter social involvement which is the complement of self-actualization (Maslow, 1943; McDougall 1998; Muller & Cleaver, 2000). With this trend of senior tourists, some are still in the stage of healthy condition, but some of the elderly need special requirements based on their physical capabilities as the ages have a relationship with disabilities (Darcy, 2006). UNWTO had noticed this current situation that immobility or any limitation on information accessibility and the elderly and the disabled have confronted predication, which enables the depression on their holiday (UNWTO, 2013). UNWTO's "Declaration on the Facilitation of Tourist Travel" person with disabilities should be promoted for equity on traveling, which is a sustainable strategy of the development of responsible tourism. All related tourism sectors should issue practices and policy to ensure that accessible tourism is for all (UNWTO, 2013). UNWTO (2013) has defined accessible tourism as "*a form of tourism that*

involves a collaborative process among stakeholders that enables people with access requirements, including mobility, vision, hearing and cognitive dimensions of access, to function independently and with equity and dignity through the delivery of universally designed tourism products, services and environments".

Accessible tourism, defined by Darcy & Dickson (2009), is the attention to develop the tourist-related products, accommodations, services, and attractions to be for all deprived of the conditions of ages and physical capability, where dignity and equity in tourism is a foremost consequence. The fulfillment of their traveling experiences is to have equity in accessibility and participation in tourism in the field of information, services, transportation, attractions, facilities and other related activities without any interruption and complexity caused by immobility to one's destination (Takayama Declaration, 2009). According to European Network for accessible tourism or ENAT, the basic of five principles toward accessible tourism are included (ENAT, 2013)

1. All means of transportation are entirely supported for all travelers.
2. Each destination provides obstacle-free to all users such as on-site facilities.
3. Services are professionally delivered by well-trained staff.
4. Participations are generally allowed for everyone through its activities.
5. Information is accessible such as reservation system, e-database, and online services.

It has been indicated that accessible tourism is a creation of travelling procedure and structure to support senior tourists to have an equal opportunity through the tourism subjects. It will encourage senior tourists to be able to independently access to the destination and support them to participate the activity and access to the destination as equal as others (Darcy & Dickson, 2006; Parker 2008; ENAT, 2013). According to UNWTO (2007) , accessibility has to be entirely implemented through the tourism sequence, composing of seven essentials so that equity on tourism basics are promoted to the elderly, the disabled, other temporary impairment, and tourists with specific needs or with limitation on mobility;

1. The management of tourism destination
2. Information and advertisement on tourism

3. The environment of metropolitan and architects
4. The various approaches of transports
5. Accessible accommodation and other tourist-related services
6. Cultural based activities
7. Other leisure, festive, and activities

Furthermore, accessible tourism is defined differently by different organisations which cover a number of groups of people. Therefore, according to the current trend in the elderly or baby boomer and a sensitive reason on the disabled research may generate (Dickson-Swift, James, & Liamputtong, , 2008).) such as confidential information upon disability, inadequate statistics on disabled tourists in Thailand, difficulty on getting access to the population, accessible tourism is operationally defined as the elderly or senior tourists who are at the age of 55 years and above who travel away from home for at least one night for their leisure purposes.

Table 2.5 Definitions of Accessible Tourism

Author/Organization	Definitions of Accessible Tourism by the beneficiaries				
	The Disabled	The Elderly	Families with small children	Temporary Impairments	Others
Darcy & Dickson (2009)	✓	✓	✓	✓	✓ people who carry any heavy stuff
ENAT (2013)	✓	✓	✓	✓	
Buj (2010)	✓	✓	✓	✓	
Preiser (2011)	✓	✓	✓	✓	✓

2.3.5 Accessible Tourism in Thailand

In Thailand, the beginning of accessible tourism was promoted in 2007 in “International Conference on Accessible tourism 2007” with the cooperation of Ministry of Tourism and Sport, Ministry of Social Development and Human Security and Disabled Peoples ' International Asia-Pacific at United Nation, Bangkok. From the conferences, all participants had concluded all details information to be “Bangkok Recommendation”. Bangkok Recommendations is a planning statement. That is for all stakeholders in the field of tourism development and practices for physically disabled people, elderly persons and children which are mainly divided into seven aspects that needs improvement and achievement for effectively accessible tourism which were travel planning, access to information, inclusive transportation, accessible tourist attractions, accessible accommodation, mainstream services for all tourists (ETAT 2007; ENAT, 2013). According to Department of Tourism, public restroom and toilet in Phuket’s tourist attract was lacking of the facilities that support senior tourists and disabled one (National News Bureau of Thailand, 2016). The friendly design city project in Phuket, applied the concept of universal design is established to support the growth of tourism as the types of tourists are more varied such as disabled tourists, senior tourists, and people with families in order that all people can access tourist attraction in Phuket with convenience and safety (Phuketindex, 2017). Mr. Weerasak Kowsurat, Minister of Tourism and Sports, stated that tourist attraction has to provide friendly design or universal design for senior tourists, disabled people, or family with children to conveniently access the place and service (TATNEWS, 2017). Created by Tourism Authority of Thailand, the project of “Tourism for all” is the strategy to promote sustainability and eliminating inequity in tourism and apply the concept of universal design (TATNEWS, 2017). Therefore, there are 9 pilot destinations in the project of “Tourism for all” which promotes its destination where friendly design is applied for senior tourist and people with special need such as accessible accommodation, accessible restroom, and grabs and pathway are provided. The 9 destination are Ratchaburi, Pattaya Bangkok, Chiangmai, Kanchaniburi, Phuket, Khon Kaen, Ayudthaya, and Nakhonratchasima.

2.3.6 World Tourism Day: Tourism for All

On 27th September 2016, it was a world tourism day, which the conference was held in Bangkok, Thailand (MOTS, 2016). The theme of World tourism Day 2016 was “Tourism for

all”. UNWTO raised awareness for international partnership about accessible tourism (MOTS, 2016). Rifai (2016), UNWTO Secretary-General Taleb Rifai, stated that tourism should welcome for everyone and any barriers because of limited physical description should not restrict each person. Accessibility such as transport, service, and information should be appropriately established at each attraction. People at all ages and physical forms have right to experience and discover the attraction as well as accessible tourism is a productive market because of its rising volume that can bring the great opportunity to all stakeholders (Rifai, 2016). As the host of World Tourism day, stated that the number of disabled and senior tourists has been growing accordingly. It was about 15% of all tourists’ groups, which is very great sector. Thailand has a diversity of tourism such as cultural or medical tourism they are interested in, and Thailand has a strategic plan to cover the absence of accessibility and provide the proper facilities in order to comfort the niche market as well as it could enhance sustainability in tourism.

2.4 Universal Design Concept

The Concept of Universal Design in Accessible Tourism

Universal design is illustrated as the design for every single person at all level of ages and unites of abilities which generally allow the easy step of utilization in products and places for everyone (Preiser, 2011). In tourism industry, according to Buhalis & Darcy (2010) demonstrated that universal design could be applied for tourism. For example, *“environments designed to be inclusive of mobility would be of assistance to people using wheelchairs, those with mobility challenges, families with prams, travelers with heavy luggage, shoppers with trolleys and workers safely going about their duties. Signage and lighting would be informed by the needs of people with low vision, rather than just aesthetics as dictated by the tradition of architects and designers”*. For example, The Building Accessibility Act for disabled people and the elderly begun in 1994. With fully attention of relevant organizations, New Barrier-Free Act was created in 2006 by the combination of the building accessibility act and public transportation accessibility act (Yoshihiko, 2009). The application has been implemented in any public areas such as theaters, hotels, shopping centers, and residential places (Ministry of Land, 2005). Importantly, International Association in Universal Design is an organization that driven Japanese society to pay attention on universal design by giving information, researching, developing of

projects so that equity for all could be promoted (CEUD, 2013) According to Preiser & Smith (2011), the combination of universal design will be contributed by 7 principles as following;

Principle 1: Equitable Use

The common benefit of usage is placed through the design for all people at the same understanding. People also share the equality in safety and securities at places (Bate, 2004). For example, at the shopping center, there is a sensor installed at the entrance, which convenience could be transferred to all people with different level of abilities (CEUD, 2013)

Principle 2: Flexibility in Use

Regarding to the dissimilarity of people's abilities, the design should contain alternative usage to them according to their preferences and abilities (Bate, 2004). For example, scissors that left or right hand user can be used (CEUD, 2013)

Principle 3: Simple and Intuitive Use

This design is clearly defined for everyone to acknowledge how to use it easily without any interpretations caused from individual's background (CEUD, 2013). For example, an escalator set up in the sideway of the building hall (CEUD, 2013)

Principle 4: Perceptible Information

The design has conveyed the essential information to all users without an account of one's sensory disabilities by using a variety of techniques (CEUD, 2013). For example, at the museum, visual, audio, and tactile information are given for visitors. (CEUD, 2013)

Principle 5: Tolerance for Error

The design prevent or decrease a possibility of accidental circumstances occurred from the usage of the places (Bate, 2004). For example, the handrail at the entrance is installed in order to separate the lane for coming in and going out users (CEUD, 2013).

Principle 6: Low Physical Effort

This design can be practiced by individual at the weakest level of fatigue used. For example, in the hotel, the residential guest could turn on or turn off the lamp by touching without the use of switch (CEUD, 2013)

Principle 7: Size and Space for Approach and Use

The design that is suitable in terms of size and space is provided for use and approach without the respect of individual size and abilities in movement. (Bate, 2004). For example, wide entrance or exit is provided at the convenient store for all (CEUD, 2013).

According to “*Universal Design New York*” (Giuliani, 2001), it showed facilities that apply the concept of universal design that specifically address the principle of that facilities for guidelines. The examples are as Table 2.6

Table 2.6 Facilities with the specific principle of universal design

Principle	Items / Facilities
Principle 1: Equitable Use	Ramps, curbs, and slops
Principle 5: Tolerance for Error	Separate pedestrian, vehicular and bicycle pathways
Principle 1: Equitable Use	Wide Entrance, exits, pathway
Principle 6: Low Physical Effort	Access to information-centre is in close proximity
Principle 4: Perceptible Information	Large fonts of information
Principle 2: Flexibility in Use and Principle 4: Perceptible Information	Various formats of information such as visual, audio, tactile ones
Principle 6: Low Physical Effort	Grabs in bathrooms
Principle 7: Size and Space for Approach and Use	Emergency button is placed in the restroom
Principle 5: Tolerance for Error	Toilet floor is well-drain and dry quickly
Principle 1: Equitable Use and Principle 3: Simple and Intuitive	Safety equipment is always provided in functional condition
Principle 2: Flexibility in Use	Different methods of payments

Source: Giuliani (2001)

2.5 The Concept of Tourist Experiences

As the advancement in technology and meditation, the rate of life expectancy has gradually been increased. In tourism, senior tourists sometimes encounter with obstacles which disable them the involvement in the destination’s environment and activities. Non-participants could be obviously stated to them. Julowski (2009) identified seven stages in tourism experiences as follows;

1. Emerging interest or Orientation

2. Establishment of interest or Attachment
3. Actual Visit or Visiting
4. Comparison or Evaluation (comparisons)
5. Photographs, gifts and souvenirs, memories or Storing
6. Repeated presentations or Reflection
7. Econtinued contacts with memory, created new practice during the trip or

Enrichment

Senior tourists have some problems on mobility or other physical limitation and tourist attractions could not accommodate them with an appropriate synergy of facilities and services. The destination is unable to ease their path, reach the attraction or to attend the activities, which could imply that they could not reach the stage of “*actual visit*”, which is significantly categorized as one stage of tourism experiences. Senior tourists have an equal right as others in world of tourism according to, Global Code of Ethics for Tourism - Article 7 “*right to tourism*”, stated that the support of senior tourism should be availed (UNWTO, 1999). There are four rules related to right in tourism which are awareness-raising, accessibility, culture, and recreation and sports (UNWTO,1999). Several researcher also defines tourism experiences in the different aspects as Table 2.7.

Table 2.7 The concepts and theory of tourist’s experience by various authors

Author	Concept/Theory
Cohen (1972)	Temporarily participate in activities differ from daily ones “ <i>no work, no care, no shift</i> ” situation
Smith (1978)	A person who temporarily go to an unusual place, which is located far away from his/her residence in order to perceive a new experience, which is a main objective of travelling
Turner & Ash (1975)	Tourism experiences are occurred during the travelling in an irregular place, and it creates a different attitude or aspect of life to the tourists, which the predomination of norms, peers and social pattern are intermittently abandoned.

Table 2.7 Continued

Maccannell(1973)	Tourism is regarded as authentic experiences
Lash & Urry (1994)	Tourism experiences are not limited. It could be produced even a person is watching a tourist-related home video or travelling discovery. The experiences are open either they are on holiday or spending their everyday life at their residence.
Munt (1994)	“Tourism is everything and everything is tourism” He proposed the distinctions between leisure and occupational experiences.
Cohen (1979)	Different typology of tourists, perceived different level of tourist experiences. The Cohen's four types of tourists are "Organized mass tourists, Individual mass tourists, Explorers, and Drifters"
Plog (1973)	The perception of tourist’s experiences are varied

2.6 Importance and Performance Analysis

The technique of Importance-Performance Analysis (IPA) is a practical tool to understand senior tourist’s perception in term of importance of the facilities and perceive experience from the existing facilities. IPA analysis is a very effective instrument for service industry (Farnum & Hall, 2007). It had been initially introduced by Martilla & James (1977) and the matrix is composed of 4 quadrants as follow;

1. *Quadrant 1 Top Left “High Importance with Low performance”*

It represents the attribute is on crisis and the intensive improvement is strongly to be established as the first priority. The customer found that it is very importance to them but the provider or organization is unable to deliver the expected result or performance that get along with their need.

2. *Quadrant 2 Top right “High Importance with High Performance”*

It represents remarkable points with great performance and effective management is produced. The provider is able to response the satisfaction of the customer as they put the attribute as the high level of importance. The provider or organization should remain its performance as their strength.

3. *Quadrant 3 Bottom Left “Low Importance with Low Performance”*

The area represents that both importance and performance are at the low level. It shows that the attribute does not significant to the customer as well as the performance is not well efficient and effective. The provider or organization could consider not to invest too much resources for the attributes in this area.

4. *Quadrant 4 Bottom Right “Low Importance with High Performance”*

The area show that any attribute founded is not important to the customer but outstanding performance that beyond the customer’s expertation is generated. Therefore, the provider or the organization can consider on oversupplying to be controlled and to transfer the resource from this area to other more importance and potential for benefits.

Figure 2.2 Importance and Performance Analysis Grid

Importance

High	Quadrant 1 High Importance with Low performance	Quadrant 2 High Important with High performance
	Quadrant 3 Low Important with Low Performance	Quadrant 4 Low Importance with High Performance
Low		Performance

Source: Martilla & James (1977)

Chapter 3

Methodology

This chapter concentrates on the process primary data assembly, which was vitally analyzed for the establishment of the findings. As a quantitative research, the questionnaire survey was established to collect data for this study. Also, this chapter presented sample size, data collection and data analysis. Attributes of the study for data analysis were discussed. The section was managed as follows;

3.1 Target population, sample size, and sampling method

3.1.1 Target population

3.1.2 Sample size

3.1.3 Sampling Method

3.2 Type of Research

3.3 Research Instruments

3.4 Data Collection

3.5 Data analysis

3.6 Pre-test of the survey instrument

3.1 Target Population, Sample Size, and Sampling Techniques

3.1.1 Target Population

The population of target group primarily concentrated on senior tourists who are at 55 years old and over. Specifically, this research focused on cultural and historical tourist attractions in Phuket. The data was collected from senior tourists who were waiting for the international departure flight at Phuket International Airport. Permission to distribute questionnaires was obtained from the Phuket Airport Authority prior to the commencement of data collection.

3.1.2 Sample Size

To calculate the sampling size, the method of Taro Yamane's theory (1967) was adopted to compute the required sampling size. According to Yamane (1967), the number of 400

sampling size represents as practical target population with the confidence interval of 95%. A total of 400 returned questionnaires completed by senior tourists who were 55 years old and over were anticipated. The researcher used the data from the reports of International Tourist Arrivals by Age (2011–2015 in Thailand) to calculate the number of sample size.

Table 3.1 International Tourist Arrivals by Age (2011–2015 in Thailand)

Region	2015
East Asia	3,990,191
Europe	1,014,768
The Americas	285,998
South Asia	153,998
Oceania	208,160
Middle East	93,984
Africa	22,663
Total	5,769,762

Source: National Statistical Office (2016)

Calculation of sampling size

$$\text{Formula: } n = \frac{N}{1 + N * e^2}$$

n = size of sample

N= size of targeted population

e = Inconsistency from sampling at 95% confidence level

$$n = \frac{5,769,762}{(1 + 5,769,762 \times 0.0025)}$$

$$n = 400$$

3.1.3 Sampling Method

In the research, purposive sampling was applied by choosing the respondent who were 55 years old and over to complete the questionnaire. The questionnaire distribution conducted at Phuket International Airport because the primary data requires senior international

tourists who experienced cultural and historical tourist attractions in Phuket. Before handing them a questionnaire, all respondents were asked questionnaire such as "Are you available for 15 minutes to complete the survey? "May I ask how old are you?, "Did you visit cultural or historical sites in Phuket? so that we could avoid the respondents whom did not meet the criteria. The process of questionnaire distribution was done by December, which 400 questionnaires were well completed.

3.2 Type of Research

The design was based on a quantitative method that was a mean for testing objective theories by examining the relationship among variables which was measurable (Creswell, 2009). Therefore, these numeric data were analyzed by using statistical procedures. This approach was different from qualitative research in terms of using numbers, or using closed-ended the process of conducting this research was related to several steps for the study. It included the stage before collecting data that was the preparing theoretical framework, selecting the appropriate methods, the development of questionnaires, data collection, data analysis and discussion. In which the data collection stage was considered as the action stage in terms of directly approaching the target respondents. Four components of research approach to this research are; firstly, applied research strategy which mainly focused on practical problem that happened in the reality that was related to the problem incurred to people who directly experienced at tourists' attractions in Phuket so that the results was used for the further consideration (Sekaran, 1992). Furthermore, applied research was generally related to empirical that based on observation which theoretical framework would be well- tested (Manor College, 2006). The second approach was empirical research assisted us to determine integrate professional knowledge with empirical data to inform instructional developmental decisions. Results reflected and supported theory and demonstrated relevance at the end, established relationship between intervention and behavioral response was mainly concentrated on the raw result of the research, where all information based on the outcome has been gathered. Another research approach was deductive approach or the top down approach; it worked from the more general to the more specific (Burny, 2008). This approach also helped the researcher from the beginning of learning the overview theory and along the path to conducting the research studies

that theory, observation, confirmation, and the conclusion that were stated. In addition, the concept of quantitative research associated with deductive research method, and those were all methods and approaches were adopted for the success of this research.

3.3 Research Instruments

The instrument was the questionnaires to gather the data from senior tourists who were 55 years old and over to assess the importance and quality of the existing facilities at cultural and historical tourist attraction in Phuket. The questionnaire was given to the respondents who were 55 years old over experiencing in cultural and historical tourist attraction in Phuket. The questionnaire consisted of three different parts with 6 pages, which a 5-point Likert scale was utilized so that the respondents are able to specify the importance of facilities at cultural and historical tourist attraction as well as to measure the quality of the existing facilities they experienced at cultural and historical tourist attraction in Phuket. Standard deviation, means, and sample size were analyzed.

There were three different sections provided in the questionnaire.

Section 1: Personal Characteristics

The questions were inquired about the characteristic of demographic and individual backgrounds as follow;

1. Gender
2. Region of Residence
3. Age
4. Education
5. Marital Status
6. Occupation
7. Times travel per year
8. Household income
9. Individual's difficulty when doing one specific activity
10. The importance of facilities while visiting tourist attraction

Section 2: Travelling's behavior

To check the travelling behavior, the following questions were asked;

1. Purpose of visiting
2. The reservation channel
3. Time(s) travelling to Phuket
4. Travel companions
5. Activities to do in Phuket
6. Money spent on the trip
7. The reason that they chose Phuket for travelling destination.

Section 3: Facilities at cultural and historical tourist attractions in

Phuket

The technique of Importance-Performance Analysis (IPA) was a practical tool to understand senior tourist's perception in terms of importance of the facilities and perceive experience from the existing facilities. Martilla & James (1977) had initially introduced IPA and the table was composed of 4 Quadrants as follows;

1. Quadrant 1 Top Left "High Importance with Low Performance"
2. Quadrant 2 Top right "High Importance with High Performance"
3. Quadrant 3 Bottom Left "Low Importance with Low Performance"
4. Quadrant 4 Bottom Right "Low Importance with High Performance"

IPA analysis was a very effective instrument for service industry (Farnum and Hall, 2007). The respondents are required to do the a 5 – point Likert scale, on a 5 points Likert scale ranging from "Very Important" (5) to "Not Important" (1) to measure the important of the facilities based on universal design. Secondly, they were also required to complete the table of the assessment of the existing facilities, which is composed of 5 – point Likert scale, on a 5 points Likert scale ranging from "Excellent" (5) to "Very Poor" (1). The questions were divided into 5 areas including the area of entrance, exit and pathway, information, service, restroom, and safety. The table consisted of 36 attributes according to Table 3.2. Each attribute is based on the concept of universal design of each principle as per the universal design handbook (Giuliani, 2001)

1. Attributes number 1-10 were in the area of entrance exit/pathway,
2. Attributes number 11-17 were in the area of information
3. Attributes number 18-24 were in the area of service

4. Attributes number 25-30 were in the area of restroom and toilet
5. Attributes number 31-36 were in the area of safety

Table 3.2 List of attributes for IPA analysis

Attribute	Area	Principle	Items /Facilities
1		1	Wide Entrance, exits, pathway
2		1	Ramps, curbs, and slops
3		2	Multiple paths of travel to the entrance or exit.
4		1	A moving sidewalk or escalator
5	Entrance	4,7	Prominent points of entrance or exits
6	Exit/ Pathway	4,7	Overhead signs for detection at distance and wall signs for close detection
7		5	Flat and non-slip pathway
8		5	Separate pedestrian, vehicular and bicycle pathways
9		1,6	An elevator
10		2,7	Enough spaces for pedestrian
11		3,4,5	Information in your own language
12		2,4	Various formats of information such as visual, audio, tactile ones
13	Information	3	Step by step instructions or information
14		4	Large fonts of information
15		4	Accurate and in-depth detail information
16		6	Access to information-centre is in close proximity
17		6,7	The lowered-counter of information desk
18		3,4,5	Interpreter in your own language
19		2	Different methods of payments
20	Service	4,6	Service desk is placed in a noticeable area
21		4	Face to Face communication
22		5	Private office for conversation for emotional distress
23		6	Personal Staff assistance

Table 3.2 Continued

Attribute	Area	Principle	Items /Facilities
24		7	Enough space for maintaining appropriate interpersonal distances is provided
18		3,4,5	Interpreter in your own language
19		2	Different methods of payments
20		4,6	Service desk is placed in a noticeable area
21		4	Face to Face communication
22		5	Private office for conversation for emotional distress
23		6	Personal Staff assistance
24		7	Enough space for maintaining appropriate interpersonal distances is provided
25		1,6,7	Automatically wide entrance
26	Restroom	6	<i>“Built-in tub seat and multiple grab bars allow tub or shower use in seated or standing position”</i> (The center of universal design, 2015)
27	/Toilet	4,7	Prominent points of restrooms
28		5	Toilet floor is well-drain and dry quickly
29		6	Access to restrooms is in close proximity
30		7	Emergency button is placed in the restroom
31		3,4	Use pictograms, text, and color-coding to label all emergency equipment
32	Safety	6	Providing proximity warnings in a variety of sensory modes
33		4,7	Prominent point of emergency areas
34		1,3	Safety equipment is always provided in functional condition
35		6	Access to first aids center or emergency points is in close proximity
36		3,7	Emergency alarm and fire extinguisher is easy to find

Remarks: 1 = Principle 1: Equitable Use, 2 = Flexibility in Use, 3 = Simple and Intuitive, 4 = Perceptible Information, 5 = Tolerance for Error, 6 = Low Physical Effort, and 7 = Size and Space for Approach and Use

3.4 Data Collection

The Questionnaire

The questionnaire was a tool for data collection that was a tool to measure the importance of facilities at cultural and historical tourist attractions as well as to measure the quality of the existing facilities they experienced at cultural and historical tourist attractions in Phuket by the aspect of senior tourists who 55 years old and over. A Likert scale was provided in the questionnaire. The data collected from senior tourists who were 55 years old and over while they were waiting for International departure flight at Phuket airport. The questionnaires were given to target group individually by hand, which the process of permission to enter to the airport had been complete for data collecting in at the restrict area, which were allowed for 14 days for 3 persons from 08.00 AM. – 11.00 PM. to distribute the questionnaire at the airport in the area of the international departure gate.

3.5 Data Analysis

The data were obtained through the questionnaires. Data analysis software was the major instrument for data analysis, interpretation, and data representation was in the forms of tables, graphs, and charts. The purposes to do data analysis was to summarize the data, to present and interpret the data, to compare variables and look at the differences and to forecast the outcomes.

3.6 Pre-test

To test the validity and avoid the confusion on the questionnaire, pre-test was conducted within a small selected sampling size. The number of pre-test questionnaires was completed by collecting 15 returned questionnaires. After receiving the pre-test questionnaires, corrections and modification was corrected in terms of the error of words, unclear phase, and size of alphabets in order to produce the clear statement and sight-friendly questionnaires to the sampling size.

3.7 Reliability Testing

Reliability test was conducted in order to assure that the questionnaire made with no errors and the result was reliable (George & Mallery, 2003). Consistency and stability was presented by the result of reliability measurement. The result that showed close to the reliability coefficient gets to 1.0, the betterment received as well as those values over .80 reflected a good result. The value of .70 and above was determined as acceptable, which .60 of reliability values generated as poor (Sekaran, 1992). By using the Cronbach's alpha to all attributes, the results showed as over 0.70 which was able to indicate that the stability of the questionnaire was constructed.

Table 3.3 Cronbach's Alpha Reliability Test

Reliability Statistics	
Cronbach's Alpha	N of Items
.892	45

Chapter 4

Results

This chapter will show the measurement of the importance and the existing of the facilities at cultural and historical tourist attractions in. Also, this chapter will study facilities in cultural and historical tourists' attraction in Phuket affect senior tourist's experience. The chapter was outlined nine parts as per following;

- 4.1 Respondent's characteristics profiles
- 4.2 Travel behaviors
- 4.3 Assessment of the importance of the facilities at cultural and historical tourist attractions
- 4.4 Assessment of perceived tourist experiences towards existing facilities at cultural and historical tourist attractions in Phuket
- 4.5 Importance and Performance Analysis
- 4.6 Overall senior tourist's perception on the facilities at cultural and historical tourist attractions in Phuket
- 4.7 The relationship of the importance and overall senior tourist's experiences
- 4.8 One-way ANOVA analysis on the importance of the facilities by age levels
- 4.9 One-way ANOVA analysis of the existing facilities at cultural and historical tourist attractions in Phuket based on seven principles of universal design by age levels

4.1 Respondent's Characteristic Profiles

As presented in Table 4.1, 47 percent of the respondents were males and 53 percent were females. In terms of age, 52.5 percent of the respondent between 55-59 years old and 23.3 percent were between 60-64years old, which the least is from 75 and above at 1 percent. For region of residence, the three most of them was Europe, Asia and America as 39, 27.3 and 19 percent respectively. The results of marital status showed that 79.3 percent was married followed

by single at 11.3 percent. Relating to the result of education, it presented that respondents who completed diploma (37.3 percent) followed by high school (31.5 percent), and followed by Bachelor Degree respectively (16.5 percent). In addition, in the part of occupation, the result revealed that most of them were company employee as 43 percent followed by retired as 19.3 percent, self-employed as 18.3 percent, and the others were professional as 7 percent, unemployed as 6.3 percent and government employee as 5 percent respectively. Furthermore, from the result, most of respondents travelled 1-3 times time per year (71 percent), followed by 4-6 times (19 percent), 7-9 times (7.5 percent), and 9 times and above (2.5 percent). For household income, most of them had got \$30,001-\$50,000 (35 percent) followed by \$50,001- \$70,000 (27 percent), \$70,001-\$90,000 (24 percent), \$90,001-\$110,000 (6.8 percent) and less than \$30,000 (5.3 percent).

Table 4.1 Respondent's Characteristics Profiles

Variable	Description	N=400	
		N	Percentage
Gender	Male	188	47
	Female	212	53
Age	55-59	210	52.5
	60-64	93	23.3
	65-69	56	14
	70-74	37	9.3
	75 and above	4	1.0
Region of Residence	Americas	76	19
	Asia	109	27.3
	Europe	156	39
	Middle East	19	4.8
	Oceania	21	5.3
	South Africa	19	4.8

Table 4.1 Continued

Variable	Description	N=400	
		N	Percentage
Marital Status	Single	45	11.3
	Married	317	79.3
	Divorced	21	5.3
	Widowed	15	3.8
	Others	2	0.5
Education	Less than high school	5	1.3
	High School	126	31.5
	Diploma	149	37.3
	Bachelor Degree	66	16.5
	Master Degree	52	13.0
	Doctoral Degree	2	0.5
Occupation	Self-employed	73	18.3
	Company Employee	172	43
	Government Employee	20	5
	Professional	28	7
	Retired	77	19.3
	Unemployed	25	6.3
	Others	5	1.3
Time travel per year	1-3	284	71
	4-6	76	19
	7-9	30	7.5
	9 and above	10	2.5
Household income	Less than \$30,000	21	5.3
	\$30,001-\$50,000	140	35
	\$50,001- \$70,000	108	27
	\$70,001-\$90,000	96	24
	\$90,001-\$110,000	27	6.8
	More than \$110,001	8	2.0

Moreover, Table 4.2 reported that activities that the respondent encountered the difficulty during daily's life indicated that most of them faced the difficulties on "Seeing things or information" (Mean= 3.24, S.D.= 1.12), followed by "Walking for some distances" (Mean= 3.32, S.D.= 1.03), "Bend the knee" (Mean= 3.32, S.D.= 1.06), and the least difficulties they encountered was "Allergies on certain things such as food, pollen, dust or fur" (Mean= 2.64, S.D.= 1.21). Totally, the grand mean of activities that the respondent encountered the difficulty during daily's life was 3.08.

Table 4.2 The level of difficulty accordingly to daily's activities

Variable	Frequency (N=400)					Mean	Std. Deviation
	Always	Most of the times	Sometimes	Rarely	Never		
In your daily life, how often do you have difficulties during the following activities							
Walking for some distances	57	106	166	50	21	3.32	1.03
Bend the knee	53	127	144	49	27	3.32	1.06
Stepping up to the stairs	50	108	158	51	33	3.22	1.08
Picking up and carrying objects	47	115	147	61	30	3.22	1.07
Seeing things or information	54	117	135	59	35	3.24	1.12
Hearing or listening to someone	52	116	128	48	56	3.15	1.21
Understanding complex information	38	88	145	64	65	2.92	1.18
Allergies on certain things such as food, pollen, dust or fur	27	74	122	84	93	2.64	1.21
Eating/Chewing	27	87	131	61	94	2.73	1.22
Grand Mean						3.08	

4.2 Travel Behavior

The part showed travel behaviors of senior tourists in Phuket. From Table 4.3, for the majority of the respondents the purposes of their visit to Phuket was for Vacation/Holiday/Recreation as 367 (91.8 percent), business 25 (17.5 percent), visiting family and friends 6 (1.5 percent) respectively. Most of respondents arranged the trip through the

Internet as 68.8 percent, and 30.8 percent arranged the trip through travel agency. Also, the majority of the respondents travelled to Phuket for the first time as 342 (85.5 percent) and there were 76 (14 percent) visiting more than once. The result also revealed that the respondents travel to Phuket with family as 69.3 percent followed by spouse/partner 13.3 percent, and friend 11.8 percent accordingly. Moreover, the respondents revealed they spent the days in Phuket for 4-7 days as 200 (50 percent), whereas 8-15 days was as 94 (23.5 percent), and followed by 1-3 days as 53 (13.3 percent)

According to Table 4.3, relating to cultural and historical attractions that the respondent visited, it revealed that the most visited place was “Chalong Temple” as 31.2 percent, and followed by “Phuket Old Town (Sino-Portuguese architectures)” as 22.2 percent, “Big Buddha Temple” as 19.9 percent, Phuket Heroines Monument as 12.7 percent, Pra Nang Sang Temple as 10 percent, and Others as 4 percent.

Moreover, the results showed that the activities that respondents participated in Phuket was that the majority was relax on the beach 14.6 percent as shown, followed by visiting temples and cultural attractions 14.1 percent, spa & massage 11.2 percent, try local food 10.5 percent, visiting museums 9.7 percent and visiting the Islands 9.3 percent. In terms of spending for the trip, the result also demonstrated that most of respondents spent for the trip in Phuket each person at 100,001-150,000 THB as 58.5 percent, which followed 150,001-200,000 THB as 31.8 percent, and Below 100,000 THB as 5.8 percent respectively.

Moreover, the results relating to the reasons they chose Phuket showed that the majority of respondents agreed that Phuket was “It is value for money destination.” (Mean= 4.36, S.D.= 0.57), followed by “It has a good image” (Mean= 4.33, S.D.= 0.56), “It has a good cultures and history.” (Mean= 4.32, S.D.= 0.55), “It provides various tourist attractions and activities” (Mean= 4.31, S.D.= 0.56), “It provides good accommodations.” (Mean= 4.29, S.D.= 0.56), and the least was “It is a safe place” (Mean= 4.18, S.D.= 0.55). Totally, the grand mean of the reasons they chose Phuket was 4.28.

Table 4.3 Travel Behavior

Factor	Description	N=400		
		N	Percentage	Mean
Purpose of the trip to Phuket	Vacation/Holiday/Recreation	367	91.8	
	Business	25	6.3	
	Visiting Family and Friends	6	1.5	
	Medical Care	1	0.3	
	Volunteer	1	0.3	
How did you arrange your trip to Phuket	Through the internet	275	68.8	
	Through travel agent	123	30.8	
	Others	2	0.5	
Is it your first time travelling to Phuket?	Yes	319	79.8	
	No	81	20.3	
Times travel in Phuket	2-4	59	93.7	
	5-7	1	1.6	2.95
	8-10	3	4.8	
Who did you travel with?	Alone	21	5.3	
	Spouse/Partner	53	13.3	
	Friends	47	11.8	
	Family	277	69.3	
	Others	2	0.5	
How many days did you stay in Phuket?	1-3 days	86	21.5	
	4-7 days	200	50	
	8-15 days	94	23.5	
	16-30 days	15	3.8	
	More than 30 days	5	1.3	

Table 4.3 Continued

Factor	Description	N=400	
		N	Percentage
Which cultural and historical attraction(s) did you visit?	Chalong Temple	294	31.2
	Big Buddha Temple	188	19.9
	Pra Nang Sang Temple	94	10
	Phuket Heroines Monument	120	12.7
	Phuket Old Town (Sino-Portuguese architectures)	209	22.2
	Others	38	4
What activities did you do in Phuket?	Relax on the Beach	293	
	Visit the Islands	187	9.3
	Visit temples and cultural attractions	284	14.1
	Visit Museums	196	9.7
	See cultural shows	145	7.2
	See animal shows	98	4.9
	Do adventurous activities (bungee jump, go kart, parasailing, or cable skiing)	31	1.5
	Try local food	212	10.5
	Visit local villages	126	6.3
	Shopping	154	7.7
	Spa & Massage	225	11.2
Nightlife	37	1.8	
Sport Activities	25	1.2	

Table 4.3 Continued

Factor	Description	N=400	
		N	Percentage
On average, how much did you spend during this trip in Phuket? (per person)	Below 100,000 THB	23	
	100,001-150,000 THB	234	58.5
	150,001-200,000 THB	127	31.8
	200,001-250,000 THB	13	3.3
	250,001-300,000 THB	2	0.5
	Higher than 300,001 THB	1	0.3
Total		400	100%

Table 4.4 The reason senior tourist chose Phuket as their destination

Factor	Frequency (N=400)					Mean	Std. Deviation
	Strongly agree	Agree	Neither agree nor disagree	Disagree	Strongly disagree		
I chose Phuket because...							
It is a good location for holiday/relaxation/activities.	101	287	10	0	0	4.22	0.47
It is a safe place.	102	274	21	3	0	4.18	0.55
It has a good image.	152	230	17	1	0	4.33	0.56
It provides various tourist attractions and activities.	147	232	21	0	0	4.31	0.56
It is value for money destination.	163	220	16	1	0	4.36	0.57
It provides a variety of infrastructure.	139	241	19	1	0	4.29	0.56
It provides an excellent service.	123	255	18	3	1	4.24	0.56
It provides good accommodations.	138	242	18	1	0	4.29	0.56
It has a good cultures and history.	144	242	12	2	0	4.32	0.55
Grand Mean						4.28	

4.3 An Assessment of the Importance of the Facilities at cultural and historical tourist attractions in Phuket

Objective 1: To assess the importance of the facilities by senior tourists based on the seven principles of universal design at cultural and historical tourist attractions

Table 4.5 presented the importance of the facilities at cultural and historical tourist attractions. The mean score is based on a numerical scales of 5 being very important and 1 being Not Important. Seven principles of the Universal Design included P1 = “*Principle 1: Equitable Use*”, P2 = “*Flexibility in Use*”, P3 = “*Simple and Intuitive*”, P4 = “*Perceptible Information*”, P5 = “*Tolerance for Error*”, P6 = “*Low Physical Effort*”, and P7 = “*Size and Space for Approach and Use*” (CEUD, 2013). The results showed that respondents indicated that the most important items of facilities for senior tourists was “Providing proximity warnings in a variety of sensory modes” in the area of safety, principle 6 (Mean= 4.38, S.D.= 0.66), followed by “Prominent point of emergency areas” in the area of safety, principle 6 (Mean= 4.35, S.D.= 0.64), “Prominent point of emergency areas” in the area of safety, principle 4 and 7 (Mean= 4.33, S.D.= 0.63), “Safety equipment is always provided in functional condition” in the area of safety principle 1 and 3 (Mean= 4.31, S.D.= 0.66), and “Emergency alarm and fire extinguisher is easy to find” in the area of safety principle 3 and 7 (Mean= 4.28, S.D.= 0.59). In term of the least important factor, the result was “Wide Entrance, exits, pathway” in the area of entrance, principle 1 (Mean= 3.94, S.D.= 0.69), followed by “The lowered-counter of information desk” in the area of information, principle 6 and 7 (Mean= 3.99, S.D.= 0.85), “Prominent points of entrance or exits” in the area of entrance, principle 4 and 7 (Mean= 4.04, S.D.= 0.08), “An elevator” in the area of entrance, principle 1 and 6 (Mean= 4.05, S.D.= 0.73) accordingly. It can be shown the facilities by senior tourists based on the seven principles of universal design at cultural and historical tourist attractions in Phuket was “Important” as grand mean is equal to 4.16.

Table 4.5 An assessment of the importance of the facilities at cultural and historical tourist attractions in Phuket

Area	Principles	Items /Facilities	Frequency (N=400)					Mean	Std. Deviation
			Very Important	Important	Neutral	Less Important	Not Important		
Safety	P6	Providing proximity warnings in a variety of sensory modes	186	188	19	7	0	4.38	0.66
Safety	P6	Access to first aids center or emergency points is in close proximity	172	202	21	3	0	4.35	0.64
Safety	P4,P7	Prominent point of emergency areas	166	204	27	3	0	4.33	0.63
Safety	P1,P3	Safety equipment is always provided in functional condition	163	208	21	8	0	4.31	0.66
Safety	P3,P7	Emergency alarm and fire extinguisher is easy to find	140	236	21	3	0	4.28	0.59
Service	P4	Face to Face communication	152	206	33	7	0	4.26	0.68
Restroom /Toilet	P5	Toilet floor is well-drain and dry quickly	163	193	32	11	1	4.26	0.74
Restroom /Toilet	P6	Access to restrooms is in close proximity	151	212	30	6	1	4.26	0.68
Safety	P3,P4	Use pictograms, text, and color-coding to label all emergency equipment	137	234	21	8	0	4.25	0.64
Restroom /Toilet	P4,P7	Prominent points of restrooms	149	209	31	10	1	4.24	0.70

Table 4.5 Continued

Area	Principles	Items /Facilities	Frequency (N=400)					Mean	Std. Deviation
			Very Important	Important	Neutral	Less Important	Not Important		
Service	P2	Different methods of payments	137	229	25	7	2	4.23	0.68
Restroom /Toilet	P6	Built-in tub seat and multiple grab bars allow tub or shower use in seated or standing position	133	239	19	8	1	4.23	0.65
Service	P2	Different methods of payments	137	229	25	7	2	4.23	0.68
Restroom /Toilet	P6	Built-in tub seat and multiple grab bars allow tub or shower use in seated or standing position	133	239	19	8	1	4.23	0.65
Service	P4, P6	Service desk is placed in a noticeable area	138	219	38	3	2	4.22	0.68
Restroom /Toilet	P7	Emergency button is placed in the restroom	134	227	30	9	0	4.21	0.67
Service	P3, P4, P5	Interpreter in your own language	122	243	28	7	0	4.20	0.63
Information	P2, P4	Various formats of information such as visual, audio, tactile ones	138	207	45	9	1	4.18	0.71
Entrance, Exit, Pathway	P2	Multiple paths of travel to the entrance or exit.	139	204	45	12	0	4.17	0.07
Information	P3	Step by step instructions or information	123	231	38	7	1	4.17	0.68

Table 4.5 Continued

Area	Principles	Items /Facilities	Frequency (N=400)					Mean	Std. Deviation
			Very Important	Important	Neutral	Less Important	Not Important		
Information	P4	Accurate and in-depth detail information	135	209	46	9	1	4.17	0.73
Information	P4	Large fonts of information	131	213	46	9	1	4.16	0.72
Information	P3, P4 ,P5	Information in your own language	117	236	37	10	0	4.15	0.68
Service	P5	Private office for conversation for emotional distress	133	204	46	16	1	4.13	0.78
Entrance, Exit, Pathway	P1	A moving sidewalk or escalator	124	219	41	12	4	4.11	0.78
Entrance, Exit, Pathway	P1	Ramps, curbs, and slops	120	224	37	13	5	4.10	0.79
Entrance, Exit, Pathway	P2, P7	Enough spaces for pedestrian	113	227	51	6	3	4.10	0.72
Entrance, Exit, Pathway	P4, P7	Overhead signs for detection at distance and wall signs for close detection	128	205	48	16	3	4.09	0.81
Information	P6	Access to information-centre is in close proximity	107	235	49	6	3	4.09	0.71
Restroom /Toilet	P1, P6, P7	Automatically wide entrance	78	290	25	6	1	4.09	0.57

Table 4.5 Continued

Area	Principles	Items /Facilities	Frequency (N=400)					Mean	Std. Deviation
			Very Important	Important	Neutral	Less Important	Not Important		
Entrance, Exit, Pathway	P5	Separate pedestrian, vehicular and bicycle pathways	113	226	39	17	5	4.06	0.81
Service	P7	Enough space for maintaining appropriate interpersonal distances is provided	106	231	47	13	3	4.06	0.76
Service	P6	Personal Staff assistance	112	211	62	13	2	4.05	0.78
Entrance, Exit, Pathway	P5	Flat and non-slip pathway	118	203	58	17	2	4.05	0.08
Entrance, Exit, Pathway	P1,P6	An elevator	101	235	52	9	3	4.05	0.73
Entrance, Exit, Pathway	P4,P7	Prominent points of entrance or exits	119	199	66	11	4	4.04	0.08
Information	P6,P7	The lowered-counter of information desk	116	191	68	24	1	3.99	0.85
Entrance, Exit, Pathway	P1	Wide Entrance, exits, pathway	60	278	47	10	5	3.94	0.69
Grand Mean							4.16		

4.4 An assessment of the existent facilities at cultural and historical tourist attractions in Phuket from perceived experiences

Objective 2: To measure if existent facilities at cultural and historical tourist attractions in Phuket meet senior tourist's need

According to Table 4.6, it presented the satisfaction of existing facilities at cultural and historical tourist attractions. The result showed that the respondents indicated that the most satisfied existing items or facilities for senior tourists was “Different methods of payments” in the area of service, principle 2 (Mean= 4.21, S.D.= 0.69), followed by “The lowered-counter of information desk” in the area of information, principle 6 and 7 (Mean= 4.14, S.D.= 0.71), “Multiple paths of travel to the entrance or exit” in the area of entrance, exit/pathway, principle 2 (Mean= 4.13, S.D.= 0.68), Also, at the same mean, it was “An elevator” in the area of entrance, exit/pathway, principle 1 and 6 (Mean= 4.13, S.D.= 0.68), and “Prominent points of restrooms” in the area of restroom/toilet, principle 4 and 7 (Mean= 4.12, S.D.= 0.67). Furthermore, the facilities that the respondents found at least met their need was “Emergency alarm and fire extinguisher is easy to find” in the area of safety, principle 3 and 7 (Mean= 3.73, S.D.= 0.90), followed by “*Built-in tub seat and multiple grab bars allow tub or shower use in seated or standing position*” (The center of universal design, 2015) in the area of restroom/toilet, principle 6 (Mean= 3.75, S.D.= 0.89), “Providing proximity warnings in a variety of sensory modes” in the area of safety, principle 6 (Mean= 3.78, S.D.= 0.85), “Emergency button is placed in the restroom” (Mean= 3.78, S.D.= 0.93), in the area of restroom/toilet, principle 7 and “Prominent point of emergency areas” in the area of safety, principle 4 and 7 (Mean= 3.80, S.D.= 0.86) accordingly. It can be shown the existing facilities at cultural and historical tourist attractions in Phuket from perceived experiences was “Slightly Average” as grand mean is equal to 3.96.

Table 4.6 An assessment of the existent facilities at cultural and historical tourist attractions in Phuket from perceived experiences

Area	Principles	Items/Facilities	Frequency (N=400)							
			Excellent	Good	Average	Poor	Very Poor	N/A	Mean	Std.
Service	P2	Different methods of payments	137	217	38	8	0	0	4.21	0.69
Information	P6,P7	The lowered-countered of information desk	119	227	43	11	0	0	4.14	0.71
Entrance, Exit, Pathway	P2	Multiple paths of travel to the entrance or exit.	116	223	56	5	0	0	4.13	0.68
Entrance, Exit, Pathway	P1,P6	An elevator	110	238	45	5	0	1	4.13	0.68
Restroom /Toilet	P4,P7	Prominent points of restrooms	112	231	50	7	0	0	4.13	0.68
Information	P6	Access to information-centre is in close proximity	120	213	49	18	0	0	4.09	0.77
Service	P4,P6	Service desk is placed in a noticeable area	105	233	54	8	0	0	4.09	0.69
Service	P4	Face to Face communication	110	220	65	5	0	0	5.08	0.69
Entrance, Exit, Pathway	P1	A moving sidewalk or escalator	114	207	22	5	0	0	4.08	0.72
Information	P3	Step by step instructions or information	120	199	73	8	0	0	5.07	0.74
Service	P6	Personal Staff assistance	105	228	58	9	0	0	4.07	0.70

Table 4.6 Continued

Area	Principles	Items/Facilities	Frequency (N=400)							Mean	Std.
			Excellent	Good	Average	Poor	Very Poor	N/A			
Information	P2,P4	Various formats of information such as visual, audio, tactile ones	93	248	52	6	0	0	4.07	0.65	
Service	P7	Enough space for maintaining appropriate interpersonal distances is provided	93	246	55	6	0	0	4.07	0.65	
Restroom /Toilet	P6	Access to restrooms is in close proximity	117	205	63	12	3	0	4.05	0.80	
Service	P5	Private office for conversation for emotional distress	92	239	57	12	0	0	4.03	0.70	
Entrance, Exit, Pathway	P4,P7	Overhead signs for detection at distance and wall signs for close detection	80	251	62	7	0	0	4.01	0.65	
Restroom /Toilet	P1,P6, P7	Automatically wide entrance	76	262	52	6	3	0	4.01	0.67	
Entrance, Exit, Pathway	P4,P7	Prominent points of entrance or exits	83	244	65	5	2	0	4.01	0.68	
Information	P4	Accurate and in-depth detail information	89	229	63	19	0	0	3.97	0.76	
Entrance, Exit, Pathway	P1	Wide Entrance, exits, pathway	39	305	52	4	0	0	3.95	0.52	
Entrance, Exit, Pathway	P2,P7	Enough spaces for pedestrian	88	215	83	10	3	1	3.93	0.79	

Table 4.6 Continued

Area	Principles	Items/Facilities	Frequency (N=400)							Mean	Std.
			Excellent	Good	Average	Poor	Very Poor	N/A			
Entrance, Exit, Pathway	P5	Separate pedestrian, vehicular and bicycle pathways	109	203	40	46	1	0	3.93	0.92	
Information	P4	Large fonts of information	103	194	74	25	4	0	3.92	0.88	
Service	P3,P4, P5	Interpreter in your own language	71	246	60	20	3	0	3.91	0.77	
Restroom /Toilet	P5	Toilet floor is well-drain and dry quickly	93	191	104	8	4	0	3.90	0.81	
Information	P3,P4, P5	Information in your own language	73	233	67	23	4	0	3.87	0.81	
Entrance, Exit, Pathway	P5	Flat and non-slip pathway	100	200	47	51	1	0	3.87	0.94	
Entrance, Exit, Pathway	P1	Ramps, curbs, and slops	51	269	42	38	0	0	3.83	0.77	
Safety	P3,P4	Use pictograms, text, and color-coding to label all emergency equipment	72	209	101	16	2	0	3.83	0.78	
Safety	P1,P3	Safety equipment is always provided in functional condition	110	170	79	20	18	3	3.81	1.08	
Safety	P4,P7	Prominent point of emergency areas	78	198	90	33	1	0	3.80	0.86	
Safety	P6	Access to first aids center or emergency points is in close proximity	79	223	49	36	13	0	3.80	0.97	

Table 4.6 Continued

Area	Principles	Items/Facilities	Frequency (N=400)							Mean	Std. Deviation
			Excellent	Good	Average	Poor	Very Poor	N/A			
Restroom /Toilet	P7	Emergency button is placed in the restroom	79	209	61	47	4	0	3.78	0.93	
Safety	P6	Providing proximity warnings in a variety of sensory modes	59	237	67	32	4	1	3.78	0.85	
Restroom /Toilet	P6	Built-in tub seat and multiple grab bars allow tub or shower use in seated or standing position	58	238	56	41	7	0	3.75	0.89	
Safety	P3, P7	Emergency alarm and fire extinguisher is easy to find	57	231	69	34	8	1	3.73	0.90	
Grand Mean									3.96		

Remarks: P1 = Principle 1: Equitable Use, P2 = Flexibility in Use, P3 = Simple and Intuitive, P4 = Perceptible Information, P5 = Tolerance for Error, P6 = Low Physical Effort, and P7 = Size and Space for Approach and Use

4.5 Importance and Performance Analysis (IPA)

The study is applied Importance and Performance Analysis (IPA) to analyze the level of the importance of the facilities and the performance of the existing facilities at cultural and historical tourist attractions in Phuket. The attributes included 36 attributes of facilities and items based on universal design in the area of Entrance, Exit/Pathway, Information, Service, Restroom/Toilet and Safety. The result of importance-performance consists of four quadrants. According to Figure 4.1, For Quadrant 1 “High Importance with Low performance”, it consisted of 10 attributes which most of them are in the area of safety. The facilities related to principle 3

“simple and intuitive” is mostly founded. For Quadrant 2 “High Importance with High Performance”, it is composed of 6 attributes most attributes are in the area of service, which the facilities related to principle 4 “perceptible information” is mostly founded. Also, in Quadrant 3 “Low Importance with Low Performance”, there are 8 attributes, and most of them comes from the area of entrance, exit/pathway. Lastly, for Quadrant 4 “Low Importance with High Performance, it consists of 12 and most attribute are from the area of entrance, exit, pathway as per Table 4.7

Table 4.7 The result of Importance and Performance Analysis

Quadrant	Attributes	Area	Principle	Facilities/Items
Quadrant 1 Top Left High Importance with Low performance	18	Service	P3,P4,P5	Interpreter in your own language
	26	Restroom/Toilet	P6	Built-in tub seat and multiple grab bars allow tub or shower use in seated or standing position
	28	Restroom/Toilet	P5	Toilet floor is well-drain and dry quickly
	30	Restroom/Toilet	P7	Emergency button is placed in the restroom
	31	Safety	P3,P4	Use pictograms, text, and color-coding to label all emergency equipment
	32	Safety	P6	Providing proximity warnings in a variety of sensory modes
	33	Safety	P4,P7	Prominent point of emergency areas
	34	Safety	P1,P3	Safety equipment is always provided in functional condition
Quadrant 2 Top right High Importance with High Performance	35	Safety	P6	Access to first aids center or emergency points is in close proximity
	36	Safety	P3,P7	Emergency alarm and fire extinguisher is easy to find
	12	Information	P2,P4	Various formats of information such as visual, audio, tactile ones
	19	Service	P2	Different methods of payments
	20	Service	P4,P6	Service desk is placed in a noticeable area
	21	Service	P4	Face to Face communication
	27	Restroom/Toilet	P4,P7	Prominent points of restrooms

Table 4.7 Continued

Quadrant	Attributes	Area	Principle	Facilities/Items
	29	Restroom/Toilet	P6	Access to restrooms is in close proximity
Quadrant 3 bottom left Low Importance with Low Performance	1	Entrance, Exit/Pathway	P1	Wide Entrance, exits, pathway
	2	Entrance, Exit/Pathway	P1	Ramps, curbs, and slops
	7	Entrance, Exit/Pathway	P5	Flat and non-slip pathway
	8	Entrance, Exit/Pathway	P5	Separate pedestrian, vehicular and bicycle pathways
	10	Entrance, Exit/Pathway	P2,P7	Enough spaces for pedestrian
	11	Information	P3,P4,P5	Information in your own language
	14	Information	P4	Large fonts of information
	15	Information	P4	Accurate and in-depth detail information
Quadrant 4 bottom right Low Importance with High Performance	3	Entrance, Exit/Pathway	P2	Multiple paths of travel to the entrance or exit.
	4	Entrance, Exit/Pathway	P1	A moving sidewalk or escalator
	5	Entrance, Exit/Pathway	P4,P7	Prominent points of entrance or exits
	6	Entrance, Exit/Pathway	P4,P7	Overhead signs for detection at distance and wall signs for close detection
	9	Entrance, Exit/Pathway	P1,P6	An elevator
	13	Entrance, Exit/Pathway	P3	Step by step instructions or information
	16	Information	P6	Access to information-centre is in close proximity
	17	Information	P6,P7	The lowered-counter of information desk
22	Service	P5	Private office for conversation for emotional distress	

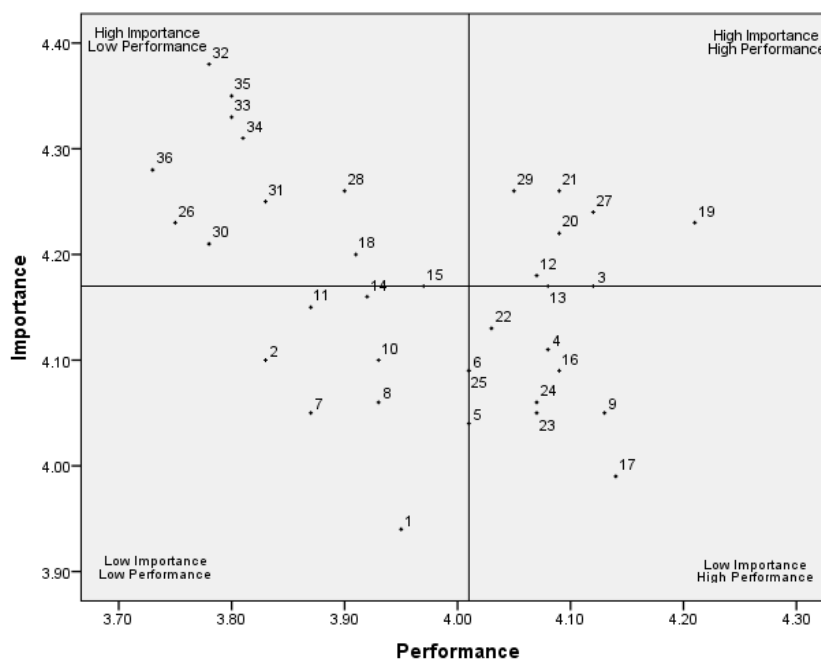
Table 4.7 Continued

Quadrant	Attributes	Area	Principle	Facilities/Items
	23	Service	P6	Personal Staff assistance
	24	Service	P7	Enough space for maintaining appropriate interpersonal distances is provided
	25	Restroom/Toilet	P1,P6,P7	Automatically wide entrance

Remarks: P1 = Principle 1: Equitable Use, P2 = Flexibility in Use, P3 = Simple and Intuitive,

P4= Perceptible Information, P5 = Tolerance for Error, P6 = Low Physical Effort, and P7 = Size and Space for Approach and Use

Figure 4.1 Importance and Performance Analysis



4.6 Overall senior tourist's perception on the facilities at cultural and historical tourist attractions in Phuket

According to Table 4.8, to measure overall whether the facilities at cultural and historical tourist attractions in Phuket meet their need, the results indicated that most of respondent "Agree" that the facilities at cultural and historical tourist attractions in Phuket met their need as 70.5 percent. It was followed by, "Disagree" 11.8 percent, "Strongly agree" 9.8 percent, "Neither agree nor disagree" 7.9 percent, and "Very Disagree" 0.8 percent respectively.

Table 4.8 Frequency of overall the facilities at cultural and historical tourist attractions in Phuket meet their need

Scale	Frequency	Percentage (%)
Strongly agree	39	9.8
Agree	282	70.5
Neither agree nor disagree	29	7.3
Disagree	47	11.8
Very Disagree	3	.8
Total	400	100%

According to Table 4.9, it showed the measurement of the facilities at cultural and historical tourist attractions in Phuket whether it affects senior tourist's experience in overall, and the results presented most of respondent "Agree" that the facilities at cultural and historical tourist attractions affected senior tourist's experience as 80.5 percent. It was followed by, "Strongly agree" 12.8 percent, "Neither agree nor disagree 5.3 percent, "Disagree" 1.0 percent, and "Very Disagree" 0.5 percent respectively.

Table 4.9 Frequency of the respondent's perception toward items and facilities at cultural and historical tourist attractions affecting their overall's tourist's experience

Scale	Frequency	Percentage (%)
Strongly agree	51	12.8
Agree	322	80.5
Neither agree nor disagree	21	5.3
Disagree	4	1.0
Very Disagree	2	.5
Total	400	100%

4.7 The relationship of the importance of the facilities and overall senior tourist's experience

Further investigation of correlation was tested between the importance of the facilities of each attribute and overall senior tourist's experiences by using Pearson product-moment correlation coefficient which hypothesis was established.

H₀: There is no relationship between the importance of facilities with overall senior tourist's experience

H_A: There is a relationship between the importance of facilities with overall senior tourist's experience

From Table 4.10, it showed that there is a relationship between the importance of facilities with overall senior tourist's experience at P value < 0.05 in 10 facilities as per Table 6 which are wide entrance, exits, pathway (r = .121), ramps, curbs, and slopes (r = .115), a moving sidewalk or escalator (r = .112), separate pedestrian, vehicular and bicycle pathways (r = .102), interpreter in your own language (r = -.121), face to face communication (r = -.119), private office for conversation for emotional distress (r = -.118), "Built-in tub seat and multiple grab bars allow tub or shower use in seated or standing position" (The center of universal design, 2015) (r = -.099), toilet floor is well-drain and dry quickly (-.123), and prominent point of emergency areas (r = -.113).

Table 4.10 The relationship between the importance of facilities with overall senior tourist's experience

		Overall Senior Tourist's Experience
The importance of wide Entrance, exits, pathway	Pearson Correlation	.121*
	Sig. (2-tailed)	.016
	N	400
The importance of ramps, curbs, and slopes	Pearson Correlation	.115*
	Sig. (2-tailed)	.021
	N	400
The importance of a moving sidewalk or escalator	Pearson Correlation	.112*
	Sig. (2-tailed)	.026
	N	400

Table 4.10 Continued

		Overall Senior Tourist's Experience
The importance of separate pedestrian, vehicular and bicycle pathways	Pearson Correlation	.102 [*]
	Sig. (2-tailed)	.041
	N	400
The importance of an elevator	Pearson Correlation	.072
	Sig. (2-tailed)	.149
	N	400
The importance of interpreter in your own language	Pearson Correlation	-.121 [*]
	Sig. (2-tailed)	.016
	N	400
The importance of face to face communication	Pearson Correlation	-.119 [*]
	Sig. (2-tailed)	.018
	N	400
The importance of private office for conversation for emotional distress	Pearson Correlation	-.118 [*]
	Sig. (2-tailed)	.019
	N	400
The importance of built-in tub seat and multiple grab bars allow tub or shower use in seated or standing position	Pearson Correlation	-.099 [*]
	Sig. (2-tailed)	.04
	N	400
The importance of toilet floor is well- drain and dry quickly	Pearson Correlation	-.123 [*]
	Sig. (2-tailed)	.014
	N	400
The importance of prominent point of emergency areas	Pearson Correlation	-.113 [*]
	Sig. (2-tailed)	.024
	N	400

* Correlation is significant at the 0.05 level (2-tailed).

4.8 One-way ANOVA analysis on the importance of the facilities by age levels

The study used One-way ANOVA analysis to find out the impact of age on levels for the assessment of the importance of the facilities at cultural and historical tourist attractions in Phuket based on seven principles of universal design, One-way ANOVA analysis was conducted. Respondents were divided into five groups according to their ages (Group 1: 55-59 years; Group 2: 60-64 years; Group 3: 65-69 years; Group 4: 70-74 years; Group 5: 7 and above). There was a statistically significant difference at the $p < .05$ level in some items and facilities each area for the assessment of the importance of the facilities at cultural and historical tourist attractions in Phuket based on seven principle of universal design for age groups as per the following Table 4.11

The result presented that for group 1 they highlighted the most concern on only the area of service than the other groups. The result showed that “Personal staff assistance”, principles 6 (Mean = 4.20), and “Private office for conversation for emotional distress”, principle 5 were high importance to group 1 (Mean = 4.23). On the other hand, group 2 presented the most importance facilities based on universal design on “The lowered-counter of information desk” in the area of information, principles 6 and 7 (Mean = 4.11) than the other groups. The rest areas and facilities, group 3, 4 and 5 put the higher importance of facilities based on universal design than group 1 and 2. For group 3, “A moving sidewalk or escalator” in the area of entrance, exit, pathway, principle 1 (Mean= 4.41) was marked as the most importance items/facilities based on the seven principles of universal design. On the other hand, the result presented that group 4 indicated that the most importance of the items and facilities than the other groups in the area of entrance, exit, pathway where “Ramps, curbs, and slops”, principle 1 (Mean = 4.49) was presented as well as “Large fonts of information”, principle 4 (Mean = 4.49) and “Information in your own language”, principle 3, 4 and 5 in the area of service (Mean = 4.49) were most importance for group 4 than other groups. For group 5, the most important item and facilities that are required than the other group were presented in the area of information and restroom. In the area of information, the most important item and facilities were “Various formats of information such as visual, audio, tactile ones”, principle 2 and 4 (Mean = 5.00) and “Step by step instructions or information”, principle 3 (Mean = 5.00). Whereas “*Built-in tub seat and multiple grab bars allow tub or shower use in seated or standing position*” (The center of universal design, 2015) in

the area of restroom, principle 6 (Mean = 5.00) was the most important to group 5 than the rest of the groups.

Table 4.11 One - Way ANOVA analysis according to the age structure of respondents for the assessment of the importance of the facilities at cultural and historical tourist attractions in Phuket based on seven principles of universal design

Area	Principle	Items /Facilities	Group	Group	Group	Group	Group	F-value	P-value
			1 55-59	2 60-64	3 65-69	4 70-74	5 75 and Above		
Entrance, Exit, Pathway	P5	Flat and non-slip pathway	4.07	3.74	4.29	4.38	3.75	6.583	.000
	P1	Ramps, curbs, and slops	4.05	3.90	4.39	4.49	4.00	6.043	.000
	P5	Separate pedestrian, vehicular and bicycle pathways	4.00	3.88	4.43	4.27	4.50	5.428	.000
	P1	Wide Entrance, exits, pathway	3.93	3.73	4.21	4.14	4.00	5.284	.000
	P1	A moving sidewalk or escalator	4.09	3.89	4.41	4.38	4.25	5.239	.000
	P4,P7	Overhead signs for detection at distance and wall signs for close detection	4.12	3.85	4.16	4.46	4.25	4.320	.002
	P2,P7	Enough spaces for pedestrian	4.06	3.99	4.39	4.16	4.50	3.447	.009
	P1,P6	An elevator	4.02	3.90	4.29	4.22	4.50	3.367	.010
	P4,P7	Prominent points of entrance or exits	4.02	3.89	4.23	4.24	4.75	2.964	.020
	P2	Multiple paths of travel to the entrance or exit.	4.20	4.03	4.23	4.27	4.50	1.352	.250

Table 4.11 Continued

Area	Principle	Items /Facilities	Group	Group	Group	Group	Group	F- value	P- value
			1 55-59	2 60-64	3 65-69	4 70-74	5 75 and Above		
	P1	A moving sidewalk or escalator	4.09	3.89	4.41	4.38	4.25	5.239	.000
Information	P4	Accurate and in-depth detail information	4.03	4.15	4.43	4.54	4.75	6.965	.000
	P4	Large fonts of information	4.12	3.96	4.43	4.49	4.00	6.034	.000
	P3,P4 ,P5	Information in your own language	4.10	4.05	4.27	4.49	4.25	3.535	.008
	P2,P4	Various formats of information such as visual, audio, tactile ones	4.19	4.04	4.23	4.41	5.00	3.185	.014
	P3	Step by step instructions or information	4.15	4.09	4.25	4.30	5.00	2.428	.047
	P6	Access to information-centre is in close proximity	4.03	4.04	4.30	4.27	4.00	2.377	.051
	P6,P7	The lowered-countered of information desk	4.09	4.11	4.11	3.16	2.50	15.047	.000
Restroom/Toilet	P6	Built-in tub seat and multiple grab bars allow tub or shower use in seated or standing position	4.19	4.13	4.36	4.54	5.00	4.980	.001
	P5	Toilet floor is well-drain and dry quickly	4.25	4.19	4.23	4.54	4.50	1.643	.163
	P7	Emergency button is placed in the restroom	4.16	4.20	4.32	4.41	4.00	1.527	.194
	P6	Access to restrooms is in close proximity	4.26	4.24	4.20	4.46	4.25	.933	.444

Table 4.11 Continued

Area	Principle	Items /Facilities	Group 1 55-59	Group 2 60-64	Group 3 65-69	Group 4 70-74	Group 5 75 and Above	F- value	P- value
	P4,P7	Prominent points of restrooms	4.24	4.27	4.23	4.24	4.00	.152	.962
	P1,P6,P7	Automatically wide entrance	4.07	4.05	4.13	4.30	4.00	1.419	.227
Safety	P6	Access to first aids center or emergency points is in close proximity	4.02	4.00	3.71	2.32	2.00	40.401	.000
	P3,P7	Emergency alarm and fire extinguisher is easy to find	3.87	3.90	3.89	2.38	2.50	33.972	.000
	P1,P3	Safety equipment is always provided in functional condition	4.07	3.95	3.71	2.38	1.75	30.384	.000
	P6	Access to first aids center or emergency points is in close proximity	4.02	4.00	3.71	2.32	2.00	40.401	.000
	P3,P7	Emergency alarm and fire extinguisher is easy to find	3.87	3.90	3.89	2.38	2.50	33.972	.000
	P1,P3	Safety equipment is always provided in functional condition	4.07	3.95	3.71	2.38	1.75	30.384	.000
	P6	Providing proximity warnings in a variety of sensory modes	3.88	3.96	3.98	2.62	2.50	28.014	.000
	P4,P7	Prominent point of emergency areas	3.90	3.91	3.93	2.81	2.75	17.971	.000

Table 4.11 Continued

Area	Principle	Items /Facilities	Group					F-value	P-value
			Group 1 55-59	Group 2 60-64	Group 3 65-69	Group 4 70-74	Group 5 75 and Above		
	P3,P4	Use pictograms, text, and color-coding to label all emergency equipment	3.94	3.91	3.88	3.05	2.75	14.061	.000
Service	P6	Personal Staff assistance	4.20	3.98	4.18	3.24	3.25	15.212	.000
	P3,P4,P5	Interpreter in your own language	4.10	4.17	4.38	4.54	4.75	6.273	.000
	P5	Private office for conversation for emotional distress	4.23	4.12	4.13	3.70	3.25	5.040	.001
	P4	Face to Face communication	4.27	4.08	4.41	4.51	3.75	4.375	.002
	P4,P6	Service desk is placed in a noticeable area	4.19	4.12	4.34	4.46	4.50	2.407	.049
	P2	Different methods of payments	4.21	4.13	4.45	4.27	4.00	2.102	.080

Remark: P1 = Principle 1: Equitable Use, P2 = Flexibility in Use, P3 = Simple and Intuitive, P4 = Perceptible Information, P5 = Tolerance for Error, P6 = Low Physical Effort, and P7 = Size and Space for Approach and Use

4.9 One-way ANOVA analysis of the existent facilities at cultural and historical tourist attractions in Phuket based on seven principles of universal design by age levels

To discover the impact of age on levels for the assessment of the existing facilities at cultural and historical tourist attractions in Phuket from perceived experiences based on seven principles of universal design, One-way ANOVA analysis was conducted. Respondents were divided into five groups according to their ages (Group 1:55-59 years; Group 2: 60-64 years; Group 3: 65-69 years; Group 4: 70-74 years; Group 5: 7 and above). There was a statistically significant difference at the $p < .05$ level in the assessment of the existing facilities based on seven

principle of universal design at cultural and historical tourist attractions for age groups. The result was shown that all items and facilities has got P-value <.05 level as per Table 4.12 except “An elevator” in the area of entrance, exit, and pathway.

The result presented that for group 1 statistically, only “Automatically wide entrance” in the area of restroom/toilet, principle 1 was at least met their satisfaction than the other groups (Mean = 3.88). However, the result presented that group 4 and group 5 found that most items and facilities did not much reach their requirement than the other groups. For group 4 existing “Ramps, curbs, and slops” in the area of entrance, exit, pathway, principle 1 (Mean= 2.27) was the worst items and facilities based on the seven principles of universal design. On the other hand, the result presented that group 5 than the other group put the existence of “Safety equipment is always provided in functional condition” was the worst of the items and facilities in the area of safety, principle 1 and 3 (Mean = 1.75).

Table 4.12 One-way ANOVA analysis of the existent facilities at cultural and historical tourist attractions in Phuket based on seven principles of universal design by age levels

Area	Principle	Items /Facilities	Group	Group	Group	Group	Group	F-value	P-value
			1 55-59	2 60-64	3 65-69	4 70-74	5 75 and Above		
Entrance, Exit, Pathway	P1	Ramps, curbs, and slops	4.00	4.05	3.95	2.27	2.75	82.146	.000
	P5	Flat and non-slip pathway	4.10	4.10	3.66	2.49	2.00	40.886	.000
	P5	Separate pedestrian, vehicular and bicycle pathways	4.11	4.10	3.91	2.58	3.50	28.032	.000
	P2,P7	Enough spaces for pedestrian	4.00	4.17	3.96	2.97	3.00	20.823	.000
	P2	Multiple paths of travel to the entrance or exit.	4.13	4.38	4.07	3.62	3.25	10.915	.000
	P1,P6,P7	Automatically wide entrance	3.88	3.97	4.21	4.51	4.25	9.585	.000
	P4,P7	Overhead signs for detection at distance and wall signs for close detection	4.06	4.10	4.05	3.57	3.00	7.905	.000

Table 4.12 Continued

Area	Principle	Items /Facilities	Group 1 55-59	Group 2 60-64	Group 3 65-69	Group 4 70-74	Group 5 75 and Above	F-value	P-value
	P1	A moving sidewalk or escalator	4.16	4.02	4.18	3.65	3.75	4.883	.001
	P1	Wide Entrance, exits, pathway	3.95	4.02	3.89	3.95	3.00	4.147	.003
	P1,P6	An elevator	4.08	4.25	4.09	4.22	3.50	2.062	.085
Information	P3,P4, ,P5	Information in your own language	4.02	4.04	3.75	2.78	3.50	24.99 1	.000
	P4	Large fonts of information	4.07	4.05	3.95	2.81	2.50	23.72 4	.000
	P3	Step by step instructions or information	4.17	4.11	4.21	3.43	2.50	14.40 3	.000
	P4	Accurate and in-depth detail information	4.05	4.01	4.11	3.22	3.75	11.55 7	.000
	P6	Access to information-centre is in close proximity	4.16	4.04	4.29	3.49	4.25	7.537	.000
	P2,P4	Various formats of information such as visual, audio, tactile ones	4.13	4.11	4.09	3.70	3.50	4.423	.002
Restroom/Toilet	P7	Emergency button is placed in the restroom	3.94	4.04	3.84	2.30	2.00	43.99 1	.000
	P6	Built-in tub seat and multiple grab bars allow tub or shower use in seated or standing position	3.90	4.06	3.66	2.43	2.00	39.75 4	.000
	P5	Toilet floor is well-drain and dry quickly	3.99	4.13	3.82	3.11	2.75	15.40 9	.000

Table 4.12 Continued

Area	Principle	Items /Facilities	Group 1 55-59	Group 2 60-64	Grou p 3 65-69	Grou p 4 70-74	Group 5 75 and Above	F-value	P-value
	P4, P7	Prominent points of restrooms	4.02	4.10	4.27	4.43	5.00	5.742	.000
	P6	Access to restrooms is in close proximity	4.12	4.17	3.82	3.78	3.50	3.688	.006
	P1,P6 ,P7	Automatically wide entrance	3.88	3.97	4.21	4.51	4.25	9.585	.000
Safety	P6	Access to first aids center or emergency points is in close proximity	4.02	4.00	3.71	2.32	2.00	40.401	.000
	P3, P7	Emergency alarm and fire extinguisher is easy to find	3.87	3.90	3.89	2.38	2.50	33.972	.000
	P1, P3	Safety equipment is always provided in functional condition	4.07	3.95	3.71	2.38	1.75	30.384	.000
	P4, P7	Prominent point of emergency areas	3.90	3.91	3.93	2.81	2.75	17.971	.000
	P6	Providing proximity warnings in a variety of sensory modes	3.88	3.96	3.98	2.62	2.50	28.014	.000
	P3, P4	Use pictograms, text, and color-coding to label all emergency	3.94	3.91	3.88	3.05	2.75	14.061	.000

Table 4.12 Continued

Area	Principle	Items /Facilities	Group	Group	Group	Group	Group	F- value	P- value
			1 55-59	2 60-64	3 65-69	4 70-74	5 75 and Above		
Service	P3,P4, P5	Interpreter in your own language	4.08	4.03	3.79	2.84	3.25	28.613	.000
	P7	Enough space for maintaining appropriate interpersonal distances	4.15	4.03	4.13	3.57	4.00	6.869	.000
	P4	Face to Face communication is provided	4.18	4.09	4.11	3.59	3.75	6.072	.000
	P6	Personal Staff assistance	4.13	4.09	4.14	3.65	3.75	4.192	.002
	P2	Different methods of payments	4.19	4.12	4.25	4.54	3.75	3.159	.014
	P5	Private office for conversation for emotional distress	4.06	3.98	4.20	3.73	3.75	2.925	.021
	P4,P6	Service desk is placed in a noticeable area	4.17	4.06	4.04	3.81	3.75	2.590	.036

Remark: P1 = Principle 1: Equitable Use, P2 = Flexibility in Use, P3 = Simple and Intuitive, P4 = Perceptible Information, P5 = Tolerance for Error, P6 = Low Physical Effort, and P7 = Size and Space for Approach and Use

Chapter 5

Conclusion and Discussion

For this chapter, it concludes the result from the findings and a discussion is presented according to the research objectives

1. To assess the importance of the facilities by senior tourists based on the seven principles of universal design at cultural and historical tourist attractions in Phuket.
2. To measure if the existing facilities in cultural and historical tourist attractions in Phuket meet senior tourist's needs.
3. To find out facilities at cultural and historical tourist attractions affects overall senior' tourist experiences

This study revealed the perspectives of senior tourists on the importance of the facilities based on universal design as well as the assessment of the existing facilities from their perceived experiences in cultural and historical tourist attractions. Therefore, the researcher analysed 400 questionnaires, which were completed by senior tourists with age of 55 years old and above at Phuket International Airport. To analyze the quantitative data, the computer software program version 20 is utilized as a for descriptive statistics, One - Way ANOVA, Pearson Correlation, and Importance-Performance Analysis (IPA).

5.1 Summary of key findings

5.1.1 Respondent's perspectives

According to 400 questionnaires received, the numbers of respondents are 188 males and 212 females. Most of them are 55-59 years old, followed by 60-64 years old. The majority from Europe (39%), followed by Asia (27.3 %) and America (19%) respectively. Mostly, the educations of respondents are Diploma (37.3 %), followed by high school or lower (31.5 %) and the lowest number has got Doctoral degree (0.5%). Furthermore, the occupation of the respondents presents mostly company employee as 43 percent and the smallest number is shown as professional, unemployed and others respectively. For household income, most of the respondents has got \$30,001-\$50,000.

In term travel behavior, the majority of the respondents visited Phuket as the first time (79.8%) while the rest (20.3%) used to travel to Phuket for twice or more. To travel to Phuket, the Internet is the channel that most of them used to plan the trip. The primary reasons they visited Phuket, for most of the respondents, was vacation, holiday and recreation. Also, on average, they spent 4-7 days travelling in Phuket, and most of them travelled with their family. Activities that most of them participated during the trip were mostly relaxing on the beach, followed by visiting temples and cultural attractions, and doing spa and massage, and most of respondent spent 100,001-150,000 THB during the trip.

5.1.2 An assessment of facilities based on the seven principles of universal design at cultural and historical tourist attraction by senior tourists

In terms of the importance of facilities according to the seven principal of universal design, It presented that in the part of the importance of the facilities based on the seven principles of universal design while visiting cultural and historical tourist attractions, the facilities related to the area of safety with principle 6 “low physical effort” was highlighted as their most concern which they expect to receive while visiting tourist attraction. The most important facilities were “Providing proximity warnings in a variety of sensory modes”, principle 6 “low physical effort”, followed by and “Prominent point of emergency areas” principle 6 “low physical effort”, and “Prominent point of emergency areas” principle 4 and 7. Overall, the facilities based on the seven principles of universal design are highly important.

Besides, when they visited cultural and historical tourist attraction in Phuket, from their perceived experience, descriptive statistic was conducted and it showed that overall existing facilities in cultural and historical tourist attraction in Phuket was on average. The facilities that are related to the areas of safety and restroom/toilet are least met senior tourist’s need. “Emergency alarm and fire extinguisher is easy to find” in the area of safety, principle 3 “Simple and Intuitive” and principle 7 “size and space for approach and use” is at least met their need which is followed by “Built-in tub seat and multiple grab bars allow tub or shower use in seated or standing position” in the area of restroom/toilet, principle 6 “low physical effort”.

In terms of IPA analysis, there are 10 attribute on High Importance with Low performance which are 1 attribute in the area of service, 2 attributes in the area of restroom/toilet, and all 6 attributes in the area of safety and the facilities related to principle 3 “simple and

intuitive” is mostly founded, followed by principle 6 “low physical effort”, principle 4 “perceptible information” and principle 7 “size and space for approach and use”. Pearson product-moment correlation coefficient was conducted. From the result, it was shown that there is a relationship between the importance of facilities with overall senior tourist’s experience at P value < 0.05 in 10 facilities.

The last two questions were to measure whether overall facilities in cultural and historical tourist attractions in Phuket meet their need. The results indicated that the majority of respondents agreed that the facilities at cultural and historical tourist attraction in Phuket provided could meet their need (70.5%). Secondly, the question was also asked to measure perception toward items and facilities in cultural and historical tourist attractions affecting their overall’s tourist’s experience. Results showed that senior tourist agreed that facilities affected their experience by 80.5%.

The results showed One Way Anova for further investigation. There was a statistically significant difference between the age group in term of the importance of facilities based on universal design in cultural and historical tourist attraction. Group 1 (55-59 years old) focused the most concern on only the area of service of “Personal staff assistance”, principles 6 “low physical effort” and “Private office for conversation for emotional distress”, principle 5 tolerance for error than other groups. Besides, group 2 (60-64 years old) presented the “The lowered-counter of information desk” in the area of service, principles 6 and 7 was more important than the other groups. For the rest areas and facilities, group 3 (65-69 years old), group 4 (70-74 years old) and group 5 (75 years old and above) found more importance of facilities based on universal design than group 1 and 2. For group 3 (65-69 years old), “A moving sidewalk or escalator” in the area of entrance, exit, pathway, principle 1 “equitable use” was marked as the most importance items and facilities based on the seven principles of universal design. Furthermore, for group 4 indicated that the most importance of the items and facilities was in the area of entrance, exit, pathway where “Ramps, curbs, and slops”, principle 1 “equitable use” as well as “Large fonts of information”, principle 4 “perceptible information” in the area of information were more importance for group 4 than other groups. For group 5 (75 years old and above), the most important item and facilities that are more required than the other group were presented in the area of information and restroom. In the area of information, the most important

item and facilities were “Various formats of information such as visual, audio, tactile ones”, principle 2 “flexibility in use and principle 4 “perceptible information” as same as “Step by step instructions or information”, principle 3 “perceptible information”. Whereas “Built-in tub seat and multiple grab bars allow tub or shower use in seated or standing position” in the area of restroom, principle 6 “low physical effort” was the most important to group 5 than the rest of the groups.

Furthermore, One-way ANOVA was used to examine the assessment of the existing facilities in cultural and historical tourist attraction from their perceived experience. There was a statistically significant difference founded between the age group. For group 1 (55-59 years old) comparing with other group, “Automatically wide entrance” in the area of entrance, exit and pathway, principle 1 “equitable use” was at least met their satisfaction than the other groups’ perception. However, it was shown that group 4 (70-74 years old) and group 5 (75 years old and above) assessed most items and facilities did not much reach their requirement than the other groups’ perception. For group 4 (70-74 years old) “Ramps, curbs, and slops” in the area of entrance, exit, pathway, principle 1 “equitable use” was the worst items and facilities existing in cultural and historical tourist attraction in Phuket. On the other hand, for group 5 (75 years old and above), they marked “Safety equipment is always provided in functional condition” was the worst of the existing items and facilities in the area of safety, principle 1 “equitable use” and principle 3 “simple and intuitive” in cultural and historical tourist attraction in Phuket

5.2 Discussion

5.2.1 Objective 1: To measure importance of the facilities based on the seven principles of universal design in cultural and historical tourist attraction in Phuket

To measure the importance of the facilities based on universal design is a very beneficial material to support all related stakeholders in tourism industry to provide the facilities and improve the existing facilities at place to meet the tourist’s need. In this study, the importance of the facilities was examined based on the universal design for senior tourists, which presents that overall, senior tourists showed that it was important to them while travelling at tourist attraction to have facilities based on universal design. It founded that the overall importance is 4.16. This result is above average and implies that senior tourist see quite high

importance toward the facilities based on universal design. However, from their perceived experience, they found that the existing facilities in cultural and historical tourist attraction could met only their average of perception as the overall mean on scale of 1-5 is 3.96. The result found that the overall mean gap was negative so this finding indicates that the existing facilities in cultural and historical tourist attraction did not match their expectations. Therefore, all relevant stakeholders should pay attention on improvement. They should provide the facilities that match senior tourist's need and decrease the accessibilities problem during their vacation time as similarly suggested by McIntosh, Goeldner & Ritchie (1995) and attract more numbers of senior tourists to choose Phuket as their holiday's destination as proper facilities are provided suggested by Lee & Tideswell (2005). Facilities that could not reach senior tourist's need were most in safety area which are "Use pictograms, text, and color-coding to label all emergency equipment", "Providing proximity warnings in a variety of sensory modes", "Prominent point of emergency areas", "Safety equipment is always provided in functional condition", "Access to first aids center or emergency points is in close proximity", and "Emergency alarm and fire extinguisher is easy to find". Supported by Chen (2009), safety and security is the most important factor while senior tourists choosing the destination. According to Ministerial regulations about safety prevention issued by Office of the Prime Minister (2013), each business sector has to provide standard safety equipment at its area. Emergency point has to be noticeable and proper emergency light has to be provided with clear emergency sign (Office of the Prime Minister, 2013). Also, fire extinguishers has to be always functional and noticeable with clear descriptions are well written (Office of the Prime Minister, 2013). Furthermore, some of attributes in restroom area that not meet senior tourist's need are "Built-in tub seat and multiple grab bars allow tub or shower use in seated or standing position", "Toilet floor is well-drain and dry quickly", and "Emergency button is placed in the restroom". Office of the Prime Minister (2007) regulated Ministerial regulations about facilities in the building and place, which mentioned each private sector should provide at least one facilities to accommodate the disabled or senior people. Accessible restroom is one of the facilities according to its Ministerial regulations (Office of the Prime Minister, 2007). The accessible restroom should be wide and convenient for wheelchair-users, bar and grabs has to be provided, floor should be made from non-slippery material and functional alarm has to be set up (Office of the Prime Minister, 2007). Therefore, with the combination of universal design,

business sector should follow the regulation, and this will gain more confidence on senior tourists to select its destination for their holiday destination.

5.2.2 To identify importance and performance analysis toward facilities based on universal design

In this study, IPA was applied to analyze the level of importance and performance of the facilities in cultural and historical tourist attraction in Phuket. According to the Figure 4.1 in chapter 4, it presented that there are 10 attributes in Quadrant 1 High Important with Low performance or “concentrate here”. Mainly, the area that senior tourists are most concerned on the safety, which similarly suggested by Batra (2009), and Bates (2004) that facilities on safety is the priority of senior tourists. Moreover, to implement Global Code of Ethic (UNWTO, 1999) that tourists has to be protected and local people should deliver safety to them while travelling as well as tourists should not encounter with crime or other offensive act. This means that the facilities in the area of safety should be on the first priority for development and expansion. In addition, it was found that in Quadrant 1, interpreter in the area of service is effectively required for betterment in term of quality and quantity. Similarly, suggested by Marvel (1999) & Bates (2004), Paper based communication with large sized provided is a preferred way such as instructions, brochures, and menus so this could be an option that service providers for consideration in term of providing information to senior tourists. Also, as mentioned by Batra (2009), to communicate in the different language, it led misunderstanding due to language barriers. Therefore, the service provides or developers should also focus on the development of interpreter or provide more interpreters served various languages to support senior tourists. This will eliminate the communication error and help them to understand rules, regulations, and information for their right practice at the destination as well as allow fully participation in term of information to senior tourist which experience is well-generated and leads the stage of “*actual visit*” to them as suggested by Julowski (2009). Furthermore, as similarly founded in Quadrant 1, some facilities and items in the area of restroom and toilet is required the close attention and crucial renovation or expansion to the related stakeholders. In restroom, senior tourists were aware of the floor that should be well-drains. Bar and grabs should be provided to support their movement as well as the emergency button should be clearly noticed to them, which similar to Bates (2004) that facilities such as ramps, bars, or hand rails should be provided in public area

and bathroom to break barriers to senior tourists. Moreover, by analyzing the facilities founded in Quadrant 1 2 “High Importance with Low performance”, by the principles, the facilities related to principle 3 “simple and intuitive” is mostly founded. Therefore, it can be implied that the design that is clearly defined for senior tourists to acknowledge how to use it easily without any interpretations caused from individual’s background is highly demanded by senior tourist. Also, principle 4 “perceptible information”, principle 6 “low physical effort”, and principle 7 “size and space for approach and use” is secondly founded in Quadrant 1. Therefore, the destination developers or relevant organizations should mainly focus on as the priority, and this could enable senior tourists to “*enjoy the destination with equity and dignity*” (Darcy & Dickson, 2006; Parker 2008; ENAT, 2013).

As shown in Quadrant 2 “High Importance with High performance”, senior tourists are satisfied with mostly the provided facilities in the area of service which are “Different methods of payments” principle 2 “flexibility in use”, “Service desk is placed in a noticeable area” principles 4 “perceptible information” and principle 6 “low physical effort” and “Face to Face communication” principle 4 “perceptible information”. Furthermore, according to the figure of IPA’s figure, all items and facilities in term of service are located in the part of “High Performance” as the rests except only “Interpreter in your own language (in Quadrant 1)” are all shown in Quadrant 4 “Low Importance with High Performance”. It could be interpreted that from the reputation of Thai’s hospitality, as Yi (1990) stated that satisfaction typically is delivered from the interaction between consumer and service providers, senior tourists are much beyond appreciated with facilities in the area of service provided at the cultural and historical tourist attraction in Phuket such as “Different methods of payments”, “Service desk is placed in a noticeable area”, and “Face to Face communication” Therefore, service is received a good reputation from senior tourists and the management of the destination providers should maintain this good reputation by the continuity of training and facilities maintenance for the growth of business. This will support the tourist destinations for the positive feedback and build enchantment in the future.

According to Quadrant 3 Low Important with Low Performance, it presented the items and facilities in the area of entrance, exit/pathway, and in the area of information. It can be interpreted that senior tourists do not much concentrate on these facilities, and the developers

does not exactly provide a good performance to them. Therefore, they should consider not to invest too much resources for the attributes.

For Quadrant 4 Low Importance with High Performance, most items and facilities are founded in the area of entrance, exit and pathway. This can be interpreted that the facilities in Quadrant 4 could exceed senior tourists' expectation, and can be implied that expectations are essentially being happened but exceeded. The developers and any related fields should review that it is good to maintain the outstanding performance of these facilities, but it can be interpreted that they may "over-supplying" so they can switch the concentration to other potential facilities which has been on underperforming.

5.2.3 To assess senior tourist's experience on facilities at cultural and historical tourist attractions in Phuket

Even though, some of the existing facilities in cultural and historical in Phuket is under senior tourists' need, overall they still agreed that the existing facilities in cultural in Phuket still match their need in general as 70.5 percent. With other findings, this means that some specific facilities should be improved or added especially in the area of safety which they are most concerned. Also, from the study, senior tourists agreed that the facilities in cultural and historical tourist attraction in Phuket affect their overall tourist's experience. This can be implied that according to Julowski (2009), with the supportive and practical facilities at tourist attraction, it can enhance senior tourists to enter as "*participants*" of the tourists' destination. It creates the good image of Phuket that is able to support Global Code of Ethics for Tourism - Article 7 "*right to tourism*", stated that the support of senior tourism should be availed (UNWTO, 1999). Also, similarly mentioned by Milman (1998), participation in activities has a relationship with senior tourist's satisfaction or happiness of the trip. Also, it showed that the importance of facilities affects senior tourist's experiences. As mentioned by Ananth et al (1992), senior tourists prefer accessible accommodation and bathroom, and the result supported that grabs and bars in toilet and well-drain toilet's floor is required by senior tourists because lacking of it, it exactly affects their overall senior tourist's experiences. Also, service in terms of communication affects senior tourist's experiences. They prefer interpreter that can communicate in their own language as well as face to face communication is more desirable as suggested by Batra (2009). Furthermore,

entrance, exits, pathway ,ramps, curbs, and slops and a moving sidewalk or escalator has an effect to senior tourist's experiences as supported by Esaichaikul (2012).

In summary, the related stakeholders have to concentrate on the improvement of the facilities based on universal design in cultural and historical tourist attraction in Phuket. The area of safety is regarded as the priority in order to create the higher performance and reduce the wider gaps in all aspects of items and facilities to increase the numbers of senior tourists. It generally supports the prosperity of the business in the future as similarly suggested by Darcy & Dicson (2006) senior tourists would like to engage in all aspects in travelling through physical, emotional, and intellectual involvement.

5.2.4 Phuket as Friendly Design City

Similarly study by Niyomadul (2010), problems on bar and grabs in the toilet and the noticeable point of main entrance still exists because as mentioned by Darcy & Dicson (2006) and ENAT (2013). Age is related with disabilities, which is an obstacle for accessibility in tourist attractions. Furthermore, senior tourists who got the different level of difficulty also focused on the different areas and principles as shown in Chapter 4. It showed that nowadays cultural and historical attractions in Phuket However, on the controversy with Niyomadul (2010), senior tourists found that the point of restroom was noticeable and met their need as high performance was gained. Therefore, the governor and public sectors should support "Friendly Design Project" in order to response not only the need of senior tourists but also every single type of tourists. The friendly design city project in Phuket, applied the concept of universal design is established to support the growth of tourism as the types of tourists are more varied such as disabled tourists, senior tourists, and people with families in order that all people can access tourist attraction in Phuket with convenience and safety (Phuketindex, 2017). Also, as Phuket is a destination in the project of "Tourism for all" by Tourism Authority of Thailand (TATNEWS, 2017), all stakeholder should continuously support and accomplish the project to every area of tourism.

5.3 Recommendations

The ideas to improve the facilities based on the concept of universal design in cultural and historical tourist attraction in Phuket was presented for a better understanding on senior tourist's needs according to the results of this research, recommendations are as follows;

5.3.1 Improving the facilities related to safety

Safety is the most important subject to senior tourists. Facilities should be provided to protect and prevent uncontrollable emergency to senior tourists. Therefore, services providers, local governors, and the government should invest on the facilities that are relevant to safety such as emergency button, warning sign, alarm and fire extinguishers, and first aids center. Furthermore, the facilities should be functional and accessible

5.3.2 Providing accessible restroom and toilet

Accessible restroom is also on demand by senior tourists. Accessible restroom should provide grabs and bars. The floor should be always dry and well-drain, and emergency button should be available in the restroom and it has to be noticeable. This will enhance more convenience and safety to senior tourists which positive experiences can be attained.

5.3.3 Increasing the numbers of interpreters

The conflicts of communication can occur because of different language. There should be the collaboration of the local government, educational institution, private sectors, and the government, to produce more quantities of interpreters in tourism business. Interpreters also should be up to standards, which trainings by the supporting organizations should be frequently arranged.

5.3.4 Developing and improving the facilities based on universal design by the collaboration of all stakeholders

Currently, the friendly design city project in Phuket, applied the concept of universal design is established to support the growth of tourism as the types of tourists are more varied such as disabled tourists, senior tourists, and people with families in order that all people can access tourist attraction in Phuket with convenience and safety (Phuket News, 2017). Based on IPA, the related organization such as private and public sector as well as the governmental organization should plan to develop the facilities based on universal design in cultural and historical tourist attraction together that the prior improvement is firstly required to be fulfill

because it is required a lot of revenue, time and approvals from related sectors. One destination could be successful by the collaboration from all.

5.4 Limitation, Suggestions for future research and Contribution of this study

5.4.1 Limitation

The bias could be created because the majority of the respondents mostly were in age group 55-59 years old (52.5%), which the perspective mostly was provided from this group, comparing with other groups would be dissimilar. Secondly, Bias may be founded because most respondent were from Europe (39%) caused the results shown mostly Europeans' perspective, but other's would be not similar. Lastly, conducting the research on high season, the result could turn the difference result because the visit of distinctive nationality was different.

5.4.2 Suggestion for future research

Suggestion for future research is presented to develop better understanding of the concept of universal design applying in tourism's business in other fields such as sport tourism and wellness and spa business which will be very useful to tourism both profitability and growth. Conducting research between both high season and low season with comparison can be made. It could find more investigation on the different types of target groups. Also, a greater number of sample size for the same topic which help to get the result that can be comprehensively generalized the larger population

5.4.3 Contribution of this study

1. The findings is beneficial for the owner and the developers of tourist attraction as well as the governmental organization to develop, improve the facilities based on universal design in order to fulfill senior tourist's need.

2. The result is generated a new perception of senior tourists in terms of facilities based on universal design in cultural and historical tourist attraction.

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APPENDIX A



Questionnaire Accessible Tourism: An Assessment of Senior Tourists on Facilities at Cultural and Historical Tourist Attractions in Phuket based on the Seven Principles of Universal Design

Dear Respondents,

This survey is a part of MBA Thesis Research of Hospitality and Tourism Management (International Program), Faculty of Service Industries, Prince of Songkhla University, Phuket. I kindly request you to fill out the questionnaire and provide us with essential information. The data collected will be used only for thesis research and will not be shared publicly for any purpose. This questionnaire will take approximately 15 minutes.

Thank you very much for your kind participation.

Instruction: Please check (✓) the most appropriate response(s) for each question.

Section A: Background Information

1. Gender: Male Female
2. Age: 55-59 60-64 65-69 70-74
 75 and above
3. Region of Residence: Americas Asia Europe
 Middle East Oceania South Africa
 Others (Please specify) _____
4. Marital Status: Single Married Divorced Widowed Others _____
5. Education: Less than high school High School Diploma
 Bachelor Degree Master Degree Doctoral Degree

6. What is your occupation?

Self-employed Company Employee Government Employee
 Professional Retired Unemployed
 Others (Please specify) _____

7. How many times do you travel per year? _____ time(s)

8. What is approximately your household income in **USD**?

Less than \$30,000 \$30,001-\$50,000
 \$50,001- \$70,000 \$70,001-\$90,000
 \$90,001-\$110,000 More than \$110,001

9. In your daily life, how often do you have difficulties during the following activities?

Activities	Always	Most of the times	Sometimes	Rarely	Never
1. Walking for some distances					
2. Bend the knee					
3. Stepping up to the stairs					
4. Picking up and carrying objects					
5. Seeing things or information					
6. Hearing or listening to someone					
7. Understanding complex information					
8. Allergies on certain things such as food, pollen, dust or fur					
9. Eating/Chewing					

10. In general, **how important** are the following items or facilities when you visit a tourist attraction?

Items/Facilities	Very Important	Important	Neutral	Less Important	Not Important
1. Entrance, Exit, and pathway					
1.1 Wide Entrance, exits, pathway					
1.2 Ramps, curbs, and slops					
1.3 Multiple paths of travel to the entrance or exit.					
1.4 A moving sidewalk or escalator					
1.5 Prominent points of entrance or exits					
1.6 Overhead signs for detection at distance and wall signs for close detection					
1.7 Flat and non-slip pathway					
1.8 Separate pedestrian, vehicular and bicycle pathways					
1.9 An elevator					
1.10 Enough spaces for pedestrian					
2. Information					
2.1 Information in your own language					
2.2 Various formats of information such as visual, audio, tactile ones					
2.3 Step by step instructions or information					
2.4 Large fonts of information					

Items/Facilities	Very Important	Important	Neutral	Less Important	Not Important
2.5 Accurate and in-depth detail information					
2.6 Access to information-centre is in close proximity					
2.7 The lowered-counter of information desk					
3. Services					
3.1 Interpreter in your own language					
3.2 Different methods of payments					
3.3 Service desk is placed in a noticeable area.					
3.4 Face to Face communication					
3.5 Private office for conversation for emotional distress					
3.6 Personal Staff assistance					
3.7 Enough space for maintaining appropriate interpersonal distances is provided					
4. Restroom/Toilet					
4.1 Automatically wide entrance					
4.2 Built-in tub seat and multiple grab bars allow tub or shower use in seated or standing position					

Items/Facilities	Very Important	Important	Neutral	Less Important	Not Important
4.3 Prominent points of restrooms					
4.4 Toilet floor is well-drain and dry quickly					
4.5 Access to restrooms is in close proximity					
4.6 Emergency button is placed in the restroom					
5. Safety					
5.1 Use pictograms, text, and color-coding to label all emergency equipment					
5.2 Providing proximity warnings in a variety of sensory modes					
5.3 Prominent point of emergency areas					
5.4 Safety equipment is always provided in functional condition					
5.5 Access to first aids center or emergency points is in close proximity					
5.6 Emergency alarm and fire extinguisher is easy to find					

Section B: General Information about the trip

11. What was the purpose of your trip to Phuket? (*Please select only one answer*)

- Vacation/Holiday/Recreation
 Business
 Visiting Family and Friends
 Medical Care
 Volunteer
 Others (Please specify): _____

12. How did you arrange your trip to Phuket?

Through the internet Through travel agent

Others (Please specify): _____

13. Is it your first time travelling to Phuket?

Yes No, (Please specify number of times) _____

14. Who did you travel with?

Alone Spouse/Partner Friends Family

Others (Please specify) _____

15. How many days did you stay in Phuket?

1-3 days 4-7 days 8-15 days

16-30 days More than 30 days

16. What activities did you do in Phuket? (*You can select multiple answers*)

- | | |
|---|---|
| <input type="checkbox"/> Relax on the Beach | <input type="checkbox"/> Try local food |
| <input type="checkbox"/> Visit the Islands | <input type="checkbox"/> Visit local villages |
| <input type="checkbox"/> Visit temples and cultural attractions | <input type="checkbox"/> Shopping |
| <input type="checkbox"/> Visit Museums | <input type="checkbox"/> Spa & Massage |
| <input type="checkbox"/> See cultural shows | <input type="checkbox"/> Nightlife |
| <input type="checkbox"/> See animal shows | <input type="checkbox"/> Sport Activities |
| <input type="checkbox"/> Do adventurous activities (bungee jump, go kart, parasailing, or cable skiing) | |

17. On average, how much did you spend during this trip in Phuket? (in **THB/person** for air tickets, accommodation, trip, food etc.)

Below 100,000 100,001-150,000 150,001-200,000

200,001-250,000

250,001-300,000 Higher than 300,001

18. Please indicate **your agreement** of the following statements.

Attributes	Strongly agree	Agree	Neither agree nor disagree	Disagree	Strongly disagree
I chose Phuket because....					
1. It is a good location for holiday/relaxation/activities.					
2. It is a safe place.					
3. It has a good image.					
4. It provides various tourist attractions and activities.					
5. It is value for money destination.					
6. It provides a variety of infrastructure.					
7. It provides an excellent service.					
8. It provides good accommodations.					
9. It has a good cultures and history.					

Section C: Facilities at cultural and historical tourist attractions in Phuket

19. Which cultural and historical attraction(s) did you visit? (*You can select multiple answers*)

- Chalong Temple
 Big Buddha Temple
 Pra Nang Sang Temple
 Phuket Heroines Monument
 Phuket Old Town (Sino-Portuguese architectures)
 Others (please specify) _____

20. Please indicate “your agreement” about the quality of the following items or facilities you experience at cultural and historical tourist attraction in Phuket

Items/Facilities	Very Important	Important	Neutral	Less Important	Not Important
1. Entrance, Exit, and pathway					
1.1 Wide Entrance, exits, pathway					
1.2 Ramps, curbs, and slops					
1.3 Multiple paths of travel to the entrance or exit.					
1.4 A moving sidewalk or escalator					
1.5 Prominent points of entrance or exits					
1.6 Overhead signs for detection at distance and wall signs for close detection					
1.7 Flat and non-slip pathway					
1.8 Separate pedestrian, vehicular and bicycle pathways					
1.9 An elevator					
1.10 Enough spaces for pedestrian					
2. Information					
2.1 Information in your own language					
2.2 Various formats of information such as visual, audio, tactile ones					
2.3 Step by step instructions or information					
2.4 Large fonts of information					

Items/Facilities	Very Important	Important	Neutral	Less Important	Not Important
2.5 Accurate and in-depth detail information					
2.6 Access to information-centre is in close proximity					
2.7 The lowered-counter of information desk					
3. Services					
3.1 Interpreter in your own language					
3.2 Different methods of payments					
3.3 Service desk is placed in a noticeable area.					
3.4 Face to Face communication					
3.5 Private office for conversation for emotional distress					
3.6 Personal Staff assistance					
3.7 Enough space for maintaining appropriate interpersonal distances is provided					
4. Restroom/Toilet					
4.1 Automatically wide entrance					
4.2 Built-in tub seat and multiple grab bars allow tub or shower use in seated or standing position					

Items/Facilities	Very Important	Important	Neutral	Less Important	Not Important
4.3 Prominent points of restrooms					
4.4 Toilet floor is well-drain and dry quickly					
4.5 Access to restrooms is in close proximity					
4.6 Emergency button is placed in the restroom					
5. Safety					
5.1 Use pictograms, text, and color-coding to label all emergency equipment					
5.2 Providing proximity warnings in a variety of sensory modes					
5.3 Prominent point of emergency areas					
5.4 Safety equipment is always provided in functional condition					
5.5 Access to first aids center or emergency points is in close proximity					
5.6 Emergency alarm and fire extinguisher is easy to find					

21. Overall, do “facilities” at cultural and historical tourist attractions in Phuket meet your need?

Strongly Agree Agree Neither agree nor disagree
 Disagree Very Disagree

22. Overall, do “facilities” at cultural and historical tourist attractions in Phuket affects your tourist’s experience?

Strongly Agree Agree Neither agree nor disagree
 Disagree Very Disagree

23. Please give additional comments or suggestions for improvement the facilities for senior tourists at cultural and historical tourist attractions in Phuket

APPENDIX B**Certificate of Attendance**

VITAE

Name Miss Kanokros Khaonoul

Student ID 5630120003

Education Attainment

Degree	Name of Institute	Year of Graduation
Bachelor of Arts	Mahidol University International College	2011

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List of Publication and Processing

Jarumaneerat, T. and Khaonoul, K. (2018). Accessible Tourism: An Assessment of Senior Tourists on Facilities at Cultural and Historical Tourist Attractions in Phuket based on the Seven Principles of Universal Design. *Paper presented at Universal Academic Cluster International Conferences: Academic & Multidisciplinary, Bangkok, Thailand, May 24th -25th 2018.*