

**MYANMAR MEDICAL TOURISM: MYANMAR MEDICAL  
TOURISTS' EXPECTATION AND PERCEPTION OF SERVICE  
QUALITY AT PRIVATE AND PUBLIC HOSPITALS IN  
THAILAND**



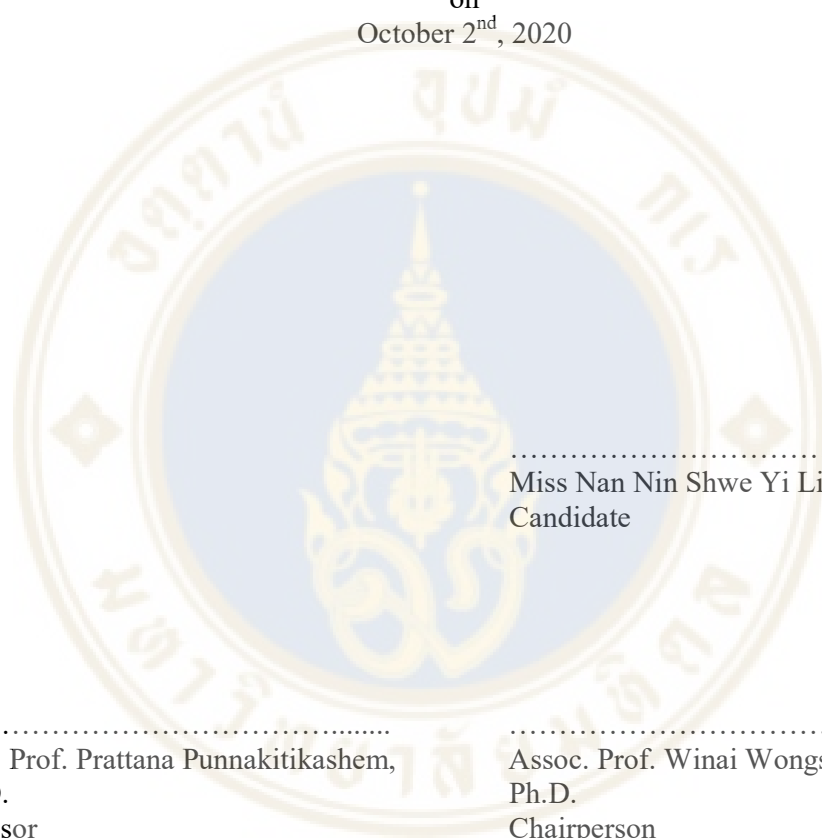
**A THEMATIC PAPER SUBMITTED IN PARTIAL  
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Thematic paper  
entitled  
**MYANMAR MEDICAL TOURISM: MYANMAR MEDICAL  
TOURISTS' EXPECTATION AND PERCEPTION OF SERVICE  
QUALITY AT PRIVATE AND PUBLIC HOSPITALS IN  
THAILAND**

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Nan Nin Shwe Yi Lin

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**ABSTRACT**

At the present time, the medical tourism market of Thailand has been growing rapidly and Myanmar patients are seeking medical treatment in foreign countries mostly in Thailand and Singapore. The aim of this study is to identify the gap between Myanmar patient's perceptions and expectation of the service quality of public and private hospitals in Thailand; and to identify which aspect of service quality is most important for them. In this study, Myanmar patients resided in Thailand as migrant workers who visit to public hospitals will not be collected. This study will be conducted by SERVQUAL model to measure customer satisfaction. Qualitative research will be studied by collecting the information by questionnaires and the study sample contains a total of 109 patients. Multiple regression analysis will be used to analyze five dimensions of service quality, which are reliability, responsiveness, assurance, empathy and tangibility. The result indicated that there were positive gaps between patient's perceptions and expectations in tangibility, reliability and empathy. Among them, Empathy was the most important aspect of the service quality for Myanmar patient satisfaction. This study will play an important role in identifying the patient perception to the quality of service provided by the public and private hospitals in Thailand. It will help these hospitals in Thailand to improve their service quality and this will in turn help the Myanmar patient satisfaction when doing medical tourism to Thailand.

**KEY WORDS:** Myanmar Medical Tourism, Myanmar Patient's Expectation and Perceptions, Service Quality

69 pages

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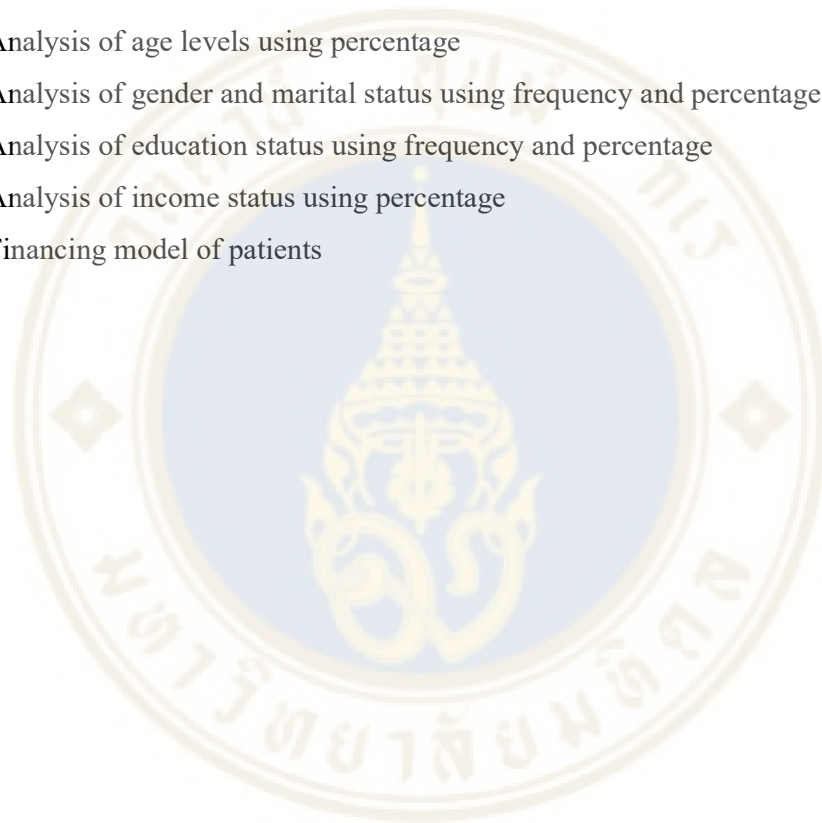
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# CHAPTER I

## INTRODUCTION

### 1.1 Introduction

Thailand is one of the popular destinations in Asia for medical tourism. With the internationally accredited hospitals and world-class medical care, medical tourism is one of the fastest growing area for Thailand especially Bangkok for the people especially in the South-East Asia region. The market has been growing not only for the Asians but also for the Eastern-Mediterranean customers. Due to globalization, this sector has been rapidly growing. Due to less barriers to the freedom of movement between countries, this sector gains advantage in getting more clientele (Heung, Kucukusta, & Song, 2011).

There is no agreed or standard definition on the term “medical tourism”. However, it is tentatively agreed that patients leaving their mother country to seek the medical care (Garcia-Altes, 2005; Whittaker, 2008). There are also popular destinations in Asia for medical tourism such as Thailand, Singapore, Malaysia and India for specific medical conditions (Wong & Musa, 2012). Cross-border medical tourism is quite common. Thailand has more than 60 JCI accredited hospitals which is more than any other countries in the South-east Asia region and becoming the top four in global raking (Jadhav, Yeravdekar, & Kulkarni, 2014).

### 1.2 Factors influencing medical tourisms

The Royal Thai government is supporting the medical tourism by giving 90-day visas for patients from Vietnam, Myanmar, Lao PDR, Cambodia and China (Jadhav et al., 2014). There are also other countries with visa advantages to entering Thailand based on the agreement with individual country. It was noted that there are 19 countries that were granted to have extended visa for medical tourism. In addition, medical tourism itself is regarded as the main cause for the economic growth in

Thailand (Pattharapinyophong, 2019). In addition, Thailand is considered as a medical hub and advancing all treatment options. Government has a long-term strategy in promoting medical tourism since 2004 and creates competitive growth amongst the private hospitals to establish a hub (Pattharapinyophong, 2019).

Medical tourism is now regarded as one of the major business opportunities in many countries. It became health and economic issue both at system and individual level (Runnels & Carrera, 2012). There are factors which might lead people to seek medical care in other countries such as unmet need of patients, waiting time, less options of treatment, weak service and management at the hospitals (Runnels & Carrera, 2012). One should not only look at the opportunity it presents, but also need to consider the risk it might bring. Informed decision is part of the important factor especially for providing various treatment options to foreign patients (ThailandBusinessNews, 2019) and at the same time, language could be a barrier in some countries. This could also lead to unintended and undesired outcomes of patients seeking affordable health care, which might lead to seek more private health care than the government funded health care (Turner, 2007).

Quality and safety are another important factor for patients in making decision while seeking health care. Current regulatory environment in Thailand might differ from home country where the patient comes from. Regardless of these complex situations, it has become very popular in Myanmar.

It is true that patients can benefit many advantages by seeking health care at good quality hospitals such as access to modern machines, equipment's and tests as well as more choice of specialists who have international experiences. Since it is becoming a business area, services for medical tourism has also been improved along the way. This area was looked as part of hospitality sector and not only the quality of treatment but also the services are tremendously improved (Reiling, Hughes, & Murphy, 2008). These factors including visa support are enhancing the patients in other country to seek medical treatment. In addition to treatment for medical condition, area sectors such as aesthetic, medical checkups are also popular areas for medical tourism in Thailand.

Thailand is also very popular tourist destination in Asia. Presence of many tourist attractions in Bangkok and in other provinces in Thailand also enhances the

situations. Beautiful nature such as beaches and mountains are one of the tourist attractions but at the same time, people can go to so many big shopping malls with fantastic variety of Thai food (Reiling et al., 2008). Since many expats are currently living in Thailand especially in Bangkok, where many of the premium private hospitals located, the multi-cultural nature of Bangkok attracts more medical tourism.

### **1.3 Economic growth and medical tourism**

At the same time, in neighboring country in Myanmar, there is an economic growth since 2011 due to economic reform. Myanmar practiced open door policy to the foreign investment (Findlay, Park, & Verbiest, 2016). Although the reform process is not completed nor the progress is hard to predict considering the extensive deprivation of development, the medical tourism from Myanmar to Thailand is increasingly popular. It was predicted that it could be due to limited human resources in health care system. Countries that Myanmar patients seek for medical treatment are mostly Thailand, Singapore and in India (Runnels & Carrera, 2012). Each year, Myanmar patients spent around USD 6 million on seeking medical treatment in abroad especially in cardiology, neurology, kidney transplants and urology. More than 150,000 patients traveled to Singapore and Thailand for medical treatment according to Reiling et al. (2008). In Thailand, 14,730 foreign patients from South-East Asia region and 7,568 patients are from Myanmar comes to Thai hospitals for treatment according to a study done by World Health Organization (Noree, Hanefeld, & Smith, 2016).

The top 4 countries that were contributing to medical tourism in Thailand are United Arab Emirates (21,568 patients), Bangladesh (8,443 patients), the USA (7,855 patients) and Myanmar (7,568 patients) (Reiling et al., 2008). It was predicted that with better visa arrangement between Myanmar and Thailand, the numbers of Myanmar patients will be increasing in the future. It was also noted that not only high-income families in Myanmar are seeking medical treatment abroad, also there is an increase number of middle-income families as well in medical tourism (Yin, 2014). Myanmar, itself, has advanced private hospitals in country nowadays due to economic opening and change in the market need. However, the trend of medical tourism in

abroad seems to be increasing. It was also discussed in a research that there is an unmet need especially for the well-off families especially on service satisfaction that lead to health seeking behavior abroad (Yin, 2014). In addition, Myanmar speaks English, which is the main language in medical tourism.

Another factor is the distance that has an influence. Thailand is a close destination and better price for Myanmar. This was extensively discussed in a research paper (Yin, 2014). Other factors such as culture does not play a big role since Thailand and Myanmar has similar culture. Since many Myanmar has been seeking medical treatment in Thailand, peer recommendation also plays a big role. Due to increase number of patients from Myanmar, big private hospitals have also opened offices in Myanmar to expand their reach. Presence of agent or office branch in Myanmar is another important factor for Myanmar patients (Yin, 2014). This is probably because the patients feel safe to arrange everything beforehand and not all patient might speak English and they and their family might feel comfortable speaking Myanmar staffs in arranging everything before the trip.

India, Indonesia, Malaysia and Singapore also claim themselves as major destinations for medical tourism. Factors vary in each country with their strength and weakness. In the past, Bumrungrad International Hospital and Bangkok International Hospital are two main popular hospitals for Myanmar patients (Turner, 2007) for medical tourism. Nowadays, they are also partnering with airlines and private equity funds to promote their services and comfort (Turner, 2007).

#### **1.4 Service industry minded medical tourism**

In Thailand, the approach to medical tourism has changed since many years ago. Hospitals are no longer providing just for medical treatment, also providing comfort and flexibility. The management of hospital system has become a lot improved that patients are enjoying the fast and comfortable service with a variety of choices. Private hospitals are becoming more competitive and the qualities of services are getting better (Reiling et al., 2008). At the same time, the whole health care sector is also improving in Thailand. With the experience in improved services in Thailand, more Myanmar patients are exposed to this service quality and has increased in

demand locally in Myanmar. With the burdened health care system in Myanmar, the unmet needs seem to be increasing with different patient expectations which lead to increase number of medical tourists to Thailand. The competition is private and semi-private hospitals in Thailand, their services are increasing popular amongst Myanmar patients and some of the hospitals even established customer loyalty, just like in business sector (Reiling et al., 2008).

### **1.5 Scope of the study**

The study will be conducted among Myanmar patients who have experienced on medical tourism in Private hospitals in Thailand.

### **1.6 Research question**

1. What are the perception and expectation of Myanmar patients related to service quality in both private and public hospitals in Thailand?

### **1.7 Research objectives**

1. To identify the gap between Myanmar patient's perceptions and expectation of the service quality of public and private hospitals in Thailand.
2. To identify which aspect of service quality is most important to Myanmar patients.

### **1.8 Contribution to the community**

This study will play an important role in identifying the patient perception to the quality of service provided by the public and private hospitals in Thailand and will help these hospitals to improve their service quality and know the customer need.

This will in turn help the Myanmar patient satisfaction when doing medical tourism to Thailand. This is a win-win for the hospital sector in Thailand as well as patients visiting hospitals. There might be similar characteristics that might increase patient satisfaction from patients from other countries and help Thailand economy in the future.

## **1.9 Definitions**

### **Customer service**

There have been debates on the difference between quality and satisfaction. It was discussed that the definition of satisfaction is “summary psychological state resulting when the emotion surrounding disconfirmed expectations is coupled with the consumer's prior feeling about the consumption experience” (Lewis & Mitchell, 1990).

It was also discussed that satisfaction is more on the attitude towards the product characteristics and less on situation orientated. This will lead to customer behavior on purchasing the same service or not.

### **Service Quality**

Service quality of a business is defined as the difference between the customer expectation and the real service offered (BusinessDictionary, 2019). However, according to (Mosadeghrad, 2013), quality healthcare is defined as “consistently delighting the patient by providing efficacious, effective and efficient healthcare services according to the latest clinical guidelines and standards, which meet the patient's needs and satisfies providers”.

It refers to all people involved in providing service to patients, including doctors, nurses, and other employee from the hospitals.

### **Customer Loyalty**

Customer loyalty according to (Dick & Basu, 1994) is viewed as – “the strength of the relationship between an individual’s relative attitude and repeat patronage. The relationship is seen as mediated by social norms and situational factors.

Cognitive, affective and conative antecedents of relative attitude are identified as contributing to loyalty, along with motivational, perception, and behavioral consequences.”

### **Medical Tourism**

Medical tourism is defined by (Keckley & Underwood, 2008) and (Deloitte, 2008) as: “the process of “leaving home” for treatments and care abroad or elsewhere domestically – is an emerging phenomenon in the health care industry.”





## **CHAPTER II**

### **LITERATURE REVIEW**

According to the previous studies, some scholar also proved that service quality is a key driver for medical tourism (Veerasoontorn, Beise-Zee, & Sivayathorn, 2011). Moreover, some literature suggest that service quality is a comparison between expectations and the actual performance (Anantharanthan Parasuraman, Zeithaml, & Berry, 1985). Therefore, in order to enhance service quality in medical tourism industry, measuring patient satisfaction after providing the health care service is a priority for service manager. On the other hand, some researchers (Grönroos, 2007; Anantharanthan Parasuraman et al., 1985) pointed that quality from service sector is intangible and it is not easy to access. As a service manager from the service firm such as health industry, it is a questionable what features of a service will contribute to enhance the quality for meeting patient needs.

Meanwhile, some researchers proved that there are some gaps between consumer expectation and actual service delivery, which are performed by service industry (Anantharanthan Parasuraman et al., 1985). They pointed out that the service expectation views from customers and management team was different. As a result, those difference views and service gaps are leading to dissatisfaction of the customers. In fact, those gaps are a reflection of service quality and it is important to investigate those gaps for measuring patient satisfaction.

Therefore, the research model, SERVQUAL, is proposed by (A Parasuraman, Zeithaml, & Berry, 1988) to measure those above mention gaps. According to that model, there are five key factors, which have significant relationship with customer satisfaction. Those factors are as the following; tangibility, reliability, responsiveness, assurance and empathy. Moreover, (Scardina, 1994), for instance, tested and reported that SERVQUAL has higher validity and reliability for accessing patient perception and satisfaction.

Thus, in this session, we will explore how the five factors of SERVQUAL are influencing on Myanmar patient satisfaction and what is the different aspect of service quality from the views of Myanmar patient.

## 2.1 Quality of service

There are studies conducted and discussed that the higher the quality of service by the hospitals, the higher the market share, profits and savings (Devlin & Dong, 1994). Service quality management is essential for the growth of a business. Since medical tourism is now viewing as a business opportunity, hospitals should look at it and manage it in a better-quality way. Defining service quality is more difficult than defining manufacturing quality due to intangible factor of service. However, studies confirmed that good service quality can meet customer expectations and perceptions (Reiling et al., 2008).

Meanwhile, according to some research papers (Zeithaml, Parasuraman, Berry, & Berry, 1990), there are 5 gaps in providing service quality as the following;

Gap 1: the gap between consumer expectations and management perceptions of consumer expectations. This gap occurs when the management team has not interpreted correctly on customer expectation. So, this gap is recognized as the knowledge gap.

Gap 2: the gap between management perceptions of consumer expectations and service quality standards. It is recognized as the service design gap.

Gap 3: the gap between service quality standards and the actual service performance. This gap is recognized as the service performance gap.

Gap 4: the gap between service delivery and the promised service to the consumer. This gap is known as the communication gap.

Gap 5: the gap between consumer expectations and perceptions is recognized as the customer gap.

So, it is a question for service manager how to manage those service gaps. In order to manage those kind of above service gaps, some studies already stated that good service quality is the management to meet customer expectations and perception (Reiling et al., 2008). Moreover, according to SERVQUAL model (Cuthbert, 1996; Anantharathan Parasuraman et al., 1985), minimizing the gap between customer expectation and perception is essential to maximize the service quality. Thus, we can see that this SERVQUAL model is popular in different type of industries including in health care industry and we are going to test it in this research paper.

## **2.2 Relationship between service quality dimension (SERVQUAL) and customer satisfaction**

According to the previous studies, service quality and customer satisfaction are associated with the main two leading factors which include customer expectation and perception (Awuah, 2014; Cuthbert, 1996; Hossain & Leo, 2009; Anantharathan Parasuraman et al., 1985). When the patient perception is exceeded than patient's expectation, the quality of service meets the patient's needs. As a result, it will lead to encounter higher service quality and meeting patient satisfaction. On the other hand, some scholars prove that patient dissatisfaction occurs when there are some gaps between patient's expectation and perception (Hossain & Leo, 2009).

Therefore, in order to measure the relationship between Myanmar patient perception and expectation, we will mainly explore those gaps between patient perception and expectation by using SERVQUAL gap analysis.

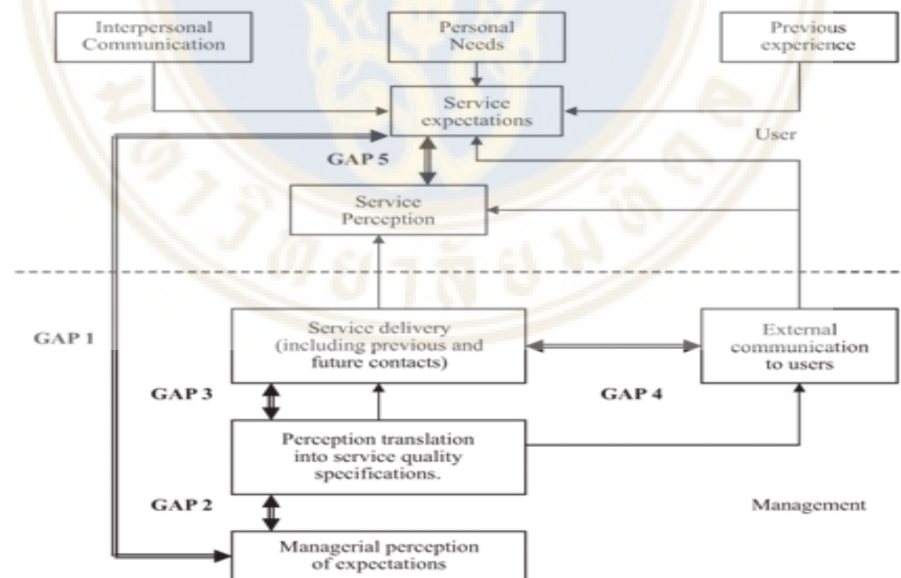
SERVQUAL is the most commonly used tool to measure service quality, which is proposed by (Anantharathan Parasuraman et al., 1985) and (Cuthbert, 1996). Service quality is measured by the gap between the customer expectations of the service and their perception of actual service received from the hospital (Lewis & Mitchell, 1990; Rad, Som, & Zainuddin, 2010; Win, 2017). This can be influenced by many factors. Repeated studies have identified the determinants of quality service

defined by patients as tangibles, reliability, responsiveness, communication, credibility, security, courtesy, competence, understanding/knowing the customer, and access (Lewis & Mitchell, 1990). The list is reduced to the 5 following factors as feasible measurement (Cuthbert, 1996; Lewis & Mitchell, 1990; Anantharanthan Parasuraman et al., 1985):

1. Tangibility - physical facilities, equipment, appearance of contact personnel.
2. Reliability - ability to perform the promised service dependably and accurately.
3. Responsiveness - willingness to help customers and to provide a prompt service.
4. Assurance - knowledge and courtesy of employees and their ability to inspire trust and confidence.
5. Empathy - caring, individualized attention the company provides its customers.

### 2.3 Service Gap Model

Figure 2.1 Services Quality GAP Model (Zeithaml et al., 1990)



## 2.4 Patient satisfaction

There are many studies related to patient's satisfaction. Several scholars mentioned that patient satisfaction is a priority parameter to enhance service quality and business growth. If patients are satisfied, they can contribute to hospital income and if the patient is not, factors can be found and improved (White, 1999). It also reflects the commitment that the hospital has to improve the service continuously.

It was identified that there is no explicit definition for patient satisfaction. The concept was developed from attitude theory, job satisfaction with health care and social science theories. Linder-Pelz (1982) presented a conceptual definition of patient satisfaction as "individual's positive evaluations of distinct dimensions of health care".

According to Hospital Consumer Assessment of Healthcare Providers and Systems (2016), patient satisfaction is defined as "the extent to which patients are happy with their healthcare, both inside and outside of the doctor's office".

White (1999) discussed the different ways to measure patient satisfaction. But he also pointed out that it is first to consider the quality of environment as cultivating. He pointed out that there are three main topics related to patient satisfaction such as quality such as quality of treatment, access such as short waiting time, good registration system, and communication or interpersonal issues such as if the employees of the hospital are caring and passionate. Some studies analyzed factors that can provide patient satisfaction. Those factors are the attitude and care of the nurses, quick service delivery, effective communication and information giving, other physical environment such as clean hospital, convenient rooms (Awuah, 2014).

All of the above mentioned that, there are several factors, which are associated with patient satisfaction. And, since before the patient visit to health care center, each individual patient already has their different expectation as their priority as I mentioned above. Therefore, after providing the quality service, it is important to measure patient's satisfactions by comparing patient expectation and perceptions.

## 2.5 Research hypotheses

Based on the above five factors, five hypotheses are developed to test the assumption that all five factors or one or more of the factors will have an impact on patient satisfaction.

**Tangibility:** Tangibility measures the physical facilities, equipment, and appearance of contact personnel (Tyran & Ross, 2006). This factor is noted as one of the vital factors in service firm for providing quality service. Moreover, the previous research (Ismail & Yunan, 2016) proved that high tangibility can affect positively on customer satisfaction. Therefore, our hypothesis is proposed as:

**H1: There is positive relationship between tangibility and patient satisfaction.**

**Reliability:** Reliability measures the ability to perform the promised service dependably and accurately (Anantharathan Parasuraman et al., 1985; Tyran & Ross, 2006). This factor refers to how reliability of test and services in terms of accuracy and safety. Moreover, the previous research (Abd Rashid, Mansor, & Hamzah, 2011) proved that high reliability can affect positively on customer satisfaction. Therefore, our hypothesis is proposed as:

**H2: There is positive relationship between reliability and patient satisfaction.**

**Responsiveness:** Responsiveness measures the willingness to help customers and to provide a prompt service (Grönroos, 1990; Anantharathan Parasuraman et al., 1985; Tyran & Ross, 2006). Moreover, the previous research (Abd Rashid et al., 2011) proved that high responsiveness can affect positively on patient's satisfaction. Therefore, our hypothesis is proposed as:

**H3: There is positive relationship between responsiveness and patient satisfaction.**

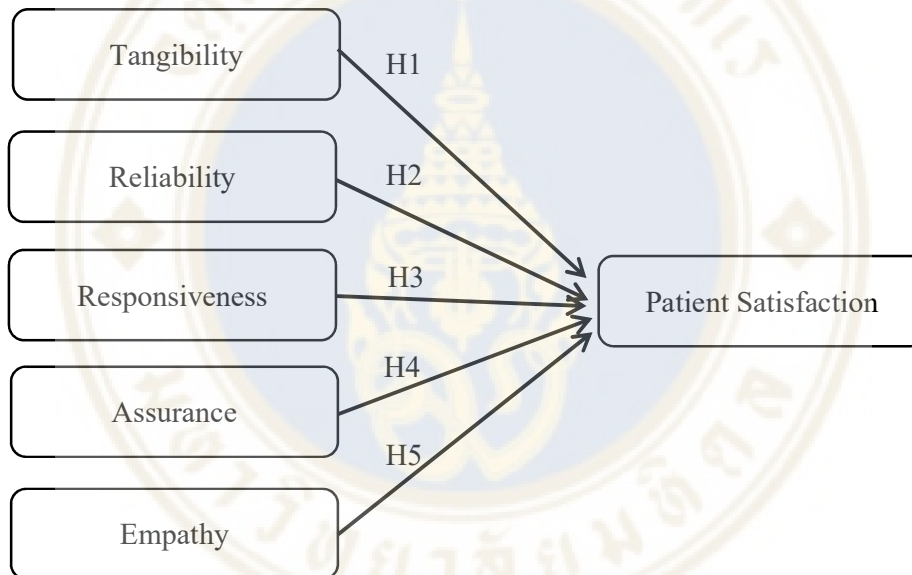
**Assurance:** Assurance measures the knowledge and courtesy of employees and their ability to inspire trust and confidence (Grönroos, 1990; Anantharathan Parasuraman et al., 1985; Tyran & Ross, 2006). This factor is very important to make sure that the patients feel secure from all medical treatments as well as the trust in skill and performance of the doctors as well as nurses. Moreover, the Previous research (Rehaman & Husnain, 2018) proved that high assurance can affect positively on patient's satisfaction. Therefore, our hypothesis is proposed as:

**H4: There is positive relationship between assurance and patient satisfaction.**

**Empathy:** Empathy measures caring, individualized attention the company provides its customers (Grönroos, 1990; Anantharathan Parasuraman et al., 1985; Tyran & Ross, 2006). This factor is very important to enhance the customer satisfaction because studies provided that customer satisfaction comes from customer perception and empathy is extremely important for customer perception. Moreover, the previous research (Rehaman & Husnain, 2018) proved that high empathy can affect positively on patient satisfaction. Therefore, our hypothesis is proposed as:

**H5: There is positive relationship between empathy and patient satisfaction.**

**Figure 2.2 Research Framework (Rad et al., 2010)**



## 2.6 Research framework

There is not much research conducted to measure the levels of satisfaction of Myanmar patients and the service and care that they received especially between private and public hospitals. Public hospitals, by tradition, are known as long waiting time, delay in getting results and delay in referral. However, this has not been studied extensively for patient satisfaction amongst Myanmar patients. This paper will identify the gap amongst Myanmar patient's perceptions and expectation of service quality,

SERVQUAL Model and Myanmar patient satisfaction at private and public hospitals in Thailand by the following SERVQUAL research framework.

Therefore, the conceptual framework for this research will emphasize on the relationship between five dimensions of SERVQUAL and Myanmar patient's satisfaction on service quality.





## **CHAPTER III**

### **RESEARCH METHODOLOGY**

#### **3.1 Research design**

In order to examine what are Myanmar patient's expectation and perception of service quality at private and public hospitals in Thailand, this research will be conducted in quantitative research design. This study will measure what are the relationship between the factors, which can influence on patient expectation and perception, and patient satisfaction on service quality.

This study adapted the SERVQUAL model (Lewis & Mitchell, 1990; Rad et al., 2010; Win, 2017) to meet the additional needs of the service quality to measure the service quality at public and private hospital in Thailand from Myanmar patient's perspective. This is a cross-section study. Questionnaires will be developed and distributed to 109 Myanmar patients who currently visited or are visiting the private hospitals in Thailand. After collecting the data, the data will be analyzed using SPSS software.

#### **3.2 Research instrument**

The main research instrument used in this study will be structured interview using SERVQUAL measurements for measuring Service Quality at private and public hospitals in Thailand. The same methodology is used in another research study by Taner and Antony (2006). The structured questionnaires are derived from previous research studies (Babakus & Mangold, 1992; Taner & Antony, 2006) and few items are adapted to current need in Thailand.

The questionnaires are distributed to Myanmar patients who are currently in Thailand for medical tourism or Myanmar who had experience in medical tourism in Thailand. Questionnaires conclude two main parts with total questions of 42 questions.

**Part I:** Sociodemographic information of respondents, which include twelve components as follows:

1. Age
2. Gender
3. Marital Status
4. Education
5. Place of Hospital Visit
6. Have you ever experience travelling to Thailand for medical purpose?
7. Purpose of Hospital Visit
8. How many times have you visited the hospital in Thailand within 2018-2019?
9. Which medical department did you visit?
10. How did you find the specific hospital?
11. Average Household Monthly income
12. Who pay for your medical treatment in Thailand?

**Part II:** There are 6 main sections with a total of 24 questions, which are to reflect the five dimensions of SERVQUAL theory framework. From section I to section V, the research used five-point Likert scale to all question sets by “Poor to Excellent”. At section VI, there are six main questions to measure patient satisfaction. Likert sale range from 1-5 as represented by “Extremely Satisfied to Not Satisfied” (Petersen, 1988). Patient will be coded “PT. Number” to protect the identity of the patient information.

**Table 3.1 Section I: Questions related to tangibility (5 questions in total)**

No.	Please circle how well you think we are doing in the following areas:	Reference
1	They have up to date equipment and technology (such as building, equipment, X-ray department, laboratories, etc.)	(Sohail, 2003; Taner & Antony, 2006; Win, 2017; Youssef, 1996)
2	Their physical facilities are visually appealing (reception area, corridors, wards, outpatient department, signs, car parks, etc.)	(Sohail, 2003; Taner & Antony, 2006; Win, 2017; Youssef, 1996)

**Table 3.1 Section I: Questions related to tangibility (5 questions in total) (Cont.)**

<b>No.</b>	<b>Please circle how well you think we are doing in the following areas:</b>	<b>Reference</b>
3	Hospital staffs are neat in appearance	(Sohail, 2003; Taner & Antony, 2006; Youssef, 1996)
4	Materials associated to hospital service (such as appointment cards, brochures, directions, documentations) are appealing	(Sohail, 2003; Taner & Antony, 2006; Youssef, 1996)
5	The hospital is clean.	(Taner & Antony, 2006; Win, 2017)

**Table 3.2 Section II: Questions related to reliability (5 questions in total)**

<b>No.</b>	<b>Please circle how well you think we are doing in the following areas:</b>	<b>Reference</b>
1	Hospital provides treatment, diagnostic test and other services in a time they promise to do so.	(Sohail, 2003; Taner & Antony, 2006; Win, 2017; Youssef, 1996)
2	When you have problem, the hospital shows a sincere interest in solving it.	(Win, 2017; Youssef, 1996)
3	Hospital carries out services right at the first time.	(Taner & Antony, 2006; Youssef, 1996)
4	The hospital keeps patient's records accurately.	(Sohail, 2003; Taner & Antony, 2006; Youssef, 1996)
5	The hospital tells you when the medical procedures (such as date of operation, progress, lab results, etc.) will be performed correctly.	(Taner & Antony, 2006; Win, 2017; Youssef, 1996)

**Table 3.3 Section III: Questions related to responsiveness (4 questions in total)**

No.	Please circle how well you think we are doing in the following areas:	Reference
1	Hospital gives prompt service to patients (making appointments quickly, returning phone call quickly, resolving problem quickly)	(Sohail, 2003; Win, 2017; Youssef, 1996)
2	Hospital staffs are always willing to help patients (e.g. willing to answer questions, provide advice)	(Sohail, 2003; Youssef, 1996)
3	Hospital staffs are never too busy to respond to patient's request (e.g. are responsive to complaints, provide patient information)	(Win, 2017; Youssef, 1996)
4	The attitude of hospital staffs instills confident in patient (e.g. honest, trustworthy, hospital name/image, reputation)	(Youssef, 1996)

**Table 3.4 Section IV: Questions related to assurance (5 questions in total)**

No.	Please circle how well you think we are doing in the following areas:	Reference
1	Patients feel safe when receiving treatments.	(Sohail, 2003; Taner & Antony, 2006; Win, 2017; Youssef, 1996)
2	Patients feel safe those employees have good manners and showing consideration.	(Sohail, 2003; Taner & Antony, 2006; Youssef, 1996)
3	The doctors are well trained and competent.	(Sohail, 2003; Taner & Antony, 2006; Win, 2017; Youssef, 1996)
4	The nurses are well-trained and can trust.	(Sohail, 2003; Taner & Antony, 2006; Win, 2017; Youssef, 1996)

**Table 3.4 Section IV: Questions related to assurance (5 questions in total) (Cont.)**

5	Hospital staffs are approachable (e.g. easy access to management, prompt telephone access, ease of contact)	(Taner & Antony, 2006; Youssef, 1996)
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**Table 3.5 Section V: Questions related to empathy (5 questions in total)**

No.	Please circle how well you think we are doing in the following areas:	Reference
1	The hospital gives patients individual attention (e.g. learning a patient's specific medical history, flexibility to accommodate individual patient's requirement, preferences, dislike)	(Sohail, 2003; Taner & Antony, 2006; Win, 2017; Youssef, 1996)
2	The hospital listens to patients and keep patients informed (e.g. listen to patient ideas, new operations, general inquiry)	(Taner & Antony, 2006; Win, 2017; Youssef, 1996)
3	The hospital has 24-hour availability (e.g. evening appointments, 24 hour emergency availability)	(Sohail, 2003; Taner & Antony, 2006; Youssef, 1996)
4	The hospital has patient's best interest at heart (e.g. building long term relationship, providing leading-edge medical care)	(Sohail, 2003; Taner & Antony, 2006; Youssef, 1996)
5	Hospital staffs understand the specific needs of patients (e.g. recognizing the importance of the patient, what the patient wants)	(Taner & Antony, 2006; Win, 2017; Youssef, 1996)

**Table 3.6 Section VI: Questions related to patient satisfaction level**

No.	Questions related to Patient satisfaction	Reference
1	How satisfied are you with our facilities at the hospital?	(Petersen, 1988; White, 1999)

**Table 3.6 Section VI: Questions related to patient satisfaction level (Cont.)**

No.	Questions related to Patient satisfaction	Reference
2	How satisfied are you with the treatment that you received?	(Petersen, 1988; White, 1999)
3	How satisfied are you with the waiting time or service time?	(Petersen, 1988; White, 1999)
4	How satisfied are you with knowledge and courtesy of employees at our hospital?	(Petersen, 1988; White, 1999)
5	How satisfied are you with the caring and compassion from our doctors and nurses?	(Petersen, 1988; White, 1999)
6	How satisfied are you with overall service at the hospital?	(Petersen, 1988; White, 1999)

### 3.3 Procedures of the study

The procedure of the study is a cross-sectional study and data collection will be done by distributing the research questionnaires.

#### 3.3.1 Population and sample

##### 3.3.1.1. Determination of sample size

The study population includes patients coming from Myanmar as medical tourists who are currently at private and public hospital. The patients who are not currently having medical tourism but wishing to come will be excluded from the survey. Myanmar migrant workers who visit to public hospital will not be collected in this study.

Since it is hard to identify the patients with required criteria, convenient sampling will be done. Samples will be approached at the private and public hospitals in Thailand and through sending questionnaires through on line (such as Facebook messenger, Viber or Line applications) and offline (face to face interview by researcher or two professional medical interpreters) to patients who had experience on medical tourism in Thailand.

Participation in the study was voluntary and the procedure will be explained clearly. The sample size will be calculated to have an adequate number to do multiple regression analysis.

### 3.3.1.2 Sample size calculation

The sample size calculation will be done from Taro Yamane' formula (Israel, 1992; Yamane, 1967). Since 7,568 patients are from Myanmar comes to Thai hospitals for treatment according to a study done by World Health Organization (Noree et al., 2016), the sample will be based on that number. Survey length, format and language were carefully considered.

Using Taro Yamane' formula, the sample size was calculated as below:

$$n = \frac{N}{1 + N(e)^2}$$

n = sample size

N = population size

e = level of precision

According to WHO study, 7,568 patients from Myanmar were medical tourist in 2016. N= 7568

The level of precision "e" is determined as 10%. e = 0.1

The sample size is calculated

$$n = \frac{7568}{1 + 7568(0.1)^2} = 98.69 = 99$$

According to the calculation, the minimum sample size required to complete the study is 99 patients. It is estimated to cover 10% of the respondents who could be either incomplete or having error, 10% of the sample size n is added (99+9.9 = 108.9). Therefore, the final sample size is 109 participants.

Since the participants of the surveys are from Myanmar, the questionnaire will be translated into Myanmar by a professional translator and checked by another two professionals to translate it back to English to make sure the consistency of the

original language. The two professionals will be one Myanmar Doctor with public health experience and another professional interpreter from private hospital. Researcher of this study is a Myanmar citizen currently living in Thailand and worked at the private hospital before, therefore, the two professionals will be selected randomly from the hospitals working in Thailand to check the translation.

### **3.3.2 Design and development of questionnaire**

The research questionnaire was developed using SERVQUAL measurements for measuring Service Quality at private and public hospitals in Thailand (Babakus & Mangold, 1992; Taner & Antony, 2006) and few items are adapted to current need in Thailand.

**Pilot Study:** The questionnaires will be piloted with 5 Myanmar patients currently in Thailand to make sure the clarity and understandability in addition to the professional approval. Appropriate changes will be done if there is any inconsistency or mis-understanding from the patients and checked again by the professionals and patients again. The final quantitative survey will be distributed and conducted amongst 109 Myanmar to represent the total study population.

### **3.3.3 Data collection**

Data will be collected from 109 Myanmar medical tourists (Myanmar patients) by sending questionnaires through different on line platforms (such as Facebook messenger, Viber or Line applications) and off line platform (face to face interview by researcher or two professional medical interpreters). Indeed, data will be collected through offline from 50% of Myanmar patient's (55 patients) in Thailand as medical tourist either in private or public hospitals. Moreover, data will also be collected through different online platforms from 50% of Myanmar patients (54 patients) who came to Thailand for medical tourism within 2019-2020.

The Myanmar patients resided in Thailand as migrant workers who visit to public hospital will not be collected in this study because they are covered by the Thai health care system and which will also have bias on price and service available to them as well as some of them may be able to speak Thai language. These migrant workers will have a different characteristic and will differ from the study population



who are the medical tourists. They might also have a different financial status, which might not be the same with medical tourists. Therefore, Myanmar migrant groups living in Thailand are excluded from this study.

Samples will be approached at the private and public hospitals. Moreover, Data will be collected by researcher herself and additional 2 interpreters who are already working in private hospitals from Bumrungrad International hospital will be hired to collect data. The reasons for hiring professional translators are because they are nurses and already familiar with the hospital terms and patients. The interviewers will be visiting the both private and public hospitals during hospital hours (9.00am to 5.00pm). The permission from the patients will be asked to collect data before data collection.

The questionnaire will be distributed to patients online through using different platforms such as Facebook messenger, viber or line application because these applications are widely used by Myanmar patients.

Face to face data collection will be done by the researcher herself and researcher will be collecting data at the private and public hospitals from the following list. The hospitals are selected on convenient sampling.

**Table 3.7 List of hospitals**

<b>Private hospitals</b>	<b>Private &amp; Public hospitals</b>
Bumrungrad International Hospital	Chularlongkorn Hospital
Bangkok International Hospital	Vibhavadi Hospital
Semitivej Hospital	Vibharam Hospital
Payathai Hospitals (1,2,3)	Siriraj Piyamaharajkarun Hospital
Piayavate Hospital	Param 9 Hospital
Mission International hospital	Vejthini Hospital
Paolo Hospital	Pramonkalo Hospital

The questionnaires will be filled and collected by the researchers and privacy will be given to the respondents for their comfort while filling in. It will also be explained that their name and contact will not be included to protect their privacy.

The data gathered will be put in a locked file folder and the password will be only accessible by the researcher. All the information will be kept confidential.

### **3.4 Data analysis**

When all the questionnaires are completed and gathered, data analysis is done by using Statistical Package for Social Sciences (SPSS) to analyze statistics (percentage, means, SD), and cross tabulations to study relationship between factors.

Frequency and percentage is used to calculate and analyze the Part 1, demographic data. At Part 2, from section I to VI, the mean score is used to analyze the level of service quality in five dimensions of service quality. The five-point Likert scale is used to all five dimensions. Five is highest score and one is the lowest score. Positive values represent higher expectation and perception. Meanwhile, negative values represent lower expectation and perception and un-met expectation.

The study will analyze the relation between the dependent variables and independent variable with correlation analysis, regression analysis, and hypothesis testing. Multiple regression analysis is used to compare the different variables. Excel sheet is used to combine data and SPSS software will be used to analyze.

## **CHAPTER IV**

### **FINDING AND RESULTS**

This chapter presents the results from data analysis and interpretation of all the gathered data. The collected data are analyzed by using the SPSS program. This chapter is divided into three main parts;

1. the first part is the descriptive analysis of the personal data of the respondents (age, income per month, educational level and gender, nature of the medical visit, etc.)
2. the analysis of patient expectation and satisfaction; and
3. the inferential analysis: hypothesis testing of all hypotheses applied in this study.

This study is based on the survey results of the 100 Myanmar patients who visited to private and public hospitals in Thailand. Participants are interviewed using the structured questionnaires discussed in detail in Chapter 3.

#### **4.1 Descriptive analysis**

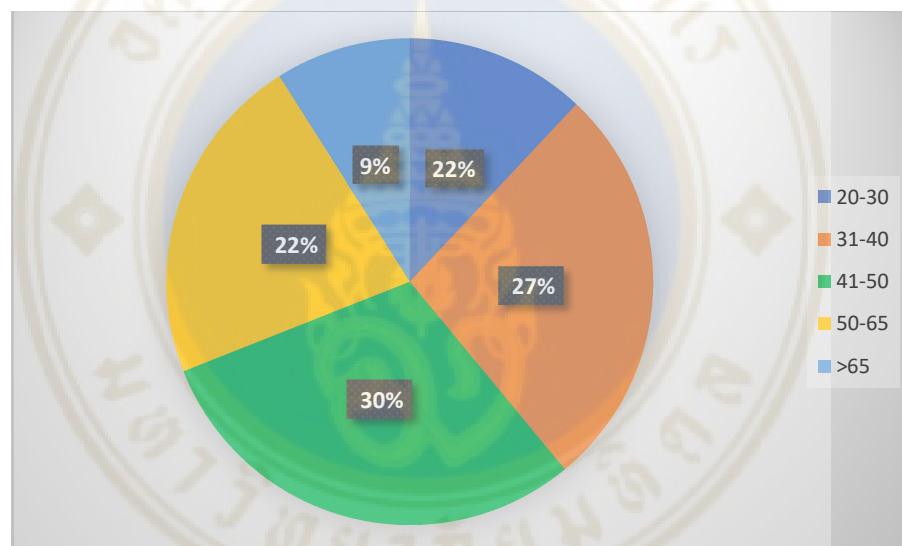
This section focuses on simple descriptive analysis utilizing frequency and percentages of the profile of the respondents, nature of visit, frequency visited, and departments visited.

##### **Age**

Table 1 and Figure 1 show that majority of the patients who did the medical visit to Thailand are mainly between 41-50 years old. The second highest are between 31-40 and the third highest are between 50-65 years old. Only 9% of patients who are above 65 years old visited Thailand, probably because they are very old to travel and the average life expectancy in Myanmar is 70 years old according to the 2018 data from World Bank (Bank, 2020).

**Table 4.1 Analysis of age levels using frequency and percentage**

Age	Frequency	Percentage
20-30	12	12%
31-40	27	27%
41-50	30	30%
50-65	22	22%
>65	9	9%
Total	100	100%

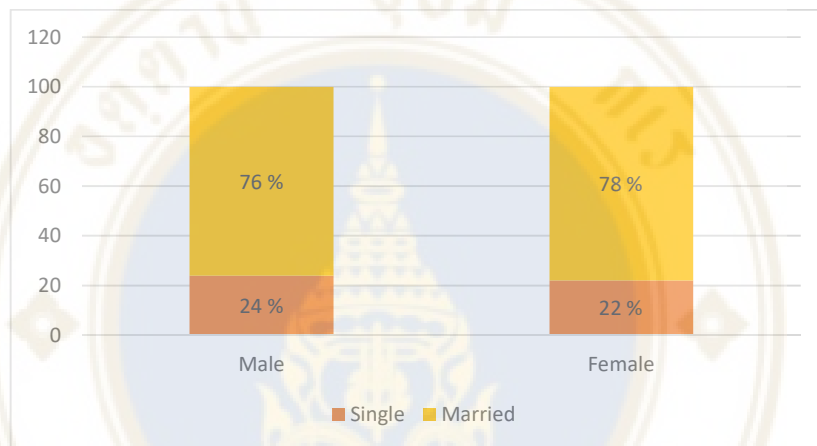
**Figure 4.1 Analysis of age levels using percentage**

### Gender and Marital Status

Table 2 and Figure 2 shows that the difference between number of male and female patients is minimal. There are 42 male patients and 58 female patients participated in the study. Out of 42 male patients, 76% of them are married and out of 58 female patients, majority of them (78%) are also married. Only 23% of the sample are single.

**Table 4.2 Analysis of gender and marital status using frequency and percentage**

Marital Status	Male		Female		Total
	number	% of male	number	% of female	
Single	10	24.00%	13	22.00%	23
Married	32	76.00%	45	78.00%	77
Total	42		58		100

**Figure 4.2 Analysis of gender and marital status using frequency and percentage**

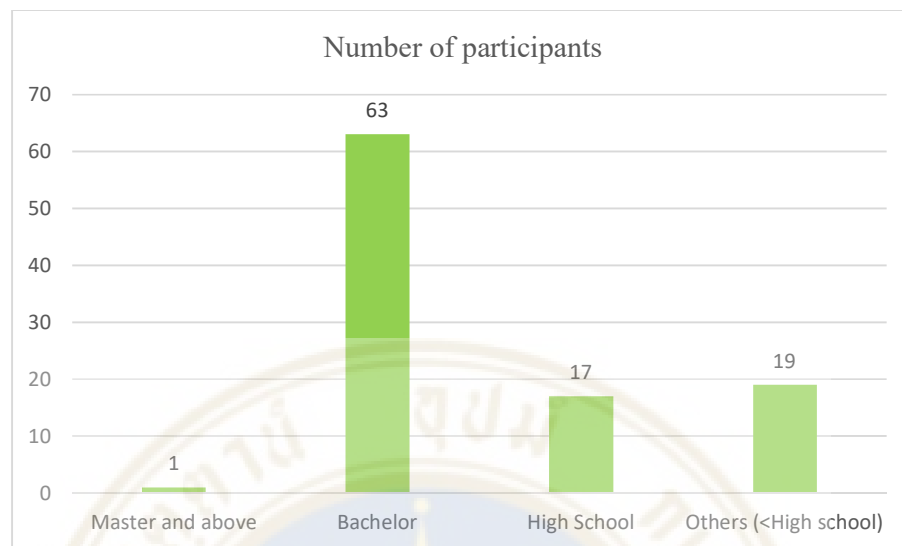
### Education

Researcher found that 63% of the respondents have bachelor's degree and only 1 participant has master degree and above (see Table 4.3, Figure 4.3).

**Table 4.3 Analysis of education status using percentage**

Education Status	Number of participants	Percentage
Master and above	1	1.00%
Bachelor	63	63.00%
High School	17	17.00%
Others (<High school)	19	19.00%
Total	<b>100</b>	<b>100%</b>

**Figure 4.3 Analysis of education status using frequency and percentage**

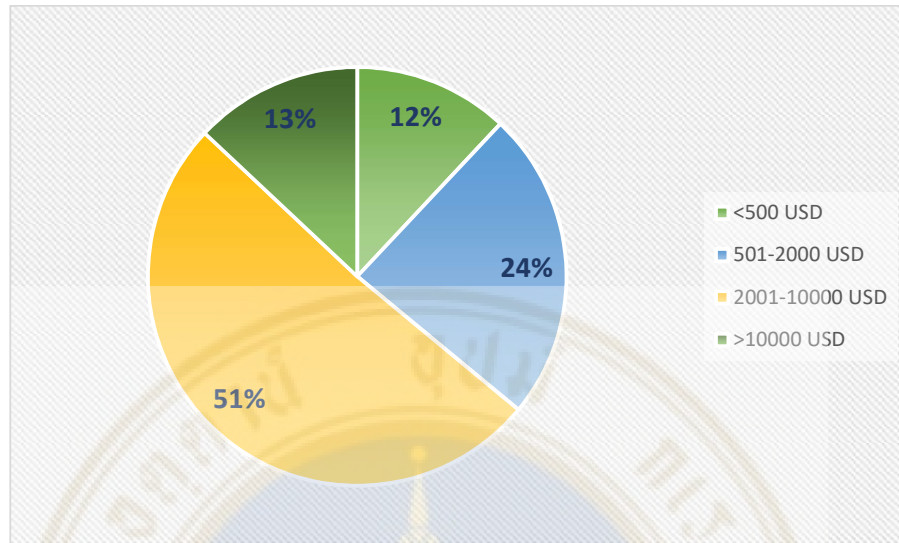


### **Income and payment at the hospital**

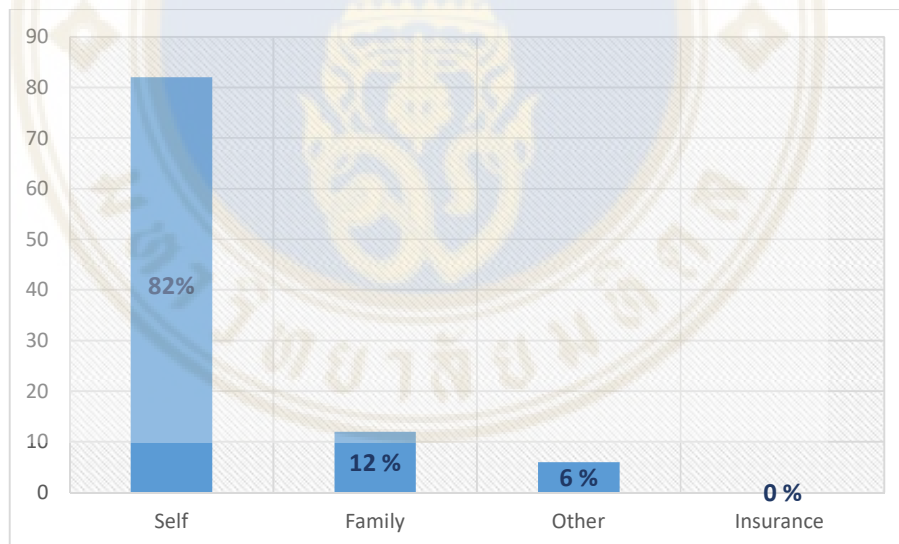
Researcher recognized that income level is an important factor for Myanmar patients to travel abroad for medical purposes and therefore, income status and financing model was analyzed using frequency and percentage. The researcher investigated that more than 50 percent of the patients have income between 2001 and 10,000 USD, while only 12% of the patients have less than 500USD as monthly household income (Figure 4.4). According to World Bank survey on Myanmar Living Condition (Bank, 2020), at union level per capita monthly household income was 50 USD (67,798 Kyats) according to 2017 data demonstrating that income is unequally distributed with high inequality. Looking at the statistics, the data shows that patients visited public and private hospitals in this survey are from middle- and high-income families.

Payment or financing model for participants in the study also reflects the current situation in Myanmar. Figure 5 shows that 82% of respondents are self-financed for hospital visits. 12% of them are financed by the family and few of them (6%) are from other sources that they do not wish to disclose. It was not surprising that none of the respondents are financed from health insurance companies. This information will help the hospitals in Thailand to understand the customers very well and their financing models.

**Figure 4.4 Analysis of income status using percentage**



**Figure 4.5 Financing model of patients**



#### **Number and name of hospitals that the patients went in this study**

It was found that Bumrungrad is the most visited hospital amongst the private hospitals in this study with 40 patients did the medical visit and Bangkok hospital is the second highest with 7 visitors for medical purpose. For the public

hospitals, Phramongkutklao is the most visited hospital with 22 patients and Chulaborn is the second highest with 5 patients.

**Table 4.4 List of hospitals that patient went for medical visit**

<b>Name of hospitals</b>	<b>Number of patients visited</b>
<b>Private hospitals (10)</b>	
Bumrungrad	40
Ramkhamhaeng	3
Vibhavadi	3
Bangkok Hospital	7
Siriraj	1
MISSION INTL	2
Phayathai	2
Yanhee	4
Samitinej	1
Paolo	2
<b>Public Hospitals (6)</b>	
Phramongkutklao	22
CHULA	3
Ramathibodi	3
Chulaborn	5
Chonburi Hospital	1
Rathewi	1
<b>TOTAL</b>	<b>100</b>

Most of the patients went to Bumrungrad for medical visit amongst the private hospitals in this study with 40 patients and for the public hospitals, Phramongkutklao is the most visited hospital with 22 patients. Both Bumrungrad and Phramongkutklao are visited a lot higher with more than 50% in each category.



### Responses related to medical visit

In addition, the researcher also tries to understand the responses related to medical visit by the respondents such as what type of hospital they are going, either they are going to outpatient department or inpatient department. The results show that 65 percent of the respondents went to private hospitals and only 35% of them went to government hospital. More than half of the respondents did the medical visit to hospitals in Thailand more than once and majority of the visit (65%) are for treatment rather than check-up. The highest number of visits was 8 times by 1 respondent, but more than half visited only once. 18% visited for 2 times and 13% visited for 3 times. Visits were mainly outpatient department (OPD) than the inpatient department. 62% of the respondents visited only one time to outpatient department. The maximum times that a patient visited outpatient department was 8 times and the maximum time a patient visited inpatient department was 4 times. 22 departments are listed for the respondents to select from questionnaire. Those are

- |                                |                       |
|--------------------------------|-----------------------|
| a. Medical Check-up            | m. Physical Therapy   |
| b. Neurology                   | n. Women              |
| c. Eye                         | o. Liver              |
| d. Medical Department          | p. Digestive Disease  |
| e. Surgery                     | q. Fertility          |
| f. Cancer                      | r. Cosmetic treatment |
| g. Spine and Orthopedic        | s. Dentistry          |
| h. Ear, Throat                 | t. Diabetic           |
| i. Children Center             | u. Kidney             |
| j. Lung and Infectious Disease | v. Urology            |
| k. Heart                       | w. Others             |
| l. Behavioral                  |                       |

54 respondents visited only one department and 46 respondents visited more than one department. Medical check-up was the highest visited place out of all, and cancer department was the second highest visited with 14%. Digestive department was the third and Women (Gynecological department) were the fourth highest visited department according to the results (See Table 4.5).

**Table 4.5 Analysis of responses related to medical visit**

<b>Topics</b>	<b>Total number</b>
<b>Nature of hospital</b>	
Private hospital	65
Public hospital	35
<b>Previous traveling to Thailand with medical purpose</b>	
Visited with medical purpose for once only	40
Visited with medical purpose for more than one time	60
<b>Purpose of medical visit</b>	
For check up	34
For treatment	65
Both check-up and treatment	1
<b>Number of times visited for medical purpose</b>	
1 time	59
2 times	18
3 times	13
4 times	7
6 times	1
7 times	1
8 times	1
<b>OPD visit times</b>	
0 time	5
1 time	62
2 times	17
3 times	9
4 times	2
5 times	1
6 times	2
8 times	1
Missing	1

**Table 4.5 Analysis of responses related to medical visit (Cont.)**

<b>Topics</b>	<b>Total number</b>
<b>IPD visit times</b>	
0 time	74
1 time	20
2 times	3
3 times	1
4 times	1
Missing	1
<b>Number of departments visited at the hospital</b>	
<b>Visited only 1 department (54)</b>	
Medical check up	15
Eye department	1
Medical department	3
Surgery department	3
Cancer department	8
Spine and Orthopedic department	7
ENT department	1
Lung and infectious disease	1
Heart department	3
Women department	2
Digestive disease	2
Cosmetic treatment	2
Diabetic department	3
Urology department	1
Other departments	2
<b>More than one department</b>	<b>46</b>

**Table 4.5 Analysis of responses related to medical visit (Cont.)**

Most frequently visited departments	Numbers of times visited
Medical check up	32
Digestive disease	9
Women department	8
Cancer department	14

## 4.2 Analysis of patient expectation and satisfaction

Descriptive analysis for each factor (tangibility, reliability, responsiveness, assurance and empathy) was done in this section using mean and standard deviation. This analysis showed what are the perception and expectation of Myanmar patients and the gap between perception and expectation on each service quality in hospitals in Thailand. This will also show which service quality is low in Myanmar patient mind that should be improved for more medical tourism.

### Tangibility

**Table 4.6 Analysis of tangibility by using Mean and Standard Deviation**

Section I: Tangibility	EXPECTATION			PERCEPTION			P-E GAP	
	N	Mean	Std. Deviation	N	Mean	Std. Deviation	Mean	Std. Deviation
Hospital have up to date equipment and technology	100	3.82	0.67	100	4.02	0.79	0.20	0.12
Their physical facilities are visually appealing	100	3.67	0.74	100	3.88	0.81	0.21	0.07
Hospital staffs are neat in appearance	100	3.75	0.66	100	3.97	0.72	0.22	0.06
Materials associated to hospital service are appealing	100	3.77	0.76	100	3.89	0.8	0.12	0.04
The hospital is clean.	100	3.84	0.65	100	4.03	0.64	0.19	-0.01

From Table 4.6, researcher investigated that there are 4 out of 5 questions which were higher perception than expectation. Among these 4 questions, the highest difference between the perception and expectation for tangibility is 0.22 which is the item, “Hospital staffs are neat in appearance”. Therefore, in general patient expectations for tangibility are fulfilled and perceptions are higher than expectation.

### Reliability

**Table 4.7 Analysis of reliability by using Mean and Standard Deviation**

Section II: Reliability	EXPECTATION			PERCEPTION			P-E GAP	
	N	Mean	Std. Deviation	N	Mean	Std. Deviation	Mean	Std. Deviation
Hospital provides treatment, diagnostic test and other services in a time they promise to do so	100	3.98	0.74	100	3.99	0.76	0.01	0.02
When you have problem, the hospital shows a sincere interest in solving it.	100	3.88	0.81	100	3.85	0.83	-0.05	-0.02
Hospital carries out services right at the first time.	100	3.86	0.77	100	3.82	0.8	-0.04	-0.03
The hospital provides error-free documentation (e.g. keeps patient's records correctly, medical bills, pre operation and post operation consultation documents, etc)	100	4.03	0.72	100	4.03	0.77	0	0.05
The hospital tells you exactly when the medical procedures (such as date of operation, progress, laboratory results, etc.) will be performed correctly.	100	3.95	0.73	100	4.13	0.79	0.08	0.06

Table 4.7 shows that there are 2 items which were less on perception than expectation. They are “When you have problem, the hospital shows a sincere interest in solving it” and “Hospital carries out services right at the first time.”. For the rest of the other 3 items on reliability are higher perception than expectation.

Thus, generally, this means Myanmar patients are not very happy with reliability related services from hospitals. Hospitals should be aware and should improve their service and training to their staff to meet patient expectations on reliability.

### Responsiveness

**Table 4.8 Analysis of responsiveness by using Mean and Standard Deviation**

Section III: Questions related to responsiveness	EXPECTATION			PERCEPTION			P-E GAP	
	N	Mean	Std. Deviation	N	Mean	Std. Deviation	Mean	Std. Deviation
Hospital gives prompt service to patients (making appointments quickly, returning phone call quickly, resolving problem quickly)	100	3.78	0.72	100	3.67	0.89	-0.11	0.17
Hospital staffs are always willing to help patients (e.g. willing to answer questions, provide advice)	100	3.82	0.74	100	3.83	0.82	0.01	0.08
Hospital staffs are never too busy to respond to patient's request (e.g. are responsive to complaints, provide patient information and family needs)	100	3.75	0.76	100	3.63	0.9	-0.12	-0.14
The attitude of hospital staffs instils confident in patient (e.g. honest, trustworthy, hospital name/image, reputation)	100	3.76	0.71	100	3.85	0.82	0.09	0.11

The table 4.8 shows that there are 2 items which were less on perception than expectation. They are “hospital gives prompt service to patients” and “Hospital staffs are never too busy to respond to patient’s request”. Among this two items, “Hospital staffs are never too busy to respond to patient’s request” is the item with the highest difference (-0.12) between expectation and perception.

But the other 2 items, “Hospital staffs are always willing to help patients” and “attitude of hospital staffs instils confident in patient”, show that the perception is higher than expectation.

Therefore, for responsiveness questions, 2 out of 4 questions received lower perception meaning 50% of the service factor related to responsiveness were not perceived well with higher patient expectation.

#### Assurance

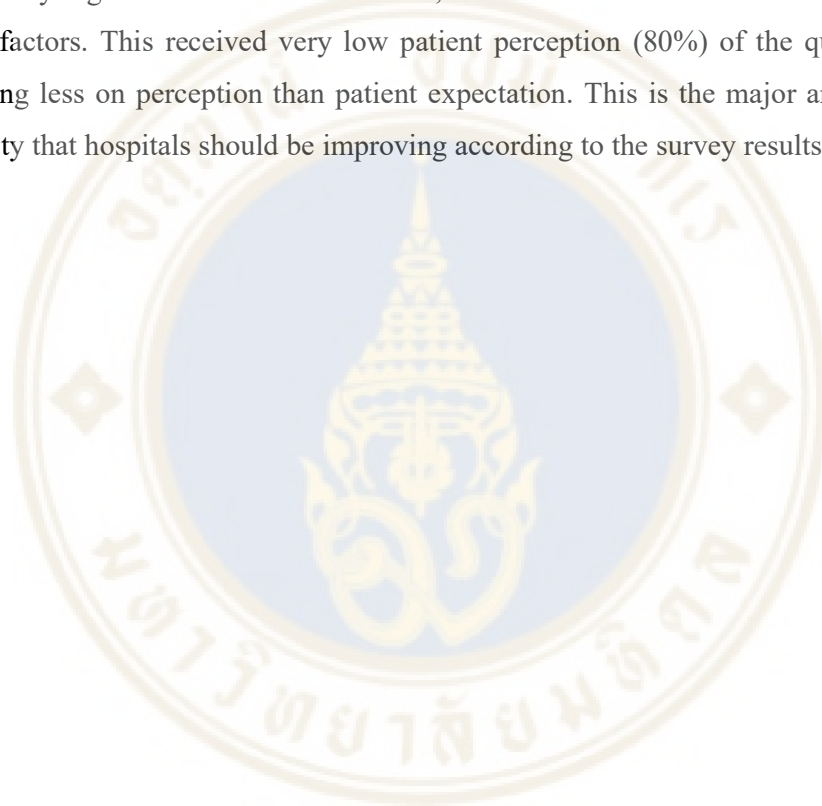
**Table 4.9 Analysis of assurance by using Mean and Standard Deviation**

Section IV: Questions related to assurance	EXPECTATION			PERCEPTION			P-E GAP	
	N	Mean	Std. Deviation	N	Mean	Std. Deviation	Mean	Std. Deviation
Patients feel safe when receiving treatments.	100	3.88	0.61	100	3.86	0.59	-0.02	-0.02
Patients feel safe that employee have good manners and showing consideration.	100	3.78	0.66	100	3.73	0.65	-0.05	-0.01
The doctors are well-trained and competent.	100	3.99	0.7	100	4.06	0.74	0.07	0.04
The nurses are well-trained and can trust.	100	3.81	0.73	100	3.78	0.77	-0.03	0.05
Hospital staffs are approachable (e.g. easy access to management, prompt telephone access, ease of contact)	100	3.73	0.76	100	3.66	0.78	-0.07	0.02

The table 4.9 shows that 4 out of 5 items receive lower perception and higher expectation. Among this four items, “Hospital staffs are approachable” is the item with the highest difference (-0.07) between perception and expectation. However, this item also has the highest variation of standard deviation amongst others.

In the meantime, only one item receive better perception which is “doctors are well-trained and competent” and the mean score is reaching to 4.06.

However, generally, it is found that the expectation for assurance is relatively higher in each item. Moreover, assurance is the worst service quality out of five factors. This received very low patient perception (80%) of the questions were scoring less on perception than patient expectation. This is the major area of service quality that hospitals should be improving according to the survey results.





## Empathy

**Table 4.10 Analysis of empathy by using Mean and Standard Deviation**

Section V: Questions related to Empathy	EXPECTATION			PERCEPTION			P-E GAP	
	N	Mean	Std. Deviation	N	Mean	Std. Deviation	Mean	Std. Deviation
The hospital gives patients individual attention (e.g. learning a patient's specific medical history, flexibility to accommodate individual patient's requirement, preferences, dislike)	100	3.76	0.73	100	3.79	0.74	0.03	0.01
The hospital listens to patients and keep patients informed (e.g. listen to patient ideas, new operations, general inquiry)	100	3.83	0.75	100	4.05	0.72	0.22	-0.03
The hospital has 24-hour availability (e.g. evening appointments, 24-hour emergency availability)	100	3.79	0.73	100	4.2	0.82	0.23	0.09
The hospital has patient's best interest at heart (e.g. building long term relationship, providing leading-edge medical care)	100	3.64	0.77	100	3.58	0.84	-0.06	0.07
Hospital staffs understand the specific needs of patients (e.g. recognizing the importance of the patient, what the patient wants)	100	3.63	0.8	100	3.73	0.83	0.10	0.03

The table 4.10 shows that 4 out of 5 items receive higher perception than expectation. Among those 4 items, the highest difference between expectation and

perception in empathy was the score (0.09) which is from the items “ the hospital has 24-hour availability”.

Only one item which is “the hospital has patient’s best interest at heart”, receive lower perception than expectation. In that items, the difference between expectation and perception was (-0.06).

Thus, according to the data analysis from table 4.9, patients are generally happier with higher perception than expectation except on trusting hospitals that they have best interest at heart for patient. This should be the area of improvement.

**Table 4.11 Average score of five factors and patient’s expectation and perception**

FACTORS INFLUENCING SERVICE QUALITY		AVERAGE SCORE		P-E
		Expectation	Perception	GAP
1	TANGIBILITY (Average of all 5 questions)	3.77	3.96	0.19
2	REALIBILITY (Average of all 5 questions)	3.94	3.96	0.02
3	RESPONSIVENESS (Average of all 4 questions)	3.78	3.75	-0.03
4	ASSURANCE (Average of all 5 questions)	3.84	3.82	-0.02
5	EMPATHY (Average of all 5 questions)	3.73	3.85	0.12
PATIENT SATISFACTION		4		

Table 4.11 showed that in general, expectation and perception of the patients are good with average score 4. However, responsiveness and assurance factors received lower patient perception score than their expectation. This also aligns with our previous findings from Table 5 to 9 showing weakness in responsiveness and assurance. Hospitals in Thailand should be improving service quality especially on those two factors.

### Level of Patient's Satisfaction

**Table 4.12 Analysis of Patient Satisfaction by using Mean and Standard Deviation**

Part III	Patient satisfaction		
	N	Mean	Std. Deviation
How satisfied are you with our facilities at the hospital?	100	3.98	0.67
How satisfied are you with the treatment that you received?	100	4.13	0.66
How satisfied are you with the waiting time or service time?	100	3.55	0.82
How satisfied are you with knowledge and courtesy of employees at our hospital?	100	4.09	0.64
How satisfied are you with the caring and compassion from our doctors and nurses?	100	4.22	0.61
How satisfied are you with overall service at the hospital?	100	4	0.68

In table 4.12, the researcher investigated that more than average satisfaction is around 4. Out of 5 questions on patient satisfaction, “the waiting time or service time” scores the least with 3.55. Therefore, patients are not very happy with waiting very long. In addition, question related to facilities also received score of 3.98. These are the only 2 questions with the score below 4 for patient satisfaction. In general, patients are considered to be happy with an average 4 for satisfaction.

### 4.3 Inferential analysis: Hypothesis testing of all hypothesis applied in this study

Zikmund, Carr, and Griffin (2013) stated that inferential statistics is applied to predict the relation from a selected sample from the study population. It includes the analysis of the hypothesis statements. The aim is to draw conclusions

based on the sample collected and apply them to generalize to the population using probability theory. Table 4.13 shows the strength of association for the hypothesis testing. These will be applied to translate the analysis done from the data collected.

**Table 4.13 r-value and measure the strength of association (Collis & Hussey, 2013)**

r-value	The strength of association
0.81 to 0.99	Very strong positive relationship
0.61 to 0.80	Strong positive relationship
0.41 to 0.60	Moderate positive relationship
0.21 to 0.40	Weak positive relationship
0.01 to 0.20	Very weak positive relationship
0	No relationship
- 0.01 to - 0.20	Very weak negative relationship
- 0.21 to - 0.40	Weak negative relationship
- 0.41 to - 0.60	Moderate negative relationship
- 0.61 to - 0.80	Strong negative relationship
- 0.81 to - 0.99	Very strong negative relationship

The mean of each factor (tangibility, reliability, responsiveness, assurance and empathy) as well as mean of patient satisfaction was calculated for each respondent and the relation between each factor and patient satisfactory is calculated using Pearson correlation from SPSS software. In this way, hypothesis testing is done for all hypothesis mentioned in chapter 2.

#### **4.4 Multiple linear regression analysis**

Multiple linear regressions are applied to predict the unknown variable value from two or more know variables. This is a powerful technique, general and statistical method and used in many researches to show or test the linear relationship or associations. In our research, multiple regression analysis was used to estimate the

relationships between dependent variable: patient satisfaction and 5 independent variables from SERVQUAL service model: tangibility, reliability, responsiveness, assurance and empathy.

The researcher conducted the multiple linear regression analysis by including all 5 variables. The results can be seen below –

**Table 4.14 Summary of multiple regression analysis including all five variables**

Model Full	R	R <sup>2</sup>	Adjusted R <sup>2</sup>	Std. error of the estimate
All variables	0.751	0.564	0.54	0.367

**Table 4.15 Summary of multiple regression analysis including all five variables – ANOVA**

Model Full	Sum of squares	Df	Mean Square	F	Sig.
Regression	16.357	5	3.271	24.275	0.000
Residual	12.668	94	0.135		
Total	29.025	99			

**Table 4.16 Summary of multiple regression analysis including all five variables –  
Coefficients**

Model Full	Unstandardized Coefficients		Standardized Coefficients	T	Sig. (p value)	VIF
	B	Std. Error	Beta			
Constant	1.181	0.281	0.000	4.208	0.000	
Tangibility	0.150	0.073	0.192	2.045	0.044	1.899
Reliability	0.112	0.092	0.143	1.215	0.227	2.987
Responsiveness	0.053	0.083	0.075	0.637	0.526	2.996
Assurance	0.124	0.076	0.136	1.630	0.106	1.493
Empathy	<b>0.288</b>	0.086	<b>0.360</b>	3.366	0.001	2.466

Multi-collinearity problem was tested to make sure that there are no independent variables which are highly correlated with one or more of the other independent variables in the multiple regression equation. The test was done through variance inflation factor (VIF). VIF is calculated using the formula

$$VIF_i = \frac{1}{1 - R_i^2}$$

VIF values for all independent variables can be seen in Table 4.16. Since none of the VIF values are higher than 5, it is concluded that there is no Multi-collinearity problem and thus, p values calculated in the Table 4.16 can be trusted for all five variables.

Adjusted R2 value of the Table 4.13 shows that it is equal to 0.540. It means that 54% (slightly more than half) of variation in patient satisfaction can be explained by the all five variables as shown in Table 4.14.

Table 4.16 showed that tangibility and empathy are statistically significant showing p value less than 0.05 (where it is calculated on 95% confidence interval). Therefore, it can be concluded that tangibility and empathy have significant relationships with patient satisfaction. P-value of other variables such as reliability, responsiveness and assurance are higher than 0.05.

In addition, standardized Beta coefficient was also calculated so that the variables can be easily compared to each other representing the amount dependent variable varies from 1-unit change in corresponding independent variable. Therefore, ratio relative predictive power of independent variables can be calculated. According to table 4.16, the highest beta value (both the unstandardized Beta coefficient and standardized Beta coefficient) is empathy (0.288, 0.360) with statistical significance level 0.001 with patient satisfaction. This means that if the empathy increases on one score, the patient satisfaction is expected to increase in score by 0.288 corresponding to one score increase in empathy when the other independent variables are constant. According to table 16, the second highest beta value (both the unstandardized Beta coefficient and Standardized Beta coefficient) is tangibility (0.150, 0.192) with statistical significance level 0.044 with patient satisfaction. This means that if the tangibility increases on one score, the patient satisfaction is expected to increase in

score by 0.192 corresponding to one score increase in tangibility when the other independent variables are constant. Therefore, “empathy” is the most important aspect for satisfaction to Myanmar patients which highlights the research objective 2 of this study.



## **CHAPTER V**

### **CONCLUSION AND RECOMMENDATION**

The research objective of the study is to identify the gap between the perception and expectation of Myanmar patients related to service quality in both private and public hospitals in Thailand and which factor is most important to them. This chapter illustrates the conclusions of the results stated in chapter 4. The discussion of the results will be provided based on the analysis by the researcher. There are four main sections in this chapter. The first section is on discussion and summary of the results/findings from data analysis. The second section is on suggestions and recommendations. The third section discusses the limitation of the study and the fourth section points out the need for further research to be done based on the analysis of this study. The researcher analyzed the data gathered from the primary data collection from 100 respondents through a survey.

#### **5.1 Summary of findings**

In this research, out of 100 participated, there is almost equal amount of male and female patients participated. Most of the participants are educated with at least holding bachelor's degree. Majority of the patients are self-financed for their medical visit and there is no one in this study holding health insurance. This reflects the situation in Myanmar since there are very few health insurance companies and they do not cover oversea health expenditure. Health insurance is also not very popular in Myanmar and many people cannot afford to buy it. Almost of all of the participants are from upper and high-income families (24% for income between 501-2000 USD, 51% for between 2001-10,000USD and 13% for income with higher than 10,000USD) according to World Bank 2017 data which is published in 2020.

It was also found that patients above 65 years of age are not common in doing the medical visit to Thailand according to the data analysis in this study. 30% of



the patients are between 41-50 years old and this is the highest percentage amongst different age group. 77% of the sample are married. One third of the sample patients went to more than one department during their medical visit. The researcher found that apart from medical check-up, cancer department, women department and digestive department are the most frequently visited departments amongst 22 departments provided in the questionnaire. Majority of the patients went to outpatient department and only 25% went to inpatient department. It was also found that more patients went to private hospitals (65%) than the public hospitals in Thailand.

Since the research objective (1) is to identify the gap between Myanmar patient's expectation and perceptions of the service quality of public and private hospitals in Thailand, it was found that there are negative gaps in two if the service quality which are responsiveness and assurance. Since the most successful factor to businesses including hospitals is to always exceed the perception than the expectation, this study pointed out that hospitals in Thailand needed to improve especially in responsiveness and assurance.

In this study, the gap between perception and expectation for each factor are 0.19 for tangibility, 0.02 for reliability, 0.12 for empathy, -0.03 for responsiveness and -0.02 for assurance. The gap for responsiveness and assurance are negative and therefore are very bad for the hospital business.

In general, the scores for all five factors (tangibility, reliability, responsiveness, assurance and empathy) are above average and their means are always higher than 3.5 for both expectation and perception although none of the items on five factors reach to the complete score of 5. But the expectation and perception vary in each factor especially between the items within each factor.

In tangibility, it was found that patient expectation for all 5 items is relatively not very high and their perception is always higher. Most of the items are scored around above average around 3.6 and higher for tangibility. It was also found that the difference in P and E is around 0.2 for each item. In general, patients are relatively happy with tangibility issue.

**Table 5.1 Average score of five factors and patient's expectation and perception**

FACTORS INFLUENCING SERVICE QUALITY		AVERAGE SCORE		P-E GAP
		Expectation	Perception	
1	TANGIBILITY (Average of all 5 questions)	3.77	3.96	0.19
2	REALIBILITY (Average of all 5 questions)	3.94	3.96	0.02
3	RESPONSIVENESS (Average of all 4 questions)	3.78	3.75	-0.03
4	ASSURANCE (Average of all 5 questions)	3.84	3.82	-0.02
5	EMPATHY (Average of all 5 questions)	3.73	3.85	0.12
PATIENT SATISFACTION		4		

For reliability, patient shows more expectation than issue on tangibility. In this section, out of 5 questions measuring reliability, two received less score on perception. They are “showing sincere interest on patient problem” and “hospital caring out services right at the first time”. Patient expectation was higher for both item and the patients seem to have less positive experience than their expectation.

For responsiveness, there is also higher expectation for half of the items in responsiveness than the perception. The differences are (-0.11) for “hospital gives prompt service to patients” and (- 0.12) for “Hospital staffs are never too busy to respond to patient's request”. Therefore, it means that hospital services on these are not good enough to impress the Myanmar patients. For the other half of the questions were satisfied with higher perception than expectation.

Assurance is the factor with the highest difference between perception and expectation. Out of 5 items, 4 of them (80%) responded higher expectation and lower perception. Only one item “The doctors are well-trained and competent” receives higher perception than the expectation. This will be very important area for the

hospitals in Thailand to be focus on future researches and to do more research in this area to find out why patients have lower perception than expectation.

In Empathy, the findings illustrate that the expectation for items are relatively lower than items in assurance. Under empathy, mostly, patients have higher perception than their expectation. This section yields more positive results with higher differences between perception and expectation. 80% of the items have higher perception than expectation for empathy.

Out of 5 factors, only tangibility is the one with higher perception than the expectation for all 5 items. The other 4 such as reliability, responsiveness, assurance and empathy has at least one sub-item with higher expectation than perception. Assurance is the only one with highest negative disparity between P and E. The highest score for expectation and perception is the item- empathy on “hospital has 24-hour availability” with 4.2 but on the customer satisfaction with 4.22 on “caring and compassion from our doctors and nurses”.

According to the research objective (2), the most important aspect of service quality to Myanmar patients was found using multiple regression analysis and the result show that empathy is the most important aspect. And, tangibility is the second most important for Myanmar patient satisfaction.

When the strength of the relations between the five factors of service model (tangibility, reliability, responsiveness, assurance and empathy) and patient satisfaction using the multiple regression analysis, it was found that only tangibility and empathy are found to be statistically significant.

The highest standardized Beta coefficient for empathy is **0.360** with statistical significance level 0.001 with patient satisfaction. Therefore, patient satisfaction will increase more with 1 unit change in empathy than any other variables such as tangibility, reliability, responsiveness and assurance. To be precise, the patient satisfaction is expected to increases in score by 0.36 corresponding to one score increase in empathy when the other independent variables are constant.

The below table 5.2 shows the result of the multiple regression and the association between individual service factor and patient satisfaction. There are two factors that have positive relation and they are statistically significant. It can be seen that empathy got the highest and tangibility get the second highest and statistically

significant. The other factors also show positive relation but they are not statistically significant.

**Table 5.2 Summary associations between the perceived quality of service provided by hospitals and patient satisfaction using Pearson correlation and multiple regression analysis**

Factors influencing perceived quality of service provided by hospitals	Relations according to multiple regression analysis		Association
	(P Value)	Standardized Beta Coefficients	
Tangibility: physical facilities, equipment, and appearance of contact personnel (Tyran & Ross, 2006).	0.044	0.192	Positive
Reliability: ability to perform the promised service dependably and accurately (Grönroos, 1990; Anantharanthan Parasuraman et al., 1985; Tyran & Ross, 2006).	0.227	0.143	Positive
Responsiveness: willingness to help customers and to provide a prompt service (Grönroos, 1990; Anantharanthan Parasuraman et al., 1985; Tyran & Ross, 2006).	0.526	0.075	Positive
Assurance: knowledge and courtesy of employees and their ability to inspire trust and confidence (Grönroos, 1990; Anantharanthan Parasuraman et al., 1985; Tyran & Ross, 2006).	0.106	0.136	Positive
Empathy: Empathy measures caring, individualized attention the company provides its customers (Grönroos, 1990; Lam, 1997; Anantharanthan Parasuraman et al., 1985; Tyran & Ross, 2006).	<b>0.001</b>	<b>0.360</b>	Positive

## 5.2 Suggestions and recommendations

- The researcher strongly recommends that both public and private hospitals in Thailand should focus more on customers satisfaction through five factors especially the four on reliability, responsiveness, assurance and empathy because the results pointed out that there are unmet needs with higher expectation and lower perception in those four factors. Only the tangibility has no patients with lower perception than the expectation.
- Since customer satisfaction is critical factor for the success of medical tourism pointed out by many researches, hospitals should focus more on the lower score even if they are around 3. In this study, none of the factors receives the average score below 3, however, it is highly recommended that hospitals keep their score at 4 for patients to revisit the hospital for other medical purposes. It was not surprising that most patients went to medical check-up in this study. It is also representing the real situation that marketing of medical check-up in Myanmar to Thailand hospitals are also very popular.
- To achieve the high level of satisfaction, the hospitals in Thailand both public and private, should improve assurance related factors since it has 80% not meeting the expectation. It can be improved easily through more training provided to staffs.
- Hospitals should listen more on customer values and expectation by implement the procedure to collect customer feedbacks via internet or feedback form or word-of-mouth. Hospitals should create feedback procedures for patient to be easy to complain such as establishing feedback boxes in each department. If necessary, each hospital should collect patient experiences survey.
- The study finds out that empathy is the most important aspect for the service quality. Besides, the study suggests that the hospitals need to improve in listening the patients' inquiry, idea and keep them informed more effectively. Therefore, the hospital should encourage all the employees to give time for listening to the patients and explaining effectively to the patient's inquiry not only by verbal but also by providing the visual guidelines and written translated documents. If necessary, in order to support that service, by phone

interpreter and service recovery procedure should install for 24 hours service for listening patient's communication in order to improve empathy and responsiveness.

- In order to improve responsiveness, the study points out that hospital' staffs need to respond to patient's request more effectively and should not busy. Therefore, in order to reduce work-load and to improve responsiveness, hospitals should create more effective work flows from each department by gap analysis to find out service failures points.
- In order to improve assurance, the study finds out that hospitals need to train employee to have good manners. Therefore, to improve that, we need to develop a culture of service. And, hospitals should train both old and new employees yearly by sending service cultural training to improve and remind service manner.
- On the other hand, in the assurance, the study also points out that hospitals need to improve patient's feeling of safety when receiving treatment. Therefore, hospitals should encourage employees to inform about every treatment plan to patients before and after the treatment not only by verbal but also by written documents which are translated into their mother languages.
- In order to improve reliability, the study illustrate that hospitals should improve in showing a sincere interest in solving the patient's problem. Thus, hospitals should empower clinical supportive teams for that especially in customer service team, medical coordination team and cultural support team in order to improve patient's experience and service recovery process related with reliability.
- Besides, the study proved that the medical check -up department was the highest visiting place for Myanmar patients. And, cancer department was the second highest and, digestive department was the third and the gynecological department was the fourth highest visiting place relatively. Therefore, in order to improve marketing, health care manager should focus on designing more attractive medical check-up packages (health screening packages) related with cancer diseases, digestive diseases and gynecological diseases. Besides,

manager should focus to improve service quality on those departments mainly by applying the above-mentioned suggestions and recommendations.

- In conclusion, the findings of this research may contribute better understanding of the gap between Myanmar patient expectation and perception related to service quality and the most important aspect of service quality. Finally, those findings may assist for creating better quality service, effective management principles and marketing strategy for Myanmar patients.

### **5.3 Limitation of the study**

This study was conducted during Corona Virus Outbreak (COVID-19) and therefore, it is limited to collect data from public hospitals and hence, there is lower number of participants from public hospitals than the private hospitals. This study emphasized the main five factors influencing the patient's satisfaction and therefore, did not include other service quality factors are not included in this study. This study also focuses only on the quantitative analysis of the patient satisfaction through research questionnaires. Therefore, in depth analysis of individual patient feels beyond the questions provided in this questionnaire are not included.

### **5.4 Further research**

As per the discussion in limitation of the study, qualitative research on individual patients' need to understand deeper of the issue related to patient perception and satisfaction should be conducted as a future research. The researcher focused mainly on five important factors influencing patient satisfaction due to limited timeframe and further research related to customer satisfaction should be conducted and in a bigger sample size if the time and funding allowed.

This study was conducted in 16 hospitals (10 private and 6 public hospitals) in Thailand which is representative of the hospitals visited. However, each hospital should conduct surveys of their own to know more of the nature of customers and their need in detail because the audience for each hospital may differ in socio-economic status.

Another important recommended research is also to have market research in Myanmar in big cities to understand who the potential customers and which medical service will be needed the most in the future.





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## Appendix: The Research Questionnaire

### Introduction: The Objectives of this research questionnaire are as the following;

- To identify the gap between Myanmar patient's perceptions and expectation of the service quality of public and private hospitals in Thailand
- To identify which aspect of service quality is most important to Myanmar patients

### Part I: Sociodemographic information of patient

*Please fill in the blank or put the "✓" in the box to the answers you choose for each of these questions.*

1. Age \_\_\_\_\_ years
2. Gender
 

<input type="checkbox"/> Male	<input type="checkbox"/> Female
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3. Marital status
 

<input type="checkbox"/> Single	<input type="checkbox"/> Married	<input type="checkbox"/> Divorced/Widowed
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4. Education
 

<input type="checkbox"/> No Education	<input type="checkbox"/> Tertiary (University/above high school)
<input type="checkbox"/> Primary School	<input type="checkbox"/> Bachelor
<input type="checkbox"/> Secondary School	<input type="checkbox"/> Master
<input type="checkbox"/> Post-Secondary (High-school)	<input type="checkbox"/> PhD
5. Place of Hospital Visit (Please tick the box where the visit took place)
 

<input type="checkbox"/> Public Hospital	Hospital Name -----
<input type="checkbox"/> Private Hospital	Hospital Name -----

6. Have you ever experience traveling to Thailand for medical purpose? (Tick that applies)

- a. You have experience in traveling to Thailand for medical purpose \_\_\_\_
- b. You have experience and plan to travel to Thailand for medical purpose again \_\_\_\_
- c. You do not have experience. \_\_\_\_

(Note: If respondent selects the last choice, the survey is ended.)

7. Purpose of hospital visit

Medical check-up ( or )  Medical Treatment

8. How many times have you visited the hospital in Thailand within 2018-2019?

\_\_\_\_\_ times. OPD Visit times----- IPD Visit times-----

9. Which medical department did you visit? (tick all that applies)

- a. Medical Check-up \_\_\_\_
- b. Neurology \_\_\_\_
- c. Eye \_\_\_\_
- d. Medical Department \_\_\_\_
- e. Surgery \_\_\_\_
- f. Cancer \_\_\_\_
- g. Spine and Orthopedic \_\_\_\_
- h. Ear, Throat \_\_\_\_
- i. Children Center \_\_\_\_
- j. Lung and Infectious Disease \_\_\_\_
- k . Heart -----
- l . Behavioral -----
- l. Physical Therapy \_\_\_\_
- m. Women \_\_\_\_
- n. Liver \_\_\_\_
- o. Digestive Disease \_\_\_\_
- p. Fertility \_\_\_\_
- q. Cosmetic treatment -----
- r. Dentistry -----
- s. Diabetic
- t. kidney
- u. Urology
- v. Others

10. How did you find the specific hospital? (tick all that applies)

- from social media (social internet, advertisement, etc.)
- from friend and peer recommendation
- Medical Travel Planner
- Others -----

## 11. Average Household Monthly Income (US Dollars)

- |   |   |
|---|---|
| <input type="checkbox"/> Lower than USD 500 | <input type="checkbox"/> USD 3,001-5,000      |
| <input type="checkbox"/> USD 500-1,000      | <input type="checkbox"/> USD 5,001-7,000      |
| <input type="checkbox"/> USD 1,001-2,000    | <input type="checkbox"/> USD 7,001-10,000     |
| <input type="checkbox"/> USD 2,001-3,000    | <input type="checkbox"/> More than USD 10,000 |

## 12. Who pay for your medical treatment in Thailand?

- Self-Pay  Family Sponsorship  Medical Insurance  Others















	patient's best interest at heart (e.g. building long term relationship, providing leading-edge medical care)									
5	Hospital staffs understand the specific needs of patients (e.g. recognizing the importance of the patient, what the patient wants)									

Section VI: Questions related to Patient satisfaction		Level of Satisfaction				
		Extremely Satisfied	Very Satisfied	Neutral	Slightly Satisfied	Not Satisfied
		5	4	3	2	1
1	How satisfied are you with our facilities at the hospital?					
2	How satisfied are you with the treatment that you received?					
3	How satisfied are you with the waiting time or service time?					
4	How satisfied are you with knowledge and courtesy of employees at our hospital?					
5	How satisfied are you with the caring and compassion from our doctors and nurses?					
6	How satisfied are you with overall service at the hospital?					